

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
KERR 29C-12HZ - WEST RELEASE
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Soil Sample ID	Depth (bgs)	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	DRO (mg/kg)	GRO (mg/kg)	ORO (mg/kg)	pH (su)	Specific Conductance (mmhos/cm)
B01 @ 6'	6'	05/26/2016	<0.002	<0.002	<0.002	0.006	<25	<0.20	<100	8.35	0.0988
E01 @ 4'	4'	05/26/2016	<0.002	<0.002	<0.002	<0.002	<25	<0.20	<100	8.38	0.107
N01 @ 4'	4'	05/26/2016	<0.002	<0.002	<0.002	<0.002	<25	<0.20	<100	8.77	0.0657
S01 @ 4'	4'	05/26/2016	0.005	0.004	<0.002	<0.002	<25	<0.20	<100	8.44	0.0823
W01 @ 4'	4'	05/26/2016	<0.002	<0.002	<0.002	<0.002	<25	<0.20	<100	8.64	0.0646
COGCC Allowable Levels			0.17	85	100	175	500*	500*	500*	6-9	4

Notes: bgs - below ground surface
COGCC - Colorado Oil and Gas Conservation Commission
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
mmhos/cm - millimhos per centimeter

NA - not analyzed/not available
ORO - oil range organics
su - standard units
* - Standard applies to combined DRO-GRO-ORO
< - less than laboratory reporting limit
Bold indicates result exceeds allowable level





May 27, 2016

LT Environmental, Inc.

John Cocroft

4600 West 60th Avenue

Arvada

CO 80003

Project Name - KMG - Kerr 29C-12Hz (West)

Project Number - 014216089/WO#890649!

Attached are your analytical results for KMG - Kerr 29C-12Hz (West) received by Origins Laboratory, Inc. May 26, 2016. This project is associated with Origins project number X605336-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

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

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N01 @ 4'	X605336-01	Soil	May 26, 2016 12:55	05/26/2016 16:55
E01 @ 4'	X605336-02	Soil	May 26, 2016 12:30	05/26/2016 16:55
S01 @ 4'	X605336-03	Soil	May 26, 2016 12:35	05/26/2016 16:55
W01 @ 4'	X605336-04	Soil	May 26, 2016 12:40	05/26/2016 16:55
B01 @ 6'	X605336-05	Soil	May 26, 2016 12:45	05/26/2016 16:55

Origins Laboratory, Inc.



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John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

ORIGINS

LABORATORY, INC

www.originslaboratory.com

X605336

page 1 of 1

Client:

LTE

Address:

4600 W 60th Ave Anvada CO

Project Manager:

T. Cocroft

Project Name:

Kerr 29C-12H2 (West)

Project Number:

014116089

Samples Collected By:

KS

Telephone Number:

(303)433-9788

Email Address:

APC Team

ATTN: Sam LaRue 200#89069994

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis			Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summary #	Other	CX	FZ		PZ
N01@4'	5/26/16	12:25	2 X					X				X	X	X	Hold SAR
E01@4'		12:30	2 X					X				X	X	X	
S01@4'		12:35	2 X					X				X	X	X	
W01@4'		12:40	2 X					X				X	X	X	
B01@4'		12:45	2 X					X				X	X	X	

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input type="checkbox"/>
	5/26/2016	16:11	[Signature]	5/26/16	16:11	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
[Signature]	5/26/2016	4:57	[Signature]	5/26/16	16:55	

ATPH IS OK/DRO ONLY

Fax: 303.265.9645

Phone: 303.433.1322

Denver, CO 80211

1725 Eik Place

3.4

Date Results Needed 5/23/16 (10:00)

Origins Laboratory, Inc.

Jeff Pellipini

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

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: XL05336

Client: LTE

Client Project ID: Kerr 29C-12Hz (West)

Checklist Completed by: Jeff Smith

Shipped Via: HTD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 5/26/12

Airbill #: NA

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____

Cooler Number/Temperature: 1 13.4 °C 1 °C 1 °C (Describe) 1 °C

Thermometer ID: 1003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PH
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Jeff Smith
Reviewed by (Project Manager)

5/26/12
Date/Time Reviewed

Origins Laboratory, Inc.

Jeff Pellegrini

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

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

N01 @ 4'

5/26/2016 12:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X605336-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25	mg/kg	1	B6E2606	05/26/2016	05/26/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 73.4 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.20	mg/kg	1	B6E2601	05/26/2016	05/26/2016	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 107 % 70-130 " " "
Surrogate: Toluene-d8 101 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.77		pH Units	1	B6E2608	05/26/2016	05/26/2016	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0657		mmhos/cm	"	B6E2609	"	"	
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Origins Laboratory, Inc.



