



March 08, 2018

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Howard

Project Number - 88541237

Attached are your analytical results for KMG - Howard received by Origins Laboratory, Inc. March 01, 2018. This project is associated with Origins project number Y803032-01.

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: 88541237

Project: KMG - Howard

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 3/1/18	Y803032-01	Water	March 1, 2018 10:10	03/01/2018 16:30
BH02 - 3/1/18	Y803032-02	Water	March 1, 2018 9:50	03/01/2018 16:30
BH03 - 3/1/18	Y803032-03	Water	March 1, 2018 10:05	03/01/2018 16:30
BH05 - 3/1/18	Y803032-04	Water	March 1, 2018 10:20	03/01/2018 16:30
BH06 - 3/1/18	Y803032-05	Water	March 1, 2018 10:35	03/01/2018 16:30
BH08 - 3/1/18	Y803032-06	Water	March 1, 2018 10:30	03/01/2018 16:30

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: 88541237
Project: KMG - Howard

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page 1 of 1

ORIGINS LABORATORY, INC



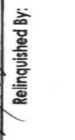
Y903032

Client: ARC/TASMAN Project Manager/Send Report To: Bob Cornez

Address: 6899 N Pecos St Email Address: cornez@tasman-geo.com

Denver CO 80211 Project Name/Number: Howard / 88541237

Telephone Number: 970-481-6909 Samples Collected By: Max Dahlgren

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative					Matrix			Analysis/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #	Other		
B401 - 3/1/18	3/1/18	1010	3	X				X				BTEX	1
B402 - 3/1/18		0950											2
B403 - 3/1/18		1005											3
B405 - 3/1/18		1020											4
B406 - 3/1/18		1035											5
B408 - 3/1/18		1030											6
													7
													8
													9
													10
Relinquished By: 	Date: 3/1/18	Time: 1630		Received By: 	Date: 3/1/18	Time: 1630		Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard					
Relinquished By: 	Date: <u> </u>	Time: <u> </u>		Received By: <u> </u>	Date: <u> </u>	Time: <u> </u>							

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: 88541237
Project: KMG - Howard

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y803032

Client: Tasman

Client Project ID: KMG - Howard

Checklist Completed by: SG

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

Date/time completed: 3/2/12

Airbill #: 9750/A

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

Cooler Number/Temperature: 1 5.8 °C 1 °C 1 °C (Describe) 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"/>	<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 checked="" type="checkbox"/>	<input 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) no

Date/Time Reviewed 3/5/12

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88541237
Project: KMG - Howard

BH01 - 3/1/18
3/1/2018 10:10:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y803032-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8C0603	03/06/2018	03/06/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	84-121			"	"	"
Surrogate: Toluene-d8	106 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	92.4 %	84-114			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88541237
Project: KMG - Howard

BH02 - 3/1/18
3/1/2018 9:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y803032-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8C0603	03/06/2018	03/06/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	115 %	84-121			"	"	"	
Surrogate: Toluene-d8	107 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.2 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88541237
Project: KMG - Howard

BH03 - 3/1/18
3/1/2018 10:05:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y803032-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8C0603	03/06/2018	03/06/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	114 %	84-121			"	"	"
Surrogate: Toluene-d8	109 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	93.2 %	84-114			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88541237
Project: KMG - Howard

BH05 - 3/1/18
3/1/2018 10:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y803032-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8C0603	03/06/2018	03/06/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	112 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.4 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88541237
Project: KMG - Howard

BH06 - 3/1/18
3/1/2018 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y803032-05 (Water)

BTEX by EPA 8260C

Benzene	1.03	1.00	ug/L	1	B8C0603	03/06/2018	03/06/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	120 %	84-121			"	"	"	
Surrogate: Toluene-d8	109 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.7 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: 88541237

Project: KMG - Howard

BH08 - 3/1/18

3/1/2018 10:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y803032-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8C0603	03/06/2018	03/06/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.2 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88541237
Project: KMG - Howard

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 B8C0603 - EPA 5030B (Water)										
Blank (B8C0603-BLK1)					Prepared: 03/06/2018 Analyzed: 03/06/2018					
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	65		"	62.5	104		84-121			
Surrogate: Toluene-d8	59		"	62.5	95.1		85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5	98.6		84-114			

