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NAS CECIL FIELD, FL
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FOURTH QUARTER MARCH 2009 LONG TERM MONITORING REPORT FOR BUILDING 271
NAS CECIL FIELD FL
7/31/2009
SOLUTIONS-IES INC

**FOURTH QUARTER, MARCH 2009
LONG TERM MONITORING REPORT**

**BUILDING 271
NAS CECIL FIELD
JACKSONVILLE, FL**

**CONTRACT NO. N62467-05-G-0193
CONTRACT TASK ORDER NO. 0003**

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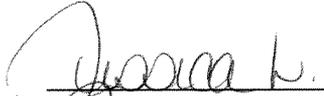
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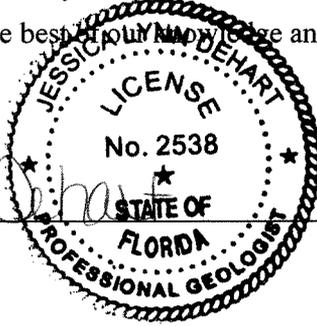


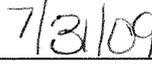
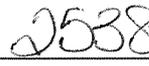
SIGNATURE PAGE

We, the undersigned, do hereby affirm that the information contained in this report is accurate and correct to the best of our knowledge and belief.

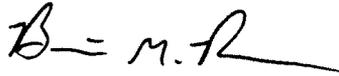


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1.0 INTRODUCTION

Solutions-IES, Inc. (Solutions-IES) has been contracted by the Navy (NAVFAC Southeast), to provide long-term groundwater monitoring services at Building 271, Former Naval Air Station (NAS) Cecil Field, Jacksonville, Florida, under Basic Ordering Agreement (BOA) Contract Number N62467-05-G-0193, Contract Task Order Number 0003. Under this contract, Solutions-IES performs quarterly groundwater monitoring. This Monitoring Report details the activities performed at the site from December 2008 to March 2009.

1.1 SITE HISTORY

The Building 271 site is located at the corner of Cecil Pines Street (formerly 9th Street) and Pool Side Avenue (formerly “B” Avenue) at NAS Cecil Field. A site location map is included as **Figure 1**.

Building 271 was a former retail gasoline facility that had four underground storage tanks (USTs), identified as 271-D, 271-R, 271-UL and 271-SUL, along with two oil water separators. The USTs were located in a tank pit on the west side of Building 271, and the oil water separators (OWSs) were located on the east side of the building. Three of the USTs had an approximate capacity of 10,000 gallons and one had approximately 6,000 gallons of capacity (TtNUS, 2002).

UST closure records indicate that UST 271-D and associated piping was removed from the site on March 5, 1996. No soil or groundwater contamination was detected at this time. However, a Confirmatory Sampling Report, prepared in July 1999 for the USTs and two OWSs, indicated that petroleum-impacted soil was encountered at two locations due to operation of the USTs. A site assessment was recommended and a site assessment plan was prepared.

Subsequent to completion of assessment activities, the three remaining USTs and associated piping were removed from the site. Soil contamination issues were addressed at this time by excavation. However, groundwater samples collected after removal activities indicated the presence of volatile organic compounds (VOCs). A second investigation was recommended and planned at that time to further define the extent of groundwater contamination.

Both OWSs were removed from the site, and Limited Closure Assessment Reports were prepared and submitted to the Florida Department of Environmental Protection (FDEP) in April 2001 (CH2MHill,

2001). These reports indicated that no petroleum contamination existed in the soil or groundwater surrounding the OWSs. A May 2002 Site Assessment Report concluded that petroleum constituents remained in groundwater in the vicinity of the former USTs though soil impacts had previously been removed. Preparation of a Remedial Action Plan (RAP) to address groundwater impacts at the site was recommended.

A RAP was prepared and submitted to the FDEP by Tetra Tech NUS, Inc. in September 2002, with an Addendum submitted in January 2003. Air Sparge (AS) was the selected remedial technology. FDEP approval for these documents was received in February 2003.

The AS system was installed at the site between September and November 2003 and began operation on November 17, 2003. The system is connected to seven air sparge wells that are screened from approximately 28 to 30 feet below ground surface (ft bgs). Minor troubleshooting and repairs were conducted on the system in February and March 2008. The system has not operational since late 2008.

2.0 GROUNDWATER MONITORING SUMMARY

During the fourth quarter monitoring event, conducted on March 2, 2009, water level measurements were recorded in the wells listed below. The same wells were sampled for benzene, toluene, ethylbenzene and xylenes (BTEX); methyl-*tert*-butyl-ether (MTBE); polycyclic aromatic hydrocarbons (PAHs); total recoverable petroleum hydrocarbons (TRPH); natural attenuation (NA) parameters and field parameters as detailed in the following tables. Locations of the wells at this site are shown on **Figure 2**.

Monitoring Well	Parameters
CEF-271-07S	BTEX & MTBE, PAHs, TRPH and NA
CEF-271-09S	BTEX & MTBE, PAHs, TRPH and NA
CEF-271-10S	BTEX & MTBE, PAHs, TRPH and NA
CEF-271-12S	BTEX & MTBE, PAHs, TRPH and NA

Analysis	Constituents	Analytical Method
VOCs	BTEX & MTBE	8260B
PAHs	16 listed 1-methylnaphthalene 2-methylnaphthalene	8270C-SIM
TRPH		FL-PRO
NA Parameter	Dissolved Oxygen	CHEMetrics® Kit
Field Parameters	Temperature pH Conductivity Oxidation-Reduction Potential Turbidity	Direct-reading meter

2.1 MONITORING WELL OBSERVATIONS

The integrity of the monitoring wells included in the long-term monitoring plan was evaluated during the sampling event. The field team noted no extensive damage (i.e., the need for well replacement or repair) to the wells during the March 2009 event.

2.2 WATER LEVEL MEASUREMENTS

Water level measurements were recorded for the four wells listed above on March 2, 2009. **Table 1** shows current and historical groundwater measurements at the site.

Based on this information, groundwater appears to flow towards the southeast at the Building 271 site which is consistent with previous reports. A groundwater contour map, showing the groundwater elevations measured during the March 2009 event has been included as **Figure 3**. The water level measured in monitoring well CEF-271-09S was not used to generate the groundwater contour map because the reading was not consistent with previous measurements.

2.3 GROUNDWATER SAMPLING

Groundwater sampling was conducted at the Building 271 site on March 2, 2009. Four monitoring wells (CEF-271-07S, CEF-271-09S, CEF-271-10S and CEF-271-12S) were purged and sampled using low-flow methodology.

Wells were purged immediately prior to sampling using a low flow peristaltic pump, at a rate equal to or

less than the groundwater recharge rate, until field parameters (temperature, pH, conductivity, turbidity, and dissolved oxygen [DO]) stabilized. Water levels in the wells were continuously monitored to maintain minimal drawdown. Oxidation-reduction potential (ORP) readings were also recorded during purging.

Samples were collected for field analysis of DO using CHEMetrics[®] field test kits. Results of the field measurements are shown on **Table 2**. Copies of the groundwater sampling logs, including all field parameter measurements, are provided in **Appendix A**.

Groundwater sampling was conducted in general accordance with applicable state and local guidelines and the Solutions-IES Work Plan (September 29, 2008). All samples collected were stored on ice and delivered via courier to Accutest Laboratories Southeast, Inc. (Accutest), a Florida-certified, National Environmental Laboratory Accreditation Program (NELAP) certified laboratory, located in Orlando, under chain-of-custody procedures.

