



February 18, 2009

Mr. John Schoolfield
Naval Facilities, Engineering Command Southeast
Building 903 Ajax Street
NAS Jacksonville
Jacksonville, Florida 32212

N61331.AR.001015
NSWC PANAMA CITY
5090.3a

**RE: Collection of Soil Samples at AOC-2
Underground Utility Corridor Area
Naval Support Activity Panama City
Panama City, Florida**

Dear Mr. Schoolfield:

Aerostar Environmental Services, Inc. (AEROSTAR) is pleased to present the results of the soil sampling and data collection activities conducted at the above referenced site. The objective of the investigation was to assess residual petroleum hydrocarbon contaminant levels at an underground utility corridor area at site AOC-2. The soil sampling plan was provided by Naval Facilities, Engineering Command (NAVFAC) Southeast, on November 17, 2008.

1.0 METHODS OF INVESTIGATION

The scope of services for the underground utility corridor soil investigation was prepared based upon information provided by NAVFAC in November 2008. The scope of services included the following: 1) advancing four soil test holes (borings) at planned locations 1 through 4 (Figure 2), in an area of suspected soil contamination using a hand auger; 2) collecting soil samples for laboratory analyses from each boring at 6 to 10 inches above the groundwater table and one sample 6 to 10 inches below the water table; 3) Install shallow pizometers in test holes and take readings of groundwater and soil gas parameters; and 4) preparing a letter report summarizing the results of the investigation. The scope of work and results of the investigation are described in the following sections.

2.1 Soil Sample Collection and Laboratory Analyses

On December 8, 2009, AEROSTAR advanced four soil borings at the subject underground utility corridor area utilizing a hand auger. During hand auger boring at Location 1, repeated refusal at 4 feet BLS was

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experienced due to under ground utility conduits, and this location was relocated approximately 5 feet east of the original planned location. Final soil boring locations are shown in Figure 3, included in Attachment A.

Prior to soil sampling, an initial test hole and piezometer was installed at location 2 in order to obtain an accurate measurement of groundwater level; measured at 5.46 feet BLS. Soil samples were then collected at all four hand auger boring locations. All soil borings were advanced to a depth of 10 inches above the water table, and sample collected to 6 inches above the water table, in order to collect the sample at the 6 to 10 inch interval above the water table. At location 2, an additional sample was collected at a depth of 6 to 10 inches below the water table. Each soil sample was inspected for evidences of petroleum odors and stains. As with location 2, locations 1, 3 & 4, were extended to a depth of 7 feet BLS and piezometers installed. The boring logs are included in Attachment B.

All soil samples were submitted to a State-approved laboratory for analyses of the parameters listed in the Environmental Protection Agency (EPA) Method 8015 for Petroleum Range Hydrocarbons (PRO). Soil samples that exceeded the Florida Department of Environmental Protection (FDEP) Soil Cleanup Target Level (SCTL) for Leachability of 340 milligrams per kilogram (mg/kg) was further analyzed for Total Petroleum Hydrocarbons (TPH) by the Criteria Working Group Method (CWG).

All soil samples were collected in laboratory supplied containers, placed on ice in a shipping cooler, and delivered under chain-of-custody to Gulf Coast Analytical Laboratory in Baton Rouge, Louisiana, for analyses. Soil samples were collected in accordance with the FDEP Chapter 62-770 "Petroleum Contamination Site Clean-up Criteria" dated October 15, 2008. Results of the soil laboratory analyses are discussed in Section 3.0 of this report and summarized in Table 1.

2.2 Soil Gas Readings

Soil gas readings were taken by placing a capw/sample port on the piezometers and purging the test holes using with a small vacuum pump and tubing, until stable readings were observed. All readings were recorded in a field log book. The following final readings were recorded.

Location	VOCs ppm	Oxygen %	CO2 %	LEL %	Flow (ft/min)
LOC-01	0.8	20.9	0	0	0.063
LOC-02	3.9	20.4	0	0	0.102
LOC-03	1.6	20.9	0	0	> 1.0
LOC-04	1.8	20.5	0	0	0.062

2.3 Groundwater Parameters

Groundwater readings were taken after purging at least 3 well volumes from the pizometers with a peristaltic pump and obtaining stable readings. All readings were recorded in a field log book. The following final readings were recorded.

Location	Depth to GW ft	Oxygen ppm	Temp c	pH	Iron ppm
LOC-01	5.46	4.12	21.2	5.53	0.0
LOC-02	5.39	3.33	21.5	6.04	0.0
LOC-03	5.46	4.47	21.6	5.84	0.0
LOC-04	5.80	5.26	21.1	5.82	1.5

3.0 RESULTS OF THE INVESTIGATION

3.1 Soil Laboratory Analyses

Petroleum Range Hydrocarbons

Laboratory analytical results of soil samples collected from soil boring locations 1 through 4 detected PRO concentrations ranging from 845 mg/kg to 5,060 mg/kg. All soil samples collected during this event exceeded the FDEP SCTL of 340 mg/kg. Additionally, PRO concentrations were above the SCTL for Industrial Soil of 2,700 mg/kg in soil samples collected from Location 1 (4-5.0') and Location 3 (4.5-5.0') with concentrations of 5,060 mg/kg, and 3,620 mg/kg.

Total Petroleum Hydrocarbons Criteria Working Group Method

All soil samples were analyzed for TPH by CWG. All detectable concentrations of Aliphatic and Aromatic concentrations were below their respective Residential TRPH Fraction SCTL. Aliphatics C10-C12 were detected in soil samples collected from Location 1 (4.5-5') and Location 3 (4.5-5.0') with concentrations of 120 mg/kg and 9.70 I mg/kg, which is below the Residential TRPH Fraction of 1,700 mg/kg. Aliphatic C12-C16, Aliphatic C16-C35, Aromatic C12-C16, Aromatic C16-C21, and Aromatic C21-C35 concentrations were detected in all soil samples; however, all detectable concentrations of Aliphatic and Aromatic concentrations were below their respective Residential and Leachability TRPH Fraction SCTL.

Soil laboratory analytical data is summarized in Table 1. A copy of the laboratory analytical report is included in Attachment C.

3.2 Soil Gas Readings

Soil gas readings indicated ambient oxygen levels and no detectable CO2 readings at the test hole locations. These readings indicate soil biological activity is not occurring at a rate sufficient to deplete available

oxygen and produce detectible levels of CO₂. The data indicate oxygen is not limiting bioremediation of petroleum hydrocarbons in soil.

Soil gas readings did not detected significant levels of VOCs in soil. When present in high concentrations, VOCs tend to displace oxygen and prevent oxygen from being available to promote biological degradation of petroleum hydrocarbons in soil.

3.3 Groundwater Readings

Shallow groundwater data indicate slightly higher levels of oxygen at up-gradient location LOC-4, and slightly lower oxygen levels at central location LOC-2. The readings suggest that some biodegradation of hydrocarbons and accompanying depletion of oxygen may be occurring in shallow groundwater in the study area. The data also indicate that oxygen is not limiting bioremediation of petroleum hydrocarbons at the test hole locations.

4.0 CONCLUSIONS

Initial laboratory analysis of soil samples collected from soil boring locations 1 through 4 detected exceedences of the Total PRO Leachability SCTL of 340 mg/kg. Follow-on analysis by the Total Petroleum Hydrocarbons Complete Working Group Method, however, indicated all detectable concentrations of Aliphatic and Aromatic concentrations were below their respective Residential and Leachability TRPH Fraction SCTL.

Soil gas and shallow groundwater readings were taken at locations 1 through 4. The data indicate that oxygen is not limiting bioremediation of petroleum hydrocarbons in soil or shallow groundwater at the test hole locations.

