

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

SPILL/RELEASE REPORT

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and

Spill report taken by:

FACILITY ID:

OPERATOR INFORMATION

Name of Operator: <u>Kerr-McGee Oil & Gas Onshore LP</u>	OGCC Operator No: <u>47120</u>	Phone Numbers
Address: <u>1099 18th Street, Suite 1800</u>		No: <u>720-929-6000</u>
City: <u>Denver</u>	State: <u>CO</u> Zip: <u>80202</u>	Fax: <u>720-929-7726</u>
Contact Person: <u>Paul Schneider</u>	Email: <u>Paul.Schneider@anadarko.com</u>	

DESCRIPTION OF SPILL OR RELEASE

Date of Incident: <u>10/19/2010</u>	Facility Name & No: <u>Mixon Harold R GU #1</u>	County: <u>Weld</u>
Type of Facility (well, tank battery, flow line, pit): <u>Flow Line</u>	QtrQtr: <u>SWSW</u>	Section: <u>25</u>
Well Name and Number: <u>Mixon Harold R GU #1</u>	Township: <u>2N</u>	Range: <u>67W</u>
API Number: <u>05-123-08086</u>	Meridian: <u>6th</u>	
Specify volume spilled and recovered (in bbls) for the following materials:		
Oil spilled: <u>Unknown</u>	Oil recov'd: <u>0</u>	Water spilled: <u>Unknown</u> Water recov'd: <u>0</u> Other spilled: <u>0</u> Other recov'd: <u>0</u>
Ground Water impacted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Surface Water impacted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Contained within berm? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Area and vertical extent of spill: <u>20' N-S x 28' E-W x 5' bgs</u>	
Current land use: <u>Pasture</u>	Weather conditions: <u>70° F, Clear</u>	
Soil/geology description: <u>Silty clay</u>		
IF LESS THAN A MILE , report distance IN FEET to nearest ... Surface water: <u>250 E (canal)</u> wetlands: <u>250 E</u> buildings: <u>330 E</u>		
Livestock: <u>Unknown</u> Water wells: <u>330 E</u> Depth to shallowest ground water: <u>3' bgs</u>		
Cause of spill (e.g. equipment failure, human error, etc.): <u>Equipment Failure</u> Detailed description of the spill/release incident:		
A leak was discovered in the flow line during pressure testing. The volume released is unknown.		

CORRECTIVE ACTION

Describe immediate response (how stopped, contained and recovered): The well was shut in and the petroleum hydrocarbon impacted soil was excavated. Groundwater was encountered in the excavation at approximately 3' bgs. Benzene impact to groundwater was confirmed by the laboratory report on October 20, 2010 at which time the release became State reportable.
Describe any emergency pits constructed: <u>NA</u>
How was the extent of contamination determined? Soil and groundwater samples were collected for laboratory analysis. Laboratory results for the confirmation soil samples indicate that TPH and BTEX concentrations are below COGCC allowable levels at the extent of the excavation. Laboratory results for the excavation groundwater sample indicate that benzene concentrations exceed the CGWQS. Approximately 100 cubic yards of impacted soil were removed from the excavation and transported to Kerr-McGee's land treatment facility in Weld County, Colorado.
Further remediation activities proposed (attach separate sheet if needed): Five gallons of MicroBlaze were applied to the groundwater and exposed smear zone soils prior to backfilling the excavation. Groundwater monitoring wells will be installed to determine the extent and magnitude of groundwater impacts.
Describe measures taken to prevent problem from reoccurring: The flow line was replaced.

OTHER NOTIFICATIONS

List the parties and agencies notified (County, BLM, EPA, DOT, Local Emergency Planning Coordinator or other).