2.4 INVESTIGATION DERIVED WASTE (IDW)

Purge, wash and rinse water was collected in 5-gallon containers and transferred to a labeled 55-gallon drum (Drum ID SIES-001-030209). The drum was staged in the IDW Storage Building (Building 536). The NAS Jacksonville Public Works Department (PWD-JAX) was notified on March 9, 2009 that the drum was stored in the building. The non-hazardous data package for disposal was forwarded to PWD-JAX on April 16, 2009.

3.0 SAMPLING AND ANALYTICAL RESULTS

3.1 DATA VALIDATION

Accutest data analysts validated the data according to laboratory Standard Operating Procedures (SOPs). None of the data were rejected as a result of the data review or any constituents outside of control limits. A Level II data report was provided by the laboratory. A copy of the laboratory report is provided in **Appendix B**.

A limited data review was also performed by Solutions-IES. The data review evaluated data completeness, holding time compliance, laboratory blank contamination and detection limits. No issues were identified.

3.2 FIELD AND NATURAL ATTENUATION PARAMETERS

During each sampling event, groundwater samples were analyzed for the DO, using a CHEMetrics® kit in the field. In addition, field parameters including temperature, pH, conductivity, turbidity and ORP were measured and recorded during well purging. The results of the field measurements are summarized in **Table 2** and discussed in the following paragraphs.

In March 2009, field measurements indicate that DO concentrations at the Building 271 site are relatively low with a range from 0.7 to 1 mg/L, with the exception of monitoring well CEF-271-09S at 6 mg/L. The lowest value was found in well CEF-271-07S, which is located in the source area. The lower value in the hot spot well, CEF-271-07S, is a sign that oxygen is depleted and aerobic biodegradation is probably no longer effectively occurring in this area. In general, DO values were lower during this event than during previous sampling events.

ORP is a measure of electron activity of the groundwater. Positive ORP values indicate that an oxidative environment exists in the aquifer and negative ORP values indicate a reducing environment. The ORP measurements collected at the site range from 145.9 to -42.5. The ORP values are generally lower in the source area, CEF-271-07S (-42.5), indicating that reducing conditions exist in this area with the higher ORP values downgradient, CEF-271-09S, CEF-271-10S, and CEF-271-12S. The ORP value in well CEF-271-09S was positive in March 2009 but has historically been negative. This is consistent with the increased DO concentration measured in this well in March 2009. The other values are consistent with historical data from the site.

The pH generally ranges from 6.37 to 6.93 which is consistent with previous pH measurements at this site. Temperature measurements recorded in March 2009 were lower than measurements recorded in December 2008. Turbidity measurements generally remained consistent with the December 2008 measurements.

3.3 LABORATORY ANALYTICAL RESULTS

Results from the March 2009 groundwater sampling event, along with historical sampling results are summarized on **Table 3**. The March 2009 laboratory analytical report is included in **Appendix B**. Naphthalene was the only constituent of concern that exceeded its Groundwater Cleanup Target Level (GCTL) of 14 µg/L, during the March 2009 event. Naphthalene was reported in monitoring well CEF-271-07S at a concentration of 102 µg/L, which is highest concentration recorded since July 2007.

No other constituents were reported above the GCTLs in any of the wells sampled. The historical concentrations for the previous four sampling events at monitoring well CEF-271-07S are illustrated on **Figure 4** and the historical concentrations since April 2004 are depicted on **Figure 5**.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Water level data suggests that groundwater at this site flows in a southeasterly direction. This quarter, naphthalene was the only constituent that exceeded the GCTLs. In general, concentrations of contaminants of concern in well CEF-271-07S have increased compared to the last reporting period. The increase in contaminant concentrations may be rebound associated with taking the AS system offline in late 2008. None of the contaminant concentrations exceeded NADSC values during March 2009.

No changes have been made to the monitoring plan since Solutions-IES was awarded this contract in August 2008. The March 2009 sampling event was conducted in general accordance with previous sampling events and the scope of work provided to Solutions-IES upon contract award. Based on analytical results obtained to date, Solutions-IES recommends continuing quarterly water level measurements and groundwater sampling at the site. However, water levels should be measured in all 13 monitoring wells to accurately evaluate the groundwater flow direction. In addition, Solutions-IES recommends collecting samples from all on-site monitoring wells, except CEF-271-02S, during the next monitoring event to determine if contaminants were previously mobilized by the AS system. After review of the data from the site-wide sampling event, if contaminant concentrations continue to increase in monitoring well CEF-271-07S then the AS system should be restarted. The next quarterly groundwater sampling event is scheduled to be performed in June 2009.