5.0 DISCLAIMER

AEROSTAR has prepared this report for Naval Facilities, Southeast Division, hereafter referred to as the Clients. No soil investigation can eliminate all uncertainty. Furthermore, any sample, either surface or subsurface, taken for chemical analysis may or may not is representative of a larger population. Chemical testing methods have inherent uncertainties and limitations. Professional judgment and interpretation are inherent in the process, and uncertainty is inevitable. Additional assessment may be able to reduce the uncertainty. Even when soil and groundwater sampling is executed with an appropriate site-specific standard of care, certain conditions present especially difficult detection problems. Such conditions may include, but are not limited to, complex geological settings, the fate and transport characteristics of certain hazardous substances and petroleum products, the distribution of existing contamination, physical limitations imposed by the location of utilities and other man-made objects, and the limitations of assessment technologies.

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Measurements and sampling data only represent the site conditions at the time of the data collection. While AEROSTAR has used reasonable care to avoid reliance upon data and information that is inaccurate, AEROSTAR is not able to verify the accuracy or completeness of all data and information available during the investigation. Some of the conclusions in this report would be different if the information upon which they are based is determined to be false, inaccurate or incomplete.

AEROSTAR makes no legal representations whatsoever concerning any matter including, but not limited to, ownership of any property or the interpretation of any law. AEROSTAR further disclaims any obligations to update the report for events taking place after the time during which the assessment was conducted. This report is not a comprehensive site characterization and should not be construed as such. The opinions presented in this report are based upon the findings derived from limited soil sampling.

The scope of work performed herein was limited to soil and groundwater sample collection and laboratory analysis of a small number of samples. AEROSTAR has endeavored to meet what it believes is the applicable standard of care, and, in doing so, is obliged to advise the Clients of the limitations. AEROSTAR believes that providing information about limitations is essential to help the Clients identify and thereby manage its risks. Through additional testing, these risks can be mitigated - but they cannot be eliminated. AEROSTAR will, upon request, advise the Clients of the additional research opportunities available, their impact, and their cost.

As noted above, the preliminary subsurface investigation conducted at the referenced site, and this report, was prepared for the use solely by the Clients. This report shall not be relied upon by or transferred to any other party without the express written authorization of AEROSTAR.

AEROSTAR appreciates the opportunity to provide you with our services. If you have any questions, please do not hesitate to contact either of the undersigned at (504) 486-8368.

Sincerely,

AEROSTAR ENVIRONMENTAL SERVICES, INC.