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: 88541237
Project: KMG - Howard

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 B8C0603 - EPA 5030B (Water)										
LCS (B8C0603-BS1)					Prepared: 03/06/2018 Analyzed: 03/06/2018					
Benzene	53.4	1.00	ug/L	50.0		107	73.3-129			
Toluene	51.6	1.00	"	50.0		103	76.2-123			
Ethylbenzene	50.1	1.00	"	50.0		100	73.6-130			
m,p-Xylene	101	2.00	"	100		101	76.1-126			
o-Xylene	51.9	1.00	"	50.0		104	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	72		"	62.5		116	84-121			
Surrogate: Toluene-d8	65		"	62.5		104	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88541237
Project: KMG - Howard

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 B8C0603 - EPA 5030B (Water)

Matrix Spike (B8C0603-MS1)		Source: Y803009-01			Prepared: 03/06/2018 Analyzed: 03/06/2018					
Benzene	57.8	1.00	ug/L	50.0	ND	116	74-130			
Toluene	54.6	1.00	"	50.0	ND	109	73-131			
Ethylbenzene	55.3	1.00	"	50.0	0.100	110	76-132			
m,p-Xylene	110	2.00	"	100	ND	110	69-139			
o-Xylene	55.6	1.00	"	50.0	ND	111	74-131			
Surrogate: 1,2-Dichloroethane-d4	73		"	62.5		116	84-121			
Surrogate: Toluene-d8	65		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88541237
Project: KMG - Howard

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 B8C0603 - EPA 5030B (Water)

Matrix Spike Dup (B8C0603-MSD1)		Source: Y803009-01			Prepared: 03/06/2018 Analyzed: 03/06/2018					
Benzene	57.2	1.00	ug/L	50.0	ND	114	74-130	1.06	20	
Toluene	60.1	1.00	"	50.0	ND	120	73-131	9.63	20	
Ethylbenzene	60.2	1.00	"	50.0	0.100	120	76-132	8.48	20	
m,p-Xylene	121	2.00	"	100	ND	121	69-139	9.36	20	
o-Xylene	60.7	1.00	"	50.0	ND	121	74-131	8.79	20	
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5		106	84-121			
Surrogate: Toluene-d8	61		"	62.5		96.8	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: 88541237

Project: KMG - Howard

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.

Jen Pellegrini For Noelle Doyle Mathis, President

June 18, 2018

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Howard 15-27A

Project Number - [none]

Attached are your analytical results for KMG - Howard 15-27A received by Origins Laboratory, Inc. May 25, 2018. This project is associated with Origins project number Y805408-01.

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: [none]
Project: KMG - Howard 15-27A

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	Y805408-01	Water	May 25, 2018 13:09	05/25/2018 16:58
BH02	Y805408-02	Water	May 25, 2018 13:21	05/25/2018 16:58
BH03	Y805408-03	Water	May 25, 2018 13:30	05/25/2018 16:58
BH05	Y805408-04	Water	May 25, 2018 13:22	05/25/2018 16:58
BH06	Y805408-05	Water	May 25, 2018 13:55	05/25/2018 16:58
BH07R2	Y805408-06	Water	May 25, 2018 14:00	05/25/2018 16:58
BH08	Y805408-07	Water	May 25, 2018 13:45	05/25/2018 16:58
BH09R	Y805408-08	Water	May 25, 2018 13:20	05/25/2018 16:58
BH10R	Y805408-09	Water	May 25, 2018 13:25	05/25/2018 16:58
BH11	Y805408-10	Water	May 25, 2018 13:31	05/25/2018 16:58

Per the email from Bob on 06/18/18, sample ID BH07R was changed to BH07R2.