5.0 REFERENCES

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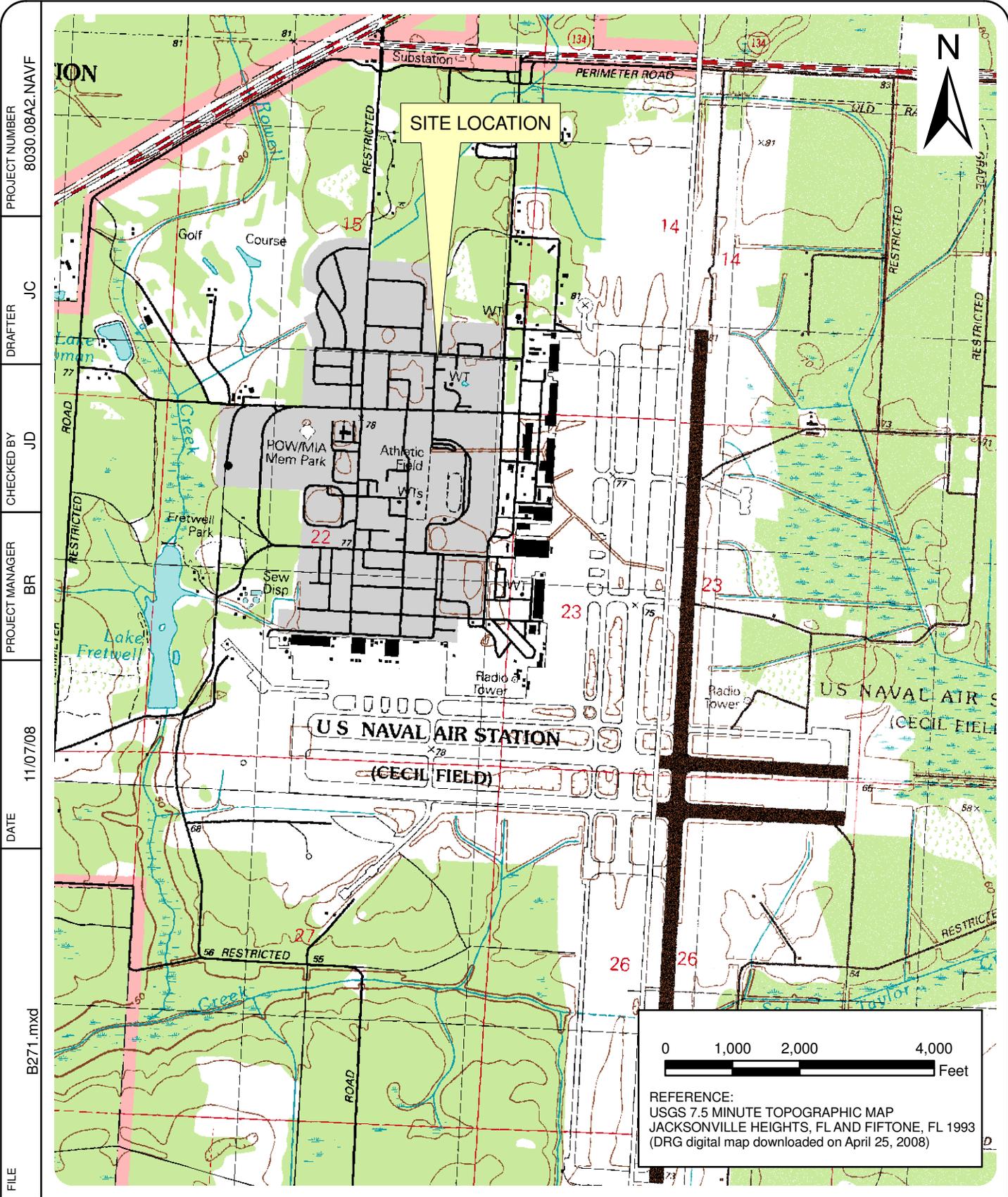
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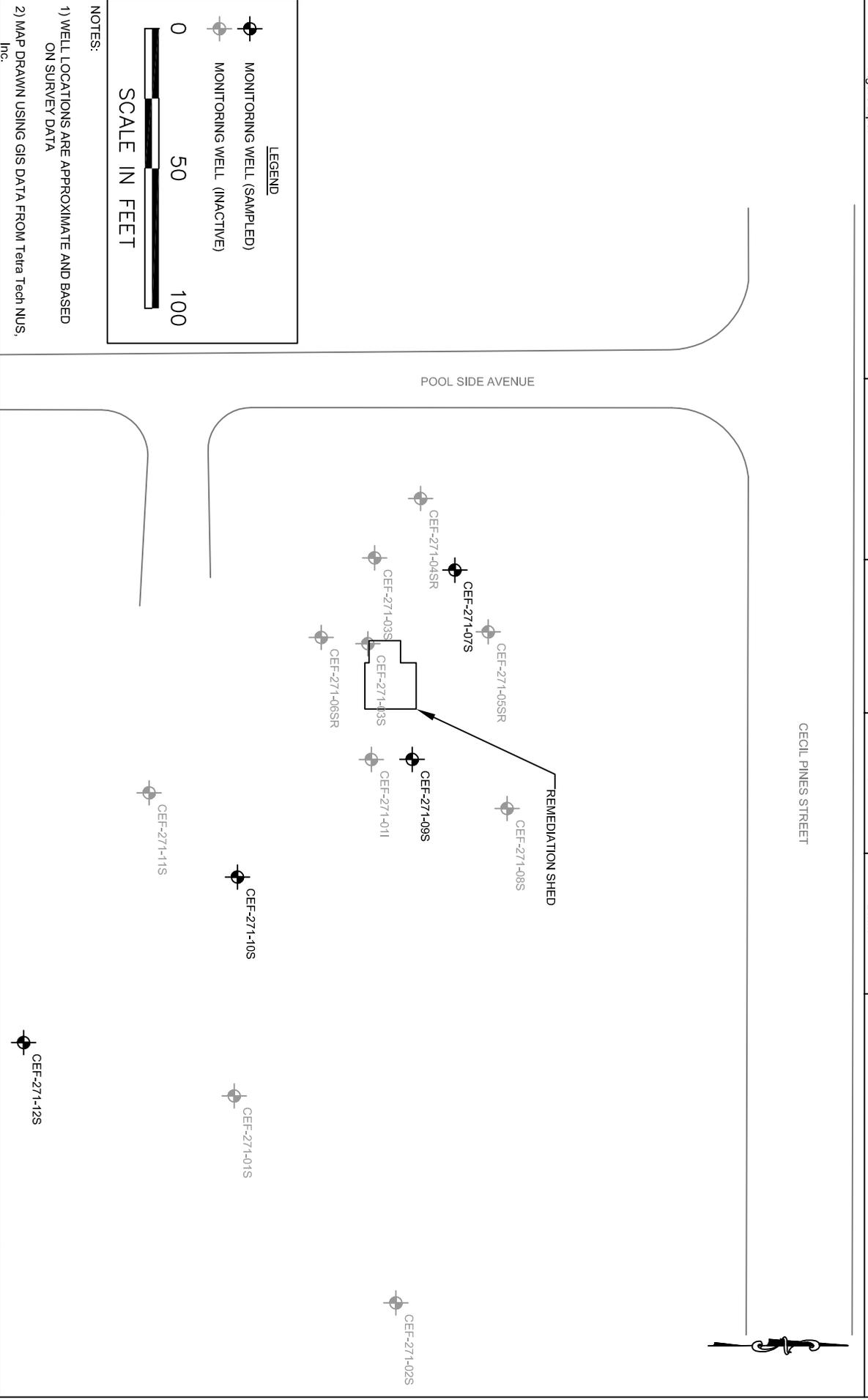
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FIGURES





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WELL LOCATION MAP
BUILDING 271 - NAS CECIL FIELD
JACKSONVILLE, FLORIDA
MARCH 2009

NOTES:

1) WELL LOCATIONS ARE APPROXIMATE AND BASED ON SURVEY DATA

2) MAP DRAWN USING GIS DATA FROM Tetra Tech NUS, Inc.

FIGURE:
2

CEF-271-07S				
	7/23/2007	10/7/2008	12/17/2008	3/2/2009
1-Methylnaphthalene (ug/L)	43	0.47	7.6	14.5
Benzo(a)anthracene (ug/L)	0.087	< 0.048	< 0.048	< 0.048
Benzo(b)fluoranthene (ug/L)	0.056	< 0.048	< 0.048	< 0.048
Dibenz(a,h)anthracene (ug/L)	0.16	< 0.048	< 0.048	< 0.048
Indeno(1,2,3-cd)pyrene (ug/L)	0.18	< 0.048	< 0.048	< 0.048
Naphthalene (ug/L)	77	1.5	63.1	102