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

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

E01 @ 4'

5/26/2016 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X605336-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25	mg/kg	1	B6E2606	05/26/2016	05/26/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 66.6 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.20	mg/kg	1	B6E2601	05/26/2016	05/26/2016	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 108 % 70-130 " " "
Surrogate: Toluene-d8 101 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.38		pH Units	1	B6E2608	05/26/2016	05/26/2016	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.107		mmhos/cm	"	B6E2609	"	"	
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Origins Laboratory, Inc.



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

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

S01 @ 4'

5/26/2016 12:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X605336-03 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25	mg/kg	1	B6E2606	05/26/2016	05/26/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 72.9 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.20	mg/kg	1	B6E2601	05/26/2016	05/26/2016	U
Benzene	0.005	0.002	"	"	"	"	"	
Toluene	0.004	0.002	"	"	"	"	"	
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 109 % 70-130 " " "
Surrogate: Toluene-d8 101 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 99.2 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.44		pH Units	1	B6E2608	05/26/2016	05/26/2016	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0823		mmhos/cm	"	B6E2609	"	"	
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Origins Laboratory, Inc.



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

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

W01 @ 4'
5/26/2016 12:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X605336-04 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25	mg/kg	1	B6E2606	05/26/2016	05/26/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 65.7 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.20	mg/kg	1	B6E2601	05/26/2016	05/26/2016	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 113 % 70-130 " " "
Surrogate: Toluene-d8 100 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 109 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.64		pH Units	1	B6E2608	05/26/2016	05/26/2016	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0646		mmhos/cm	"	B6E2609	"	"	
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Origins Laboratory, Inc.



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

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

B01 @ 6'

5/26/2016 12:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X605336-05 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25	mg/kg	1	B6E2606	05/26/2016	05/27/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	63.6 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.20	mg/kg	1	B6E2601	05/26/2016	05/26/2016	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	0.006	0.002	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130			"	"	"	
Surrogate: Toluene-d8	98.5 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.35		pH Units	1	B6E2608	05/26/2016	05/26/2016	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0988		mmhos/cm	"	B6E2609	"	"	
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Origins Laboratory, Inc.



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

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B6E2601 - EPA 5030 (soil)										
Blank (B6E2601-BLK1)					Prepared: 05/26/2016 Analyzed: 05/26/2016					
Gasoline Range Hydrocarbons	ND	0.20	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.6	70-130			
Surrogate: 4-Bromofluorobenzene	67		"	62.5		108	70-130			

Origins Laboratory, Inc.



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

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6E2601 - EPA 5030 (soil)

LCS (B6E2601-BS1)

Prepared: 05/26/2016 Analyzed: 05/26/2016

Benzene	0.10	0.002	mg/kg	0.100		100	77.1-124			
Toluene	0.10	0.002	"	0.100		97.7	74.5-128			
Ethylbenzene	0.10	0.002	"	0.100		101	66.4-127			
m,p-Xylene	0.21	0.004	"	0.200		105	76.6-124			
o-Xylene	0.10	0.002	"	0.100		103	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	70		ug/kg	62.5		111	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	70-130			

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Arvada CO 80003

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6E2601 - EPA 5030 (soil)

Matrix Spike (B6E2601-MS1)		Source: X605312-01			Prepared: 05/26/2016 Analyzed: 05/26/2016					
Benzene	0.10	0.002	mg/kg	0.100	ND	105	71.8-126			
Toluene	0.10	0.002	"	0.100	ND	101	65.1-130			
Ethylbenzene	0.11	0.002	"	0.100	ND	107	62.2-130			
m,p-Xylene	0.22	0.004	"	0.200	ND	111	46.5-137			
o-Xylene	0.11	0.002	"	0.100	ND	107	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	71		ug/kg	62.5		114	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.9	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	70-130			

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4600 West 60th Avenue
Arvada CO 80003

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6E2601 - EPA 5030 (soil)

Matrix Spike Dup (B6E2601-MSD1)		Source: X605312-01			Prepared: 05/26/2016 Analyzed: 05/26/2016					
Benzene	0.10	0.002	mg/kg	0.100	ND	102	71.8-126	2.15	11.3	
Toluene	0.10	0.002	"	0.100	ND	99.8	65.1-130	1.63	15.4	
Ethylbenzene	0.10	0.002	"	0.100	ND	105	62.2-130	2.35	19.6	
m,p-Xylene	0.22	0.004	"	0.200	ND	108	46.5-137	2.40	19.2	
o-Xylene	0.11	0.002	"	0.100	ND	106	54.2-134	1.26	17.9	
Surrogate: 1,2-Dichloroethane-d4	72		ug/kg	62.5		115	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.9	70-130			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	70-130			

Origins Laboratory, Inc.



