

FORM  
4  
Rev 12/05

Page 1

State of Colorado  
Oil and Gas Conservation Commission

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



## SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

DE	ET	OE	ES
Sump Loc. 40.242216 -104.831346			
RECEIVED 4/22/2013			

1. OGCC Operator Number: 47120	4. Contact Name: Cheryl Light	Complete the Attachment Checklist OP OGCC
2. Name of Operator: Kerr-McGee Oil & Gas Onshore LP	Phone: 720-929-6461	
3. Address: P. O. Box 173779 City: Denver State: CO Zip: 80217-3779	Fax: 720-929-7461	
5. API Number: 05-123-16046	OGCC Facility ID Number	Survey Plat
6. Well/Facility Name: BOULTER	7. Well/Facility Number: 42-12	Directional Survey
8. Location (Qtr/Qtr, Sec, Twp, Rng, Meridian): SENE Sec 12-T3N-R67W 6th P.M.		Surface Eqpmt Diagram
9. County: Weld	10. Field Name: Wattenberg	Technical Info Page
11. Federal, Indian or State Lease Number:		Other

## General Notice

☐ **CHANGE OF LOCATION:** Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)

	F-NL/F-SL	F-EL/F-WL
Change of <b>Surface</b> Footage from Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>
Change of <b>Surface</b> Footage to Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>
Change of <b>Bottomhole</b> Footage from Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>
Change of <b>Bottomhole</b> Footage to Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>

Bottomhole location Qtr/Qtr, Sec, Twp, Rng, Mer \_\_\_\_\_

Latitude \_\_\_\_\_ Distance to nearest property line \_\_\_\_\_ Distance to nearest bldg, public rd, utility or RR \_\_\_\_\_

Longitude \_\_\_\_\_ Distance to nearest lease line \_\_\_\_\_ Is location in a High Density Area (rule 603b)? Yes/No ☐

Ground Elevation \_\_\_\_\_ Distance to nearest well same formation \_\_\_\_\_ Surface owner consultation date: \_\_\_\_\_

attach directional survey

## GPS DATA:

Date of Measurement \_\_\_\_\_ PDOP Reading \_\_\_\_\_ Instrument Operator's Name \_\_\_\_\_

<input type="checkbox"/> <b>CHANGE SPACING UNIT</b>	<input type="checkbox"/> <b>Remove from surface bond</b>
Formation _____ Formation Code _____ Spacing order number _____ Unit Acreage _____ Unit configuration _____	Signed surface use agreement attached

<input type="checkbox"/> <b>CHANGE OF OPERATOR (prior to drilling):</b>	<input type="checkbox"/> <b>CHANGE WELL NAME</b>	<b>NUMBER</b>
Effective Date: _____	From: _____	
Plugging Bond: <input type="checkbox"/> Blanket <input type="checkbox"/> Individual	To: _____	
	Effective Date: _____	

<input type="checkbox"/> <b>ABANDONED LOCATION:</b>	<input type="checkbox"/> <b>NOTICE OF CONTINUED SHUT IN STATUS</b>
Was location ever built? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date well shut in or temporarily abandoned: _____
Is site ready for inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No	Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No
Date Ready for Inspection: _____	MIT required if shut in longer than two years. Date of last MIT: _____

<input type="checkbox"/> <b>SPUD DATE:</b> _____	<input type="checkbox"/> <b>REQUEST FOR CONFIDENTIAL STATUS</b> (6 mos from date casing set)
--------------------------------------------------	----------------------------------------------------------------------------------------------

<input type="checkbox"/> <b>SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK</b>	*submit cbl and cement job summaries
Method used _____ Cementing tool setting/perf depth _____ Cement volume _____ Cement top _____ Cement bottom _____ Date _____	

<input type="checkbox"/> <b>RECLAMATION:</b> Attach technical page describing final reclamation procedures per Rule 1004.
Final reclamation will commence on approximately _____ <input type="checkbox"/> Final reclamation is completed and site is ready for inspection.

## Technical Engineering/Environmental Notice

<input type="checkbox"/> <b>Notice of Intent</b>	<input type="checkbox"/> <b>Report of Work Done</b>
Approximate Start Date: _____	Date Work Completed: _____

Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)

<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare	<input type="checkbox"/> E&P Waste Disposal
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested	<input type="checkbox"/> Status Update/Change of Remediation Plans
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: Sump Report Attached	for Spills and Releases

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Cheryl Light Date: 4-23-13 Email: DJRegulatory@anadarko.com

Print Name: Cheryl Light Title: Senior Regulatory Analyst

COGCC Approved: \_\_\_\_\_ Title: EPS Date: 4/25/2013

CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_



April 18, 2013

Mr. Paul Schneider  
Senior Staff EHS Representative  
Kerr-McGee Oil & Gas Onshore LP  
1099 18<sup>th</sup> Street, Suite 1800  
Denver, Colorado 80202

40.242216 -104.831346

**Re: Sump Excavation Summary Letter Report**  
**Boulter 42-12**  
**API# 05-123-16046**  
**SENE 12-T3N-R67W**

Dear Mr. Schneider:

LT Environmental, Inc. (LTE) was contracted by Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) to perform environmental oversight activities at the above referenced site. The oversight activities included collection of confirmation soil samples from the sump excavation, documentation of field activities, and analytical results review.