Date	Agency	Contact	Phone	Response

Spill/Release Tracking No: _____

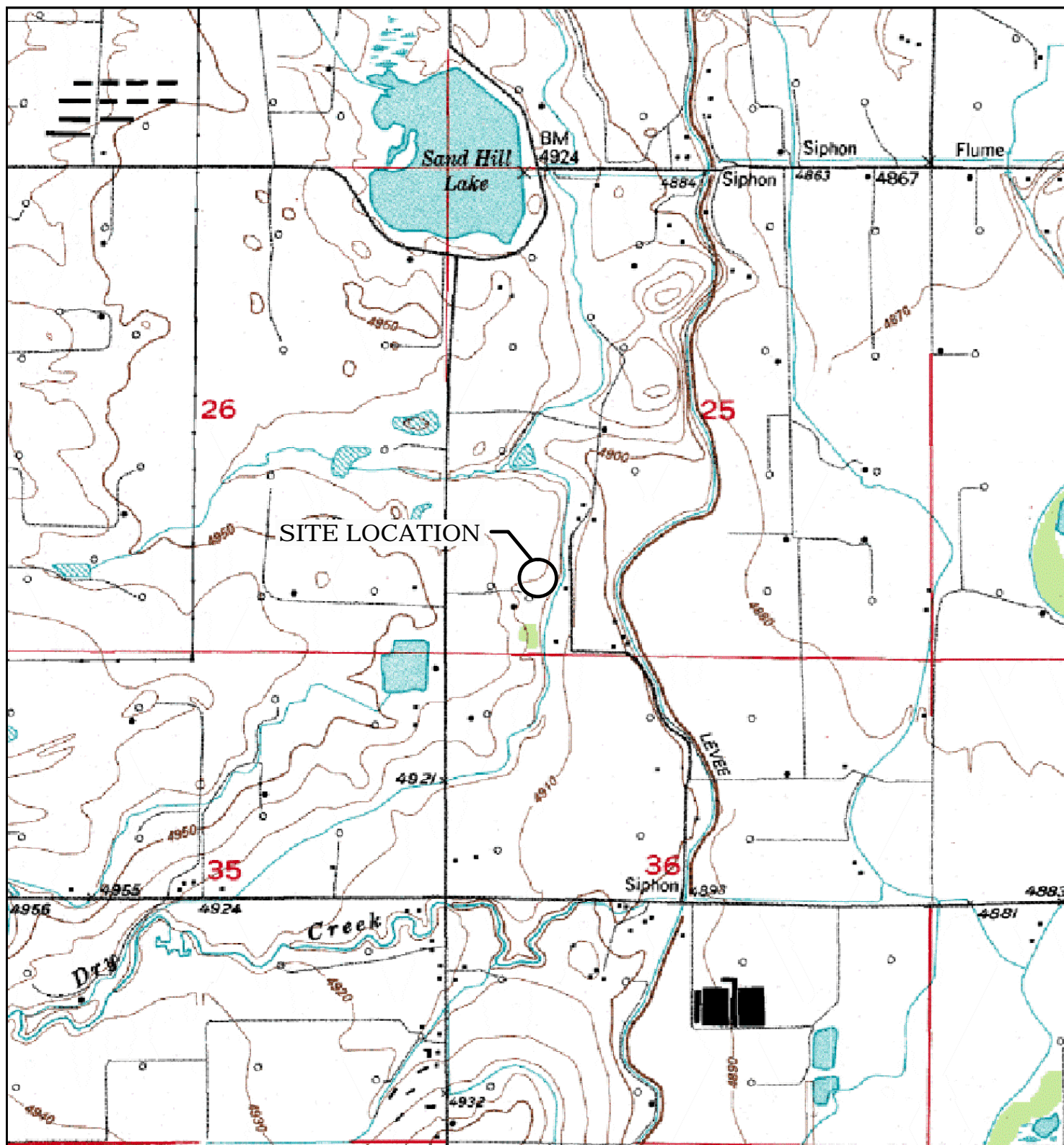


TABLE 1
MIXON HAROLD R GU #1
SOIL SAMPLE ANALYTICAL DATA

SAMPLE ID	SAMPLE DATE	DEPTH (feet bgs)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	XYLENES (Total) (mg/kg)	TPH-GRO (mg/kg)	TEPH DRO+ORO (mg/kg)
N01@2.5'	10/19/2010	2.5	<0.0050	<0.0050	0.013	0.20	31	<50
E01@2.5'	10/19/2010	2.5	2.0	16.0	3.5	39.0	770	180
S01@2.5'	10/19/2010	2.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.5	<50
W01@2.5'	10/19/2010	2.5	<0.0050	0.0052	25.0	0.059	1.2	<50
E02@2.5'	10/21/2010	2.5	0.063	0.18	0.030	0.51	2.3	<50
COGCC Allowable Level			0.17	85	100	175	500	

NA - Not Analyzed

< - less than stated laboratory reporting limit.

mg/kg - milligrams per kilogram

bgs - below ground surface

COGCC - Colorado Oil and Gas Conservation Commission

Results noted in bold exceed COGCC allowable levels.

