



May 25, 2016

Apex Companies, LLC

Jake Hildebrand

4150 Darley Avenue, Suite 1

Boulder CO 80305

**Project Name - KMG - Cannonland 62N65W
3SESE**

Project Number - [none]

Attached are your analytical results for KMG - Cannonland 62N65W 3SESE received by Origins Laboratory, Inc. May 24, 2016. This project is associated with Origins project number X605290-01.

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

Apex Companies, LLC

4150 Darley Avenue, Suite 1

Boulder CO 80305

Jake Hildebrand

Project Number: [none]

Project: KMG - Cannonland 62N65W 3SESE

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
North 1 @ 3'	X605290-01	Soil	May 24, 2016 12:59	05/24/2016 16:50
West 1 @ 3'	X605290-02	Soil	May 24, 2016 13:01	05/24/2016 16:50
South 1 @ 3'	X605290-03	Soil	May 24, 2016 13:03	05/24/2016 16:50
East 1 @ 3'	X605290-04	Soil	May 24, 2016 13:05	05/24/2016 16:50
Groundwater 1 @ 3'	X605290-06	Water	May 24, 2016 13:24	05/24/2016 16:50

Origins Laboratory, Inc.



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Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Jake Hildebrand
Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

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ORIGINS LABORATORY, INC

Client: Apex Companies
Address: 1761 Cole Blvd.
Lakewood, CO 80401
Telephone Number: 970.903.1260
Email Address: Jake.Hildebrand@apexcos.com

Project Manager: Jacob Hildebrand
Project Name: Cannonland 62N65W 3SESE
Project Number: (Erik Mickelson)
Samples Collected By: John Hickey

* Bill to Andersko
Hickey@apexcos.com

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix	Analysis				Sample Instructions
				Unpreserved	HCl	HNO ₃	Groundwater		Soil	Alk Summa	BT	6BTEX	
North 1 @ 3'	5/24/16	1259	2	X				X	X	X	X	X	1
West 1 @ 3'		1301	1					X	X	X	X	X	2
South 1 @ 3'		1303	1					X	X	X	X	X	3
East 1 @ 3'		1305	1					X	X	X	X	X	4
Background		1309	1					X					5
Groundwater 1 @ 3'		1324	3				X						6
													7
													8
													9
													10

Requisitioned By: [Signature] Date: 5/24/16 Time: 11:50
Relinquished By: [Signature] Date: 5/24/16 Time: 16:50

Received By: [Signature] Date: 5/24/16 Time: 16:50
Received By: [Signature] Date: 5/24/16 Time: 16:50

Turnaround Time: ☒ Same Day ☐ 24 Hr ☐ 48 Hr ☐ 72 Hr ☐ Standard

Temp Received: 14.6 Date Results Needed: 5:15 7AM

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

Origins Laboratory, Inc.

Jefe Pellegrini

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Boulder CO 80305

Jake Hildebrand
Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X605290

Client: Apex

Client Project ID: Cannonland 62N65W

Checklist Completed by: Jose Smith

Shipped Via: H/D

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 5/24/16

Airbill #: DN

Matrix(s) Received: (Check all that apply): X Soil/Solid Y Water Other:

Cooler Number/Temperature: 1 / 14.6 °C / °C / °C (Describe)

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⁾ ?		<u>X</u>		<u>Sampled Same Day</u>
Is there ice present (document if blue ice is used)	<u>X</u>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<u>X</u>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<u>X</u>		
Were all samples received intact ⁽¹⁾ ?	<u>X</u>			
Was adequate sample volume provided ⁽¹⁾ ?	<u>X</u>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<u>X</u>			<u>PH</u>
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<u>X</u>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<u>X</u>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<u>X</u>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<u>X</u>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		<u>X</u>		
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)		<u>X</u>		
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.

JPM
Reviewed by (Project Manager)

5/24/16
Date/Time Reviewed

Origins Laboratory, Inc.