The objective of the soil sampling was to determine if there were petroleum hydrocarbon impacts to the subsurface soil following Kerr-McGee's use of a produced water sump. The soil sampling activities, laboratory analytical results, and conclusions are presented below. The general site layout, sump excavation dimensions, and soil sample locations are shown on the attached hand-sketched map.

After removing the produced water sump, one confirmation soil sample (B01@6') was collected from the soil directly beneath the water sump. This soil sample was submitted for laboratory analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B and total petroleum hydrocarbons (TPH) by EPA Methods 8015 and 8260B. The laboratory analytical report is attached.

The sump excavation measured approximately 15 feet north to south by 15 feet east to west to an approximate depth of 6 feet below ground surface. No indication of petroleum hydrocarbon impacts was observed beneath the water sump. Furthermore, TPH and BTEX concentrations were below the Colorado Oil and Gas Conservation Commission's allowable levels in confirmation soil sample B01@6'. Based on the field and analytical results no remedial action is required at this site.



Please call us at (303) 433-9788 if you have any questions regarding this Sump Excavation Summary Letter Report or require additional information.

Sincerely,  
LT ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads "Jeremy Espinoza". The signature is fluid and cursive, with the first and last names being more prominent.

Jeremy Espinoza  
Staff Geologist

Reviewed by

A handwritten signature in black ink that reads "Justin Solomon". The signature is fluid and cursive, with the first and last names being more prominent.

Justin Solomon  
Project Environment Scientist

Attachments





PROJECT Boulter 42-12  
PROJECT MANAGER J. Cocroft  
JOB No. 014213038  
LOCATION SENE 12-T3N-R67W