ORO - Oil Range Organics

GRO - Gasoline Range Organics

DRO - Diesel Range Organics

TPH - Total Petroleum Hydrocarbons

TEPH - Total Extractable Petroleum Hydrocarbons

TABLE 2
MIXON HAROLD R GU #1
GROUNDWATER SAMPLE ANALYTICAL DATA

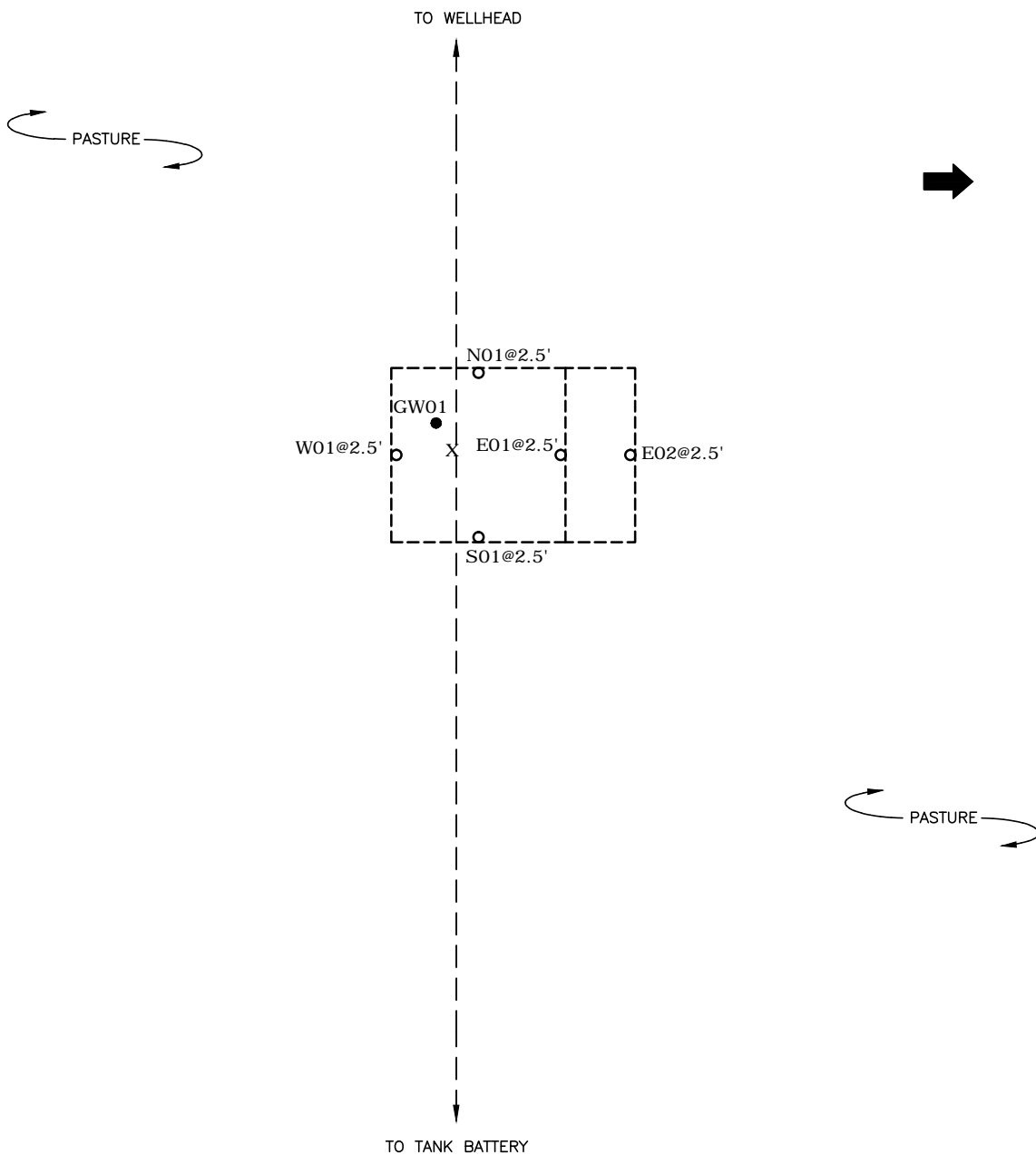
SAMPLE ID	SAMPLE DATE	DEPTH (feet bgs)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYLBENZENE (ug/L)	XYLENES (Total) (ug/L)
GW01	10/19/2010	3	18	70	1.7	210
The Basic Standards for Groundwater			5	560	700	1,400

ug/L - micrograms per liter

< - Less than stated laboratory reporting limits.