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: [none]
Project: KMG - Howard 15-27A

www.originslaboratory.com

1465409

page 1 of 1

ORIGINS LABORATORY, INC

Client: ABC Project Manager/Send Report To: Robert Cornez

Address: 15-27A Howard Email Address: robert@origins-lab.com

Telephone Number: 15-27A Howard Project Name/Number: 15-27A Howard

Samples Collected By: Breadley

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative	Matrix	Analysis/Method	Sample Instructions
BH01	5-25-18	1309	3	Unpreserved	Soil	BTEX	1
BH02		1311		Other	Other		2
BH03		1330		HNO ₃			3
BH05		1332		HCl			4
BH06		1355					5
BH07R		1400					6
BH08		1345					7
BH09R		1320					8
BH10R		1325					9
BH11	5-25-18	1331	1				10
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:	
<u>ABC</u>	5-25-18		<u>Robert Cornez</u>	5/25/18	1058	Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:		

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Howard 15-27A

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1405408

Client: Tasman

Client Project ID: KMG - Howard 15-27A

Checklist Completed by: JG

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

Date/time completed: 5/29/2018

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 4.9 °C 1 / 1 °C 1 / 1 °C 1 / 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"/>	<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 checked="" type="checkbox"/>	<input 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) JG

Date/Time Reviewed 5/30/18

Origins Laboratory, Inc.

Jen Pellegrini

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: [none]
Project: KMG - Howard 15-27A

BH01

5/25/2018 1:09:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y805408-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8E3009	05/30/2018	06/03/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	95.8 %	84-121			"	"	"	
Surrogate: Toluene-d8	94.4 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.1 %	84-114			"	"	"	

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: [none]
Project: KMG - Howard 15-27A

BH02

5/25/2018 1:21:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y805408-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8E3009	05/30/2018	06/03/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.6 %	84-121			"	"	"	
Surrogate: Toluene-d8	94.8 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	92.4 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Howard 15-27A

BH03

5/25/2018 1:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y805408-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8E3009	05/30/2018	06/03/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.3 %	84-121			"	"	"	
Surrogate: Toluene-d8	95.3 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.2 %	84-114			"	"	"	

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: [none]
Project: KMG - Howard 15-27A

BH05

5/25/2018 1:22:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y805408-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8E3009	05/30/2018	06/03/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.8 %	84-121			"	"	"	
Surrogate: Toluene-d8	95.3 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	92.5 %	84-114			"	"	"	

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: [none]
Project: KMG - Howard 15-27A

BH06

5/25/2018 1:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y805408-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8E3009	05/30/2018	06/03/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.2 %	84-121			"	"	"	
Surrogate: Toluene-d8	95.4 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.4 %	84-114			"	"	"	

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: [none]
Project: KMG - Howard 15-27A

BH07R2

5/25/2018 2:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y805408-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8E3009	05/30/2018	06/04/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.6 %	84-121			"	"	"	
Surrogate: Toluene-d8	96.9 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.2 %	84-114			"	"	"	

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: [none]
Project: KMG - Howard 15-27A

BH08

5/25/2018 1:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y805408-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8E3009	05/30/2018	06/04/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	97.5 %	84-121			"	"	"	
Surrogate: Toluene-d8	96.0 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.1 %	84-114			"	"	"	

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: [none]
Project: KMG - Howard 15-27A

BH09R
5/25/2018 1:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y805408-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8E3009	05/30/2018	06/03/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.3 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %	84-114			"	"	"	

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: [none]
Project: KMG - Howard 15-27A

BH10R
5/25/2018 1:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y805408-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8E3009	05/30/2018	06/03/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	84-114			"	"	"	

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: [none]
Project: KMG - Howard 15-27A

BH11

5/25/2018 1:31:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y805408-10 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8E3009	05/30/2018	06/03/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.7 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	84-114			"	"	"	

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: [none]
Project: KMG - Howard 15-27A

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 B8E3009 - EPA 5030B (Water)

Blank (B8E3009-BLK1)

Prepared: 05/30/2018 Analyzed: 06/01/2018

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	64		"	62.5	103		84-121			
Surrogate: Toluene-d8	64		"	62.5	102		85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5	101		84-114			

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: [none]
Project: KMG - Howard 15-27A

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 B8E3009 - EPA 5030B (Water)

Blank (B8E3009-BLK2)

Prepared: 05/30/2018 Analyzed: 06/01/2018

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	67		"	62.5	108		84-121			
Surrogate: Toluene-d8	64		"	62.5	102		85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5	102		84-114			

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: [none]
Project: KMG - Howard 15-27A

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 B8E3009 - EPA 5030B (Water)

LCS (B8E3009-BS1)