Jen Pellegrini

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Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Jake Hildebrand
Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

North 1 @ 3'
5/24/2016 12:59:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X605290-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25	mg/kg	1	B6E2405	05/24/2016	05/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 79.4 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	5.0	mg/kg	25	B6E2311	05/24/2016	05/24/2016	U
Benzene	ND	0.05	"	"	"	"	"	U
Toluene	ND	0.05	"	"	"	"	"	U
Ethylbenzene	ND	0.05	"	"	"	"	"	U
Xylenes, total	ND	0.05	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 111 % 70-130 " " "
Surrogate: Toluene-d8 101 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 104 % 70-130 " " "

pH in Soil by EPA 9045D

pH	7.49		pH Units	1	B6E2406	05/24/2016	05/24/2016	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.235		mmhos/cm	"	B6E2407	05/24/2016	05/24/2016	
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Apex Companies, LLC
4150 Darley Avenue, Suite 1
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Jake Hildebrand
Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

West 1 @ 3'
5/24/2016 1:01:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X605290-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25	mg/kg	1	B6E2405	05/24/2016	05/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 69.5 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	5.0	mg/kg	25	B6E2311	05/24/2016	05/24/2016	U
Benzene	ND	0.05	"	"	"	"	"	U
Toluene	ND	0.05	"	"	"	"	"	U
Ethylbenzene	ND	0.05	"	"	"	"	"	U
Xylenes, total	ND	0.05	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 106 % 70-130 " " "
Surrogate: Toluene-d8 101 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

pH in Soil by EPA 9045D

pH	7.04	pH Units	1	B6E2406	05/24/2016	05/24/2016
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.293	mmhos/cm	"	B6E2407	05/24/2016	05/24/2016
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4150 Darley Avenue, Suite 1
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Jake Hildebrand
Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

South 1 @ 3'
5/24/2016 1:03:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X605290-03 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25	mg/kg	1	B6E2405	05/24/2016	05/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 61.0 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	5.0	mg/kg	25	B6E2311	05/24/2016	05/24/2016	U
Benzene	ND	0.05	"	"	"	"	"	U
Toluene	ND	0.05	"	"	"	"	"	U
Ethylbenzene	ND	0.05	"	"	"	"	"	U
Xylenes, total	ND	0.05	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 103 % 70-130 " " "
Surrogate: Toluene-d8 96.3 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

pH in Soil by EPA 9045D

pH	7.68		pH Units	1	B6E2406	05/24/2016	05/24/2016	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.150		mmhos/cm	"	B6E2407	05/24/2016	05/24/2016	
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Jake Hildebrand
Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

East 1 @ 3'
5/24/2016 1:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X605290-04 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25	mg/kg	1	B6E2405	05/24/2016	05/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 75.1 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	5.0	mg/kg	25	B6E2311	05/24/2016	05/24/2016	U
Benzene	ND	0.05	"	"	"	"	"	U
Toluene	ND	0.05	"	"	"	"	"	U
Ethylbenzene	ND	0.05	"	"	"	"	"	U
Xylenes, total	ND	0.05	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 102 % 70-130 " " "
Surrogate: Toluene-d8 94.3 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 102 % 70-130 " " "

pH in Soil by EPA 9045D

pH	7.29		pH Units	1	B6E2406	05/24/2016	05/24/2016	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.367		mmhos/cm	"	B6E2407	05/24/2016	05/24/2016	
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Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

Groundwater 1 @ 3'
5/24/2016 1:24:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X605290-06 (Water)

BTEX by EPA 8260C

Benzene	146	4.0	ug/L	4	B6E2401	05/24/2016	05/24/2016	
Toluene	ND	4.0	"	"	"	"	"	U
Ethylbenzene	ND	4.0	"	"	"	"	"	U
Xylenes, total	23.4	4.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	91.5 %	84-121			"	"	"
Surrogate: Toluene-d8	102 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	97.3 %	84-114			"	"	"