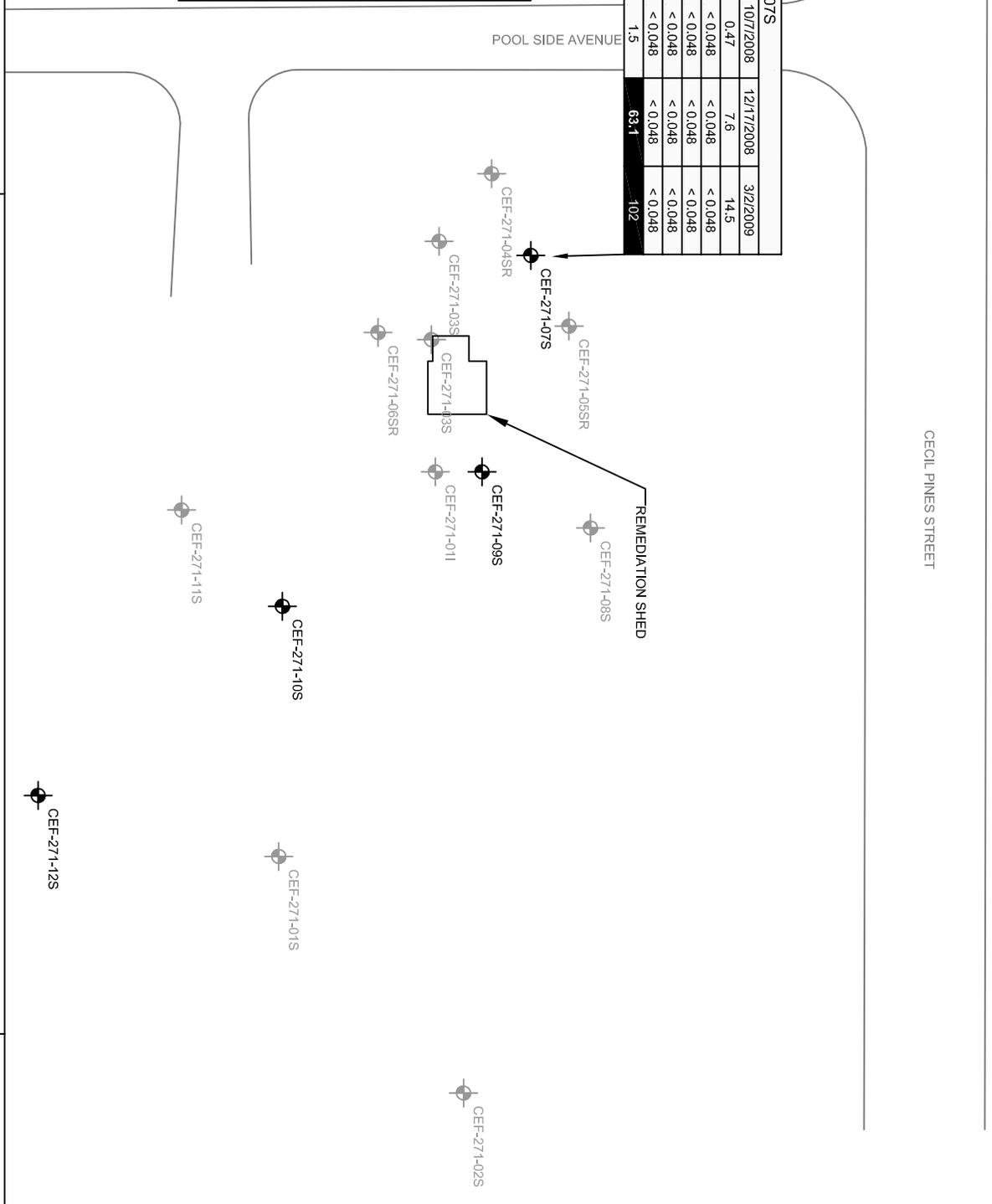
LEGEND

- MONITORING WELL (SAMPLED)
- MONITORING WELL (INACTIVE)
- EXCEEDENCE OF GCTL¹

SCALE IN FEET

NOTES:

- 1) GCTL - GROUNDWATER CLEANUP TARGET LEVEL.
- 2) WELL LOCATIONS ARE APPROXIMATE AND BASED ON SURVEY DATA.
- 3) MAP DRAWN USING GIS DATA FROM Tetra Tech NUS, Inc.

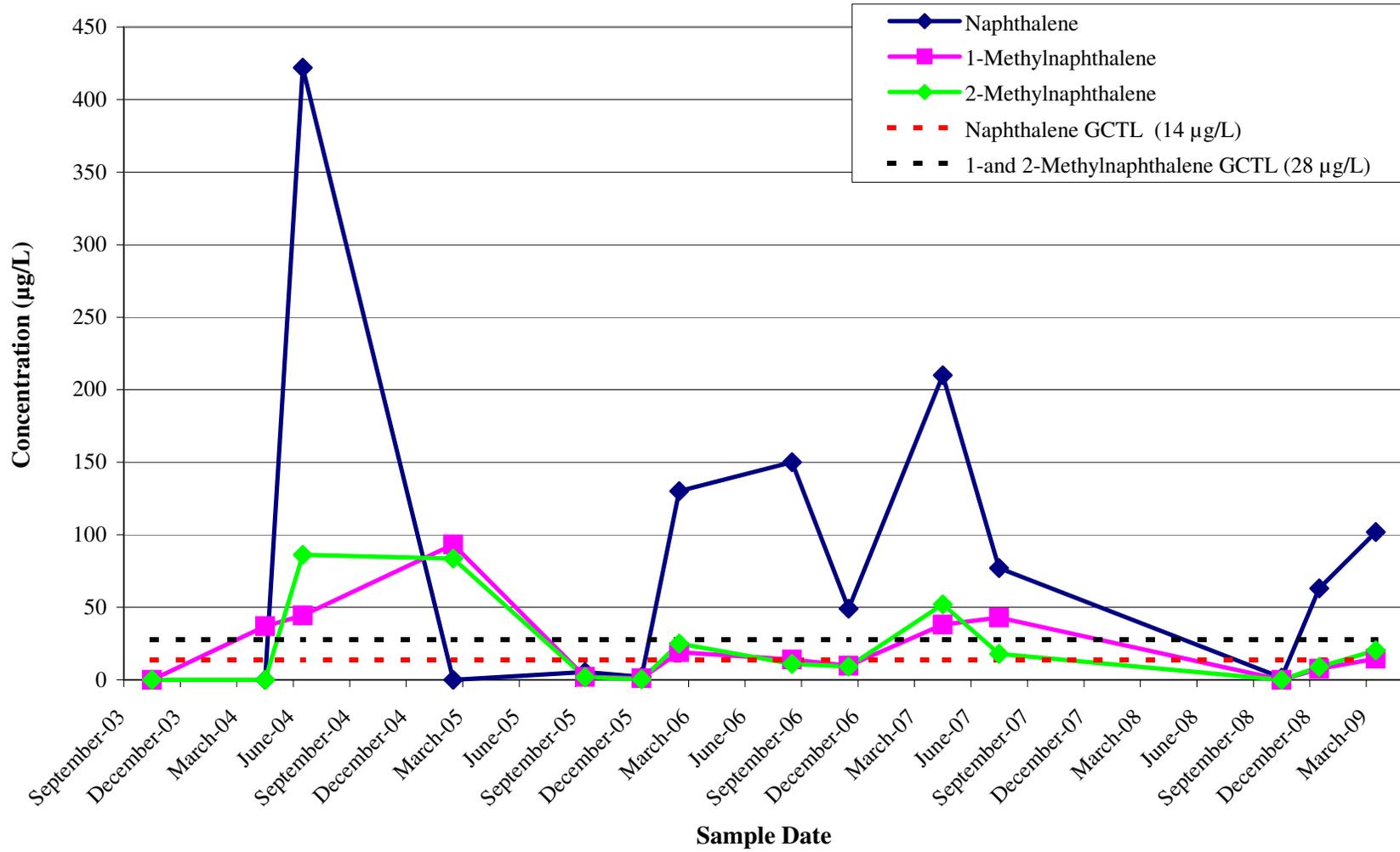


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CONTAMINANT CONCENTRATION MAP
 BUILDING 271 - NAS CECIL FIELD
 JACKSONVILLE, FLORIDA
 MARCH 2009

FIGURE:

FIGURE 5
Historical Concentrations of PAHs In CEF-271-07S



TABLES

**TABLE 1
GROUNDWATER ELEVATIONS**

BUILDING 271
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well ID	Date Measured	Top of Casing Elevation (ft amsl)	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)
CEF-271-07S	10/2003	79.99	5.69	74.30
	11/12/2003		9.39	70.60
	11/24/2003		7.67	72.32
	12/1/2003		7.25	72.74
	12/8/2003		8.53	71.46
	12/15/2003		9.27	70.72
	1/2004		8.11	71.88
	3/2004		10.23	69.76
	6/2004		8.54	71.45
	9/2004		3.46	76.53
	12/2004		6.63	73.36
	9/2005		4.92	75.07
	12/2005		6.33	73.66
	2/2006		4.49	75.50
	8/2006		9.79	70.20
	4/2007		9.98	70.01
	7/2007		8.85	71.14
10/7/2008	5.02	74.97		
12/17/2008	8.19	71.80		
3/2/2009	7.84	72.15		
CEF-271-09S	10/2003	80.51	6.23	74.28
	11/12/2003		9.69	70.82
	11/24/2003		8.93	71.58
	12/1/2003		8.66	71.85
	12/8/2003		9.62	70.89
	12/15/2003		10.21	70.30
	1/2004		8.58	71.93
	3/2004		10.51	70.00
	6/2004		9.15	71.36
	9/2004		3.91	76.60
	12/2004		6.88	73.63
	9/2005		5.53	74.98
	12/2005		6.95	73.56
	2/2006		6.14	74.37
	8/2006		10.41	70.10
	4/2007		10.83	69.68
	7/2007		9.44	71.07
10/7/2008	5.62	74.89		
12/17/2008	8.76	71.75		
3/2/2009	8.74	71.77		
CEF-271-10S	10/2003	81.18	6.95	74.23
	11/12/2003		9.91	71.27
	11/24/2003		9.16	72.02
	12/1/2003		8.86	72.32
	12/8/2003		9.03	72.15
	12/15/2003		10.28	70.90
	1/2004		9.55	71.63
	3/2004		10.86	70.32
	6/2004		9.98	71.20
	9/2004		4.63	76.55
	12/2004		7.65	73.53
	9/2005		6.29	74.89
	12/2005		7.70	73.48
	2/2006		6.92	74.26
	8/2006		11.16	70.02
	4/2007		11.64	69.54
	7/2007		10.90	70.28
10/7/2008	6.32	74.86		
12/17/2008	9.50	71.68		
3/2/2009	9.20	71.98		
CEF-271-12S	10/2003	80.19	6.30	73.89
	11/12/2003		8.66	71.53
	11/24/2003		8.20	71.99
	12/1/2003		8.08	72.11
	12/8/2003		8.18	72.01
	12/15/2003		8.58	71.61
	1/2004		8.92	71.27
	3/2004		9.36	70.83
	6/2004		9.21	70.98
	9/2004		3.71	76.48
	12/2004		6.56	73.63
	9/2005		5.41	74.78
	12/2005		6.83	73.36
	2/2006		6.55	73.64
	8/2006		10.29	69.90
	4/2007		11.31	68.88
	7/2007		9.32	70.87
10/7/2008	5.44	74.75		
12/17/2008	8.62	71.57		
3/2/2009	8.30	71.89		

Notes: ft amsl - feet above mean sea level
ft btoc - feet below top of casing

**TABLE 2
FIELD ANALYTICAL RESULTS**

BUILDING 271
NAS CECIL FIELD JACKSONVILLE, FLORIDA

Well ID	Date Measured	Temperature (°C)	pH (SU)	Specific Conductance (µs/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)
CEF-271-07S	4/18/2007	21.31	6.57	958	0.49	-170.4	5
	7/23/2007	25.7	6.51	911	0.33	NM	2.7
	10/7/2008	26.89	7.67	681	0.26	-132	4
	12/17/2008	23.80	6.65	740	0.3	-190	10.8
	3/2/2009	18.25	6.68	736	0.7	-42.5	10.81
CEF-271-09S	4/18/2007	19.55	6.9	235	2.61	-115.5	>1000
	7/23/2007	26.0	6.64	239	1.59	NM	600
	10/7/2008	28.59	8.15	262	3.23	-45.9	69
	12/17/2008	23.95	7.2	204	1.0	NM	398
	3/2/2009	16.61	6.93	140	6.0	145.9	245
CEF-271-10S	4/18/2007	19.22	6.29	272	0.9	96.4	10
	7/23/2007	25.8	6.25	269	1.27	NM	20
	10/7/2008	27.24	7.06	438	5.25	58	5.54
	12/17/2008	24.39	7.34	409	2.0	-36	8
	3/2/2009	18.55	6.37	411	1.0	75.4	4.01
CEF-271-12S	4/18/2007	18.35	5.95	189	1.03	-24.8	140
	7/23/2007	23.1	5.94	202	0.3	NM	427
	10/7/2008	23.65	6.44	368	3.56	61.9	30.7
	12/17/2008	21.10	6.61	549	0.6	111.5	20
	3/2/2009	17.09	6.53	335	1.0	68.7	19