Prepared: 05/30/2018 Analyzed: 06/01/2018

Benzene	47.4	1.00	ug/L	50.0		94.9	73.3-129			
Toluene	48.7	1.00	"	50.0		97.4	76.2-123			
Ethylbenzene	52.8	1.00	"	50.0		106	73.6-130			
m,p-Xylene	106	2.00	"	100		106	76.1-126			
o-Xylene	52.5	1.00	"	50.0		105	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.7	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	84-114			

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: [none]
Project: KMG - Howard 15-27A

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 B8E3009 - EPA 5030B (Water)

LCS (B8E3009-BS2)

Prepared: 05/30/2018 Analyzed: 06/01/2018

Benzene	46.9	1.00	ug/L	50.0		93.8	73.3-129			
Toluene	48.4	1.00	"	50.0		96.8	76.2-123			
Ethylbenzene	51.3	1.00	"	50.0		103	73.6-130			
m,p-Xylene	103	2.00	"	100		103	76.1-126			
o-Xylene	51.2	1.00	"	50.0		102	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		100	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		103	84-114			

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: [none]
Project: KMG - Howard 15-27A

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 B8E3009 - EPA 5030B (Water)

Matrix Spike (B8E3009-MS1)		Source: Y805408-01			Prepared: 05/30/2018 Analyzed: 06/01/2018					
Benzene	47.4	1.00	ug/L	50.0	ND	94.9	74-130			
Toluene	48.6	1.00	"	50.0	ND	97.3	73-131			
Ethylbenzene	51.2	1.00	"	50.0	ND	102	76-132			
m,p-Xylene	102	2.00	"	100	ND	102	69-139			
o-Xylene	51.4	1.00	"	50.0	ND	103	74-131			
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5		106	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	84-114			

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: [none]
Project: KMG - Howard 15-27A

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 B8E3009 - EPA 5030B (Water)

Matrix Spike (B8E3009-MS2)		Source: Y805408-02			Prepared: 05/30/2018 Analyzed: 06/01/2018					
Benzene	42.6	1.00	ug/L	50.0	0.100	85.0	74-130			
Toluene	43.0	1.00	"	50.0	ND	86.0	73-131			
Ethylbenzene	44.8	1.00	"	50.0	ND	89.5	76-132			
m,p-Xylene	89.3	2.00	"	100	ND	89.3	69-139			
o-Xylene	45.2	1.00	"	50.0	ND	90.4	74-131			
Surrogate: 1,2-Dichloroethane-d4	69		"	62.5		110	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.5	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

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: [none]
Project: KMG - Howard 15-27A

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 B8E3009 - EPA 5030B (Water)

Matrix Spike Dup (B8E3009-MSD1)		Source: Y805408-01			Prepared: 05/30/2018 Analyzed: 06/01/2018					
Benzene	46.6	1.00	ug/L	50.0	ND	93.3	74-130	1.66	20	
Toluene	46.3	1.00	"	50.0	ND	92.6	73-131	4.89	20	
Ethylbenzene	48.3	1.00	"	50.0	ND	96.5	76-132	5.89	20	
m,p-Xylene	96.4	2.00	"	100	ND	96.4	69-139	6.05	20	
o-Xylene	48.3	1.00	"	50.0	ND	96.6	74-131	6.30	20	
Surrogate: 1,2-Dichloroethane-d4	68		"	62.5		109	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.3	85-115			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Howard 15-27A

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 B8E3009 - EPA 5030B (Water)

Matrix Spike Dup (B8E3009-MSD2)		Source: Y805408-02			Prepared: 05/30/2018 Analyzed: 06/01/2018					
Benzene	43.8	1.00	ug/L	50.0	0.100	87.4	74-130	2.78	20	
Toluene	44.3	1.00	"	50.0	ND	88.6	73-131	3.02	20	
Ethylbenzene	46.3	1.00	"	50.0	ND	92.7	76-132	3.47	20	
m,p-Xylene	93.0	2.00	"	100	ND	93.0	69-139	4.04	20	
o-Xylene	46.9	1.00	"	50.0	ND	93.8	74-131	3.78	20	
Surrogate: 1,2-Dichloroethane-d4	69		"	62.5		110	84-121			
Surrogate: Toluene-d8	62		"	62.5		98.8	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	84-114			

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences

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Bob Cornez

Project Number: [none]

Project: KMG - Howard 15-27A

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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Jen Pellegrini For Noelle Doyle Mathis, President