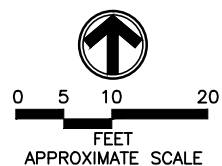
Results noted in bold exceed Colorado Department of Public Health and Environment (CDPHE)-Water Quality Control Commission (WQCC) Regulation 41-The Basic Standards for Groundwater.






LEGEND

- N01@2.5' ○ SOIL SAMPLE LOCATION
- GW01 ● WATER SAMPLE LOCATION
- X RELEASE LOCATION
- — — — FLOW LINE
- - - - - EXTENT OF EXCAVATION
- ➡ ESTIMATED GROUNDWATER FLOW DIRECTION



<p>FIGURE 2 EXCAVATION SITE MAP MIXON HAROLD R GU #1 SWSW 25-T2N-R67W WELD COUNTY, CO KERR-MCGEE OIL & GAS ONSHORE LP</p>	 KMG1080701
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Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

October 21, 2010

John Cocroft
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: KMG - Harold Mixon CU #1

Enclosed are the results of analyses for samples received by Summit Scientific on 10/20/10 08:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to be 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon CU #1

Project Number: KMG
Project Manager: John Cocroft

Reported:
10/21/10 10:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N01@2.5'	R010123-01	Soil	10/19/10 15:20	10/20/10 08:45
E01@2.5'	R010123-02	Soil	10/19/10 15:21	10/20/10 08:45
S01@2.5'	R010123-03	Soil	10/19/10 15:22	10/20/10 08:45
W01@2.5'	R010123-04	Soil	10/19/10 15:23	10/20/10 08:45
GW01	R010123-05	Water	10/19/10 15:30	10/20/10 08:45

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon CU #1

Project Number: KMG
Project Manager: John Cocroft

Reported:
10/21/10 10:18

Summit Scientific
2010/23

74 | Corporate Circle Suite 1 ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-277-9531 Fax

Page 1 of 1

Client: LT Environmental, Inc.

Address: 4600 West 60th Avenue

City/State/Zip: Arvada, CO 80003

Phone: (303) 433-9788

Sampler Name: Phil Harris

Project Manager:

E-Mail:

Fax: (303) 433-1432

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[illegible]

www.e2cientific.com

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon CU #1

Project Number: KMG
Project Manager: John Cocroft

Reported:
10/21/10 10:18

N01@2.5'
R010123-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 10/19/10 15:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	0102006	10/20/10	10/20/10	8015 Full Carbon Chain	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: 10/19/10 15:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		107 %	88.8-124		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 10/19/10 15:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	0102005	10/20/10	10/20/10	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.013	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.20	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	31	0.50	"	"	"	"	"	"	

Date Sampled: 10/19/10 15:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		92.6 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		91.0 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	78.4-125		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon CU #1

Project Number: KMG
Project Manager: John Cocroft

Reported:
10/21/10 10:18

E01@2.5'
R010123-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 10/19/10 15:21

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	180	50	mg/kg	1	0102006	10/20/10	10/20/10	8015 Full Carbon Chain	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: 10/19/10 15:21

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		106 %	88.8-124		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 10/19/10 15:21

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	2.0	0.050	mg/kg	10	0102005	10/20/10	10/20/10	EPA 8260B	
Toluene	16	0.050	"	"	"	"	"	"	E
Ethylbenzene	3.5	0.050	"	"	"	"	"	"	
Xylenes (total)	39	0.050	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	770	5.0	"	"	"	"	"	"	E

Date Sampled: 10/19/10 15:21

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		93.9 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.2 %	78.4-125		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon CU #1

Project Number: KMG
Project Manager: John Cocroft

Reported:
10/21/10 10:18

S01@2.5'
R010123-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 10/19/10 15:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	0102006	10/20/10	10/20/10	8015 Full Carbon Chain	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: 10/19/10 15:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		107 %	88.8-124		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 10/19/10 15:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	0102005	10/20/10	10/20/10	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 10/19/10 15:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		99.2 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	78.4-125		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon CU #1

Project Number: KMG
Project Manager: John Cocroft

Reported:
10/21/10 10:18

W01@2.5'
R010123-04 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 10/19/10 15:23