Emilie A. Wien
Project Manager

ATTACHMENT A
FIGURES

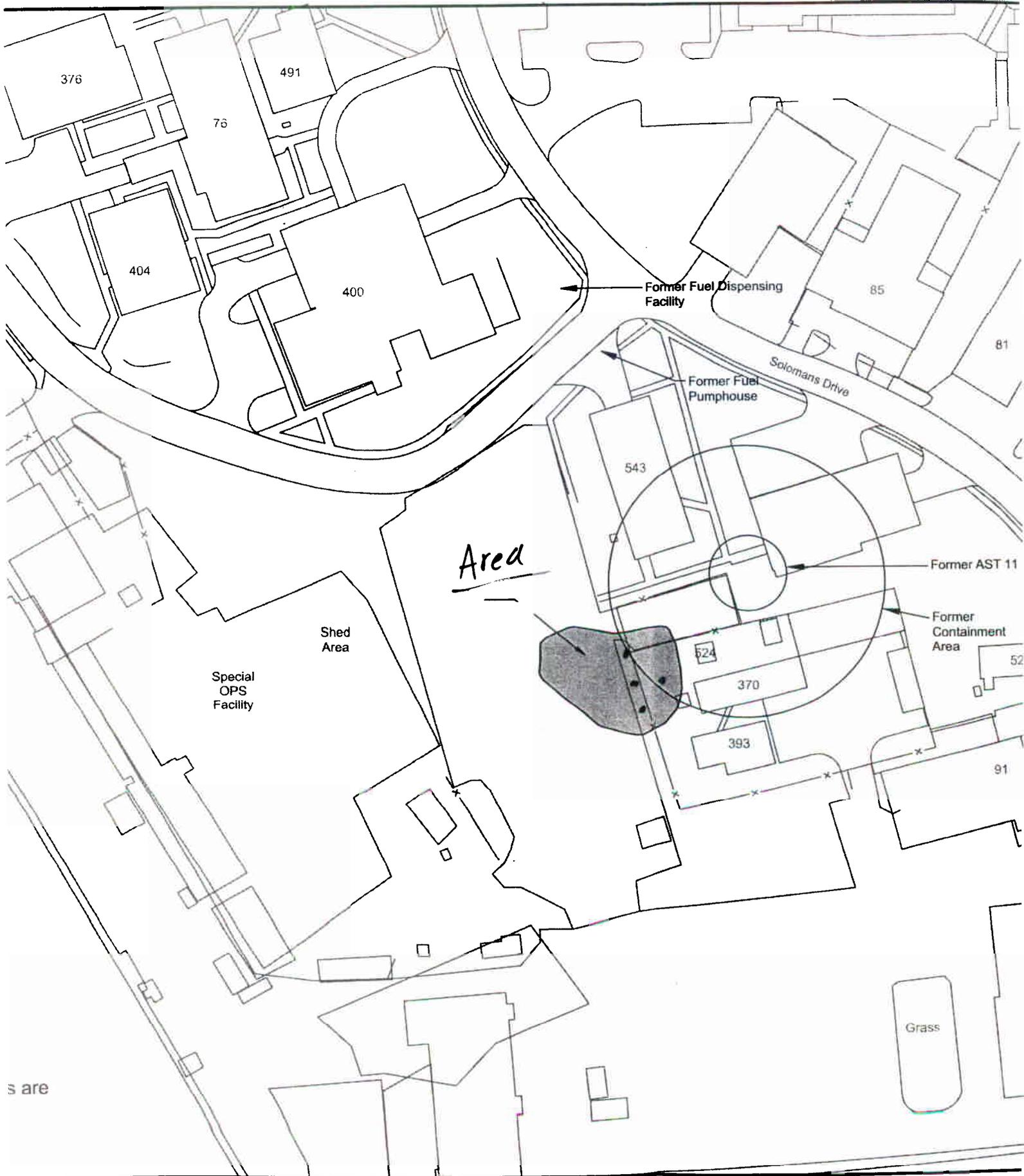


FIGURE 1: GENERAL AREA LOCATION MAP

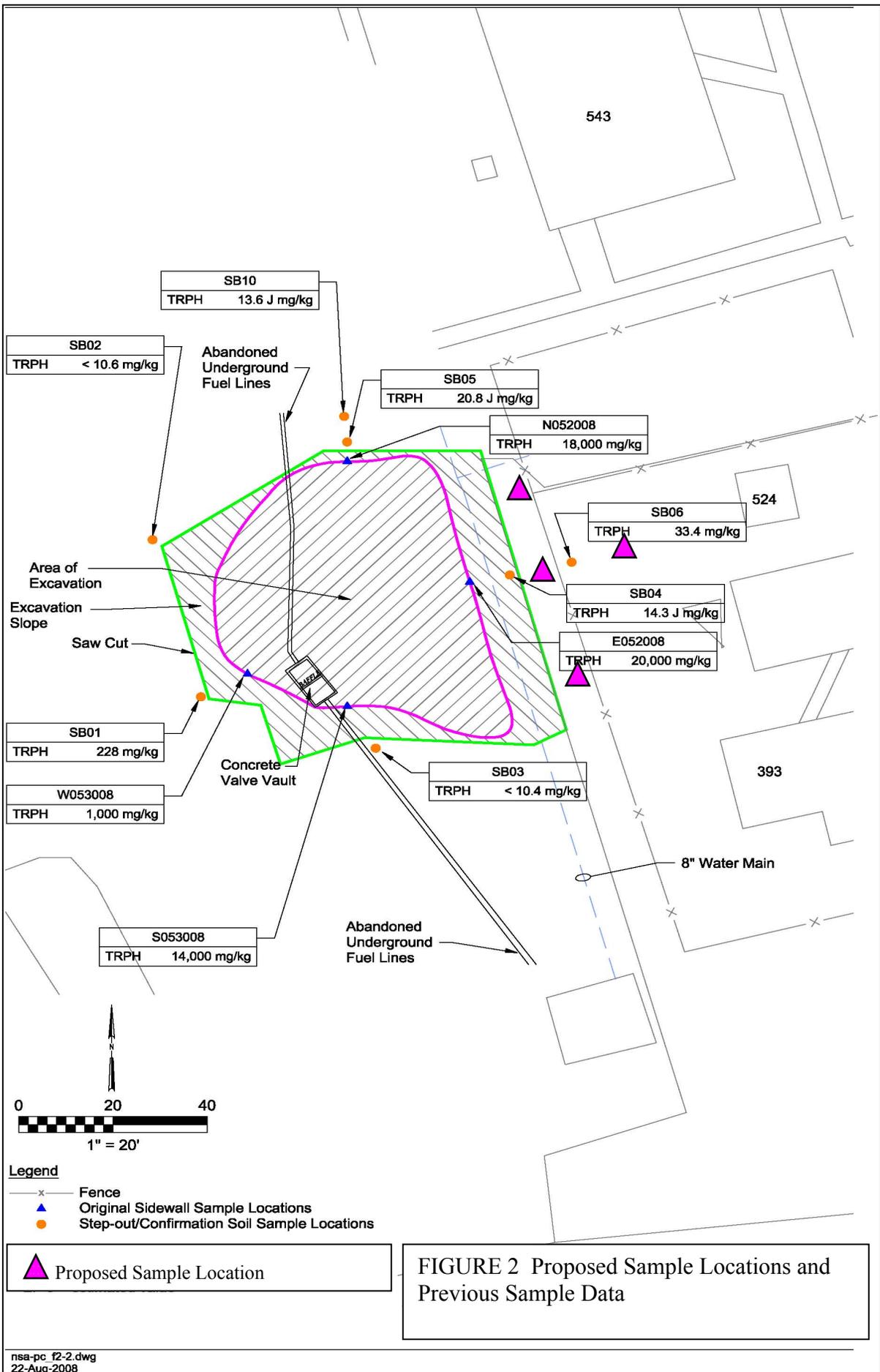


FIGURE 2 Proposed Sample Locations and Previous Sample Data

ATTACHMENT B
TABLES

**TABLE 1
SOIL ANALYTICAL SUMMARY
(DECEMBER 8, 2008)**

Sample ID	Location 1 (4.5-5.0')	Location 2 (4.5-5')	Location 2 (6-6.5')	Location 3 (4.5-5.0')	Location 4 (4.5-5.0')
Date	12/8/2008	12/8/2008	12/8/2008	12/8/2008	12/8/2008
	Units	FDEP Residential	FDEP Commercial/ Industrial	Leachability Based on Groundwater Criteria	
LABORATORY ANALYSES					
Petroleum Range Organic Ranges (Method FL-PRO)					
FL-PRO	mg/Kg	460	2,700	340	5,060 1,810 3,620 3,620 1,530
Petroleum Range Organic Ranges (Method TPH CWG)					
C5-C6 Aliphatics	mg/Kg	6,200	33,000	470	<6.4 <6.5 <7.1 <6.6 <6.0
C6-C8 Aliphatics	mg/Kg	8,700	46,000	1,300	<6.4 <6.5 <7.1 <6.6 <6.0
C8-C10 Aliphatics	mg/Kg	850	4,800	7,000	<6.4 <6.5 <7.1 <6.6 <6.0
C10-C12 Aliphatics	mg/Kg	1,700	10,000	51,000	120 <6.5 <7.1 9.70 I <6.0
C12-C16 Aliphatics	mg/Kg	2,900	21,000	*	2200 55.0 I 360 340 650
C16-C35 Aliphatics	mg/Kg	42,000	280,000	*	1700 610 900 570 1900
C5-C7 Aromatics	mg/Kg	340	1,800	34	<6.4 <6.5 <7.1 <6.6 <6.0
C7-C8 Aromatics	mg/Kg	490	3,700	59	<6.4 <6.5 <7.1 <6.6 <6.0
C8-C10 Aromatics	mg/Kg	460	2,700	340	<6.4 <6.5 <7.1 <6.6 <6.0
C10-C12 Aromatics	mg/Kg	900	5,900	520	<6.4 <6.5 <7.1 <6.6 <6.0
C12-C16 Aromatics	mg/Kg	1,500	12,000	1,000	230 9.20 I 34.0 I 28.0 I 48.0
C16-C21 Aromatics	mg/Kg	1,300	11,000	3,200	770 99 410 100 580
C21-C35 Aromatics	mg/Kg	2,300	40,000	25,000	82 54.0 I 110 14.0 I 120

Notes:

All results in milligrams per kilogram (mg/Kg)

NA = Not Analyzed / Applicable

FDEP = Florida Department of Environmental Protection

Exceedances above the SCTL are in bold

BDL= Below Dection Limits

Bold=Value in bold idetifies a result exceeding an FDEP SCTL

Data Qualifiers:

<= The analyte was below detection limits.