Notes: °C - Degrees Celsius

SU - Standard Units

µS/cm - MicroSiemens per centimeter

mg/L - Milligrams per liter

mV - Millivolts

NTU - Nephelometric Turbidity Unit

NM - Not Measured

**TABLE 3
LABORATORY ANALYTICAL RESULTS**

BUILDING 271
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

WELL ID	SAMPLE DATE	VOLATILE ORGANIC COMPOUNDS (µg/L)					POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)			TRPH (C8-C40) (µg/L)
		BENZENE	ETHYLBENZENE	METHYL TERT-BUTYL ETHER	XYLENES	TOLUENE	1-METHYLNAPHTHALENE	2-METHYLNAPHTHALENE	NAPHTHALENE	
	GCTL (µg/L)	1	30	20	20	40	28	28	14	5000
	NADSC (µg/L)	100	300	500	200	400	200	200	200	50000
CEF-271-07S	08/24/2001	89	520	11	3300	2900	-	-	-	<4100
	10/28/2003	<188	<398	<50	<1690	<1180	<21.1	<58.9	<184	-
	04/26/2004	324 J	<133	<25	17.2 J	16.7 J	37 J	<74	<476	-
	06/24/2004	-	-	-	-	-	-	-	-	-
	6/24/2004**	165 J	<14	2.1 J	48.2 J	4.42 J	<44.5	<86.3	<422	-
	09/24/2004	<32.2	<6.37	1.12 J	<58.2	3.65 J	<24.1	<43.6	<178	-
	02/15/2005	<5	<50	<50	2910 J	<123	93.4 J	83.6 J	<430	-
	09/03/2005	3.8	3.2	<1.1	-	18	2.1	1.8	5.4	-
	12/04/2005	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	0.32 I	2	-
	02/26/2006	0.51 I	13	<0.35	190	15	<0.12	25	130	-
	08/21/2006	<0.21	15	<0.35	182	8.3	<0.12	11	150	-
	11/18/2006	<0.63	5.8	<1.1	22.8	<0.69	9.7	9.2	49	-
	04/18/2007	<0.63	11	<1	48.5	<0.69	38	52	210	-
	07/23/2007	<0.63	2.9	<1	16.8	<0.69	43	18	77	-
	10/7/2008	<0.40	<0.43	<0.26	<1.2	<0.35	0.47 I	<0.24	1.5	414
12/17/2008	<0.40	0.96 I	<0.26	4.8	<0.35	7.6	9.0	63.1	599	
3/2/2009	0.61 I	3.5	<0.50	19.5	1.1	14.5	20.3	102	2800	
CEF-271-09S	08/24/2001	9.8	36	<10	1600	270	-	-	-	<1600
	10/23/2003	<1.93	<25.8	<5	<98.5	<20.3	0.536 J	1.13 J	5.89 J	-
	04/26/2004	<0.5	<5	<5	3.06 J	<5	<1	<1	<0.25	-
	4/26/2004**	<0.5	<5	<5	3.12 J	<5	<1	<1	<0.25	-
	06/24/2004	<0.5	<5	<5	<10	<5	<1	<1	<0.25	-
	09/24/2004	<0.5	<5	<5	<10	<5	<1	<1	<0.25	-
	02/15/2005	<0.5	<5	<5	<10	<5	<1	<1	<0.25	-
	09/03/2005	<0.21	<0.17	<0.35	-	<0.23	<0.12	<0.18	<0.15	-
	12/04/2005	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	02/27/2006	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	08/21/2006	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	0.18 I	-
	11/18/2006	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	04/18/2007	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	07/23/2007	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	10/7/2008	<0.40	<0.43	<0.26	<1.2	<0.35	<0.24	<0.24	<0.24	<160
12/17/2008	<0.40	<0.43	<0.26	<1.2	<0.35	<0.24	<0.24	<0.24	175 I	
3/2/2009	<0.50	<0.50	<0.50	<1.0	<0.50	<0.25	<0.25	<0.25	<160	
CEF-271-10S	08/24/2001	1.8	1.2	<10	8	6.2	-	-	-	<1000
	10/27/2003	<0.5	<5	<5	<10	<5	<1	<1	<0.25	-
	04/27/2004	<0.5	<5	<5	<10	<5	<1	<1	<0.25	-
	6/24/2004**	<0.5	<5	<5	<10	<5	<1	<1	<0.25	-
	09/24/2004	<0.5	<5	<5	<10	<5	<1	<1	<0.25	-
	02/15/2005	<0.5	<5	<5	<10	<5	<1	<1	<0.25	-
	09/03/2005	<0.21	<0.17	<0.35	-	<0.23	<0.12	<0.18	<0.15	-
	12/04/2005	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	02/26/2006	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	08/24/2006	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	11/18/2006	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	04/18/2007	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	07/23/2007	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	10/7/2008	<0.40	<0.43	<0.26	<1.2	<0.35	<0.24	<0.24	<0.24	<160
	12/17/2008	<0.40	<0.43	<0.26	<1.2	<0.35	<0.24	<0.24	<0.24	168 I
3/2/2009	<0.50	<0.50	<0.50	<1.0	<0.50	<0.24	<0.24	<0.24	<160	
CEF-271-12S	08/23/2001	0.44 J	<1	<5	<2	0.35 J	-	-	-	<1000
	10/23/2003	<0.5	<5	<5	<10	<5	<1	<1	<0.25	-
	04/27/2004	<0.5	<5	<5	<10	<5	<1	<1	<0.25	-
	06/24/2004	<2.04	<5	0.281 J	<10	<5	<1	<1	<0.25	-
	09/24/2004	<0.5	<5	<5	<10	<5	<1	<1	<0.25	-
	02/15/2005	<0.5	<5	<5	<10	<5	<1	<1	<0.25	-
	09/03/2005	<0.21	<0.17	<0.35	-	<0.23	<0.12	<0.18	<0.15	-
	12/04/2005	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	02/26/2006	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	08/24/2006	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	11/18/2006	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	04/18/2007	<0.21	<0.17	<0.35	<0.63	<0.23	<0.12	<0.18	<0.15	-
	07/23/2007	<0.21	<0.17	<0.35	0.63	<0.23	<0.12	<0.18	<0.15	-
	10/7/2008	<0.40	<0.43	<0.26	<1.2	<0.35	<0.24	<0.24	<0.24	164 I
	12/17/2008	<0.40	<0.43	<0.26	<1.2	<0.35	<0.24	<0.24	<0.24	195 I
3/2/2009	<0.50	<0.50	<0.50	<1.0	<0.50	<0.25	<0.25	<0.25	<170	

NOTES: µg/L - Micrograms per liter
GCTL - Groundwater Cleanup Target Level
Shading indicates values greater than the GCTL
Bold indicates values above the method detection limit.
J - Estimated Concentration
"-" indicates that results are not available.
I - indicates values that are greater than the method detection limit but less than the lab reporting limit

APPENDIX A

GROUNDWATER SAMPLING LOGS

APPENDIX B

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORMS



Technical Report for

Solutions-IES, Inc

Cecil Field Building 271; Jacksonville, FL

8030.08A2.NAVF

Accutest Job Number: F63697

Sampling Date: 03/02/09

Report to:

Solutions-IES, Inc

jdehart@solutions-ies.com

ATTN: Jessica Dehart

Total number of pages in report: **21**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
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Test results relate only to samples analyzed.



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Sample Summary

Solutions-IES, Inc

Job No: F63697

Cecil Field Building 271; Jacksonville, FL
 Project No: 8030.08A2.NAVF

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
F63697-1	03/02/09	16:40 JD	03/04/09	AQ	Ground Water	CEF-271-12S
F63697-2	03/02/09	16:55 JD	03/04/09	AQ	Ground Water	CEF-271-10S
F63697-3	03/02/09	16:45 JD	03/04/09	AQ	Ground Water	CEF-271-09S
F63697-4	03/02/09	16:45 JD	03/04/09	AQ	Ground Water	CEF-271-07S
F63697-5	03/02/09	00:00 JD	03/04/09	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Solutions-IES, Inc

Job No: F63697

Site: Cecil Field Building 271; Jacksonville, FL

Report Date 3/11/2009 4:20:13 PM

4 Samples, 1 Trip Blank were collected on 03/02/2009 and received at Accutest on 03/04/2009 properly preserved, at 2 Deg. C and intact. These Samples received an Accutest job number of F63697. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix: AQ

Batch ID: OP28261

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F63676-14MS, F63676-14MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8021B

Matrix: AQ

Batch ID: GEF5100

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F63644-1MS, F63644-1MSD were used as the QC samples indicated.

Matrix: AQ

Batch ID: GEF5101

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F63721-1MS, F63721-1MSD were used as the QC samples indicated.

F63697-4: All hits confirmed by dual column analysis.

Extractables by GC By Method FLORIDA-PRO

Matrix: AQ

Batch ID: OP28255

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F63698-7MS, F63698-7MSD were used as the QC samples indicated.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Svetlana Izosimova, QAO (signature on file)

Date: March 11, 2009



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: CEF-271-12S	
Lab Sample ID: F63697-1	Date Sampled: 03/02/09
Matrix: AQ - Ground Water	Date Received: 03/04/09
Method: SW846 8270C BY SIM SW846 3510C	Percent Solids: n/a
Project: Cecil Field Building 271; Jacksonville, FL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17986.D	1	03/06/09	RB	03/05/09	OP28261	SR855
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.50 U	1.0	0.50	ug/l	
208-96-8	Acenaphthylene	0.50 U	1.0	0.50	ug/l	
120-12-7	Anthracene	0.50 U	1.0	0.50	ug/l	
56-55-3	Benzo(a)anthracene	0.050 U	0.20	0.050	ug/l	
50-32-8	Benzo(a)pyrene	0.050 U	0.20	0.050	ug/l	
205-99-2	Benzo(b)fluoranthene	0.050 U	0.20	0.050	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.050 U	0.20	0.050	ug/l	
207-08-9	Benzo(k)fluoranthene	0.050 U	0.20	0.050	ug/l	
218-01-9	Chrysene	0.10 U	0.20	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.050 U	0.20	0.050	ug/l	
206-44-0	Fluoranthene	0.25 U	1.0	0.25	ug/l	
86-73-7	Fluorene	0.50 U	1.0	0.50	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.050 U	0.20	0.050	ug/l	
90-12-0	1-Methylnaphthalene	0.25 U	1.0	0.25	ug/l	
91-57-6	2-Methylnaphthalene	0.25 U	1.0	0.25	ug/l	
91-20-3	Naphthalene	0.25 U	1.0	0.25	ug/l	
85-01-8	Phenanthrene	0.25 U	1.0	0.25	ug/l	
129-00-0	Pyrene	0.25 U	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		42-108%
321-60-8	2-Fluorobiphenyl	59%		40-106%
1718-51-0	Terphenyl-d14	84%		39-121%