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	0102006	10/20/10	10/20/10	8015 Full Carbon Chain	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: 10/19/10 15:23

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		106 %	88.8-124		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 10/19/10 15:23

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	0102005	10/20/10	10/20/10	EPA 8260B	
Toluene	0.0052	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.059	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.2	0.50	"	"	"	"	"	"	

Date Sampled: 10/19/10 15:23

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		94.4 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	78.4-125		"	"	"	"	

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon CU #1

Project Number: KMG
Project Manager: John Cocroft

Reported:
10/21/10 10:18

GW01
R010123-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/19/10 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	18	1.0	ug/l	1	0101917	10/20/10	10/20/10	EPA 8260B	
Toluene	70	1.0	"	"	"	"	"	"	
Ethylbenzene	1.7	1.0	"	"	"	"	"	"	
Xylenes (total)	210	1.0	"	"	"	"	"	"	

Date Sampled: **10/19/10 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.0 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		97.4 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		84.2 %	80.8-120		"	"	"	"	

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon CU #1

Project Number: KMG
Project Manager: John Cocroft

Reported:
10/21/10 10:18

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 0102006 - EPA 5030 Soil GC

Blank (0102006-BLK1)

Prepared & Analyzed: 10/20/10

C10-C28 (TEPH-DRO)	ND	50	mg/kg
C28-C36 (TEPH-ORO)	ND	50	"

Surrogate: o-Terphenyl	13.3	"	12.5	106	88.8-124
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LCS (0102006-BS1)

Prepared & Analyzed: 10/20/10

C10-C28 (TEPH-DRO)	511	50	mg/kg	501	102	85-129	11.8
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LCS Dup (0102006-BSD1)

Prepared & Analyzed: 10/20/10

C10-C28 (TEPH-DRO)	464	50	mg/kg	501	92.7	85-129	9.60	11.8
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Matrix Spike (0102006-MS1)

Source: R010123-01

Prepared & Analyzed: 10/20/10

C10-C28 (TEPH-DRO)	467	50	mg/kg	501	24.5	88.3	77.3-134	8.39
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Matrix Spike Dup (0102006-MSD1)

Source: R010123-01

Prepared & Analyzed: 10/20/10

C10-C28 (TEPH-DRO)	469	50	mg/kg	501	24.5	88.8	77.3-134	0.524	8.39
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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon CU #1
Project Number: KMG
Project Manager: John Cocroft

Reported:
10/21/10 10:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 0101917 - EPA 5030 Water MS

Blank (0101917-BLK1)

Prepared: 10/19/10 Analyzed: 10/20/10

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3		98.1	57.9-139			
Surrogate: Toluene-d8	11.8		"	13.3		88.9	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.6	80.8-120			

LCS (0101917-BS1)

Prepared: 10/19/10 Analyzed: 10/20/10

Benzene	27.2	1.0	ug/l	33.3		81.5	60.1-131		10.9	
Toluene	24.2	1.0	"	33.3		72.6	65.9-127		11.3	
Ethylbenzene	33.2	1.0	"	33.3		99.7	65.1-129		20	
m,p-Xylene	62.9	2.0	"	66.7		94.4	66.8-127		20	
o-Xylene	29.2	1.0	"	33.3		87.7	61.2-120		20	
Surrogate: 1,2-Dichloroethane-d4	13.7		"	13.3		103	57.9-139			
Surrogate: Toluene-d8	12.4		"	13.3		92.6	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3		93.0	80.8-120			

LCS Dup (0101917-BSD1)

Prepared: 10/19/10 Analyzed: 10/20/10

Benzene	27.0	1.0	ug/l	33.3		80.9	60.1-131	0.850	10.9	
Toluene	24.5	1.0	"	33.3		73.5	65.9-127	1.19	11.3	
Ethylbenzene	32.8	1.0	"	33.3		98.4	65.1-129	1.27	20	
m,p-Xylene	62.4	2.0	"	66.7		93.6	66.8-127	0.814	20	
o-Xylene	29.8	1.0	"	33.3		89.3	61.2-120	1.83	20	
Surrogate: 1,2-Dichloroethane-d4	13.4		"	13.3		101	57.9-139			
Surrogate: Toluene-d8	12.3		"	13.3		92.3	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.3		"	13.3		92.0	80.8-120			