I = The reportable value is between the laboratory method detection limit and

* Not a health concern for this exposure scenario

ATTACHMENT C
SOIL BORING LOGS

BORING LOG

Boring/Well Number: Location-1		Permit Number:		FDEP Facility Identification Number:							
Site Name: AOC-2 NSA Panama City, FL		Borehole Start Date:	12/8/2008	Borehole Start Time:	1550 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM						
		End Date:	12/8/2008	End Time:	1605 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM						
Environmental Contractor: Aerostar Environmental Services		Geologist's Name: Emilie Wien		Environmental Technician's Name: Zackary Lissard							
Drilling Company: Singley Construction	Pavement Thickness (inches): Not Applicable	Borehole Diameter (inches): 3.5"		Borehole Depth (feet): 7'							
Drilling Method(s): Hand Auger	Apparent Borehole DTW (in feet from soil moisture content): 7.0'	Measured Well DTW (in feet after water recharges in well): NA		OVA (list model and check type): <input checked="" type="checkbox"/> FID <input type="checkbox"/> PID							
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other (describe if other or multiple items are checked):											
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input checked="" type="checkbox"/> Bentonite <input type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
PH	0-2	24	NA	NA	NA	NA	1	2" of grass; Moist, tan, fine grained, sand	SM	10	0
PH							2	Same as above			
PH	2-4	24	NA	NA	NA	NA	3	Same as above	SM	45	0
PH							4	Same as above			Location - 1 (4.5-5.0')
PH	4-6	24	NA	NA	NA	NA	5	Very moist, tan, medium grained, sand	SM	75	
DP							6	Same as above			
DP	6-8	24	NA	NA	NA	NA	7	Saturated, tan, medium grained, sand	SM	100	0
DP							8	Same as above			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
 Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: Location -2		Permit Number:		FDEP Facility Identification Number:							
Site Name: AOC - 2 NSA Panama City, FL		Borehole Start Date:	12/8/2008	Borehole Start Time:	1420 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM						
		End Date:	12/8/2008	End Time:	1445 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM						
Environmental Contractor: Aerostar Environmental Services		Geologist's Name: Emilie Wien		Environmental Technician's Name:							
Drilling Company: Singley Environmental	Pavement Thickness (inches): Not Applicable	Borehole Diameter (inches): 3.5"		Borehole Depth (feet): 7'							
Drilling Method(s): Hand Auger	Apparent Borehole DTW (in feet from soil moisture content): 7.0'	Measured Well DTW (in feet after water recharges in well): NA	OVA (list model and check type): <input checked="" type="checkbox"/> FID <input type="checkbox"/> PID								
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other <i>(describe if other or multiple items are checked):</i>											
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input checked="" type="checkbox"/> Bentonite <input type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
PH	0-2	24	NA	NA	NA	NA	1	2" of gras; Moist, tan, medium grained, sand	SM	10	0
PH							2	Same as above			
PH	2-4	24	NA	NA	NA	NA	3	Same as above	SM	45	0
PH							4	Same as above			Location - 2 (4-5')
PH	4-6	24	NA	NA	NA	NA	5	Very moist, tan, medium grained, sand	SM	75	
DP							6	Same as above			Location - 2 (6-6.5')
DP	6-8	24	NA	NA	NA	NA	7	Saturated, tan, medium grained, sand	SM	100	
							8	Same as above			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
 Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: Location-3		Permit Number:		FDEP Facility Identification Number:							
Site Name: AOC - 2 NSA Panama City, FL		Borehole Start Date:	12/8/2008	Borehole Start Time:	1615 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM						
		End Date:	12/8/2008	End Time:	1630 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM						
Environmental Contractor: Aerostar Environmental Services		Geologist's Name: Emilie Wien		Environmental Technician's Name: Zachary Lissard							
Drilling Company: Singley Construction	Pavement Thickness (inches): Not Applicable	Borehole Diameter (inches): 3.5"		Borehole Depth (feet): 7'							
Drilling Method(s): Hand Auger	Apparent Borehole DTW (in feet from soil moisture content): 6-6.5'	Measured Well DTW (in feet after water recharges in well): NA	OVA (list model and check type): <input checked="" type="checkbox"/> FID <input type="checkbox"/> PID								
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other <i>(describe if other or multiple items are checked):</i>											
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input checked="" type="checkbox"/> Bentonite <input type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
PH	0-2	24	NA	NA	NA	NA	1	2" of gas; Moist, tan, medium grained, sand	SM	10	0
PH							2	Same as above			
PH	2-4	24	NA	NA	NA	NA	3	Same as above	SM	45	0
PH							4	Same as above			
PH	4-6	24	NA	NA	NA	NA	5	Very moist, tan, medium grained, sand	SM	75	Location 3 (4.5-5.0')
DP							6	Same as above			
DP	6-8	24	NA	NA	NA	NA	7	Saturated, tan, medium grained, sand	SM	100	0
DP							8	Same as above			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
 Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: Location-4		Permit Number:		FDEP Facility Identification Number:							
Site Name: AOC - 2 NSA Panama City, FL		Borehole Start Date:	12/8/2008	Borehole Start Time:	1300 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM						
		End Date:	12/8/2008	End Time:	1320 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM						
Environmental Contractor: Aerostar Environmental Services		Geologist's Name: Emilie Wien		Environmental Technician's Name: Zackary Lissard							
Drilling Company: Singley Environmental	Pavement Thickness (inches): Not Applicable	Borehole Diameter (inches): 3.5"		Borehole Depth (feet): 7'							
Drilling Method(s): Hand Auger	Apparent Borehole DTW (in feet from soil moisture content): 7.0'	Measured Well DTW (in feet after water recharges in well): NA		OVA (list model and check type): <input checked="" type="checkbox"/> FID <input type="checkbox"/> PID							
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other (describe if other or multiple items are checked):											
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input checked="" type="checkbox"/> Bentonite <input type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
PH	0-2	24	NA	NA	NA	NA	1	2" of grass; Moist, tan, medium grained, sand	SM	10	0
PH							2	Same as above			
PH	2-4	24	NA	NA	NA	NA	3	Same as above	SM	45	0
PH							4	Same as above			Location-4 (4.5-5.0')
PH	4-6	24	NA	NA	NA	NA	5	Very moist, tan, medium grained, sand	SM	75	
DP							6	Same as above			
DP	6-8	24	NA	NA	NA	NA	7	Saturated, tan, medium grained, sand; Strong petroleum odor	SM	100	0
DP							8	Same as above			

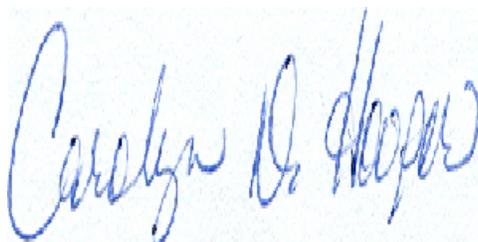
Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
 Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

ATTACHMENT D
LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

Job Number: 400-36822-2
SDG Number: 0404-188-09 AOC-2
Job Description: NSA Panama City, FL

For:
Aerostar Environmental Services, Inc.
4640 S. Carrolltan Avenue
New Orleans, LA 70119
Attention: Emilie Wien



Approved for release.
Carolyn Hooper
Project Manager I
1/5/2009 3:36 PM

Carolyn Hooper
Project Manager I
carolyn.hooper@testamericainc.com
01/05/2009

cc: Ms. Dawn Hudson
Mr. Danny Miller
Mr. Carl D Williams

The test results in this report meet all NELAP requirements for accredited parameters and relate only to the referenced samples. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory.

TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250507), New Jersey (FL006), North Carolina (314), North Dakota (R-108), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-08-TX), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514
Tel (850) 474-1001 Fax (850) 478-2671 www.testamericainc.com



SAMPLE SUMMARY

Client: Aerostar Environmental Services, Inc.

Job Number: 400-36822-2
Sdg Number: 0404-188-09 AOC-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
400-36822-3	LOC 1 (4.5-5.5')	Solid	12/08/2008 1600	12/19/2008 1535
400-36822-4	LOC 2 (4.5-5.0')	Solid	12/08/2008 1440	12/19/2008 1535
400-36822-5	LOC 2 (6-6.5')	Solid	12/08/2008 1445	12/19/2008 1535
400-36822-6	LOC 3 (4.5-5.5')	Solid	12/08/2008 1620	12/19/2008 1535
400-36822-7	LOC 4 (4.5-5.5')	Solid	12/08/2008 1515	12/19/2008 1535

EXECUTIVE SUMMARY - Detections

Client: Aerostar Environmental Services, Inc.

Job Number: 400-36822-2
Sdg Number: 0404-188-09 AOC-2

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
400-36822-3	LOC 1 (4.5-5.5')				
>C10-C12 aliphatics		120	55	mg/Kg	TPHCWG
>C12-C16 aliphatics		2200	55	mg/Kg	TPHCWG
>C16-C35 aliphatics		1700	55	mg/Kg	TPHCWG
>C12-C16 aromatics		230	55	mg/Kg	TPHCWG
>C16-C21 aromatics		770	55	mg/Kg	TPHCWG
>C21-C35 aromatics		82	55	mg/Kg	TPHCWG
Percent Solids		87	0.10	Percent	PercentMoisture
400-36822-4	LOC 2 (4.5-5.0')				
>C12-C16 aliphatics		55	56	mg/Kg	TPHCWG
>C16-C35 aliphatics		610	56	mg/Kg	TPHCWG
>C12-C16 aromatics		9.2	56	mg/Kg	TPHCWG
>C16-C21 aromatics		99	56	mg/Kg	TPHCWG
>C21-C35 aromatics		54	56	mg/Kg	TPHCWG
Percent Solids		89	0.10	Percent	PercentMoisture
400-36822-5	LOC 2 (6-6.5')				
>C12-C16 aliphatics		360	61	mg/Kg	TPHCWG
>C16-C35 aliphatics		900	61	mg/Kg	TPHCWG
>C12-C16 aromatics		34	61	mg/Kg	TPHCWG
>C16-C21 aromatics		410	61	mg/Kg	TPHCWG
>C21-C35 aromatics		110	61	mg/Kg	TPHCWG
Percent Solids		81	0.10	Percent	PercentMoisture
400-36822-6	LOC 3 (4.5-5.5')				
>C10-C12 aliphatics		9.7	57	mg/Kg	TPHCWG
>C12-C16 aliphatics		340	57	mg/Kg	TPHCWG
>C16-C35 aliphatics		570	57	mg/Kg	TPHCWG
>C12-C16 aromatics		28	57	mg/Kg	TPHCWG
>C16-C21 aromatics		100	57	mg/Kg	TPHCWG
>C21-C35 aromatics		14	57	mg/Kg	TPHCWG
Percent Solids		85	0.10	Percent	PercentMoisture
400-36822-7	LOC 4 (4.5-5.5')				
>C12-C16 aliphatics		650	52	mg/Kg	TPHCWG
>C16-C35 aliphatics		1900	52	mg/Kg	TPHCWG
>C12-C16 aromatics		48	52	mg/Kg	TPHCWG
>C16-C21 aromatics		580	52	mg/Kg	TPHCWG
>C21-C35 aromatics		120	52	mg/Kg	TPHCWG
Percent Solids		93	0.10	Percent	PercentMoisture

