



May 07, 2019

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Warner #1

Project Number - WO# AFE 2086239.EHS

Attached are your analytical results for KMG - Warner #1 received by Origins Laboratory, Inc. April 30, 2019. This project is associated with Origins project number Y904507-01.

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

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: WO# AFE 2086239.EHS

Project: KMG - Warner #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@4'	Y904507-01	Soil	April 30, 2019 11:48	04/30/2019 17:00
N01@3.25'	Y904507-02	Soil	April 30, 2019 11:51	04/30/2019 17:00
S01@3.25'	Y904507-03	Soil	April 30, 2019 11:54	04/30/2019 17:00
E01@3.25'	Y904507-04	Soil	April 30, 2019 11:57	04/30/2019 17:00
W01@3.25'	Y904507-05	Soil	April 30, 2019 12:00	04/30/2019 17:00

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.

Jen Pellegrini For Noelle Doyle Mathis, President

Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

www.originslaboratory.com

10540507

ORIGINS
LABORATORY, INC.

Project Manager:	Robert Gomez
Project Name:	Warner 1
Project Number:	
Sample Collected By:	Zander Hamilton

client: APC/ Tasman Geosciences
Address: 6899 Pecos Street, Denver, CO

Telephone Number: 970-927-0393

Email Address: RCorneiz@tasman-geo.com

[illegible]

Date Results Needed

8.2

Origins Laboratory, Inc.

Jeff Pellipini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y904507

Client: Tasman

Client Project ID: Warner 1

Checklist Completed by: JG

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

Date/time completed: 4/30/2019

Airbill #: N/A

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

Cooler Number/Temperature: 1 2.8 °C °C °C °C

Thermometer ID: T003

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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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 type="checkbox"/>	<input checked="" 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.

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 4/30/19

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

B01@4'

4/30/2019 11:48:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904507-01 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9D3008	JTD	04/30/2019	04/30/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 87.7 % 50-150 " " "

GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9D3007	JTD	"	04/30/2019	U
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U
Naphthalene	ND	0.008	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 93.2 % 70-130 " " "
Surrogate: Toluene-d8 98.4 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

Metals (Saturated Paste Prep)

Calcium	1.17	me/L	1	'[none]'	05/02/2019	05/06/2019
Magnesium	1.42	"	"	"	"	"
Sodium	16.29	"	"	"	"	"

Origins Laboratory, Inc.



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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

B01@4'

4/30/2019 11:48:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904507-01 (Soil)

pH in Soil by EPA 9045D

pH	8.51		pH Units	1	B9D3005	OLAB	04/30/2019	04/30/2019	
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SAR by 20B Saturated Paste

SAR	14.31			1	'[none]'		05/02/2019	05/06/2019	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0555	0.00507	mmhos/cm	1	B9D3006	OLAB	04/30/2019	04/30/2019	
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Origins Laboratory, Inc.



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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

N01@3.25'

4/30/2019 11:51:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904507-02 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9D3008	JTD	04/30/2019	04/30/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 93.8 % 50-150 " " "

GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9D3007	JTD	"	04/30/2019	U
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U
Naphthalene	ND	0.008	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 94.6 % 70-130 " " "
Surrogate: Toluene-d8 97.8 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 102 % 70-130 " " "

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

S01@3.25'

4/30/2019 11:54:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904507-03 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9D3008	JTD	04/30/2019	04/30/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 110 % 50-150 " " "

GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9D3007	JTD	"	04/30/2019	U
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U
Naphthalene	ND	0.008	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 95.6 % 70-130 " " "
Surrogate: Toluene-d8 98.3 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 100 % 70-130 " " "

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

E01@3.25'

4/30/2019 11:57:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904507-04 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9D3008	JTD	04/30/2019	04/30/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 89.7 % 50-150 " " "

GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9D3007	JTD	"	04/30/2019	U
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U
Naphthalene	ND	0.008	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 93.9 % 70-130 " " "
Surrogate: Toluene-d8 98.8 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 103 % 70-130 " " "

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

W01@3.25'

4/30/2019 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904507-05 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	56.4	25.0	mg/kg	1	B9D3008	JTD	04/30/2019	04/30/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 110 % 50-150 " " "

GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	1.46	0.200	mg/kg	1	B9D3007	JTD	"	04/30/2019	
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U
Naphthalene	ND	0.008	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 97.6 % 70-130 " " "
Surrogate: Toluene-d8 98.6 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 109 % 70-130 " " "

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Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9D3007 - EPA 5030 (soil)										
Blank (B9D3007-BLK1)					Prepared: 04/30/2019 Analyzed: 04/30/2019					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Naphthalene	ND	0.008	"							U
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.3	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9D3007 - EPA 5030 (soil)										
Blank (B9D3007-BLK2)					Prepared: 04/30/2019 Analyzed: 04/30/2019					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Naphthalene	ND	0.008	"							U
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.0	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9D3007 - EPA 5030 (soil)										
LCS (B9D3007-BS1)					Prepared: 04/30/2019 Analyzed: 04/30/2019					
Benzene	0.112	0.002	mg/kg	0.100		112	70-130			
Toluene	0.113	0.002	"	0.100		113	70-130			
Ethylbenzene	0.113	0.002	"	0.100		113	70-130			
m,p-Xylene	0.233	0.004	"	0.200		117	70-130			
o-Xylene	0.113	0.002	"	0.100		113	70-130			
Naphthalene	0.101	0.008	"	0.100		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.5	70-130			

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Bob Cornez
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Project: KMG - Warner #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9D3007 - EPA 5030 (soil)										
LCS (B9D3007-BS2)					Prepared: 04/30/2019 Analyzed: 04/30/2019					
Benzene	0.109	0.002	mg/kg	0.100		109	70-130			
Toluene	0.108	0.002	"	0.100		108	70-130			
Ethylbenzene	0.110	0.002	"	0.100		110	70-130			
m,p-Xylene	0.228	0.004	"	0.200		114	70-130			
o-Xylene	0.111	0.002	"	0.100		111	70-130			
Naphthalene	0.101	0.008	"	0.100		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.5	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

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Project: KMG - Warner #1

Volatile Organic Compounds by GC/MS SW846 8260D - 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 B9D3007 - EPA 5030 (soil)

Matrix Spike (B9D3007-MS1)		Source: Y904499-01			Prepared: 04/30/2019 Analyzed: 04/30/2019					
Benzene	2.86	0.050	mg/kg	2.50	ND	114	70-130			
Toluene	2.80	0.050	"	2.50	ND	112	70-130			
Ethylbenzene	2.98	0.050	"	2.50	ND	119	70-130			
m,p-Xylene	6.09	0.100	"	5.00	ND	122	70-130			
o-Xylene	2.98	0.050	"	2.50	0.008	119	70-130			
Naphthalene	2.68	0.200	"	2.50	0.112	103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		97.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.15		"	0.125		122	70-130			

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Denver CO 80211

Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

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

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

Batch B9D3007 - EPA 5030 (soil)

Matrix Spike (B9D3007-MS2)		Source: Y904507-01			Prepared: 04/30/2019 Analyzed: 04/30/2019					
Benzene	0.113	0.002	mg/kg	0.100	ND	113	70-130			
Toluene	0.111	0.002	"	0.100	ND	111	70-130			
Ethylbenzene	0.116	0.002	"	0.100	ND	116	70-130			
m,p-Xylene	0.240	0.004	"	0.200	ND	120	70-130			
o-Xylene	0.118	0.002	"	0.100	ND	118	70-130			
Naphthalene	0.117	0.008	"	0.100	0.003	114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		92.7	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

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Denver CO 80211

Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

Volatile Organic Compounds by GC/MS SW846 8260D - 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 B9D3007 - EPA 5030 (soil)

Matrix Spike Dup (B9D3007-MSD1)		Source: Y904499-01			Prepared: 04/30/2019 Analyzed: 04/30/2019					
Benzene	2.82	0.050	mg/kg	2.50	ND	113	70-130	1.37	20	
Toluene	2.76	0.050	"	2.50	ND	111	70-130	1.20	20	
Ethylbenzene	2.94	0.050	"	2.50	ND	118	70-130	1.06	20	
m,p-Xylene	5.97	0.100	"	5.00	ND	119	70-130	1.93	20	
o-Xylene	2.95	0.050	"	2.50	0.008	118	70-130	1.05	20	
Naphthalene	3.03	0.200	"	2.50	0.112	117	70-130	12.3	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		94.0	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		106	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: WO# AFE 2086239.EHS
Project: KMG - Warner #1

Volatile Organic Compounds by GC/MS SW846 8260D - 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 B9D3007 - EPA 5030 (soil)

Matrix Spike Dup (B9D3007-MSD2)		Source: Y904507-01			Prepared: 04/30/2019 Analyzed: 04/30/2019					
Benzene	0.103	0.002	mg/kg	0.100	ND	103	70-130	9.67	20	
Toluene	0.102	0.002	"	0.100	ND	102	70-130	8.80	20	
Ethylbenzene	0.103	0.002	"	0.100	ND	103	70-130	11.6	20	
m,p-Xylene	0.212	0.004	"	0.200	ND	106	70-130	12.4	20	
o-Xylene	0.104	0.002	"	0.100	ND	104	70-130	12.4	20	
Naphthalene	0.105	0.008	"	0.100	0.003	102	70-130	10.7	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		92.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9D3008 - EPA 3550B										
Blank (B9D3008-BLK1)					Prepared: 04/30/2019 Analyzed: 04/30/2019					
Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	44		"	50.0		87.5	50-150			

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Project: KMG - Warner #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9D3008 - EPA 3550B										
Blank (B9D3008-BLK2)					Prepared: 04/30/2019 Analyzed: 04/30/2019					
Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	46		"	50.0		91.9	50-150			

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Project: KMG - Warner #1

Extractable Petroleum Hydrocarbons by 8015D - 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 B9D3008 - EPA 3550B

LCS (B9D3008-BS1)

Prepared: 04/30/2019 Analyzed: 04/30/2019

Diesel (C10-C28)	1070	50.0	mg/kg	1000		107	70-130			
Residual Range Organics (C28-C40)	1060	200	"	1000		106	70-130			
Surrogate: o-Terphenyl	54		"	50.0		108	50-150			

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Jen Pellegrini For Noelle Doyle Mathis, President

Tasman Geosciences
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Bob Cornez
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Extractable Petroleum Hydrocarbons by 8015D - 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 B9D3008 - EPA 3550B

LCS (B9D3008-BS2)

Prepared: 04/30/2019 Analyzed: 04/30/2019

Diesel (C10-C28)	1130	50.0	mg/kg	1000		113	70-130			
Residual Range Organics (C28-C40)	1150	200	"	1000		115	70-130			
Surrogate: o-Terphenyl	58		"	50.0		115	50-150			

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Project: KMG - Warner #1

Extractable Petroleum Hydrocarbons by 8015D - 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 B9D3008 - EPA 3550B

Matrix Spike (B9D3008-MS1)		Source: Y904499-01			Prepared: 04/30/2019 Analyzed: 04/30/2019					
Diesel (C10-C28)	1590	50.0	mg/kg	1000	376	121	70-130			
Residual Range Organics (C28-C40)	1330	200	"	1000	209	112	70-130			
Surrogate: o-Terphenyl	56		"	50.0		113	50-150			

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Project: KMG - Warner #1

Extractable Petroleum Hydrocarbons by 8015D - 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 B9D3008 - EPA 3550B

Matrix Spike (B9D3008-MS2)		Source: Y904507-01			Prepared: 04/30/2019 Analyzed: 04/30/2019					
Diesel (C10-C28)	961	50.0	mg/kg	1000	ND	96.1	70-130			
Residual Range Organics (C28-C40)	945	200	"	1000	ND	94.5	70-130			
Surrogate: o-Terphenyl	50		"	50.0		99.5	50-150			

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Extractable Petroleum Hydrocarbons by 8015D - 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 B9D3008 - EPA 3550B

Matrix Spike Dup (B9D3008-MSD1)		Source: Y904499-01			Prepared: 04/30/2019 Analyzed: 04/30/2019					
Diesel (C10-C28)	1510	50.0	mg/kg	1000	376	114	70-130	6.26	35	
Residual Range Organics (C28-C40)	1300	200	"	1000	209	109	70-130	2.97	35	
Surrogate: o-Terphenyl	56		"	50.0		113	50-150			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9D3008 - EPA 3550B										
Matrix Spike Dup (B9D3008-MSD2)		Source: Y904507-01			Prepared: 04/30/2019 Analyzed: 04/30/2019					
Diesel (C10-C28)	1110	50.0	mg/kg	1000	ND	111	70-130	14.3	35	
Residual Range Organics (C28-C40)	1120	200	"	1000	ND	112	70-130	17.2	35	
Surrogate: o-Terphenyl	57		"	50.0		114	50-150			

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Extractable Petroleum Hydrocarbons by 8015D - 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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Classical Chemistry Parameters - 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 B9D3005 - NO PREP

Duplicate (B9D3005-DUP1)		Source: Y904494-01			Prepared: 04/30/2019 Analyzed: 04/30/2019					
pH	8.19		pH Units		8.29			1.21	25	

Batch B9D3006 - NO PREP

Blank (B9D3006-BLK1)		Prepared: 04/30/2019 Analyzed: 04/30/2019								
Specific Conductance (EC)	0.00200	0.00500	mmhos/cm							
Duplicate (B9D3006-DUP1)		Source: Y904494-01			Prepared: 04/30/2019 Analyzed: 04/30/2019					
Specific Conductance (EC)	0.624	0.00500	mmhos/cm		0.522			17.8	25	

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Tasman Geosciences

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Bob Cornez

Project Number: WO# AFE 2086239.EHS

Project: KMG - Warner #1

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.

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