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Jake Hildebrand
Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

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 B6E2311 - EPA 5030 (soil)										
Blank (B6E2311-BLK1)					Prepared: 05/23/2016 Analyzed: 05/24/2016					
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	69		ug/kg	62.5		110	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.3	70-130			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		105	70-130			

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Project: KMG - Cannonland 62N65W 3SESE

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 B6E2311 - EPA 5030 (soil)										
Blank (B6E2311-BLK2)					Prepared: 05/23/2016 Analyzed: 05/24/2016					
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	68		ug/kg	62.5		109	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		106	70-130			

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Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

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 B6E2311 - EPA 5030 (soil)										
LCS (B6E2311-BS1)					Prepared: 05/23/2016 Analyzed: 05/24/2016					
Benzene	0.12	0.002	mg/kg	0.100		119	77.1-124			
Toluene	0.12	0.002	"	0.100		115	74.5-128			
Ethylbenzene	0.11	0.002	"	0.100		114	66.4-127			
m,p-Xylene	0.25	0.004	"	0.200		124	76.6-124			
o-Xylene	0.12	0.002	"	0.100		119	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	69		ug/kg	62.5		111	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.9	70-130			

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Jake Hildebrand
Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

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 B6E2311 - EPA 5030 (soil)										
LCS (B6E2311-BS2)					Prepared: 05/23/2016 Analyzed: 05/24/2016					
Benzene	0.10	0.002	mg/kg	0.100		102	77.1-124			
Toluene	0.09	0.002	"	0.100		92.1	74.5-128			
Ethylbenzene	0.09	0.002	"	0.100		88.7	66.4-127			
m,p-Xylene	0.18	0.004	"	0.200		90.8	76.6-124			
o-Xylene	0.09	0.002	"	0.100		93.7	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	66		ug/kg	62.5		105	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.4	70-130			

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Project: KMG - Cannonland 62N65W 3SESE

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 B6E2311 - EPA 5030 (soil)

Matrix Spike (B6E2311-MS1)		Source: X605258-08			Prepared: 05/23/2016 Analyzed: 05/24/2016					
Benzene	0.12	0.002	mg/kg	0.100	0.001	114	71.8-126			
Toluene	0.11	0.002	"	0.100	ND	110	65.1-130			
Ethylbenzene	0.11	0.002	"	0.100	0.002	107	62.2-130			
m,p-Xylene	0.21	0.004	"	0.200	0.005	104	46.5-137			
o-Xylene	0.11	0.002	"	0.100	ND	112	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	72		ug/kg	62.5		116	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.5	70-130			

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Jake Hildebrand
Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

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 B6E2311 - EPA 5030 (soil)

Matrix Spike (B6E2311-MS2)		Source: X605289-01			Prepared: 05/23/2016 Analyzed: 05/24/2016					
Benzene	0.08	0.002	mg/kg	0.100	ND	78.9	71.8-126			
Toluene	0.08	0.002	"	0.100	ND	80.6	65.1-130			
Ethylbenzene	0.09	0.002	"	0.100	ND	90.9	62.2-130			
m,p-Xylene	0.19	0.004	"	0.200	ND	92.9	46.5-137			
o-Xylene	0.09	0.002	"	0.100	ND	91.4	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	70		ug/kg	62.5		112	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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Jake Hildebrand
Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

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 B6E2311 - EPA 5030 (soil)										
Matrix Spike Dup (B6E2311-MSD1)		Source: X605258-08			Prepared: 05/23/2016 Analyzed: 05/24/2016					
Benzene	0.11	0.002	mg/kg	0.100	0.001	108	71.8-126	5.91	11.3	
Toluene	0.10	0.002	"	0.100	ND	101	65.1-130	8.68	15.4	
Ethylbenzene	0.10	0.002	"	0.100	0.002	95.6	62.2-130	10.8	19.6	
m,p-Xylene	0.19	0.004	"	0.200	0.005	92.9	46.5-137	10.8	19.2	
o-Xylene	0.10	0.002	"	0.100	ND	102	54.2-134	9.34	17.9	
Surrogate: 1,2-Dichloroethane-d4	74		ug/kg	62.5		119	70-130			
Surrogate: Toluene-d8	60		"	62.5		95.9	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.7	70-130			

Origins Laboratory, Inc.



