COMPLIANCE / ENGINEERING / R

Doc #1733378
Spill #200204999

LT Environmental Inc.
15 West Mill Street, Suite 213
PO Box 874
Bayfield, Colorado 81122
T 970.884.5215 / F 970.884.5215

September 15, 2009

Mr. Scott Rose
Samson Resources Company
Two West 2nd Street
Tulsa, OK 74103

RE: Soil Investigation Results
Gore GU A#15-1 (API #05-067-07900)
La Plata County, Colorado

Dear Mr. Rose:

LT Environmental, Inc. (LTE) is pleased to provide Samson Resources Company (Samson) with this letter summarizing the results of additional confirmation soil sampling activities conducted at the Gore GU A#15-1 (API #05-067-07900) production well site (Site) on August 5, 2009.

LTE conducted an initial investigation in response to a release of produced water that overfilled a pit at the Site. Following the removal of impacted soil by Samson contractors, LTE conducted additional sampling to confirm that impacted soil had been removed to below the applicable Colorado Oil and Gas Conservation Commission (COGCC) standards. Impacted soils were excavated and transported to the well pad to construct a temporary onsite landfarm. A summary of the initial site investigation and subsequent confirmation sampling have been described in previous reports submitted to Samson on April 8, 2009 and May 15, 2009.

SOIL SAMPLING

On July 31, 2009, Samson requested LTE collect a soil sample from the landfarm to confirm the impacted soil had been successfully remediated and was in compliance with COGCC standards. On August 5, 2009, LTE collected one composite soil (labeled "Gore 15-1") from the landfarm located on the well pad.

The soil sample was placed in a clean Teflon-lined glass jar and preserved with ice in a cooler. The sample was submitted to Cardinal Laboratories of Hobbs, New Mexico under strict chain-of-custody protocols for the analysis of Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) using United States Environmental Protection Agency (EPA) Method 8021 and Total Petroleum Hydrocarbons (TPH) – Diesel Range Organics (DRO) and TPH Oil Range Organics (DRO Ext.) using EPA modified Method 8015.

RESULTS

Laboratory analytical results for the composite sample indicate TPH-DRO were detected at a concentration of 339 milligrams per kilogram (mg/kg), which is in compliance with the COGCC standard. Concentrations of TPH-DRO Ext. were not detected above the laboratory method detection limit of 10 mg/kg. Benzene was detected at 0.098 mg/kg, Toluene at 1.07 mg/kg, Ethylbenzene at 0.227 mg/kg, and Total Xylenes at 2.75 mg/kg. The soil analytical results are summarized in Table 1. The laboratory analytical report is included as Attachment 1.

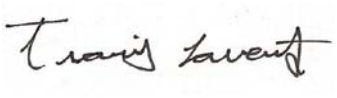
CONCLUSIONS

Based on soil analytical results, the composite sample collected from the landfarm indicates the remediated soils are in compliance with the COGCC standards for BTEX and total TPH established in Table 910-1.

LTE appreciates the opportunity to provide environmental services to Samson. If you have any questions regarding this report or would like additional information, please contact us at (970) 884-5215.

Sincerely,

LT ENVIRONMENTAL, INC.



Travis Laverty
Staff Geologist

John D. Peterson, P.G.
Principal/Senior Geologist

Attachments (2)

Table 1 – Soil Analytical Results
Attachment 1 – Laboratory Analytical Report

TABLE

TABLE 1
SOIL ANALYTICAL RESULTS
GORE GU A#15-1 (API #05-067-07900)
LA PLATA COUNTY, COLORADO
SAMSON RESOURCES COMPANY

Sample ID	Sample Depth	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH-DRO (mg/kg)	TPH-DRO Ext. (mg/kg)
Gore 15-1	0"	8/5/2009	0.098	1.07	0.227	2.75	339	<10.0
COGCC Concentration Level*			0.17	85	100	175	Combined to 500	

Notes:
mg/kg - milligrams per kilogram
TPH - total petroleum hydrocarbons
DRO - diesel range organics
DRO Ext. - oil range organics
" - inches below ground surface
Colorado Oil and Gas Conservation Commission Concentration Level derived from Table 910-1

ATTACHMENT 1

LABORATORY ANALYTICAL REPORT

Green Analytical Laboratories
75 Suttle Street
Durango, CO 81303

LT Environmental
PO Box 874
Bayfield, CO 81122
Attention: Travis Laverty

GAL I.D.: 908-032-01
Date Received: 08/05/09
Date Reported: 08/14/09
QC Batches:

PROJECT NAME:
PROJECT NUMBER: Sam 0901
SAMPLE I.D.: Gore 15-1

Sample Date: 08/05/09
Sample Matrix: Soil

Petroleum Hydrocarbons

RESULTS

PARAMETER	METHOD	REPORT LIMIT	RESULT	DIL	UNITS	DATE ANALYZED	ANALYST
Benzene	8021	0.1	Attached	1	mg/kg		
Toluene	8021	0.1	Attached	1	mg/kg		
Ethylbenzene	8021	0.1	Attached	1	mg/kg		
Xylene, total	8021	0.3	Attached	1	mg/kg		
TPHDRO	8015	10	Attached	1	mg/kg		
TPHDRO Extended	8015	10	Attached	1	mg/kg		

Debbie Zufelt, Laboratory Manager

Sep. 14. 2009 2:45PM Green Analytical No. 1187 P. 3

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
GREEN ANALYTICAL LABORATORIES, INC.
ATTN: DEBBIE ZUFELT
75 SUTTLE STREET
DURANGO, CO 81303

Receiving Date: 08/08/09
Reporting Date: 08/11/09
Project Number: 808-032-01
Project Name: LTE
Project Location: NOT GIVEN

Sampling Date: 08/05/09
Sample Type: SOIL/SEDIMENT
Sample Condition: COOL & INTACT @ 2.5°C
Sample Received By: CK
Analyzed By: CK/AB

LAB NO.	SAMPLE ID	DRO (>C_{10}-C_{28}) (mg/kg)	DRO EXT. (>C_{28}-C_{35}) (mg/kg)
ANALYSIS DATE:		08/08/09	08/08/09
H17930-1	GORE 15-1	339	<10.0
Quality Control		559	-
True Value QC		500	-
% Recovery		112	-
Relative Percent Difference		2.3	-

METHODS: TPH GRO & DRO - EPA SW-846 8015 M
Reported on wet weight. Not accredited for DRO/DRO EXT.

Chemist

08/12/09
Date

H17930.DRO/GAL

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CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
GREEN ANALYTICAL LABORATORIES, INC.
ATTN: DEBBIE ZUFELT
75 SUTTLE STREET
DURANGO, CO 81303

Receiving Date: 08/06/09
Reporting Date: 08/10/09
Project Number: 908-032-01
Project Name: LTE
Project Location: NOT GIVEN

Sampling Date: 08/05/09
Sample Type: SOIL
Sample Condition: COOL & INTACT @ 2.5°C
Sample Received By: CK
Analyzed By: ZL

LAB NO.	SAMPLE ID	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)
ANALYSIS DATE:		08/07/09	08/07/09	08/07/09	08/07/09
H17930-1	GORE 15-1	0.098	1.07	0.227	2.75
Quality Control		0.047	0.048	0.048	0.145
True Value QC		0.050	0.050	0.050	0.150
% Recovery		94.0	96.0	96.0	96.7
Relative Percent Difference		5.1	1.6	11.4	9.2

METHODS: BTEX - SW-846 8021B.

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE, AND TOTAL XYLENES. Reported on wet weight.

Chemist

08/10/09
Date

H17930 BTEX GAL

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