CORE LABORATORIES

201 Deerwood Glen Dr
Deer Park, TX 77536
281-478-1300

Shaw Environmental-Denver
Pamela Moss
7604 Technology Way
Denver, CO 80237-3000

Report Number : 57801- 111318
Date Reported: 6/14/11
Date Received: 4/28/11

Analytical Report

Sample No.: 111318-001 **Sample ID 1066-LNAPL-GEO1** **Date Sampled 4/19/11 8:25:00**
KAFB1066

Test	Result	Units	Method	Date	Analyst
API Gravity	51.6	@ 60 F	ASTM D-70	4/29/11	NRS
Detailed Hydrocarbon Analysis					
Capillary Gas Chromatography	See Attached		ASTM D-6733	4/29/11	CC
Density	0.7720	gm/mL @ 60 F	ASTM D-4052	4/29/11	NRS
Flash Point, PMCC	<70	Deg F	ASTM D-93A	6/14/11	MKM
Detailed Hydrocarbon Analysis					
1,2-Dibromoethane	<1	ppm	GCMS	6/9/11	CC
1,2-Dichloroethane	<1	ppm			
Interfacial Tension	45.3	mN/m	ASTM D-971	4/29/11	KTN
Kinematic Viscosity	1.07	cSt @ 20°C	ASTM D-445	5/4/11	PG
Lead in Gasoline	<0.01	g/gal	ASTM D-3237	5/5/11	CB

The analytical results, opinions or interpretations contained in this report are based upon information and material supplied by the client for whose exclusive and confidential use this report has been made. The analytical results, opinions or interpretations expressed represent the best judgement of Core Laboratories. Core Laboratories, however, makes no warrant or representation, express or implied, of any type, and expressly disclaims same as to the productivity, proper operation or profitableness of any oil, gas, or other mineral property, well or sand in conjunction with which such report is used or relied upon for any reason whatsoever. This report shall not be reproduced, in whole or in part, without the approval of Core Laboratories.

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Sample No.: 111318-001 **Sample ID 1066-LNAPL-GEO1** **Date Sampled 4/19/11 8:25:00**
KAFB1066

Test	Result	Units	Method	Date	Analyst
Oxygenates in Gasoline					
Methanol	<0.10	WT %	ASTM D-5599	4/29/11	CC
Ethanol	<0.10	WT %			
Isopropyl Alcohol	<0.10	WT %			
tert-Butyl Alcohol	<0.10	WT %			
N-Propanol	<0.10	WT %			
Methyl tertiary butyl ether	<0.10	WT %			
sec-Butanol	<0.10	WT %			
Diisopropyl ether	<0.10	WT %			
Isobutanol	<0.10	WT %			
Ethyl tertiary butyl ether	<0.10	WT %			
ter-Amyl Alcohol	<0.10	WT %			
N-Butanol	<0.10	WT %			
ter Amyl methyl ether	<0.10	WT %			
Oxygen Content	<0.02	WT %			
Surface Tension	25	mN/m	ASTM D-1331A	6/13/11	KTN

Approved By: MJWaits
M. Jean Waits

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201 Deerwood Glen Drive
Deer Park, TX 77536

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QA REPORT

Monday, June 13, 2011
Job Number: 111318

Test **Surface Tension** **Method** **ASTM D 1331**

STD_ID	Analysis	TYPE	Units	Ref. Value	Result	Repro.	Z_Score	Date
DI-H2O	Surface Tension	LCS	nM/m	72	70.2	7.20	-0.7	6/13/11

Z Score equals difference/method reproducibility standard deviation. CCV: Calibration Verification, LCS: Laboratory Control Sample, ERS: External Reference Material

Shaw™
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-NAPL001

Project Number: 140705
Project Name: Kirtland AFB
Sample Coordinator: Mark Lyon
Turnaround Time:

Samples Shipment Date: 20 APR 2011
Lab Destination: Core Laboratories, Inc.
Lab Contact: Harry Flook
Project Contact: Pamela Moss
Carrier/Waybill No.: UPS/1777 8250 66

Bill To: Shaw Environmental, Inc. - Accounts P
PO Box 98519
Baton Rouge LA 70884

Report To: Pamela Moss
7604 Technology Way, Suite 300
Denver CO 80237

Special Instructions:

Possible Hazard Indentification: Non-hazard ☐ Flammable ☒ Skin Irritant ☐ Poison B ☐ Radiological ☐ Unknown ☐

Sample Disposal: Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

1. Relinquished By (Signature/Affiliation) Mark Lyon Shaw Environmental — Date: 4/20/2011 Time: 1630
1. Received By (Signature/Affiliation) A Middleton/Core — Date: 4-28-11 Time: 9:50
2. Relinquished By (Signature/Affiliation) — Date: Time:
2. Received By (Signature/Affiliation) — Date: Time:
3. Relinquished By (Signature/Affiliation) — Date: Time:
3. Received By (Signature/Affiliation) — Date: Time:

Comments: Flammable Liquid

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
1066-LNAPL-GE	KAFB1066-LF-1066-LNAPL-GEO1-REG	19 APR 2011	08:25	400 mL Glass	1	None except cool to 4 C	API Gravity by ASTM D287, Fluid Properties by ASTM D1481, D445, and D971			N		
1066-LNAPL-GE	KAFB1066-LF-1066-LNAPL-GEO1-REG	19 APR 2011	08:25	400 mL Glass	1	None except cool to 4 C	Flashpoint by ASTM D93, PIANO, BTEX, EDC, EDB, Oxygenates, and Lead by Internal Laboratory SOP			N		