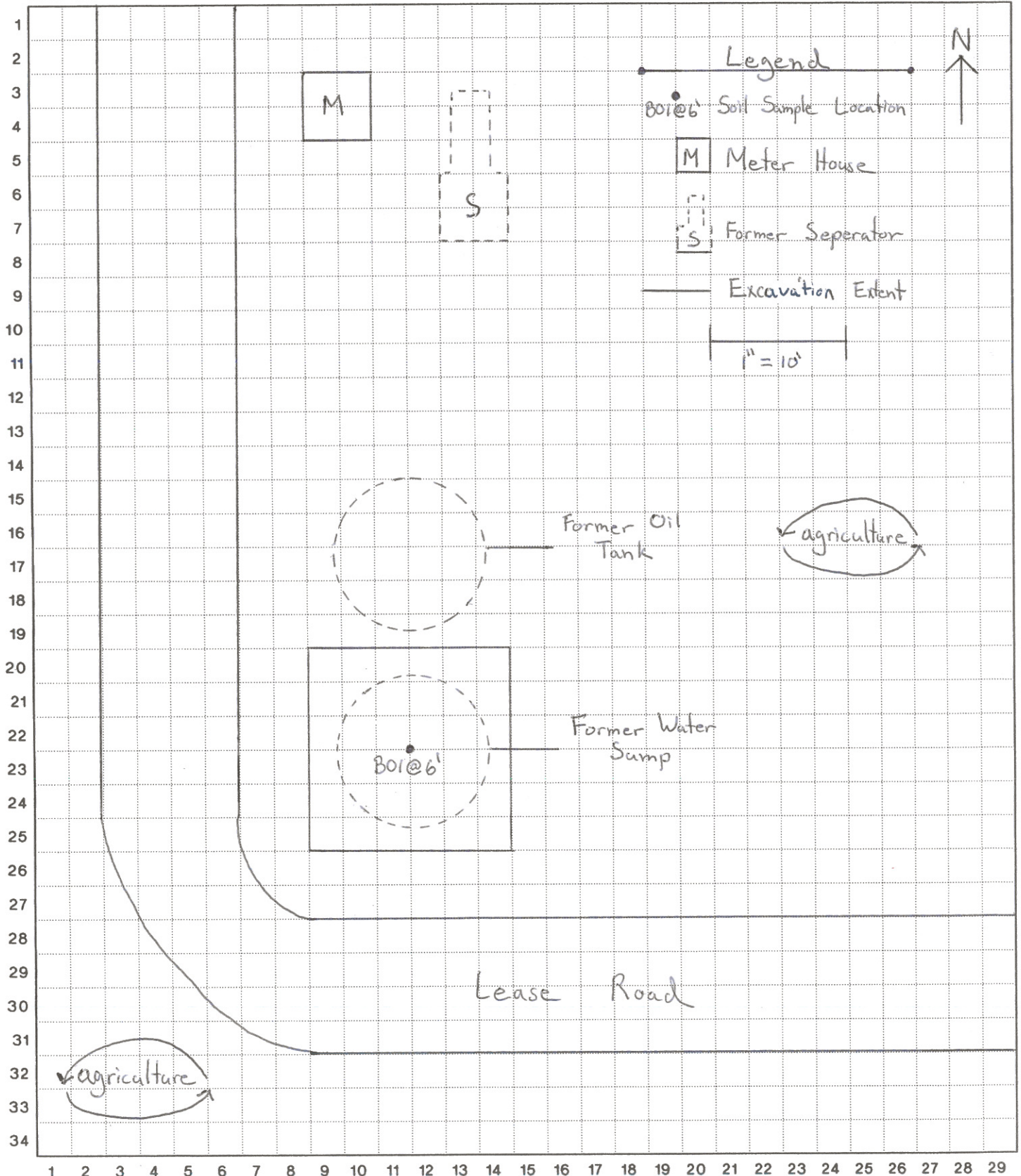
DATE 04/15/2013

CONT. No.

BY Jeremy Espinoza CHK'D

SHEET No. 1 OF 1

95LT0038 10/1997



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**BOULTER 42-12**  
**WELD COUNTY, COLORADO**  
**KERR-McGEE OIL & GAS ONSHORE LP**

Soil Sample ID	Depth (bgs)	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	DRO (mg/kg)	GRO (mg/kg)	ORO (mg/kg)
B01@6'	6'	02/06/2013	<0.0050	<0.0050	<0.0050	<0.0050	<50	<0.50	<50
<b>COGCC Standards</b>			<b>0.17</b>	<b>85</b>	<b>100</b>	<b>175</b>	<b>500*</b>	<b>500*</b>	<b>500*</b>

Notes: bgs - below ground surface

< - less than

DRO - Diesel Range Organics

ORO - Oil Range Organics

GRO - Gasoline Range Organics

\* - Standard applies to combined DRO-GRO-ORO

mg/kg - milligrams per kilogram

NA - Not Analyzed/Not Available

Bold numbers indicate result equaled or exceeded standard.

COGCC - Colorado Oil and Gas Conservation Commission



# Summit Scientific

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741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

February 07, 2013

John Cocroft  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: KMG - Boulter 42-12

Enclosed are the results of analyses for samples received by Summit Scientific on 02/06/13 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury For Ben Shrewsbury  
President / Laboratory Manager

This report shall not be reproduced, except in its entirety, without the written approval of Summit Scientific. Test results relate only to samples analyzed.

Summit Scientific is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.



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

Project: KMG - Boulder 42-12

Project Number: 0142-  
Project Manager: John Cocroft

Reported:  
02/07/13 07:23

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@6'	R302073-01	Soil	02/06/13 14:45	02/06/13 17:00

Summit Scientific 232073

741 Corporate Circle Suite 1 • Golden, Colorado 80401  
303-277-9310 • 303-374-9333 Fax

Page 1 of 1

Client: LIE  
Address: 4600 West 60th Avenue  
City/State/Zip: Arvada CO 80003  
Phone: 303-433-9788 Fax: 303-433-1432  
Sample Name: Phillip Hamlin  
Project Manager: J. Cocroft  
E-Mail: jcocroft@liew.com  
Project Name: Boulder 42-12  
Project Number: 0142-

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative	Matrix	Analyze For:	Special Instructions
B01@6'	2/6/2013	1445	1	HCl	Soil	BTX	Run BTEX Only
N01@3'	2/6/2013	1446	1	None	Groundwater	Cd, Cr, Pb (Total)	Hold
E01@3'	2/6/2013	1447	1	HNO <sub>3</sub>	Other (Specify)	pH / EC / SAR	
S01@3'	2/6/2013	1448	1	None	Other (Specify)	BTX	
N01@3'	2/6/2013	1449	1	HCl	Other (Specify)	DRD/RO	

Relinquished by: <i>[Signature]</i>	Date/Time: 2/6/13	Received by:	Date/Time:	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/>	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: <input type="checkbox"/> Inact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:		

www.s2scientific.com

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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 - Boulter 42-12

Project Number: 0142-  
Project Manager: John Cocroft

Reported:  
02/07/13 07:23

**B01@6'**  
**R302073-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: 02/06/13 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	3020608	02/06/13	02/06/13	8015 Full Carbon Chain	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: 02/06/13 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		100 %	30-150		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: 02/06/13 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	3020607	02/06/13	02/06/13	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 02/06/13 14:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		111 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.2 %	21-167		"	"	"	"	