SAMPLE RESULTS

Emilie Wien
 Aerostar Environmental Services, Inc.
 4640 S. Carrolltan Avenue
 New Orleans, LA 70119

Job Number: 400-36822-2
 Sdg Number: 0404-188-09 AOC-2

Client Sample ID: LOC 1 (4.5-5.5')
Lab Sample ID: 400-36822-3

Date Sampled: 12/08/2008 1600
 Date Received: 12/19/2008 1535
 Client Matrix: Solid
 Percent Solids: 87

Analyte	Result/Qualifier	Unit	MDL	PQL	Dilution
Method: TPHCWG			Date Analyzed:	01/03/2009 0622	
Prep Method: TPH CWG Frac			Date Prepared:	12/30/2008 0905	
>C5-C6 aliphatics	6.4 U Q	mg/Kg	6.4	55	1.0
>C6-C8 aliphatics	6.4 U Q	mg/Kg	6.4	55	1.0
>C8-C10 aliphatics	6.4 U Q	mg/Kg	6.4	55	1.0
>C10-C12 aliphatics	120 Q	mg/Kg	6.4	55	1.0
>C12-C16 aliphatics	2200 Q	mg/Kg	6.4	55	1.0
>C16-C35 aliphatics	1700 Q	mg/Kg	6.4	55	1.0
>C5-C7 aromatics	6.4 U Q	mg/Kg	6.4	22	1.0
>C7-C8 aromatics	6.4 U Q	mg/Kg	6.4	39	1.0
>C8-C10 aromatics	6.4 U Q	mg/Kg	6.4	55	1.0
>C10-C12 aromatics	6.4 U Q	mg/Kg	6.4	55	1.0
>C12-C16 aromatics	230 Q	mg/Kg	6.4	55	1.0
>C16-C21 aromatics	770 Q	mg/Kg	6.4	55	1.0
>C21-C35 aromatics	82 Q	mg/Kg	6.4	55	1.0

Emilie Wien
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 4640 S. Carrolltan Avenue
 New Orleans, LA 70119

Job Number: 400-36822-2
 Sdg Number: 0404-188-09 AOC-2

Client Sample ID: LOC 2 (4.5-5.0')
Lab Sample ID: 400-36822-4

Date Sampled: 12/08/2008 1440
 Date Received: 12/19/2008 1535
 Client Matrix: Solid
 Percent Solids: 89

Analyte	Result/Qualifier	Unit	MDL	PQL	Dilution
Method: TPHCWG			Date Analyzed: 01/03/2009 0653		
Prep Method: TPH CWG Frac			Date Prepared: 12/30/2008 0905		
>C5-C6 aliphatics	6.5 U Q	mg/Kg	6.5	56	1.0
>C6-C8 aliphatics	6.5 U Q	mg/Kg	6.5	56	1.0
>C8-C10 aliphatics	6.5 U Q	mg/Kg	6.5	56	1.0
>C10-C12 aliphatics	6.5 U Q	mg/Kg	6.5	56	1.0
>C12-C16 aliphatics	55 I Q	mg/Kg	6.5	56	1.0
>C16-C35 aliphatics	610 Q	mg/Kg	6.5	56	1.0
>C5-C7 aromatics	6.5 U Q	mg/Kg	6.5	22	1.0
>C7-C8 aromatics	6.5 U Q	mg/Kg	6.5	39	1.0
>C8-C10 aromatics	6.5 U Q	mg/Kg	6.5	56	1.0
>C10-C12 aromatics	6.5 U Q	mg/Kg	6.5	56	1.0
>C12-C16 aromatics	9.2 I Q	mg/Kg	6.5	56	1.0
>C16-C21 aromatics	99 Q	mg/Kg	6.5	56	1.0
>C21-C35 aromatics	54 I Q	mg/Kg	6.5	56	1.0

Emilie Wien
 Aerostar Environmental Services, Inc.
 4640 S. Carrolltan Avenue
 New Orleans, LA 70119

Job Number: 400-36822-2
 Sdg Number: 0404-188-09 AOC-2

Client Sample ID: LOC 2 (6-6.5')
Lab Sample ID: 400-36822-5

Date Sampled: 12/08/2008 1445
 Date Received: 12/19/2008 1535
 Client Matrix: Solid
 Percent Solids: 81

Analyte	Result/Qualifier	Unit	MDL	PQL	Dilution
Method: TPHCWG			Date Analyzed:	01/03/2009 0722	
Prep Method: TPH CWG Frac			Date Prepared:	12/30/2008 0905	
>C5-C6 aliphatics	7.1 U Q	mg/Kg	7.1	61	1.0
>C6-C8 aliphatics	7.1 U Q	mg/Kg	7.1	61	1.0
>C8-C10 aliphatics	7.1 U Q	mg/Kg	7.1	61	1.0
>C10-C12 aliphatics	7.1 U Q	mg/Kg	7.1	61	1.0
>C12-C16 aliphatics	360 Q	mg/Kg	7.1	61	1.0
>C16-C35 aliphatics	900 Q	mg/Kg	7.1	61	1.0
>C5-C7 aromatics	7.1 U Q	mg/Kg	7.1	25	1.0
>C7-C8 aromatics	7.1 U Q	mg/Kg	7.1	43	1.0
>C8-C10 aromatics	7.1 U Q	mg/Kg	7.1	61	1.0
>C10-C12 aromatics	7.1 U Q	mg/Kg	7.1	61	1.0
>C12-C16 aromatics	34 I Q	mg/Kg	7.1	61	1.0
>C16-C21 aromatics	410 Q	mg/Kg	7.1	61	1.0
>C21-C35 aromatics	110 Q	mg/Kg	7.1	61	1.0

Emilie Wien
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Job Number: 400-36822-2
 Sdg Number: 0404-188-09 AOC-2

Client Sample ID: LOC 3 (4.5-5.5')
Lab Sample ID: 400-36822-6

Date Sampled: 12/08/2008 1620
 Date Received: 12/19/2008 1535
 Client Matrix: Solid
 Percent Solids: 85