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon CU #1
Project Number: KMG
Project Manager: John Cocroft

Reported:
10/21/10 10:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 0101917 - EPA 5030 Water MS

Matrix Spike (0101917-MS1)		Source: R010111-01			Prepared: 10/19/10		Analyzed: 10/20/10			
Benzene	27.1	1.0	ug/l	33.3	ND	81.4	52.7-130		19.3	
Toluene	24.4	1.0	"	33.3	ND	73.2	57-127		18.7	
Ethylbenzene	32.8	1.0	"	33.3	ND	98.5	59.2-127		20	
m,p-Xylene	61.4	2.0	"	66.7	1.23	90.3	53.2-132		20	
o-Xylene	28.7	1.0	"	33.3	ND	86.1	56.3-117		20	
Surrogate: 1,2-Dichloroethane-d4	13.7		"	13.3		103	57.9-139			
Surrogate: Toluene-d8	12.4		"	13.3		93.2	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.1	80.8-120			

Matrix Spike Dup (0101917-MSD1)		Source: R010111-01			Prepared: 10/19/10		Analyzed: 10/20/10			
Benzene	25.3	1.0	ug/l	33.3	ND	75.9	52.7-130	7.06	19.3	
Toluene	22.4	1.0	"	33.3	ND	67.1	57-127	8.77	18.7	
Ethylbenzene	30.6	1.0	"	33.3	ND	92.0	59.2-127	6.87	20	
m,p-Xylene	57.5	2.0	"	66.7	1.23	84.4	53.2-132	6.59	20	
o-Xylene	28.0	1.0	"	33.3	ND	83.9	56.3-117	2.51	20	
Surrogate: 1,2-Dichloroethane-d4	13.6		"	13.3		102	57.9-139			
Surrogate: Toluene-d8	12.2		"	13.3		91.1	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.3		"	13.3		92.4	80.8-120			

Batch 0102005 - EPA 5030 Soil MS

Blank (0102005-BLK1)		Prepared & Analyzed: 10/20/10								
Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0400		99.4	67.4-143			
Surrogate: Toluene-d8	0.0390		"	0.0400		97.5	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0427		"	0.0400		107	78.4-125			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon CU #1

Project Number: KMG
Project Manager: John Cocroft

Reported:
10/21/10 10:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 0102005 - EPA 5030 Soil MS

LCS (0102005-BS1)

Prepared & Analyzed: 10/20/10

Benzene	0.108	0.0050	mg/kg	0.100	108	61-139	11.1
Toluene	0.100	0.0050	"	0.100	100	64-132	10.9
Ethylbenzene	0.104	0.0050	"	0.100	104	68.7-135	20
m,p-Xylene	0.194	0.010	"	0.200	97.2	70.4-129	20
o-Xylene	0.0958	0.0050	"	0.100	95.8	66.9-126	20
Surrogate: 1,2-Dichloroethane-d4	0.0390		"	0.0400	97.6	67.4-143	
Surrogate: Toluene-d8	0.0402		"	0.0400	100	77.3-114	
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400	98.1	78.4-125	

LCS Dup (0102005-BSD1)

Prepared & Analyzed: 10/20/10

Benzene	0.107	0.0050	mg/kg	0.100	107	61-139	1.42	11.1
Toluene	0.0986	0.0050	"	0.100	98.6	64-132	1.69	10.9
Ethylbenzene	0.101	0.0050	"	0.100	101	68.7-135	2.80	20
m,p-Xylene	0.188	0.010	"	0.200	93.8	70.4-129	3.64	20
o-Xylene	0.0924	0.0050	"	0.100	92.4	66.9-126	3.63	20
Surrogate: 1,2-Dichloroethane-d4	0.0420		"	0.0400	105	67.4-143		
Surrogate: Toluene-d8	0.0400		"	0.0400	100	77.3-114		
Surrogate: 4-Bromofluorobenzene	0.0389		"	0.0400	97.3	78.4-125		

Matrix Spike (0102005-MS1)

Source: R010123-03

Prepared & Analyzed: 10/20/10

Benzene	0.106	0.0050	mg/kg	0.100	ND	106	42.9-137	17.9
Toluene	0.0989	0.0050	"	0.100	ND	98.9	42.6-130	11.9
Ethylbenzene	0.0979	0.0050	"	0.100	ND	97.9	39-133	20
m,p-Xylene	0.188	0.010	"	0.200	0.00588	90.8	34.7-134	20
o-Xylene	0.0927	0.0050	"	0.100	ND	92.7	41.3-126	20
Surrogate: 1,2-Dichloroethane-d4	0.0425		"	0.0400	106	67.4-143		
Surrogate: Toluene-d8	0.0403		"	0.0400	101	77.3-114		
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400	101	78.4-125		