U = Not detected MDL - Method Detection Limit
 RL = Reporting Limit = PQL
 L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
 V = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

3.1
3

Client Sample ID: CEF-271-12S	Date Sampled: 03/02/09
Lab Sample ID: F63697-1	Date Received: 03/04/09
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8021B	
Project: Cecil Field Building 271; Jacksonville, FL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF090905.D	1	03/05/09	CW	n/a	n/a	GEF5100
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	1.0 U	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	103%		70-120%
98-08-8	aaa-Trifluorotoluene	101%		73-118%

U = Not detected MDL - Method Detection Limit
 RL = Reporting Limit = PQL
 L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
 V = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

3.1
3

Client Sample ID: CEF-271-12S		Date Sampled: 03/02/09
Lab Sample ID: F63697-1		Date Received: 03/04/09
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: FLORIDA-PRO SW846 3510C		
Project: Cecil Field Building 271; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL25515.D	1	03/06/09	NY	03/05/09	OP28255	GLL961
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.17 U	0.25	0.17	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	85%		38-122%		

U = Not detected MDL - Method Detection Limit
 RL = Reporting Limit = PQL
 L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
 V = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: CEF-271-10S	
Lab Sample ID: F63697-2	Date Sampled: 03/02/09
Matrix: AQ - Ground Water	Date Received: 03/04/09
Method: SW846 8270C BY SIM SW846 3510C	Percent Solids: n/a
Project: Cecil Field Building 271; Jacksonville, FL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17987.D	1	03/06/09	RB	03/05/09	OP28261	SR855
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.96	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.96	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.96	0.48	ug/l	
56-55-3	Benzo(a)anthracene	0.048 U	0.19	0.048	ug/l	
50-32-8	Benzo(a)pyrene	0.048 U	0.19	0.048	ug/l	
205-99-2	Benzo(b)fluoranthene	0.048 U	0.19	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.096 U	0.19	0.096	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.96	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.96	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.96	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.96	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.96	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		42-108%
321-60-8	2-Fluorobiphenyl	60%		40-106%
1718-51-0	Terphenyl-d14	84%		39-121%

U = Not detected MDL - Method Detection Limit
 RL = Reporting Limit = PQL
 L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
 V = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-271-10S	Date Sampled:	03/02/09
Lab Sample ID:	F63697-2	Date Received:	03/04/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Cecil Field Building 271; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF090906.D	1	03/05/09	CW	n/a	n/a	GEF5100
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	1.0 U	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	107%		70-120%
98-08-8	aaa-Trifluorotoluene	105%		73-118%

U = Not detected MDL - Method Detection Limit
 RL = Reporting Limit = PQL
 L = Indicates value exceeds calibration range

I = Result \geq MDL but $<$ RL J = Estimated value
 V = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

32
3

Client Sample ID: CEF-271-10S		Date Sampled: 03/02/09
Lab Sample ID: F63697-2		Date Received: 03/04/09
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: FLORIDA-PRO SW846 3510C		
Project: Cecil Field Building 271; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL25516.D	1	03/06/09	NY	03/05/09	OP28255	GLL961
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.16 U	0.24	0.16	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	88%		38-122%		

U = Not detected MDL - Method Detection Limit
 RL = Reporting Limit = PQL
 L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
 V = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-271-09S	Date Sampled:	03/02/09
Lab Sample ID:	F63697-3	Date Received:	03/04/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	Cecil Field Building 271; Jacksonville, FL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17988.D	1	03/06/09	RB	03/05/09	OP28261	SR855
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	1010 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.50 U	0.99	0.50	ug/l	
208-96-8	Acenaphthylene	0.50 U	0.99	0.50	ug/l	
120-12-7	Anthracene	0.50 U	0.99	0.50	ug/l	
56-55-3	Benzo(a)anthracene	0.050 U	0.20	0.050	ug/l	
50-32-8	Benzo(a)pyrene	0.050 U	0.20	0.050	ug/l	
205-99-2	Benzo(b)fluoranthene	0.050 U	0.20	0.050	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.050 U	0.20	0.050	ug/l	
207-08-9	Benzo(k)fluoranthene	0.050 U	0.20	0.050	ug/l	
218-01-9	Chrysene	0.099 U	0.20	0.099	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.050 U	0.20	0.050	ug/l	
206-44-0	Fluoranthene	0.25 U	0.99	0.25	ug/l	
86-73-7	Fluorene	0.50 U	0.99	0.50	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.050 U	0.20	0.050	ug/l	
90-12-0	1-Methylnaphthalene	0.25 U	0.99	0.25	ug/l	
91-57-6	2-Methylnaphthalene	0.25 U	0.99	0.25	ug/l	
91-20-3	Naphthalene	0.25 U	0.99	0.25	ug/l	
85-01-8	Phenanthrene	0.25 U	0.99	0.25	ug/l	
129-00-0	Pyrene	0.25 U	0.99	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	60%		42-108%
321-60-8	2-Fluorobiphenyl	55%		40-106%
1718-51-0	Terphenyl-d14	69%		39-121%

U = Not detected MDL - Method Detection Limit
 RL = Reporting Limit = PQL
 L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
 V = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: CEF-271-09S	Date Sampled: 03/02/09
Lab Sample ID: F63697-3	Date Received: 03/04/09
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8021B	
Project: Cecil Field Building 271; Jacksonville, FL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF090909.D	1	03/05/09	CW	n/a	n/a	GEF5100
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	1.0 U	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	105%		70-120%
98-08-8	aaa-Trifluorotoluene	103%		73-118%

U = Not detected MDL - Method Detection Limit
 RL = Reporting Limit = PQL
 L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
 V = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: CEF-271-09S	
Lab Sample ID: F63697-3	Date Sampled: 03/02/09
Matrix: AQ - Ground Water	Date Received: 03/04/09
Method: FLORIDA-PRO SW846 3510C	Percent Solids: n/a
Project: Cecil Field Building 271; Jacksonville, FL	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL25517.D	1	03/06/09	NY	03/05/09	OP28255	GLL961
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.16 U	0.24	0.16	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	73%		38-122%		

U = Not detected MDL - Method Detection Limit
 RL = Reporting Limit = PQL
 L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
 V = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-271-07S		
Lab Sample ID:	F63697-4	Date Sampled:	03/02/09
Matrix:	AQ - Ground Water	Date Received:	03/04/09
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	Cecil Field Building 271; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17989.D	1	03/06/09	RB	03/05/09	OP28261	SR855
Run #2	W044993.D	4	03/09/09	RB	03/05/09	OP28261	SW2286

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2	1040 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1.1	0.96	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.96	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.96	0.48	ug/l	
56-55-3	Benzo(a)anthracene	0.048 U	0.19	0.048	ug/l	
50-32-8	Benzo(a)pyrene	0.048 U	0.19	0.048	ug/l	
205-99-2	Benzo(b)fluoranthene	0.048 U	0.19	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.096 U	0.19	0.096	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.96	0.24	ug/l	
86-73-7	Fluorene	0.59	0.96	0.48	ug/l	I
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	14.5	0.96	0.24	ug/l	
91-57-6	2-Methylnaphthalene	20.3	0.96	0.24	ug/l	
91-20-3	Naphthalene	102 ^a	3.8	0.96	ug/l	
85-01-8	Phenanthrene	1.1	0.96	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.96	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	48%	52%	42-108%
321-60-8	2-Fluorobiphenyl	49%	48%	40-106%
1718-51-0	Terphenyl-d14	80%	81%	39-121%

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit
 RL = Reporting Limit = PQL
 L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
 V = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-271-07S	Date Sampled:	03/02/09
Lab Sample ID:	F63697-4	Date Received:	03/04/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Cecil Field Building 271; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF090919.D	1	03/06/09	CW	n/a	n/a	GEF5101
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.61	1.0	0.50	ug/l	I
108-88-3	Toluene	1.1	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	3.5	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	19.5	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	118%		70-120%
98-08-8	aaa-Trifluorotoluene	103%		73-118%

(a) All hits confirmed by dual column analysis.