Analyte	Result/Qualifier	Unit	MDL	PQL	Dilution
Method: TPHCWG			Date Analyzed:	01/03/2009 0823	
Prep Method: TPH CWG Frac			Date Prepared:	12/30/2008 0905	
>C5-C6 aliphatics	6.6 U Q	mg/Kg	6.6	57	1.0
>C6-C8 aliphatics	6.6 U Q	mg/Kg	6.6	57	1.0
>C8-C10 aliphatics	6.6 U Q	mg/Kg	6.6	57	1.0
>C10-C12 aliphatics	9.7 I Q	mg/Kg	6.6	57	1.0
>C12-C16 aliphatics	340 Q	mg/Kg	6.6	57	1.0
>C16-C35 aliphatics	570 Q	mg/Kg	6.6	57	1.0
>C5-C7 aromatics	6.6 U Q	mg/Kg	6.6	23	1.0
>C7-C8 aromatics	6.6 U Q	mg/Kg	6.6	40	1.0
>C8-C10 aromatics	6.6 U Q	mg/Kg	6.6	57	1.0
>C10-C12 aromatics	6.6 U Q	mg/Kg	6.6	57	1.0
>C12-C16 aromatics	28 I Q	mg/Kg	6.6	57	1.0
>C16-C21 aromatics	100 Q	mg/Kg	6.6	57	1.0
>C21-C35 aromatics	14 I Q	mg/Kg	6.6	57	1.0

Emilie Wien
 Aerostar Environmental Services, Inc.
 4640 S. Carrolltan Avenue
 New Orleans, LA 70119

Job Number: 400-36822-2
 Sdg Number: 0404-188-09 AOC-2

Client Sample ID: LOC 4 (4.5-5.5')
Lab Sample ID: 400-36822-7

Date Sampled: 12/08/2008 1515
 Date Received: 12/19/2008 1535
 Client Matrix: Solid
 Percent Solids: 93

Analyte	Result/Qualifier	Unit	MDL	PQL	Dilution
Method: TPHCWG			Date Analyzed: 01/03/2009 0853		
Prep Method: TPH CWG Frac			Date Prepared: 12/30/2008 0905		
>C5-C6 aliphatics	6.0 U Q	mg/Kg	6.0	52	1.0
>C6-C8 aliphatics	6.0 U Q	mg/Kg	6.0	52	1.0
>C8-C10 aliphatics	6.0 U Q	mg/Kg	6.0	52	1.0
>C10-C12 aliphatics	6.0 U Q	mg/Kg	6.0	52	1.0
>C12-C16 aliphatics	650 Q	mg/Kg	6.0	52	1.0
>C16-C35 aliphatics	1900 Q	mg/Kg	6.0	52	1.0
>C5-C7 aromatics	6.0 U Q	mg/Kg	6.0	21	1.0
>C7-C8 aromatics	6.0 U Q	mg/Kg	6.0	36	1.0
>C8-C10 aromatics	6.0 U Q	mg/Kg	6.0	52	1.0
>C10-C12 aromatics	6.0 U Q	mg/Kg	6.0	52	1.0
>C12-C16 aromatics	48 I Q	mg/Kg	6.0	52	1.0
>C16-C21 aromatics	580 Q	mg/Kg	6.0	52	1.0
>C21-C35 aromatics	120 Q	mg/Kg	6.0	52	1.0

DATA REPORTING QUALIFIERS

Client: Aerostar Environmental Services, Inc.

Job Number: 400-36822-2
Sdg Number: 0404-188-09 AOC-2

Lab Section	Qualifier	Description
GC Semi VOA	J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
	U	Indicates that the compound was analyzed for but not detected.
	Q	Sample held beyond the accepted holding time.
	I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

METHOD SUMMARY

Client: Aerostar Environmental Services, Inc.

Job Number: 400-36822-2
Sdg Number: 0404-188-09 AOC-2

Description	Lab Location	Method	Preparation Method
Matrix Solid			
TPH Criteria Working Group (CWG) Fractionation	TAL PEN	TPH CWG TPHCWG	
TPH Criteria Working Group Solid Preparation	TAL PEN		TPH CWG TPHCWG_S_Prep
TPH Criteria Working Group (CWG) Fractionation - Water	TAL PEN		TPH CWG TPH CWG Frac

Lab References:

TAL PEN = TestAmerica Pensacola

Method References:

TPH CWG = Total Petroleum Hydrocarbon Criteria Working Group

METHOD / ANALYST SUMMARY

Client: Aerostar Environmental Services, Inc.

Job Number: 400-36822-2
Sdg Number: 0404-188-09 AOC-2

Method	Analyst	Analyst ID
TPH CWG TPHCWG	Ayers, Kim	KA
EPA PercentMoisture	Hedaria, Raven	RH

QUALITY CONTROL RESULTS

Quality Control Results

Client: Aerostar Environmental Services, Inc.

Job Number: 400-36822-2
Sdg Number: 0404-188-09 AOC-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 400-82286					
LCS 400-82286/2-B	Lab Control Spike	T	Solid	TPH CWG Frac	
MB 400-82286/1-B	Method Blank	T	Solid	TPH CWG Frac	
400-36822-3	LOC 1 (4.5-5.5')	T	Solid	TPH CWG Frac	
400-36822-4	LOC 2 (4.5-5.0')	T	Solid	TPH CWG Frac	
400-36822-5	LOC 2 (6-6.5')	T	Solid	TPH CWG Frac	
400-36822-6	LOC 3 (4.5-5.5')	T	Solid	TPH CWG Frac	
400-36822-7	LOC 4 (4.5-5.5')	T	Solid	TPH CWG Frac	
400-36973-A-1-D MS	Matrix Spike	T	Solid	TPH CWG Frac	
400-36973-A-1-E MSD	Matrix Spike Duplicate	T	Solid	TPH CWG Frac	
Analysis Batch:400-82503					
LCS 400-82286/2-B	Lab Control Spike	T	Solid	TPHCWG	400-82286
MB 400-82286/1-B	Method Blank	T	Solid	TPHCWG	400-82286
400-36822-3	LOC 1 (4.5-5.5')	T	Solid	TPHCWG	400-82286
400-36822-4	LOC 2 (4.5-5.0')	T	Solid	TPHCWG	400-82286
400-36822-5	LOC 2 (6-6.5')	T	Solid	TPHCWG	400-82286
400-36822-6	LOC 3 (4.5-5.5')	T	Solid	TPHCWG	400-82286
400-36822-7	LOC 4 (4.5-5.5')	T	Solid	TPHCWG	400-82286
400-36973-A-1-D MS	Matrix Spike	T	Solid	TPHCWG	400-82286
400-36973-A-1-E MSD	Matrix Spike Duplicate	T	Solid	TPHCWG	400-82286
Report Basis					
T = Total					
General Chemistry					
Analysis Batch:400-82198					
400-36822-3	LOC 1 (4.5-5.5')	T	Solid	PercentMoisture	
400-36822-4	LOC 2 (4.5-5.0')	T	Solid	PercentMoisture	
400-36822-5	LOC 2 (6-6.5')	T	Solid	PercentMoisture	
400-36822-6	LOC 3 (4.5-5.5')	T	Solid	PercentMoisture	
400-36822-7	LOC 4 (4.5-5.5')	T	Solid	PercentMoisture	
Report Basis					
T = Total					

Surrogate Recovery Report

Quality Control Results

Client: Aerostar Environmental Services, Inc.