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon CU #1

Project Number: KMG
Project Manager: John Cocroft

Reported:
10/21/10 10:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 0102005 - EPA 5030 Soil MS

Matrix Spike Dup (0102005-MSD1)		Source: R010123-03			Prepared & Analyzed: 10/20/10					
Benzene	0.101	0.0050	mg/kg	0.100	ND	101	42.9-137	4.49	17.9	
Toluene	0.0944	0.0050	"	0.100	ND	94.4	42.6-130	4.62	11.9	
Ethylbenzene	0.0896	0.0050	"	0.100	ND	89.6	39-133	8.87	20	
m,p-Xylene	0.172	0.010	"	0.200	0.00588	82.9	34.7-134	8.84	20	
o-Xylene	0.0851	0.0050	"	0.100	ND	85.1	41.3-126	8.54	20	
Surrogate: 1,2-Dichloroethane-d4	0.0443		"	0.0400		111	67.4-143			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	78.4-125			

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon CU #1

Project Number: KMG
Project Manager: John Cocroft

Reported:
10/21/10 10:18

Notes and Definitions

E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'JM' followed by a long horizontal stroke.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

October 22, 2010

John Cocroft

LT Environmental, Inc.

4600 West 60th Avenue

Arvada, CO 80003

RE: KMG - Harold Mixon GU #1 Flowline

Enclosed are the results of analyses for samples received by Summit Scientific on 10/21/10 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to be 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon GU #1 Flowline

Project Number: KMG
Project Manager: John Cocroft

Reported:
10/22/10 07:37

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E02@2.5'	R010148-01	Soil	10/21/10 14:45	10/21/10 17:00

Summit Scientific 2016/148

74 | Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-277-9531 Fax

Page / of

Client:	LT Environmental, Inc.
Address:	4600 West 60th Avenue
City/State/Zip:	Arvada, CO 80003
Phone:	(303) 433-9788
Fax:	(303) 433-1432
Project Name:	<i>Harold Nixon C-44#1 Flowline</i>
Project Number:	
Project Manager:	John Cocroft
E-Mail:	jcocroft@ltenv.com

[illegible]

www.ejscientific.com

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon GU #1 Flowline
Project Number: KMG
Project Manager: John Cocroft

Reported:
10/22/10 07:37

E02@2.5'
R010148-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 10/21/10 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	0102107	10/21/10	10/21/10	8015 Full Carbon Chain	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: 10/21/10 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		106 %	88.8-124		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 10/21/10 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.063	0.0050	mg/kg	1	0102106	10/21/10	10/21/10	EPA 8260B	
Toluene	0.18	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.030	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.51	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	2.3	0.50	"	"	"	"	"	"	

Date Sampled: 10/21/10 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	67.4-143		"	"	"	"	
Surrogate: Toluene-d8		101 %	77.3-114		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	78.4-125		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon GU #1 Flowline
Project Number: KMG
Project Manager: John Cocroft

Reported:
10/22/10 07:37

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 0102107 - EPA 3550A

Blank (0102107-BLK1)

Prepared: 10/21/10 Analyzed: 10/22/10

C10-C28 (TEPH-DRO)	ND	50	mg/kg
C28-C36 (TEPH-ORO)	ND	50	"

Surrogate: o-Terphenyl	13.4	"	12.5	107	88.8-124
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LCS (0102107-BS1)

Prepared & Analyzed: 10/21/10

C10-C28 (TEPH-DRO)	497	50	mg/kg	501	99.1	85-129	11.8
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LCS Dup (0102107-BSD1)

Prepared: 10/21/10 Analyzed: 10/22/10

C10-C28 (TEPH-DRO)	472	50	mg/kg	501	94.2	85-129	5.15	11.8
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Matrix Spike (0102107-MS1)

Source: R010148-01

Prepared: 10/21/10 Analyzed: 10/22/10

C10-C28 (TEPH-DRO)	467	50	mg/kg	501	16.1	89.9	77.3-134	8.39
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Matrix Spike Dup (0102107-MSD1)