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Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Jake Hildebrand
Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

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 B6E2311 - EPA 5030 (soil)

Matrix Spike Dup (B6E2311-MSD2)		Source: X605289-01			Prepared: 05/23/2016 Analyzed: 05/24/2016					
Benzene	0.09	0.002	mg/kg	0.100	ND	85.8	71.8-126	8.28	11.3	
Toluene	0.09	0.002	"	0.100	ND	85.0	65.1-130	5.36	15.4	
Ethylbenzene	0.09	0.002	"	0.100	ND	90.5	62.2-130	0.397	19.6	
m,p-Xylene	0.18	0.004	"	0.200	ND	91.8	46.5-137	1.15	19.2	
o-Xylene	0.09	0.002	"	0.100	ND	90.0	54.2-134	1.57	17.9	
Surrogate: 1,2-Dichloroethane-d4	66		ug/kg	62.5		105	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.3	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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Project: KMG - Cannonland 62N65W 3SESE

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 B6E2401 - EPA 5030B (Water)										
Blank (B6E2401-BLK1)					Prepared: 05/24/2016 Analyzed: 05/24/2016					
Benzene	ND	1.0	ug/L							U
Toluene	ND	1.0	"							U
Ethylbenzene	ND	1.0	"							U
Xylenes, total	ND	1.0	"							U
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		95.2	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.7	85-115			
Surrogate: 4-Bromofluorobenzene	67		"	62.5		107	84-114			

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Project: KMG - Cannonland 62N65W 3SESE

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 B6E2401 - EPA 5030B (Water)										
LCS (B6E2401-BS1)					Prepared: 05/24/2016 Analyzed: 05/24/2016					
Benzene	52.5	1.0	ug/L	50.0		105	73.3-129			
Toluene	50.6	1.0	"	50.0		101	76.2-123			
Ethylbenzene	47.2	1.0	"	50.0		94.5	73.6-130			
m,p-Xylene	89.7	2.0	"	100		89.7	76.1-126			
o-Xylene	50.4	1.0	"	50.0		101	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		98.2	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

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Project: KMG - Cannonland 62N65W 3SESE

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 B6E2401 - EPA 5030B (Water)

Matrix Spike (B6E2401-MS1)		Source: X605266-01			Prepared: 05/24/2016 Analyzed: 05/24/2016					
Benzene	59.2	1.0	ug/L	50.0	ND	118	74-130			
Toluene	62.5	1.0	"	50.0	ND	125	73-131			
Ethylbenzene	61.6	1.0	"	50.0	ND	123	76-132			
m,p-Xylene	114	2.0	"	100	ND	114	69-139			
o-Xylene	56.2	1.0	"	50.0	ND	112	74-131			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.6	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.8	84-114			

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Project: KMG - Cannonland 62N65W 3SESE

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 B6E2401 - EPA 5030B (Water)										
Matrix Spike Dup (B6E2401-MSD1)	Source: X605266-01				Prepared: 05/24/2016 Analyzed: 05/24/2016					
Benzene	56.4	1.0	ug/L	50.0	ND	113	74-130	4.93	20	
Toluene	59.6	1.0	"	50.0	ND	119	73-131	4.73	20	
Ethylbenzene	60.3	1.0	"	50.0	ND	121	76-132	2.07	20	
m,p-Xylene	120	2.0	"	100	ND	120	69-139	5.04	20	
o-Xylene	57.8	1.0	"	50.0	ND	116	74-131	2.84	20	
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		95.2	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	84-114			

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Project: KMG - Cannonland 62N65W 3SESE

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 B6E2405 - EPA 3580

Blank (B6E2405-BLK1)

Prepared: 05/24/2016 Analyzed: 05/24/2016

Diesel (C10-C28)	ND	50	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	45		"	50.0		90.0	59-131			

Blank (B6E2405-BLK2)

Prepared: 05/24/2016 Analyzed: 05/24/2016

Diesel (C10-C28)	ND	50	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	43		"	50.0		86.1	59-131			

LCS (B6E2405-BS1)

Prepared: 05/24/2016 Analyzed: 05/24/2016

Diesel (C10-C28)	730	50	mg/kg	1000		72.9	64-121			
Residual Range Organics (C28-C40)	870	200	"	1000		87.1	58-124			
Surrogate: o-Terphenyl	40		"	50.0		79.2	59-131			

LCS (B6E2405-BS2)

Prepared: 05/24/2016 Analyzed: 05/24/2016

Diesel (C10-C28)	860	50	mg/kg	1000		86.2	64-121			
Residual Range Organics (C28-C40)	1000	200	"	1000		102	58-124			
Surrogate: o-Terphenyl	47		"	50.0		93.5	59-131			

Matrix Spike (B6E2405-MS1)

Source: X605272-05

Prepared: 05/24/2016 Analyzed: 05/24/2016

Diesel (C10-C28)	840	50	mg/kg	1000	ND	83.8	53-125			
Residual Range Organics (C28-C40)	920	200	"	1000	12	90.8	47-133			

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Jake Hildebrand
Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

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 B6E2405 - EPA 3580										
Matrix Spike (B6E2405-MS1)		Source: X605272-05			Prepared: 05/24/2016 Analyzed: 05/24/2016					
Surrogate: o-Terphenyl	44		mg/kg	50.0		87.1	59-131			
Matrix Spike (B6E2405-MS2)		Source: X605289-01			Prepared: 05/24/2016 Analyzed: 05/24/2016					
Diesel (C10-C28)	840	50	mg/kg	1000	ND	84.2	53-125			
Residual Range Organics (C28-C40)	940	200	"	1000	13	93.0	47-133			
Surrogate: o-Terphenyl	49		"	50.0		97.0	59-131			
Matrix Spike Dup (B6E2405-MSD1)		Source: X605272-05			Prepared: 05/24/2016 Analyzed: 05/24/2016					
Diesel (C10-C28)	760	50	mg/kg	1000	ND	76.2	53-125	9.49	20	
Residual Range Organics (C28-C40)	850	200	"	1000	12	83.7	47-133	8.15	20	
Surrogate: o-Terphenyl	42		"	50.0		84.0	59-131			
Matrix Spike Dup (B6E2405-MSD2)		Source: X605289-01			Prepared: 05/24/2016 Analyzed: 05/24/2016					
Diesel (C10-C28)	950	50	mg/kg	1000	ND	95.0	53-125	12.1	20	
Residual Range Organics (C28-C40)	1000	200	"	1000	13	103	47-133	9.73	20	
Surrogate: o-Terphenyl	51		"	50.0		102	59-131			

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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 B6E2406 - NO PREP										
Duplicate (B6E2406-DUP1)		Source: X605289-01			Prepared: 05/24/2016 Analyzed: 05/24/2016					
pH	7.10		pH Units		7.12			0.281	25	
Batch B6E2407 - NO PREP										
Blank (B6E2407-BLK1)		Prepared: 05/24/2016 Analyzed: 05/24/2016								
Specific Conductance (EC)	0.00230		mmhos/cm							
Duplicate (B6E2407-DUP1)		Source: X605289-01			Prepared: 05/24/2016 Analyzed: 05/24/2016					
Specific Conductance (EC)	0.0906		mmhos/cm		0.0966			6.41	25	

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Jake Hildebrand
Project Number: [none]
Project: KMG - Cannonland 62N65W 3SESE

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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Jen Pellegrini For Noelle Doyle Mathis, President