U = Not detected MDL - Method Detection Limit
 RL = Reporting Limit = PQL
 L = Indicates value exceeds calibration range

I = Result \geq MDL but $<$ RL J = Estimated value
 V = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: CEF-271-07S		Date Sampled: 03/02/09
Lab Sample ID: F63697-4		Date Received: 03/04/09
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: FLORIDA-PRO SW846 3510C		
Project: Cecil Field Building 271; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL25582.D	2	03/09/09	NY	03/05/09	OP28255	GLL962
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	2.80	0.48	0.32	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	91%		38-122%		

U = Not detected MDL - Method Detection Limit
 RL = Reporting Limit = PQL
 L = Indicates value exceeds calibration range

I = Result > = MDL but < RL J = Estimated value
 V = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	03/02/09
Lab Sample ID:	F63697-5	Date Received:	03/04/09
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8021B		
Project:	Cecil Field Building 271; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF090911.D	1	03/05/09	CW	n/a	n/a	GEF5100
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	1.0 U	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	109%		70-120%
98-08-8	aaa-Trifluorotoluene	106%		73-118%

U = Not detected MDL - Method Detection Limit
 RL = Reporting Limit = PQL
 L = Indicates value exceeds calibration range

I = Result >= MDL but < RL J = Estimated value
 V = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

CHAIN OF CUSTODY

Fresh Ponds Corporate Village, Building B
2235 Route 130, Dayton, NJ 08810
732-329-0200 FAX: 732-329-3499/3480

Accutest Job #: **F63697**
Accutest Quote #:

Client Information		Facility Information				Analytical Information													
Solutions-IES		Solutions-IES																	
Name 1101 Nowell Road		Project Name				BTEX and MTBE only 8021C T / Lead Z PAHs 8270C Methy / organ MeG TRPH FL-PRO 0													
Address Raleigh NC 27607		Location																	
City Jessica Dehart		Project/PO #: Cecil Field - Building 271																	
Send Report to: Phone #: (919) 873-1080		FAX #: (919) 873-1074																	
Field ID / Point of Collection	Collection			Matrix	# of bottles	Preservation					BTEX	PAHs	TRPH	FL-PRO					
	Date	Time	Sampled By			HCL	NaOH	HNO3	H2SO4	None									
CEF-271-125	3/2/09	1640	Jayvan		3		2	2			X	X	X						
CEF-271-105	↓	1655	Harlewood		5		2	2			X	X	X						
CEF-271-095	↓	1645	Cathy		7		2	2			X	X	X						
CEF-271-075	↓	1645	Marshall		3		2	2			X	X	X						
Trip blank											X	X	X						
Turnaround Information		Data Deliverable Information				Comments / Remarks													
<input type="checkbox"/> 21 Day Standard <input type="checkbox"/> 14 Day <input type="checkbox"/> 7 Days EMERGENCY <input checked="" type="checkbox"/> Other _____ (Days) RUSH TAT is for FAX data unless previously approved.		Approved By: _____ <input type="checkbox"/> NJ Reduced <input type="checkbox"/> NJ Full <input type="checkbox"/> FULL CLP <input type="checkbox"/> Disk Deliverable <input type="checkbox"/> Other (Specify) _____				<input type="checkbox"/> Commercial "A" <input type="checkbox"/> Commercial "B" <input type="checkbox"/> ASP Category B <input type="checkbox"/> State Forms				Please provide labels with site name and tests pre-printed on the them. Please provide a TRIP BLANK in the cooler containing VOCs. Please Provide eight (8) Liters of deionized water. Standard 7 day TAT. COMMBN deliverables.									
Relinquished by Sampler: <i>M.F.G.</i>		Sample Custody must be documented below each time samples change possession, including courier delivery.				Received By: <i>[Signature]</i>		Relinquished By: <i>[Signature]</i>		Date Time: <i>3/3/09 1400</i>		Date Time: <i>3/3/09 1400</i>		Date Time: <i>3/3/09 1400</i>		Date Time: <i>3/3/09 1400</i>			
Relinquished by Sampler: <i>3</i>		Received By: <i>3</i>				Received By: <i>4</i>		Relinquished By: <i>4</i>		Date Time: <i>3/3/09 1400</i>		Date Time: <i>3/3/09 1400</i>		Date Time: <i>3/3/09 1400</i>		Date Time: <i>3/3/09 1400</i>			
Relinquished by Sampler: <i>5</i>		Received By: <i>5</i>				Received By: <i>4</i>		Relinquished By: <i>4</i>		Date Time: <i>3/3/09 1400</i>		Date Time: <i>3/3/09 1400</i>		Date Time: <i>3/3/09 1400</i>		Date Time: <i>3/3/09 1400</i>			
						Seal #		Preserved where applical		On Ice: <input checked="" type="checkbox"/>		On Ice: <input checked="" type="checkbox"/>		On Ice: <input checked="" type="checkbox"/>		On Ice: <input checked="" type="checkbox"/>			

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F63697: Chain of Custody

Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F63697 CLIENT: Solutions IES PROJECT: Cecil fields
 DATE/TIME RECEIVED: 3/4/09 8:00 # OF COOLERS RECEIVED: 2 COOLER TEMPS: 1.8 2.0
 METHOD OF DELIVERY: FEDEX UPS **ACCUTEST COURIER** GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: _____

COOLER INFORMATION

- CUSTODY SEAL NOT PRESENT OR NOT INTACT
- CHAIN OF CUSTODY NOT RECEIVED (COC)
- ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- TEMPERATURE CRITERIA NOT MET
- WET ICE RECEIVED IN COOLER

TRIP BLANK INFORMATION

- TRIP BLANK PROVIDED
- TRIP BLANK NOT PROVIDED
- TRIP BLANK NOT ON COC
- TRIP BLANK INTACT
- TRIP BLANK NOT INTACT
- RECEIVED WATER TRIP BLANK
- RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? _____
 NUMBER OF 5035 FIELD KITS ? _____
 NUMBER OF LAB FILTERED METALS ? _____

SUMMARY OF COMMENTS: _____

SAMPLE INFORMATION

- SAMPLE LABELS NOT PRESENT ON ALL BOTTLES
- CORRECT NUMBER OF CONTAINERS USED
- SAMPLE RECEIVED IMPROPERLY PRESERVED
- INSUFFICIENT VOLUME FOR ANALYSIS
- TIMES ON COC DOES NOT MATCH LABEL(S)
- ID'S ON COC DOES NOT MATCH LABEL(S)
- VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- UNCLEAR FILTERING INSTRUCTIONS
- UNCLEAR COMPOSITING INSTRUCTIONS
- SAMPLE CONTAINER(S) RECEIVED BROKEN
- % SOLIDS JAR NOT RECEIVED
- 5035 FIELD KIT NOT FROZEN WITHIN 48 HOUR'S
- RESIDUAL CHLORINE PRESENT

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

TECHNICIAN SIGNATURE/DATE *AL* 3/4/09 TECHNICIAN SIGNATURE/DATE *3-4-09*

ASBD 12/17/07

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