Summit Scientific

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

Project: KMG - Boulter 42-12

Project Number: 0142-  
Project Manager: John Cocroft

**Reported:**  
02/07/13 07:23

**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 3020608 - EPA 3550A**

**Blank (3020608-BLK1)**

Prepared: 02/06/13 Analyzed: 02/07/13

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

**LCS (3020608-BS1)**

Prepared: 02/06/13 Analyzed: 02/07/13

C10-C28 (TEPH-DRO)	471	50	mg/kg	501	94.0	73-134
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**LCS Dup (3020608-BSD1)**

Prepared: 02/06/13 Analyzed: 02/07/13

C10-C28 (TEPH-DRO)	483	50	mg/kg	501	96.5	73-134	2.65	11
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**Matrix Spike (3020608-MS1)**

**Source: R302059-01**

Prepared: 02/06/13 Analyzed: 02/07/13

C10-C28 (TEPH-DRO)	439	50	mg/kg	485	ND	90.7	50-148
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**Matrix Spike Dup (3020608-MSD1)**

**Source: R302059-01**

Prepared: 02/06/13 Analyzed: 02/07/13

C10-C28 (TEPH-DRO)	472	50	mg/kg	485	ND	97.5	50-148	7.21	13
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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: KMG - Boulter 42-12

Project Number: 0142-  
Project Manager: John Cocroft

Reported:  
02/07/13 07:23

**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 3020607 - EPA 5030 Soil MS**

**Blank (3020607-BLK1)**

Prepared & Analyzed: 02/06/13

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	0.0444		"	0.0397		112	23-173			
Surrogate: Toluene-d8	0.0406		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0419		"	0.0400		105	21-167			

**LCS (3020607-BS1)**

Prepared & Analyzed: 02/06/13

Benzene	0.149	0.0050	mg/kg	0.150		99.1	58-130			
Toluene	0.147	0.0050	"	0.150		98.0	61-134			
Ethylbenzene	0.148	0.0050	"	0.150		98.5	74-139			
m,p-Xylene	0.288	0.010	"	0.300		96.1	73-137			
o-Xylene	0.147	0.0050	"	0.150		98.1	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0409		"	0.0397		103	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0402		"	0.0400		101	21-167			

**LCS Dup (3020607-BSD1)**

Prepared & Analyzed: 02/06/13

Benzene	0.148	0.0050	mg/kg	0.150		98.6	58-130	0.465	13	
Toluene	0.148	0.0050	"	0.150		98.5	61-134	0.489	16	
Ethylbenzene	0.148	0.0050	"	0.150		98.4	74-139	0.142	12	
m,p-Xylene	0.291	0.010	"	0.300		96.9	73-137	0.819	14	
o-Xylene	0.148	0.0050	"	0.150		98.3	73-141	0.285	12	
Surrogate: 1,2-Dichloroethane-d4	0.0402		"	0.0397		101	23-173			
Surrogate: Toluene-d8	0.0394		"	0.0400		98.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	21-167			

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

Project: KMG - Boulter 42-12

Project Number: 0142-  
Project Manager: John Cocroft

Reported:  
02/07/13 07:23

**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 3020607 - EPA 5030 Soil MS**

Matrix Spike (3020607-MS1)		Source: R302063-02			Prepared & Analyzed: 02/06/13					
Benzene	0.127	0.0050	mg/kg	0.145	ND	87.7	30-131			
Toluene	0.128	0.0050	"	0.145	ND	88.2	30-134			
Ethylbenzene	0.126	0.0050	"	0.145	ND	86.6	22-153			
m,p-Xylene	0.247	0.010	"	0.291	ND	84.9	10-159			
o-Xylene	0.124	0.0050	"	0.145	ND	85.4	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0438		"	0.0385		114	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0388		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0388		102	21-167			

Matrix Spike Dup (3020607-MSD1)		Source: R302063-02			Prepared & Analyzed: 02/06/13					
Benzene	0.123	0.0050	mg/kg	0.144	ND	85.6	30-131	3.51	34	
Toluene	0.122	0.0050	"	0.144	ND	85.2	30-134	4.59	30	
Ethylbenzene	0.118	0.0050	"	0.144	ND	82.1	22-153	6.42	24	
m,p-Xylene	0.230	0.010	"	0.287	ND	80.2	10-159	6.80	68	
o-Xylene	0.116	0.0050	"	0.144	ND	80.8	31-151	6.72	38	
Surrogate: 1,2-Dichloroethane-d4	0.0458		"	0.0380		120	23-173			
Surrogate: Toluene-d8	0.0392		"	0.0383		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0383		104	21-167			

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

Project: KMG - Boulter 42-12

Project Number: 0142-  
Project Manager: John Cocroft

**Reported:**  
02/07/13 07:23

### 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

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Summit Scientific

A handwritten signature in black ink, appearing to be 'MSM'.

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