Job Number: 400-36822-2
Sdg Number: 0404-188-09 AOC-2

Method Blank - Batch: 400-82286

Method: TPHCWG
Preparation: TPH CWG Frac

Lab Sample ID: MB 400-82286/1-B
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/03/2009 0452
Date Prepared: 12/30/2008 0905

Analysis Batch: 400-82503
Prep Batch: 400-82286
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.25 g
Final Weight/Volume: 10.0 mL
Injection Volume:

Analyte	Result	Qual	MDL	PQL
>C5-C6 aliphatics	5.7	U	5.7	49
>C6-C8 aliphatics	5.7	U	5.7	49
>C8-C10 aliphatics	5.7	U	5.7	49
>C10-C12 aliphatics	5.7	U	5.7	49
>C12-C16 aliphatics	5.7	U	5.7	49
>C16-C35 aliphatics	5.7	U	5.7	49
>C5-C7 aromatics	5.7	U	5.7	20
>C7-C8 aromatics	5.7	U	5.7	34
>C8-C10 aromatics	5.7	U	5.7	49
>C10-C12 aromatics	5.7	U	5.7	49
>C12-C16 aromatics	5.7	U	5.7	49
>C16-C21 aromatics	5.7	U	5.7	49
>C21-C35 aromatics	5.7	U	5.7	49
C6-C35	5.7	U	5.7	49

Lab Control Spike - Batch: 400-82286

Method: TPHCWG
Preparation: TPH CWG Frac

Lab Sample ID: LCS 400-82286/2-B
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 01/03/2009 0522
Date Prepared: 12/30/2008 0905

Analysis Batch: 400-82503
Prep Batch: 400-82286
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 9.83 g
Final Weight/Volume: 10.0 mL
Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C6-C35	712	872	123	60 - 140	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Aerostar Environmental Services, Inc.

Job Number: 400-36822-2
Sdg Number: 0404-188-09 AOC-2

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-82286**

**Method: TPHCWG
Preparation: TPH CWG Frac**

MS Lab Sample ID: 400-36973-A-1-D MS Analysis Batch: 400-82503
Client Matrix: Solid Prep Batch: 400-82286
Dilution: 1.0
Date Analyzed: 01/02/2009 1318
Date Prepared: 12/30/2008 0905

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 9.95 g
Final Weight/Volume: 10.0 mL
Injection Volume:

MSD Lab Sample ID: 400-36973-A-1-E MSD Analysis Batch: 400-82503
Client Matrix: Solid Prep Batch: 400-82286
Dilution: 1.0
Date Analyzed: 01/02/2009 1318
Date Prepared: 12/30/2008 0905

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 9.70 g
Final Weight/Volume: 10.0 mL
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
C6-C35	259	149	60 - 140	48	40	J3	J3

Calculations are performed before rounding to avoid round-off errors in calculated results.

400-36872-2

Labnet / 9/29/08 / 9/12-12B

18893

Chain of Custody Record

Lab Report No.:

Company: <i>Acostar</i>		Gulf Coast LabNet, Inc. An Environmental Lab Services Co.		Modified from DEP Form #: 62-770.900(2)		Page (of) 1 (of) 1	
Address: <i>4605 Carrollton Ave N.O., LA 70119</i>		Phone: (251) 625-1331 Fax: (251) 625-1299		FDEP Facility No.:		Project Name: <i>ADC-2</i>	
Attn: <i>Emilie Wren</i>		Phone:		Location: <i>NSA Tarama City, FL</i>		Project No.: <i>0404-188-0A</i>	
Sampled by (Print Name)/Affiliation <i>Emilie Wren</i>		Sampler Signature <i>Emilie Wren</i>		← Preservative		← Analysis	
Item No.		Field ID No.		Sampled Date		Time	
				Grab or Comp.		Matrix Codes	
				No. Cont.			
						REQUESTED DUE DATE	
						Remarks	
						Lab. No.	
						<i>* Please analyze for TPHWG. I got any soil samples exceeding 300 mg/kg</i>	
						<i>FL-PCD TPHCWG</i>	
						<i>12/10/08 12/10/08 12/10/08 12/10/08 12/10/08</i>	
						<i>1 2 3 4 5</i>	
						<i>W/Comp.</i>	
Shipment Method		3		← Total Number of Containers			
Out: / /		Via:		Item #		Relinquished by / Affiliation	
Returned: / /		Via:		Date		Time	
Additional Comments				Accepted by / Affiliation		Date	
				Date		Time	
				<i>12/10/08</i>		<i>12/10/08 1440</i>	
				<i>12/10/08 1740</i>		<i>12/10/08 1740</i>	
				<i>Raven Hedania</i>		<i>12-19-08 1535</i>	
		Cooler No.(s) / Temperature(s) (°C)		Sampling Kit No.		Equipment ID No.	
		<i>1.1°C</i>		<i>4.1</i>			
MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)							
PRESERVATIVE CODES: H = Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify)							

Login Sample Receipt Check List

Client: Aerostar Environmental Services, Inc.

Job Number: 400-36822-2
SDG Number: 0404-188-09 AOC-2

Login Number: 36822
Creator: Hooper, Carolyn
List Number: 1

List Source: TestAmerica Pensacola

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

To: Aerostar

Job ID: ADC-2

Attn: Thalys Rattanaxey

GCAL Report 208121119



Report Date

ANALYTICAL RESULTS BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Deliver To Aerostar
803 Government St.
Suite A
Mobile, AL 36602

Attn Thalys Rattanaxey

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20812111901	LOCATION 1 (4-5)	Solid	12/08/2008 16:00	12/10/2008 17:41
20812111902	LOCATION 2 (4-5)	Solid	12/08/2008 14:40	12/10/2008 17:41
20812111903	LOCATION 3 (4-5)	Solid	12/08/2008 16:20	12/10/2008 17:41
20812111904	LOCATION 4 (4-5)	Solid	12/08/2008 15:15	12/10/2008 17:41
20812111905	LOCATION 2 (6-6.5)	Solid	12/08/2008 14:45	12/10/2008 17:41

Summary of Compounds Detected

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20812111901	LOCATION 1 (4-5)	Solid	12/08/2008 16:00	12/10/2008 17:41

Florida PRO

CAS#	Parameter	Result	RDL	MDL	Units
FLPRO-01	Petroleum Hydrocarbons	5060	90.0	56.2	mg/kg

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20812111902	LOCATION 2 (4-5)	Solid	12/08/2008 14:40	12/10/2008 17:41

Florida PRO

CAS#	Parameter	Result	RDL	MDL	Units
FLPRO-01	Petroleum Hydrocarbons	1810	88.3	55.2	mg/kg

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20812111903	LOCATION 3 (4-5)	Solid	12/08/2008 16:20	12/10/2008 17:41

Florida PRO

CAS#	Parameter	Result	RDL	MDL	Units
FLPRO-01	Petroleum Hydrocarbons	3620	84.4	52.8	mg/kg

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20812111904	LOCATION 4 (4-5)	Solid	12/08/2008 15:15	12/10/2008 17:41

Florida PRO

CAS#	Parameter	Result	RDL	MDL	Units
FLPRO-01	Petroleum Hydrocarbons	1530	86.0	53.7	mg/kg

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20812111905	LOCATION 2 (6-6.5)	Solid	12/08/2008 14:45	12/10/2008 17:41

Florida PRO

CAS#	Parameter	Result	RDL	MDL	Units
FLPRO-01	Petroleum Hydrocarbons	875	101	62.9	mg/kg

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20812111901	LOCATION 1 (4-5)	Solid	12/08/2008 16:00	12/10/2008 17:41

Florida PRO

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
12/16/2008 16:00	402558	8015B Modified C8-C40	10	12/24/2008 21:14	TLS	403432

CAS#	Parameter	Result	RDL	MDL	Units
FLPRO-01	Petroleum Hydrocarbons	5060	90.0	56.2	mg/kg

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
84-15-1	o-Terphenyl	3.98	Diluted Out	mg/kg	0*	25 - 132
7194-86-7	Nonatriacontane	23.9	Diluted Out	mg/kg	0*	25 - 132

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20812111902	LOCATION 2 (4-5)	Solid	12/08/2008 14:40	12/10/2008 17:41

Florida PRO

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
12/16/2008 16:00	402558	8015B Modified C8-C40	10	12/24/2008 21:44	TLS	403432

CAS#	Parameter	Result	RDL	MDL	Units
FLPRO-01	Petroleum Hydrocarbons	1810	88.3	55.2	mg/kg