Source: R010148-01

Prepared: 10/21/10 Analyzed: 10/22/10

C10-C28 (TEPH-DRO)	466	50	mg/kg	501	16.1	89.9	77.3-134	0.0939	8.39
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Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon GU #1 Flowline
Project Number: KMG
Project Manager: John Cocroft

Reported:
10/22/10 07:37

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 0102106 - EPA 5030 Soil MS

Blank (0102106-BLK1)

Prepared: 10/21/10 Analyzed: 10/22/10

Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0393		"	0.0400		98.2	67.4-143			
Surrogate: Toluene-d8	0.0388		"	0.0400		97.0	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0422		"	0.0400		105	78.4-125			

LCS (0102106-BS1)

Prepared & Analyzed: 10/21/10

Benzene	0.103	0.0050	mg/kg	0.100		103	61-139		11.1	
Toluene	0.0963	0.0050	"	0.100		96.3	64-132		10.9	
Ethylbenzene	0.103	0.0050	"	0.100		103	68.7-135		20	
m,p-Xylene	0.194	0.010	"	0.200		97.1	70.4-129		20	
o-Xylene	0.0967	0.0050	"	0.100		96.7	66.9-126		20	
Surrogate: 1,2-Dichloroethane-d4	0.0407		"	0.0400		102	67.4-143			
Surrogate: Toluene-d8	0.0394		"	0.0400		98.6	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		97.9	78.4-125			

LCS Dup (0102106-BS1)

Prepared & Analyzed: 10/21/10

Benzene	0.101	0.0050	mg/kg	0.100		101	61-139	1.82	11.1	
Toluene	0.0941	0.0050	"	0.100		94.1	64-132	2.30	10.9	
Ethylbenzene	0.101	0.0050	"	0.100		101	68.7-135	1.88	20	
m,p-Xylene	0.191	0.010	"	0.200		95.5	70.4-129	1.64	20	
o-Xylene	0.0939	0.0050	"	0.100		93.9	66.9-126	2.90	20	
Surrogate: 1,2-Dichloroethane-d4	0.0395		"	0.0400		98.8	67.4-143			
Surrogate: Toluene-d8	0.0396		"	0.0400		99.0	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0385		"	0.0400		96.3	78.4-125			

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon GU #1 Flowline
Project Number: KMG
Project Manager: John Cocroft

Reported:
10/22/10 07:37

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 0102106 - EPA 5030 Soil MS

Matrix Spike (0102106-MS1)		Source: R010148-01			Prepared: 10/21/10		Analyzed: 10/22/10			
Benzene	0.148	0.0050	mg/kg	0.100	0.0630	85.2	42.9-137		17.9	
Toluene	0.261	0.0050	"	0.100	0.176	84.5	42.6-130		11.9	
Ethylbenzene	0.121	0.0050	"	0.100	0.0296	91.4	39-133		20	
m,p-Xylene	0.486	0.010	"	0.200	0.371	57.3	34.7-134		20	
o-Xylene	0.225	0.0050	"	0.100	0.141	83.9	41.3-126		20	
Surrogate: 1,2-Dichloroethane-d4	0.0443		"	0.0400		111	67.4-143			
Surrogate: Toluene-d8	0.0414		"	0.0400		104	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100	78.4-125			
Matrix Spike Dup (0102106-MSD1)		Source: R010148-01			Prepared: 10/21/10		Analyzed: 10/22/10			
Benzene	0.169	0.0050	mg/kg	0.100	0.0630	106	42.9-137	13.3	17.9	
Toluene	0.269	0.0050	"	0.100	0.176	92.6	42.6-130	3.05	11.9	
Ethylbenzene	0.120	0.0050	"	0.100	0.0296	90.4	39-133	0.821	20	
m,p-Xylene	0.520	0.010	"	0.200	0.371	74.4	34.7-134	6.82	20	
o-Xylene	0.233	0.0050	"	0.100	0.141	92.4	41.3-126	3.70	20	
Surrogate: 1,2-Dichloroethane-d4	0.0448		"	0.0400		112	67.4-143			
Surrogate: Toluene-d8	0.0411		"	0.0400		103	77.3-114			
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.3	78.4-125			

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - Harold Mixon GU #1 Flowline

Project Number: KMG
Project Manager: John Cocroft

Reported:
10/22/10 07:37

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'JM' followed by a long horizontal stroke.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.