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4600 West 60th Avenue
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John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Extractable Petroleum Hydrocarbons by 8015C - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6E2606 - EPA 3580

Blank (B6E2606-BLK1)

Prepared: 05/26/2016 Analyzed: 05/26/2016

Diesel (C10-C28)	ND	50	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	42		"	50.0		83.5	59-131			

Blank (B6E2606-BLK2)

Prepared: 05/26/2016 Analyzed: 05/26/2016

Diesel (C10-C28)	ND	50	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	42		"	50.0		84.3	59-131			

LCS (B6E2606-BS1)

Prepared: 05/26/2016 Analyzed: 05/26/2016

Diesel (C10-C28)	910	50	mg/kg	1000		91.2	64-121			
Residual Range Organics (C28-C40)	920	200	"	1000		91.9	58-124			
Surrogate: o-Terphenyl	47		"	50.0		93.1	59-131			

LCS (B6E2606-BS2)

Prepared: 05/26/2016 Analyzed: 05/26/2016

Diesel (C10-C28)	910	50	mg/kg	1000		91.2	64-121			
Residual Range Organics (C28-C40)	920	200	"	1000		91.9	58-124			
Surrogate: o-Terphenyl	47		"	50.0		93.1	59-131			

Matrix Spike (B6E2606-MS1)

Source: X605302-06

Prepared: 05/26/2016 Analyzed: 05/26/2016

Diesel (C10-C28)	840	50	mg/kg	1000	ND	84.5	53-125			
Residual Range Organics (C28-C40)	930	200	"	1000	48	88.6	47-133			

Origins Laboratory, Inc.



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

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

Extractable Petroleum Hydrocarbons by 8015C - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B6E2606 - EPA 3580										
Matrix Spike (B6E2606-MS1)		Source: X605302-06			Prepared: 05/26/2016 Analyzed: 05/26/2016					
Surrogate: o-Terphenyl	42		mg/kg	50.0		83.1	59-131			
Matrix Spike (B6E2606-MS2)		Source: X605335-01			Prepared: 05/26/2016 Analyzed: 05/26/2016					
Diesel (C10-C28)	880	50	mg/kg	1000	ND	87.6	53-125			
Residual Range Organics (C28-C40)	930	200	"	1000	22	90.4	47-133			
Surrogate: o-Terphenyl	42		"	50.0		84.2	59-131			
Matrix Spike Dup (B6E2606-MSD1)		Source: X605302-06			Prepared: 05/26/2016 Analyzed: 05/26/2016					
Diesel (C10-C28)	890	50	mg/kg	1000	ND	88.7	53-125	4.82	20	
Residual Range Organics (C28-C40)	1000	200	"	1000	48	95.2	47-133	7.20	20	
Surrogate: o-Terphenyl	44		"	50.0		87.8	59-131			
Matrix Spike Dup (B6E2606-MSD2)		Source: X605335-01			Prepared: 05/26/2016 Analyzed: 05/26/2016					
Diesel (C10-C28)	1000	50	mg/kg	1000	ND	101	53-125	14.1	20	
Residual Range Organics (C28-C40)	1000	200	"	1000	22	98.2	47-133	8.28	20	
Surrogate: o-Terphenyl	52		"	50.0		103	59-131			

Origins Laboratory, Inc.



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LT Environmental, Inc.
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Arvada CO 80003

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

Classical Chemistry Parameters - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B6E2608 - NO PREP										
Duplicate (B6E2608-DUP1)		Source: X605332-01			Prepared: 05/26/2016 Analyzed: 05/26/2016					
pH	8.23		pH Units		8.22			0.122	25	
Batch B6E2609 - NO PREP										
Blank (B6E2609-BLK1)		Prepared: 05/26/2016 Analyzed: 05/26/2016								
Specific Conductance (EC)	0.00310		mmhos/cm							
Duplicate (B6E2609-DUP1)		Source: X605332-01			Prepared: 05/26/2016 Analyzed: 05/26/2016					
Specific Conductance (EC)	0.207		mmhos/cm		0.209			0.962	25	

Origins Laboratory, Inc.



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LT Environmental, Inc.
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Arvada CO 80003

John Cocroft
Project Number: 014216089/WO#89064994
Project: KMG - Kerr 29C-12Hz (West)

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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