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
84-15-1	o-Terphenyl	3.97	Diluted Out	mg/kg	0*	25 - 132
7194-86-7	Nonatriacontane	23.8	Diluted Out	mg/kg	0*	25 - 132

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20812111903	LOCATION 3 (4-5)	Solid	12/08/2008 16:20	12/10/2008 17:41

Florida PRO

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
12/16/2008 16:00	402558	8015B Modified C8-C40	10	12/24/2008 22:15	TLS	403432

CAS#	Parameter	Result	RDL	MDL	Units
FLPRO-01	Petroleum Hydrocarbons	3620	84.4	52.8	mg/kg

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
84-15-1	o-Terphenyl	3.97	Diluted Out	mg/kg	0*	25 - 132
7194-86-7	Nonatriacontane	23.8	Diluted Out	mg/kg	0*	25 - 132

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20812111904	LOCATION 4 (4-5)	Solid	12/08/2008 15:15	12/10/2008 17:41

Florida PRO

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
12/16/2008 16:00	402558	8015B Modified C8-C40	10	12/24/2008 22:45	TLS	403432

CAS#	Parameter	Result	RDL	MDL	Units
FLPRO-01	Petroleum Hydrocarbons	1530	86.0	53.7	mg/kg

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
84-15-1	o-Terphenyl	4	Diluted Out	mg/kg	0*	25 - 132
7194-86-7	Nonatriacontane	24	Diluted Out	mg/kg	0*	25 - 132

RESULTS REPORTED ON A DRY WEIGHT BASIS

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20812111905	LOCATION 2 (6-6.5)	Solid	12/08/2008 14:45	12/10/2008 17:41

Florida PRO

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
12/16/2008 16:00	402558	8015B Modified C8-C40	10	12/24/2008 23:15	TLS	403432

CAS#	Parameter	Result	RDL	MDL	Units
FLPRO-01	Petroleum Hydrocarbons	875	101	62.9	mg/kg

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
84-15-1	o-Terphenyl	3.97	Diluted Out	mg/kg	0*	25 - 132
7194-86-7	Nonatriacontane	23.8	Diluted Out	mg/kg	0*	25 - 132

RESULTS REPORTED ON A DRY WEIGHT BASIS

General Chromatography Quality Control Summary

Analytical Batch 403119 Prep Batch 402558 Prep Method 8015B Modified C8-C40	Client ID MB402558 GCAL ID 676518 Sample Type Method Blank Prep Date 12/16/2008 16:00 Analytical Date 12/19/2008 13:55 Matrix Solid	LCS402558 676519 LCS 12/16/2008 16:00 12/19/2008 14:46 Solid	LCSD402558 676520 LCSD 12/16/2008 16:00 12/19/2008 15:17 Solid								
Florida PRO		Units	mg/kg	Spike	Result	% R	Control	Result	% R	RPD	RPD
		Result	RDL	Added			Limits % R				Limit
FLPRO-01	Petroleum Hydrocarbons	5.00U	5.00	68.0	69.4	102	63 - 153	70.2	103	1	25
Surrogate											
84-15-1	o-Terphenyl	4000	100	4000	4220	106	25 - 132	3840	96		
7194-86-7	Nonatriacontane	8940	37	24000	12600	53	25 - 132	12200	51		

Analytical Batch 403119 Prep Batch 402558 Prep Method 8015B Modified C8-C40	Client ID SB-5R (0-2) GCAL ID 20812112106 Sample Type SAMPLE Prep Date 12/16/2008 16:00 Analytical Date 12/19/2008 15:47 Matrix Solid	676219MS 676521 MS 12/16/2008 16:00 12/19/2008 16:18 Solid	676219MSD 676522 MSD 12/16/2008 16:00 12/19/2008 16:48 Solid								
Florida PRO		Units	mg/kg	Spike	Result	% R	Control	Result	% R	RPD	RPD
		Result	RDL	Added			Limits % R				Limit
FLPRO-01	Petroleum Hydrocarbons	4.27	5.00	68.0	74.5	103	62 - 204	74.5	104	0	25
Surrogate											
84-15-1	o-Terphenyl			4000	4090	102	25 - 132	4060	102		
7194-86-7	Nonatriacontane			24000	16000	67	25 - 132	14800	62		

CASE NARRATIVE

Client: Aerostar **Report:** 208121119

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

SEMI-VOLATILES GAS CHROMATOGRAPHY

In the FLPRO analysis for prep batch 403432, the surrogate n-Nonatriacontane was high in the middle CCV for the run on GCSV19a/2081124, however, the CCVs all passed for the target compounds and the surrogate recovery for this compound was within QC limits in all the applicable samples.

In the 8015B Modified C8-C40 analysis, all samples had to be diluted to bracket target compounds within the calibration range of the instrument. This is reflected in elevated reporting limits. The surrogate recovery for o-Terphenyl and Nonatriacontane are reported as DO (diluted out) due to the dilution performed on the samples.

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND	Indicates the result was Not Detected at the specified RDL
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags Utilized in this Report

J	Indicates an estimated value
U	Indicates the compound was analyzed for but not detected
B	(ORGANICS) Indicates the analyte was detected in the associated Method Blank
B	(INORGANICS) Indicates the result is between the RDL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with [ISO Guide 25](#) and [NELAC](#), this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

CURTIS EKKER
DATA VALIDATION MANAGER
GCAL REPORT 208121119

THIS REPORT CONTAINS _____ PAGES.

Labnet/4569/20612119/12-128

Chain of Custody Record

Lab Report No.:

Company: <i>Derostar</i>	Gulf Coast LabNet, Inc. An Environmental Lab Services Co.	Modified from DEP Form #: 62-770.900(2)	Page (of) <i>1</i>
Address: <i>4645 Carrollton Ave</i> <i>N.O., LA 70119</i>	Phone: (251) 625-1331 Fax: (251) 625-1299	Project Name: <i>ADC-2</i> Location: <i>USA Parama City, FL</i> Project No.: <i>0404-188-0A</i>	

Attn: <i>Emilie Wren</i>		Phone:		Sampler Signature: <i>Emilie Wren</i>		Requested Due Date:		
Sampled by [Print Name]/Affiliation: <i>Emilie Wren</i>		Sampler Signature: <i>Emilie Wren</i>		Requested Due Date:		Requested Due Date:		
Item No.	Field ID No.	Sampled		Grab or Comp.	Matrix Codes	No. Cont.	Remarks	Lab. No.
		Date	Time					
	<i>Location 1 (4-5')</i>	<i>12/8/08</i>	<i>1600</i>		<i>SD</i>	<i>1</i>	<i>* Please analyze for TPHWG and any soil samples exceeding 300 mg/kg</i>	
	<i>Location 2 (4-5')</i>		<i>1440</i>			<i>1</i>		
	<i>Location 3 (4-5')</i>		<i>1620</i>			<i>1</i>		
	<i>Location 4 (4-5')</i>		<i>1515</i>			<i>1</i>		
	<i>Location 2 (6-6.5')</i>		<i>1445</i>			<i>1</i>		

Shipment Method		<i>3</i> ← Total Number of Containers						
Out: / /	Via:	Item #	Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
Returned: / /	Via:		<i>[Signature]</i>	<i>12/10/08</i>		<i>[Signature]</i>	<i>12/10/08</i>	<i>1440</i>
Additional Comments			<i>[Signature]</i>	<i>12/10/08</i>	<i>1440</i>	<i>[Signature]</i>	<i>12/10/08</i>	<i>1740</i>
		Cooler No.(s) / Temperature(s) (°C) <i>4.1</i>		Sampling Kit No.		Equipment ID No.		

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)
 PRESERVATIVE CODES: H = Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify)