

March 08, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Hicks Ruth Elizabeth #2

Project Number - 89249235

Attached are your analytical results for KMG - Hicks Ruth Elizabeth #2 received by Origins Laboratory, Inc. March 07, 2017. This project is associated with Origins project number Y703107-01.

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



Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: 89249235

Project: KMG - Hicks Ruth Elizabeth #2

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@12'	Y703107-01	Soil	March 7, 2017 14:30	03/07/2017 17:00
S01@10'	Y703107-02	Soil	March 7, 2017 14:45	03/07/2017 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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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page 1 of 1

Y703107

Client: APC

Project Manager: Bob Cornez

Project Name: Hicks Ruth Elizabeth #2

Project Number: 89249235

Telephone Number: 9704709042

Email Address: rcornez@tasmn-geo.com

Samples Collected By: R. Irvin

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis		Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summary	Other	GC/MS	
B01012	3/7/17	1430	2	X				X					1
5010105	3/7/17	1445	2	X				X					2
													3
													4
													5
													6
													7
													8
													9
													10

Relinquished By: [Signature] Date: 3/7/17 Time: 1700

Relinquished By: [Signature] Date: 3/7/17 Time: 1700

Temp Received: 17.8

Date Results Needed: 17.8

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1703167

Client: Tasman

Client Project ID: KMG - Hicks Ruth Elizabeth #2

Checklist Completed by: De la

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

Date/time completed: 3-17-12 1715

Airbill #: WA

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

Cooler Number/Temperature: 1 / 17.2 °C _____ / _____ °C _____ / _____ °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⁾ ?		<u>✓</u>		<u>sampled same day</u>
Is there ice present (document if blue ice is used)	<u>✓</u>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<u>✓</u>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<u>✓</u>		
Were all samples received intact ⁽¹⁾ ?	<u>✓</u>			
Was adequate sample volume provided ⁽¹⁾ ?	<u>✓</u>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<u>✓</u>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<u>✓</u>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<u>✓</u>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<u>✓</u>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<u>✓</u>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<u>✓</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>✓</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.

Reviewed by (Project Manager): De la

Date/Time Reviewed: 3-17-12 1716

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

B01@12'
3/7/2017 2:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y703107-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7C0705	03/07/2017	03/07/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

<i>Surrogate: o-Terphenyl</i>	81.1 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B7C0704	03/07/2017	03/08/2017	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

<i>Surrogate: 1,2-Dichloroethane-d4</i>	108 %	70-130			"	"	"	
<i>Surrogate: Toluene-d8</i>	103 %	70-130			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	99.7 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

S01@10'
3/7/2017 2:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y703107-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	28.8	25.0	mg/kg	1	B7C0705	03/07/2017	03/07/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	66.7 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	17.1	5.00	mg/kg	25	B7C0704	03/07/2017	03/08/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	70-130			"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0704 - EPA 5030 (soil)										
Blank (B7C0704-BLK2)					Prepared: 03/07/2017 Analyzed: 03/07/2017					
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
Surrogate: 1,2-Dichloroethane-d4	69		ug/kg	62.5		111	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.5	70-130			

Origins Laboratory, Inc.



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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0704 - EPA 5030 (soil)

LCS (B7C0704-BS2)

Prepared: 03/07/2017 Analyzed: 03/07/2017

Benzene	0.108	0.002	mg/kg	0.100		108	77.1-124			
Toluene	0.111	0.002	"	0.100		111	74.5-128			
Ethylbenzene	0.108	0.002	"	0.100		108	66.4-127			
m,p-Xylene	0.222	0.004	"	0.200		111	76.6-124			
o-Xylene	0.107	0.002	"	0.100		107	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		100	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.3	70-130			

Origins Laboratory, Inc.



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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0704 - EPA 5030 (soil)

Matrix Spike (B7C0704-MS2)		Source: Y703011-03			Prepared: 03/07/2017 Analyzed: 03/07/2017					
Benzene	0.103	0.002	mg/kg	0.100	ND	103	71.8-126			
Toluene	0.098	0.002	"	0.100	ND	97.9	65.1-130			
Ethylbenzene	0.090	0.002	"	0.100	ND	90.3	62.2-130			
m,p-Xylene	0.184	0.004	"	0.200	ND	92.1	46.5-137			
o-Xylene	0.092	0.002	"	0.100	ND	91.7	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		103	70-130			
Surrogate: Toluene-d8	65		"	62.5		105	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	70-130			

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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0704 - EPA 5030 (soil)

Matrix Spike Dup (B7C0704-MSD2)		Source: Y703011-03			Prepared: 03/07/2017 Analyzed: 03/07/2017					
Benzene	0.104	0.002	mg/kg	0.100	ND	104	71.8-126	0.968	11.3	
Toluene	0.102	0.002	"	0.100	ND	102	65.1-130	4.03	15.4	
Ethylbenzene	0.099	0.002	"	0.100	ND	99.2	62.2-130	9.37	19.6	
m,p-Xylene	0.202	0.004	"	0.200	ND	101	46.5-137	9.20	19.2	
o-Xylene	0.100	0.002	"	0.100	ND	100	54.2-134	8.80	17.9	
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		105	70-130			
Surrogate: Toluene-d8	66		"	62.5		105	70-130			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		105	70-130			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0705 - EPA 3580

Blank (B7C0705-BLK1)

Prepared: 03/07/2017 Analyzed: 03/07/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	54		"	50.0		107	59-131			

LCS (B7C0705-BS1)

Prepared: 03/07/2017 Analyzed: 03/07/2017

Diesel (C10-C28)	1060	50.0	mg/kg	1000		106	64-121			
Residual Range Organics (C28-C40)	1060	200	"	1000		106	58-124			
Surrogate: o-Terphenyl	52		"	50.0		103	59-131			

Matrix Spike (B7C0705-MS1)

Source: Y703098-01

Prepared: 03/07/2017 Analyzed: 03/07/2017

Diesel (C10-C28)	1490	50.0	mg/kg	1000	407	109	53-125			
Residual Range Organics (C28-C40)	1160	200	"	1000	70.5	109	47-133			
Surrogate: o-Terphenyl	47		"	50.0		93.9	59-131			

Matrix Spike Dup (B7C0705-MSD1)

Source: Y703098-01

Prepared: 03/07/2017 Analyzed: 03/07/2017

Diesel (C10-C28)	1430	50.0	mg/kg	1000	407	102	53-125	6.44	20	
Residual Range Organics (C28-C40)	1130	200	"	1000	70.5	106	47-133	3.10	20	
Surrogate: o-Terphenyl	49		"	50.0		98.3	59-131			

Origins Laboratory, Inc.



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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: 89249235

Project: KMG - Hicks Ruth Elizabeth #2

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.



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.

March 09, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Hicks Ruth Elizabeth #2

Project Number - 89249235

Attached are your analytical results for KMG - Hicks Ruth Elizabeth #2 received by Origins Laboratory, Inc. March 08, 2017. This project is associated with Origins project number Y703125-01.

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



Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: 89249235

Project: KMG - Hicks Ruth Elizabeth #2

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N01@10'	Y703125-01	Soil	March 8, 2017 13:30	03/08/2017 16:50
E01@10'	Y703125-02	Soil	March 8, 2017 13:35	03/08/2017 16:50
E02@10'	Y703125-03	Soil	March 8, 2017 13:40	03/08/2017 16:50
W01@10'	Y703125-04	Soil	March 8, 2017 13:45	03/08/2017 16:50
W02@10'	Y703125-05	Soil	March 8, 2017 13:50	03/08/2017 16:50
GW01	Y703125-06	Water	March 8, 2017 13:15	03/08/2017 16:50

Origins Laboratory, Inc.



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Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

ORIGINS

LABORATORY, INC

www.originslaboratory.com

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

Client:

ALC

Address:

—

Telephone Number:

9704700092

Email Address:

CLIN@elkmin-slab.com

Project Manager:

Bob Cora 2

Project Name:

Hicks Ruth Elizabeth #2

Project Number:

89249235

Samples Collected By:

R. Ima

page 1 of 1

7/03/25

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis				Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #	Other	0015 0025 0035 0045 0055 0065 0075 0085 0095 0105 0115 0125 0135 0145 0155 0165 0175 0185 0195 0205 0215 0225 0235 0245 0255 0265 0275 0285 0295 0305 0315 0325 0335 0345 0355 0365 0375 0385 0395 0405 0415 0425 0435 0445 0455 0465 0475 0485 0495 0505 0515 0525 0535 0545 0555 0565 0575 0585 0595 0605 0615 0625 0635 0645 0655 0665 0675 0685 0695 0705 0715 0725 0735 0745 0755 0765 0775 0785 0795 0805 0815 0825 0835 0845 0855 0865 0875 0885 0895 0905 0915 0925 0935 0945 0955 0965 0975 0985 0995 1005 1015 1025 1035 1045 1055 1065 1075 1085 1095 1105 1115 1125 1135 1145 1155 1165 1175 1185 1195 1205 1215 1225 1235 1245 1255 1265 1275 1285 1295 1305 1315 1325 1335 1345 1355 1365 1375 1385 1395 1405 1415 1425 1435 1445 1455 1465 1475 1485 1495 1505 1515 1525 1535 1545 1555 1565 1575 1585 1595 1605 1615 1625 1635 1645 1655 1665 1675 1685 1695 1705 1715 1725 1735 1745 1755 1765 1775 1785 1795 1805 1815 1825 1835 1845 1855 1865 1875 1885 1895 1905 1915 1925 1935 1945 1955 1965 1975 1985 1995 2005 2015 2025 2035 2045 2055 2065 2075 2085 2095 2105 2115 2125 2135 2145 2155 2165 2175 2185 2195 2205 2215 2225 2235 2245 2255 2265 2275 2285 2295 2305 2315 2325 2335 2345 2355 2365 2375 2385 2395 2405 2415 2425 2435 2445 2455 2465 2475 2485 2495 2505 2515 2525 2535 2545 2555 2565 2575 2585 2595 2605 2615 2625 2635 2645 2655 2665 2675 2685 2695 2705 2715 2725 2735 2745 2755 2765 2775 2785 2795 2805 2815 2825 2835 2845 2855 2865 2875 2885 2895 2905 2915 2925 2935 2945 2955 2965 2975 2985 2995 3005 3015 3025 3035 3045 3055 3065 3075 3085 3095 3105 3115 3125 3135 3145 3155 3165 3175 3185 3195 3205 3215 3225 3235 3245 3255 3265 3275 3285 3295 3305 3315 3325 3335 3345 3355 3365 3375 3385 3395 3405 3415 3425 3435 3445 3455 3465 3475 3485 3495 3505 3515 3525 3535 3545 3555 3565 3575 3585 3595 3605 3615 3625 3635 3645 3655 3665 3675 3685 3695 3705 3715 3725 3735 3745 3755 3765 3775 3785 3795 3805 3815 3825 3835 3845 3855 3865 3875 3885 3895 3905 3915 3925 3935 3945 3955 3965 3975 3985 3995 4005 4015 4025 4035 4045 4055 4065 4075 4085 4095 4105 4115 4125 4135 4145 4155 4165 4175 4185 4195 4205 4215 4225 4235 4245 4255 4265 4275 4285 4295 4305 4315 4325 4335 4345 4355 4365 4375 4385 4395 4405 4415 4425 4435 4445 4455 4465 4475 4485 4495 4505 4515 4525 4535 4545 4555 4565 4575 4585 4595 4605 4615 4625 4635 4645 4655 4665 4675 4685 4695 4705 4715 4725 4735 4745 4755 4765 4775 4785 4795 4805 4815 4825 4835 4845 4855 4865 4875 4885 4895 4905 4915 4925 4935 4945 4955 4965 4975 4985 4995 5005 5015 5025 5035 5045 5055 5065 5075 5085 5095 5105 5115 5125 5135 5145 5155 5165 5175 5185 5195 5205 5215 5225 5235 5245 5			

Origins Laboratory, Inc.

Jeff Pellgrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y-203125

Client: Tasman

Client Project ID: KMG: Hicks Ruth Elizabeth #2

Checklist Completed by: [Signature]

Shipped Via: 1D Pick-up

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

Date/time completed: 3-8-17 1718

Airbill #: NA

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

Cooler Number/Temperature: 1 / 19.8 °C 1 / _____ °C 1 / _____ °C (Describe)

Thermometer ID: 7603

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"/>		<u>sampled same day</u>
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" 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 checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		<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 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 3-8-17 1718

Origins Laboratory, Inc.

[Signature]

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

N01@10'
3/8/2017 1:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y703125-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7C0807	03/08/2017	03/09/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 79.7 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	1.50	0.200	mg/kg	1	B7C0802	03/08/2017	03/09/2017	
Benzene	0.016	0.002	"	"	"	"	"	
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	0.023	0.002	"	"	"	"	"	
Xylenes, total	0.029	0.002	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 107 % 70-130 " " "

Surrogate: Toluene-d8 98.7 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 103 % 70-130 " " "

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

E01@10'
3/8/2017 1:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y703125-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	738	25.0	mg/kg	1	B7C0807	03/08/2017	03/09/2017	
Residual Range Organics (C28-C40)	133	100	"	"	"	"	"	

Surrogate: o-Terphenyl	89.9 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	140	5.00	mg/kg	25	B7C0802	03/08/2017	03/09/2017	
Benzene	0.052	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.534	0.050	"	"	"	"	"	
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.8 %	70-130			"	"	"	
Surrogate: Toluene-d8	128 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.9 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

E02@10'
3/8/2017 1:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y703125-03 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7C0807	03/08/2017	03/09/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	84.1 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	19.9	5.00	mg/kg	25	B7C0802	03/08/2017	03/09/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.9 %	70-130			"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.4 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

W01@10'
3/8/2017 1:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y703125-04 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	153	25.0	mg/kg	1	B7C0807	03/08/2017	03/09/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	62.0 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	140	5.00	mg/kg	25	B7C0802	03/08/2017	03/09/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	70-130			"	"	"	
Surrogate: Toluene-d8	106 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

W02@10'
3/8/2017 1:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y703125-05 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	774	25.0	mg/kg	1	B7C0807	03/08/2017	03/09/2017	
Residual Range Organics (C28-C40)	125	100	"	"	"	"	"	

Surrogate: o-Terphenyl	100 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	51.1	5.00	mg/kg	25	B7C0802	03/08/2017	03/09/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.184	0.050	"	"	"	"	"	
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	70-130			"	"	"	
Surrogate: Toluene-d8	109 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

GW01
3/8/2017 1:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y703125-06 (Water)

BTEX by EPA 8260C

Benzene	88.3	4.00	ug/L	4	B7C0805	03/08/2017	03/09/2017	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	59.5	4.00	"	"	"	"	"	
Xylenes, total	122	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	03/08/2017	
Surrogate: Toluene-d8	98.6 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.1 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)										
Blank (B7C0802-BLK1)					Prepared: 03/08/2017 Analyzed: 03/08/2017					
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
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		103	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)										
Blank (B7C0802-BLK2)					Prepared: 03/08/2017 Analyzed: 03/08/2017					
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
Surrogate: 1,2-Dichloroethane-d4	68		ug/kg	62.5		108	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)										
Blank (B7C0802-BLK3)					Prepared: 03/08/2017 Analyzed: 03/08/2017					
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
Surrogate: 1,2-Dichloroethane-d4	66		ug/kg	62.5		106	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.8	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)										
Blank (B7C0802-BLK4)					Prepared: 03/08/2017 Analyzed: 03/08/2017					
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
Surrogate: 1,2-Dichloroethane-d4	68		ug/kg	62.5		109	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.8	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)										
LCS (B7C0802-BS1)					Prepared: 03/08/2017 Analyzed: 03/08/2017					
Benzene	0.115	0.002	mg/kg	0.100		115	77.1-124			
Toluene	0.114	0.002	"	0.100		114	74.5-128			
Ethylbenzene	0.110	0.002	"	0.100		110	66.4-127			
m,p-Xylene	0.229	0.004	"	0.200		114	76.6-124			
o-Xylene	0.108	0.002	"	0.100		108	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	62		ug/kg	62.5		99.2	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.7	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)										
LCS (B7C0802-BS2)					Prepared: 03/08/2017 Analyzed: 03/08/2017					
Benzene	0.111	0.002	mg/kg	0.100		111	77.1-124			
Toluene	0.111	0.002	"	0.100		111	74.5-128			
Ethylbenzene	0.109	0.002	"	0.100		109	66.4-127			
m,p-Xylene	0.229	0.004	"	0.200		114	76.6-124			
o-Xylene	0.112	0.002	"	0.100		112	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)										
LCS (B7C0802-BS3)					Prepared: 03/08/2017 Analyzed: 03/08/2017					
Benzene	0.107	0.002	mg/kg	0.100		107	77.1-124			
Toluene	0.105	0.002	"	0.100		105	74.5-128			
Ethylbenzene	0.102	0.002	"	0.100		102	66.4-127			
m,p-Xylene	0.210	0.004	"	0.200		105	76.6-124			
o-Xylene	0.105	0.002	"	0.100		105	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	68		ug/kg	62.5		108	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.2	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)										
LCS (B7C0802-BS4)					Prepared: 03/08/2017 Analyzed: 03/08/2017					
Benzene	0.106	0.002	mg/kg	0.100		106	77.1-124			
Toluene	0.103	0.002	"	0.100		103	74.5-128			
Ethylbenzene	0.101	0.002	"	0.100		101	66.4-127			
m,p-Xylene	0.210	0.004	"	0.200		105	76.6-124			
o-Xylene	0.104	0.002	"	0.100		104	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.6	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)

Matrix Spike (B7C0802-MS1)		Source: Y703051-01			Prepared: 03/08/2017 Analyzed: 03/08/2017					
Benzene	0.107	0.002	mg/kg	0.100	ND	107	71.8-126			
Toluene	0.107	0.002	"	0.100	ND	107	65.1-130			
Ethylbenzene	0.102	0.002	"	0.100	ND	102	62.2-130			
m,p-Xylene	0.214	0.004	"	0.200	ND	107	46.5-137			
o-Xylene	0.106	0.002	"	0.100	ND	106	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	65		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.3	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)

Matrix Spike (B7C0802-MS2)		Source: Y703051-02			Prepared: 03/08/2017 Analyzed: 03/08/2017					
Benzene	0.114	0.002	mg/kg	0.100	ND	114	71.8-126			
Toluene	0.113	0.002	"	0.100	ND	113	65.1-130			
Ethylbenzene	0.110	0.002	"	0.100	ND	110	62.2-130			
m,p-Xylene	0.229	0.004	"	0.200	ND	115	46.5-137			
o-Xylene	0.112	0.002	"	0.100	ND	112	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	62		ug/kg	62.5		99.3	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.6	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)

Matrix Spike (B7C0802-MS3)		Source: Y703051-03			Prepared: 03/08/2017 Analyzed: 03/09/2017					
Benzene	0.104	0.002	mg/kg	0.100	ND	104	71.8-126			
Toluene	0.104	0.002	"	0.100	ND	104	65.1-130			
Ethylbenzene	0.100	0.002	"	0.100	ND	100	62.2-130			
m,p-Xylene	0.206	0.004	"	0.200	ND	103	46.5-137			
o-Xylene	0.104	0.002	"	0.100	ND	104	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	65		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.6	70-130			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)

Matrix Spike (B7C0802-MS4)		Source: Y703130-01			Prepared: 03/08/2017 Analyzed: 03/09/2017					
Benzene	0.105	0.002	mg/kg	0.100	ND	105	71.8-126			
Toluene	0.102	0.002	"	0.100	ND	102	65.1-130			
Ethylbenzene	0.097	0.002	"	0.100	ND	96.5	62.2-130			
m,p-Xylene	0.199	0.004	"	0.200	ND	99.7	46.5-137			
o-Xylene	0.101	0.002	"	0.100	ND	101	54.2-134			
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	61		"	62.5		97.7	70-130			

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Tasman Geosciences
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Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)

Matrix Spike Dup (B7C0802-MSD1)		Source: Y703051-01			Prepared: 03/08/2017 Analyzed: 03/08/2017					
Benzene	0.114	0.002	mg/kg	0.100	ND	114	71.8-126	6.92	11.3	
Toluene	0.114	0.002	"	0.100	ND	114	65.1-130	7.02	15.4	
Ethylbenzene	0.111	0.002	"	0.100	ND	111	62.2-130	7.64	19.6	
m,p-Xylene	0.231	0.004	"	0.200	ND	116	46.5-137	7.67	19.2	
o-Xylene	0.115	0.002	"	0.100	ND	115	54.2-134	7.74	17.9	
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		102	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)

Matrix Spike Dup (B7C0802-MSD2)		Source: Y703051-02			Prepared: 03/08/2017 Analyzed: 03/08/2017					
Benzene	0.104	0.002	mg/kg	0.100	ND	104	71.8-126	9.69	11.3	
Toluene	0.105	0.002	"	0.100	ND	105	65.1-130	7.31	15.4	
Ethylbenzene	0.100	0.002	"	0.100	ND	100	62.2-130	9.38	19.6	
m,p-Xylene	0.205	0.004	"	0.200	ND	103	46.5-137	11.0	19.2	
o-Xylene	0.101	0.002	"	0.100	ND	101	54.2-134	10.1	17.9	
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		103	70-130			
Surrogate: Toluene-d8	65		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.9	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)										
Matrix Spike Dup (B7C0802-MSD3)			Source: Y703051-03		Prepared: 03/08/2017 Analyzed: 03/09/2017					
Benzene	0.112	0.002	mg/kg	0.100	ND	112	71.8-126	7.32	11.3	
Toluene	0.111	0.002	"	0.100	ND	111	65.1-130	6.88	15.4	
Ethylbenzene	0.107	0.002	"	0.100	ND	107	62.2-130	6.70	19.6	
m,p-Xylene	0.225	0.004	"	0.200	ND	112	46.5-137	8.83	19.2	
o-Xylene	0.111	0.002	"	0.100	ND	111	54.2-134	7.13	17.9	
Surrogate: 1,2-Dichloroethane-d4	59		ug/kg	62.5		95.0	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		100	70-130			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0802 - EPA 5030 (soil)										
Matrix Spike Dup (B7C0802-MSD4)		Source: Y703130-01			Prepared: 03/08/2017 Analyzed: 03/09/2017					
Benzene	0.103	0.002	mg/kg	0.100	ND	103	71.8-126	2.04	11.3	
Toluene	0.103	0.002	"	0.100	ND	103	65.1-130	0.960	15.4	
Ethylbenzene	0.095	0.002	"	0.100	ND	95.3	62.2-130	1.29	19.6	
m,p-Xylene	0.196	0.004	"	0.200	ND	98.2	46.5-137	1.46	19.2	
o-Xylene	0.099	0.002	"	0.100	ND	98.8	54.2-134	2.60	17.9	
Surrogate: 1,2-Dichloroethane-d4	68		ug/kg	62.5		108	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.2	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0805 - EPA 5030B (Water)										
Blank (B7C0805-BLK1)					Prepared: 03/08/2017 Analyzed: 03/08/2017					
Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5	106		84-121			
Surrogate: Toluene-d8	63		"	62.5	101		85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5	103		84-114			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0805 - EPA 5030B (Water)										
LCS (B7C0805-BS1)					Prepared: 03/08/2017 Analyzed: 03/08/2017					
Benzene	52.5	1.00	ug/L	50.0		105	73.3-129			
Toluene	55.2	1.00	"	50.0		110	76.2-123			
Ethylbenzene	54.8	1.00	"	50.0		110	73.6-130			
m,p-Xylene	110	2.00	"	100		110	76.1-126			
o-Xylene	54.8	1.00	"	50.0		110	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	84-121			
Surrogate: Toluene-d8	66		"	62.5		106	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0805 - EPA 5030B (Water)

Matrix Spike (B7C0805-MS1)		Source: Y703084-02			Prepared: 03/08/2017 Analyzed: 03/08/2017					
Benzene	64.6	1.00	ug/L	50.0	ND	129	74-130			
Toluene	62.7	1.00	"	50.0	ND	125	73-131			
Ethylbenzene	66.5	1.00	"	50.0	0.220	132	76-132			
m,p-Xylene	130	2.00	"	100	ND	130	69-139			
o-Xylene	64.8	1.00	"	50.0	ND	130	74-131			
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5		104	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.4	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.8	84-114			

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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0805 - EPA 5030B (Water)										
Matrix Spike Dup (B7C0805-MSD1)	Source: Y703084-02				Prepared: 03/08/2017 Analyzed: 03/08/2017					
Benzene	55.0	1.00	ug/L	50.0	ND	110	74-130	16.1	20	
Toluene	50.4	1.00	"	50.0	ND	101	73-131	21.9	20	QR-02
Ethylbenzene	52.8	1.00	"	50.0	0.220	105	76-132	22.8	20	QR-02
m,p-Xylene	104	2.00	"	100	ND	104	69-139	22.2	20	QR-02
o-Xylene	52.8	1.00	"	50.0	ND	106	74-131	20.3	20	QR-02
Surrogate: 1,2-Dichloroethane-d4	69		"	62.5		110	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.6	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0807 - EPA 3550B

Blank (B7C0807-BLK1)

Prepared: 03/08/2017 Analyzed: 03/08/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	53		"	50.0		106	59-131			

Blank (B7C0807-BLK2)

Prepared: 03/08/2017 Analyzed: 03/08/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	49		"	50.0		98.9	59-131			

Blank (B7C0807-BLK3)

Prepared: 03/08/2017 Analyzed: 03/08/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	44		"	50.0		87.0	59-131			

LCS (B7C0807-BS1)

Prepared: 03/08/2017 Analyzed: 03/08/2017

Diesel (C10-C28)	983	50.0	mg/kg	1000		98.3	64-121			
Residual Range Organics (C28-C40)	1000	200	"	1000		100	58-124			
Surrogate: o-Terphenyl	49		"	50.0		97.4	59-131			

LCS (B7C0807-BS2)

Prepared: 03/08/2017 Analyzed: 03/08/2017

Diesel (C10-C28)	961	50.0	mg/kg	1000		96.1	64-121			
Residual Range Organics (C28-C40)	968	200	"	1000		96.8	58-124			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0807 - EPA 3550B										
LCS (B7C0807-BS2)					Prepared: 03/08/2017 Analyzed: 03/08/2017					
Surrogate: o-Terphenyl	49		mg/kg	50.0		97.9	59-131			
LCS (B7C0807-BS3)					Prepared: 03/08/2017 Analyzed: 03/08/2017					
Diesel (C10-C28)	959	50.0	mg/kg	1000		95.9	64-121			
Residual Range Organics (C28-C40)	964	200	"	1000		96.4	58-124			
Surrogate: o-Terphenyl	49		"	50.0		98.7	59-131			
Matrix Spike (B7C0807-MS1)					Source: Y703121-01		Prepared: 03/08/2017 Analyzed: 03/08/2017			
Diesel (C10-C28)	925	50.0	mg/kg	1000	19.7	90.6	53-125			
Residual Range Organics (C28-C40)	991	200	"	1000	ND	99.1	47-133			
Surrogate: o-Terphenyl	46		"	50.0		92.7	59-131			
Matrix Spike (B7C0807-MS2)					Source: Y703121-02		Prepared: 03/08/2017 Analyzed: 03/08/2017			
Diesel (C10-C28)	943	50.0	mg/kg	1000	25.8	91.8	53-125			
Residual Range Organics (C28-C40)	988	200	"	1000	ND	98.8	47-133			
Surrogate: o-Terphenyl	48		"	50.0		95.2	59-131			
Matrix Spike (B7C0807-MS3)					Source: Y703121-03		Prepared: 03/08/2017 Analyzed: 03/08/2017			
Diesel (C10-C28)	920	50.0	mg/kg	1000	21.4	89.9	53-125			
Residual Range Organics (C28-C40)	1160	200	"	1000	ND	116	47-133			
Surrogate: o-Terphenyl	110		"	100		107	59-131			
Matrix Spike Dup (B7C0807-MSD1)					Source: Y703121-01		Prepared: 03/08/2017 Analyzed: 03/08/2017			
Diesel (C10-C28)	893	50.0	mg/kg	1000	19.7	87.4	53-125	3.59	20	
Residual Range Organics (C28-C40)	946	200	"	1000	ND	94.6	47-133	4.64	20	
Surrogate: o-Terphenyl	48		"	50.0		96.3	59-131			
Matrix Spike Dup (B7C0807-MSD2)					Source: Y703121-02		Prepared: 03/08/2017 Analyzed: 03/08/2017			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C0807 - EPA 3550B										
Matrix Spike Dup (B7C0807-MSD2)		Source: Y703121-02			Prepared: 03/08/2017 Analyzed: 03/08/2017					
Diesel (C10-C28)	941	50.0	mg/kg	1000	25.8	91.6	53-125	0.224	20	
Residual Range Organics (C28-C40)	1010	200	"	1000	ND	101	47-133	2.04	20	
Surrogate: o-Terphenyl	47		"	50.0		93.7	59-131			
Matrix Spike Dup (B7C0807-MSD3)		Source: Y703121-03			Prepared: 03/08/2017 Analyzed: 03/08/2017					
Diesel (C10-C28)	879	50.0	mg/kg	1000	21.4	85.8	53-125	4.71	20	
Residual Range Organics (C28-C40)	1080	200	"	1000	ND	108	47-133	6.98	20	
Surrogate: o-Terphenyl	54		"	50.0		108	59-131			

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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: 89249235

Project: KMG - Hicks Ruth Elizabeth #2

Notes and Definitions

U Sample is Non-Detect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

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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March 15, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Hicks Ruth Elizabeth #2

Project Number - 89249235

Attached are your analytical results for KMG - Hicks Ruth Elizabeth #2 received by Origins Laboratory, Inc. March 14, 2017. This project is associated with Origins project number Y703199-01.

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: 89249235

Project: KMG - Hicks Ruth Elizabeth #2

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W03@10'	Y703199-01	Soil	March 14, 2017 16:07	03/14/2017 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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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page 1 of 1

703199

Client: APC

Project Manager: Bob Cornez

Project Name: Hicks Ruth Elizabeth #2

Project Number: 89249235

Samples Collected By: Math P

Telephone Number: 970 927 0393

Email Address: rcornez@tasman-geo.com

Address:

Sample ID Description: W03E10

Date Sampled: 3/14/17

Time Sampled: 1607

of Containers: 2

Preservative: Unpreserved

Matrix: Air Summo

Analysis: 0.50% 0.50% 0.50% 0.50% 0.50% 0.50% 0.50% 0.50% 0.50% 0.50%

Sample Instructions: 1 2 3 4 5 6 7 8 9 10

Relinquished By: [Signature]

Date: 3/14/17

Time: 17:00

Received By: [Signature]

Date: 3-14-17

Time: 1700

Turnaround Time: 24 Hr 48 Hr 72 Hr Standard

Temp Received: 20°C

Date Results Needed

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

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 703199

Client: Tasman

Client Project ID: KMG - Hicks Ruth Elizabeth #2

Checklist Completed by: DL

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

Date/time completed: 3-14-12 1716

Airbill #: HP

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

Cooler Number/Temperature: 1 / 2.0 °C 1 / _____ °C 1 / _____ °C 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 ≤ 8°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 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.

Reviewed by (Project Manager) DL

Date/Time Reviewed 3-14-12 1715

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

W03@10'
3/14/2017 4:07:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y703199-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7C1403	03/14/2017	03/14/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 80.0 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B7C1402	03/14/2017	03/14/2017	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 110 % 70-130 " " "
Surrogate: Toluene-d8 96.8 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 104 % 70-130 " " "

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1402 - EPA 5030 (soil)										
Blank (B7C1402-BLK1)					Prepared: 03/14/2017 Analyzed: 03/14/2017					
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
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.8	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1402 - EPA 5030 (soil)										
Blank (B7C1402-BLK2)					Prepared: 03/14/2017 Analyzed: 03/14/2017					
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
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.2	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.0	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
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Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1402 - EPA 5030 (soil)										
LCS (B7C1402-BS1)					Prepared: 03/14/2017 Analyzed: 03/14/2017					
Benzene	0.105	0.002	mg/kg	0.100		105	77.1-124			
Toluene	0.102	0.002	"	0.100		102	74.5-128			
Ethylbenzene	0.102	0.002	"	0.100		102	66.4-127			
m,p-Xylene	0.201	0.004	"	0.200		101	76.6-124			
o-Xylene	0.102	0.002	"	0.100		102	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	60		ug/kg	62.5		95.4	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.6	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.8	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1402 - EPA 5030 (soil)										
LCS (B7C1402-BS2)					Prepared: 03/14/2017 Analyzed: 03/14/2017					
Benzene	0.110	0.002	mg/kg	0.100		110	77.1-124			
Toluene	0.105	0.002	"	0.100		105	74.5-128			
Ethylbenzene	0.104	0.002	"	0.100		104	66.4-127			
m,p-Xylene	0.210	0.004	"	0.200		105	76.6-124			
o-Xylene	0.106	0.002	"	0.100		106	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	62		ug/kg	62.5		100	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.3	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.4	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1402 - EPA 5030 (soil)

Matrix Spike (B7C1402-MS1)		Source: Y703188-04			Prepared: 03/14/2017 Analyzed: 03/14/2017					
Benzene	0.111	0.002	mg/kg	0.100	ND	111	71.8-126			
Toluene	0.113	0.002	"	0.100	ND	113	65.1-130			
Ethylbenzene	0.110	0.002	"	0.100	ND	110	62.2-130			
m,p-Xylene	0.220	0.004	"	0.200	ND	110	46.5-137			
o-Xylene	0.108	0.002	"	0.100	ND	108	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	61		ug/kg	62.5		97.2	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.3	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.7	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1402 - EPA 5030 (soil)

Matrix Spike (B7C1402-MS2)		Source: Y703188-05			Prepared: 03/14/2017 Analyzed: 03/14/2017					
Benzene	0.107	0.002	mg/kg	0.100	ND	107	71.8-126			
Toluene	0.104	0.002	"	0.100	ND	104	65.1-130			
Ethylbenzene	0.103	0.002	"	0.100	ND	103	62.2-130			
m,p-Xylene	0.204	0.004	"	0.200	ND	102	46.5-137			
o-Xylene	0.101	0.002	"	0.100	ND	101	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		102	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.1	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1402 - EPA 5030 (soil)										
Matrix Spike Dup (B7C1402-MSD1)		Source: Y703188-04			Prepared: 03/14/2017 Analyzed: 03/14/2017					
Benzene	0.107	0.002	mg/kg	0.100	ND	107	71.8-126	4.05	11.3	
Toluene	0.104	0.002	"	0.100	ND	104	65.1-130	7.73	15.4	
Ethylbenzene	0.101	0.002	"	0.100	ND	101	62.2-130	8.77	19.6	
m,p-Xylene	0.200	0.004	"	0.200	ND	100	46.5-137	9.51	19.2	
o-Xylene	0.100	0.002	"	0.100	ND	100	54.2-134	7.46	17.9	
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.9	70-130			

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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1402 - EPA 5030 (soil)

Matrix Spike Dup (B7C1402-MSD2)		Source: Y703188-05			Prepared: 03/14/2017 Analyzed: 03/14/2017					
Benzene	0.110	0.002	mg/kg	0.100	ND	110	71.8-126	2.33	11.3	
Toluene	0.107	0.002	"	0.100	ND	107	65.1-130	2.67	15.4	
Ethylbenzene	0.105	0.002	"	0.100	ND	105	62.2-130	1.62	19.6	
m,p-Xylene	0.208	0.004	"	0.200	ND	104	46.5-137	2.33	19.2	
o-Xylene	0.104	0.002	"	0.100	ND	104	54.2-134	2.73	17.9	
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.8	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1403 - EPA 3550B

Blank (B7C1403-BLK1)

Prepared: 03/14/2017 Analyzed: 03/14/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	44		"	50.0		88.6	59-131			

Blank (B7C1403-BLK2)

Prepared: 03/14/2017 Analyzed: 03/14/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	45		"	50.0		89.8	59-131			

LCS (B7C1403-BS1)

Prepared: 03/14/2017 Analyzed: 03/14/2017

Diesel (C10-C28)	861	50.0	mg/kg	1000		86.1	64-121			
Residual Range Organics (C28-C40)	1020	200	"	1000		102	58-124			
Surrogate: o-Terphenyl	44		"	50.0		87.6	59-131			

LCS (B7C1403-BS2)

Prepared: 03/14/2017 Analyzed: 03/14/2017

Diesel (C10-C28)	842	50.0	mg/kg	1000		84.2	64-121			
Residual Range Organics (C28-C40)	1030	200	"	1000		103	58-124			
Surrogate: o-Terphenyl	43		"	50.0		85.8	59-131			

Matrix Spike (B7C1403-MS1)

Source: Y703166-01

Prepared: 03/14/2017 Analyzed: 03/14/2017

Diesel (C10-C28)	2950	50.0	mg/kg	1000	1310	164	53-125			QM-07
Residual Range Organics (C28-C40)	2510	200	"	1000	365	214	47-133			QM-07

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1403 - EPA 3550B										
Matrix Spike (B7C1403-MS1)		Source: Y703166-01			Prepared: 03/14/2017 Analyzed: 03/14/2017					
Surrogate: o-Terphenyl	51		mg/kg	50.0		102	59-131			
Matrix Spike (B7C1403-MS2)		Source: Y703168-04			Prepared: 03/14/2017 Analyzed: 03/14/2017					
Diesel (C10-C28)	3380	50.0	mg/kg	1000	3150	23.3	53-125			QM-07
Residual Range Organics (C28-C40)	2160	200	"	1000	1030	113	47-133			
Surrogate: o-Terphenyl	56		"	50.0		112	59-131			
Matrix Spike Dup (B7C1403-MSD1)		Source: Y703166-01			Prepared: 03/14/2017 Analyzed: 03/14/2017					
Diesel (C10-C28)	2790	50.0	mg/kg	1000	1310	148	53-125	10.2	20	QM-07
Residual Range Organics (C28-C40)	2280	200	"	1000	365	192	47-133	11.1	20	QM-07
Surrogate: o-Terphenyl	49		"	50.0		98.3	59-131			
Matrix Spike Dup (B7C1403-MSD2)		Source: Y703168-04			Prepared: 03/14/2017 Analyzed: 03/14/2017					
Diesel (C10-C28)	3230	50.0	mg/kg	1000	3150	8.22	53-125	95.8	20	QM-07, QR-03
Residual Range Organics (C28-C40)	1910	200	"	1000	1030	88.4	47-133	24.5	20	QR-03
Surrogate: o-Terphenyl	54		"	50.0		108	59-131			

Origins Laboratory, Inc.



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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: 89249235

Project: KMG - Hicks Ruth Elizabeth #2

Notes and Definitions

U Sample is Non-Detect.

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

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.



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

March 16, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Hicks Ruth Elizabeth #2

Project Number - 89249235

Attached are your analytical results for KMG - Hicks Ruth Elizabeth #2 received by Origins Laboratory, Inc. March 15, 2017. This project is associated with Origins project number Y703214-01.

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



Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: 89249235

Project: KMG - Hicks Ruth Elizabeth #2

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N02@10'	Y703214-01	Soil	March 15, 2017 14:14	03/15/2017 16:43
E03@10'	Y703214-02	Soil	March 15, 2017 14:22	03/15/2017 16:43

Origins Laboratory, Inc.



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Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

ORIGINS

LABORATORY, INC

www.originslaboratory.com

Y70324

page 1 of 1

Client: APC
Address:
Telephone Number:
Email Address: CORNEZ@HSMND-930.COM

Project Manager: Bob Cornez
Project Name: Hicks Rd. Elizabetha #2
Project Number: 89249235
Samples Collected By: M.H. P.

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Sampling		
N02 @ 10'	3/15/17	14:14	2	X				X			X X X X X X X X X X X X X X X	1
E03 @ 10'	3/15/17	14:22	2	X				X			X X	2
												3
												4
												5
												6
												7
												8
												9
												10

Relinquished By:	Date: 3/15/17	Time: 11:43	Received By:	Date: 3-15-17	Time: 1/43	Turnaround Time: 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Standard <input checked="" type="checkbox"/>

13.7

Date Results Needed

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

Origins Laboratory, Inc.

Jeje Pellipini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y703214

Client: Tasman

Client Project ID: KMG - Hicks Ruth Elizabeth #2

Checklist Completed by: D. L. L.

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

Date/time completed: 3-15-12 1739

Airbill #: NA

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

Cooler Number/Temperature: 1 / 13.7 °C 1 / _____ °C 1 / _____ °C 1 / _____ °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"/>		Sampled Same Day
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" 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 checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<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 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)

3-15-12 1730
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

N02@10'
3/15/2017 2:14:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y703214-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	113	25.0	mg/kg	1	B7C1503	03/15/2017	03/15/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	79.7 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	26.8	5.00	mg/kg	25	B7C1502	03/15/2017	03/15/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.4 %	70-130			"	"	"	
Surrogate: Toluene-d8	94.9 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	117 %	70-130			"	"	"	

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

E03@10'
3/15/2017 2:22:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y703214-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	60.7	25.0	mg/kg	1	B7C1503	03/15/2017	03/15/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	89.5 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	14.1	5.00	mg/kg	25	B7C1502	03/15/2017	03/15/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	95.5 %	70-130			"	"	"	
Surrogate: Toluene-d8	96.5 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	109 %	70-130			"	"	"	

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1502 - EPA 5030 (soil)										
Blank (B7C1502-BLK1)					Prepared: 03/15/2017 Analyzed: 03/15/2017					
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
Surrogate: 1,2-Dichloroethane-d4	57		ug/kg	62.5		91.8	70-130			
Surrogate: Toluene-d8	53		"	62.5		85.4	70-130			
Surrogate: 4-Bromofluorobenzene	55		"	62.5		88.0	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1502 - EPA 5030 (soil)										
LCS (B7C1502-BS1)					Prepared: 03/15/2017 Analyzed: 03/15/2017					
Benzene	0.107	0.002	mg/kg	0.100		107	77.1-124			
Toluene	0.107	0.002	"	0.100		107	74.5-128			
Ethylbenzene	0.106	0.002	"	0.100		106	66.4-127			
m,p-Xylene	0.211	0.004	"	0.200		105	76.6-124			
o-Xylene	0.103	0.002	"	0.100		103	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		102	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.7	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.2	70-130			

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Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1502 - EPA 5030 (soil)

Matrix Spike (B7C1502-MS1)		Source: Y703202-01			Prepared: 03/15/2017 Analyzed: 03/15/2017					
Benzene	2.74	0.050	mg/kg	2.50	ND	110	71.8-126			
Toluene	2.80	0.050	"	2.50	ND	112	65.1-130			
Ethylbenzene	2.73	0.050	"	2.50	ND	109	62.2-130			
m,p-Xylene	5.59	0.100	"	5.00	ND	112	46.5-137			
o-Xylene	2.71	0.050	"	2.50	ND	108	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.9	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.1	70-130			

Origins Laboratory, Inc.



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Denver CO 80211

Bob Cornez
Project Number: 89249235
Project: KMG - Hicks Ruth Elizabeth #2

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 B7C1502 - EPA 5030 (soil)

Matrix Spike Dup (B7C1502-MSD1)		Source: Y703202-01			Prepared: 03/15/2017 Analyzed: 03/15/2017					
Benzene	2.76	0.050	mg/kg	2.50	ND	110	71.8-126	0.673	11.3	
Toluene	2.79	0.050	"	2.50	ND	112	65.1-130	0.125	15.4	
Ethylbenzene	2.81	0.050	"	2.50	ND	112	62.2-130	2.60	19.6	
m,p-Xylene	5.68	0.100	"	5.00	ND	114	46.5-137	1.44	19.2	
o-Xylene	2.76	0.050	"	2.50	ND	110	54.2-134	1.90	17.9	
Surrogate: 1,2-Dichloroethane-d4	62		ug/kg	62.5		99.8	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.1	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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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 B7C1503 - EPA 3580

Blank (B7C1503-BLK1)

Prepared: 03/15/2017 Analyzed: 03/15/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	47		"	50.0		94.4	59-131			

LCS (B7C1503-BS1)

Prepared: 03/15/2017 Analyzed: 03/15/2017

Diesel (C10-C28)	836	50.0	mg/kg	1000		83.6	64-121			
Residual Range Organics (C28-C40)	850	200	"	1000		85.0	58-124			
Surrogate: o-Terphenyl	40		"	50.0		80.4	59-131			

Matrix Spike (B7C1503-MS1)

Source: Y703202-01

Prepared: 03/15/2017 Analyzed: 03/15/2017

Diesel (C10-C28)	1030	50.0	mg/kg	1000	377	65.7	53-125			
Residual Range Organics (C28-C40)	917	200	"	1000	ND	91.7	47-133			
Surrogate: o-Terphenyl	47		"	50.0		94.2	59-131			

Matrix Spike Dup (B7C1503-MSD1)

Source: Y703202-01

Prepared: 03/15/2017 Analyzed: 03/15/2017

Diesel (C10-C28)	999	50.0	mg/kg	1000	377	62.2	53-125	5.47	20	
Residual Range Organics (C28-C40)	803	200	"	1000	ND	80.3	47-133	13.3	20	
Surrogate: o-Terphenyl	42		"	50.0		83.7	59-131			

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Bob Cornez

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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