

July 10, 2015

Tasman Geosciences

Christine Wasko

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - [none]

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. July 06, 2015. This project is associated with Origins project number X507084-01.

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

Christine Wasko
Project Number: [none]
Project: KMG - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	X507084-01	Water	July 6, 2015 11:31	07/06/2015 16:55
BH02	X507084-02	Water	July 6, 2015 12:00	07/06/2015 16:55
BH03	X507084-03	Water	July 6, 2015 11:43	07/06/2015 16:55
BH04	X507084-04	Water	July 6, 2015 12:04	07/06/2015 16:55
BH05	X507084-05	Water	July 6, 2015 12:20	07/06/2015 16:55
BH06	X507084-06	Water	July 6, 2015 12:25	07/06/2015 16:55
BH07	X507084-07	Water	July 6, 2015 12:33	07/06/2015 16:55
BH08	X507084-08	Water	July 6, 2015 13:03	07/06/2015 16:55
BH09	X507084-09	Water	July 6, 2015 12:49	07/06/2015 16:55
BH10	X507084-10	Water	July 6, 2015 12:42	07/06/2015 16:55

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Denver CO 80211

Christine Wasko
Project Number: [none]
Project: KMG - Albert Sack Unit #1

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Tasman Geosciences
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 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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page 1 of 1

XS07084

ORIGINS
 LABORATORY, INC

Client: APL / Tasman Imaging
 Address: _____
 Telephone Number: _____
 Email Address: Christine@Tasman-Geo.com

Project Manager: Christine Wasko
 Project Name: Albert Sack Unit 1
 Project Number: _____
 Samples Collected By: Bonnie LeKasson, Tyler Briggs

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #		
BH01	7/6/15	11:31	3	X				X				sample date
BH02		12:00										addul per email
BH03		11:53										w/Christine 7/7/15
BH04		12:01										
BH05		12:20										
BH06		12:25	2									
BH07		12:33	3									
BH08		13:03	1									
BH09		12:49										
BH10		12:42	2									
Relinquished By:		Date:	Time:	Received By:				Date:	Time:	Turnaround Time:		
Tyler Briggs		07/06/2015	4:55	[Signature]				7/6/15	4:55	Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 33		

Date Results Needed

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X507084

Client: Tasman

Client Project ID: Albert Sack Unit 1

Checklist Completed by: Jeff Smith

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

Date/time completed: 7/7/15

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 3.3 °C _____ / _____ °C _____ / _____ °C (Describe)

Thermometer ID: T203

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	X			
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		X		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?		X		No Sample Data on COC or Containers
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	X			BH05(A,B,C), BH07(LC)
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 HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)	X			HCL
Additional Comments (if any): Christine W. was notified by email regarding headspace, Proceed with analysis.				
7/8/15 <u>Jeff Smith</u>				

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

Jeff Smith
 Reviewed by (Project Manager)

7/8/15
 Date/Time Reviewed

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

BH01
7/6/2015 11:31:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X507084-01 (Water)

BTEX by EPA 8260C

Benzene	147	4.0	ug/L	4	5G07011	07/07/2015	07/08/2015	
Toluene	ND	4.0	"	"	"	"	"	
Ethylbenzene	223	4.0	"	"	"	"	"	
Xylenes, total	2540	20.0	"	20	"	"	07/08/2015	
Surrogate: 1,2-Dichloroethane-d4	99.0 %	87.3-113			"	"	07/08/2015	
Surrogate: Toluene-d8	103 %	90.9-108			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.8 %	88.6-111			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
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 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

BH02

7/6/2015 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X507084-02 (Water)

BTEX by EPA 8260C

Benzene	787	4.0	ug/L	4	5G07011	07/07/2015	07/08/2015	
Toluene	ND	4.0	"	"	"	"	"	
Ethylbenzene	161	4.0	"	"	"	"	"	
Xylenes, total	846	4.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	109 %	87.3-113			"	"	"	
Surrogate: Toluene-d8	99.7 %	90.9-108			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.5 %	88.6-111			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

BH03

7/6/2015 11:43:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X507084-03 (Water)

BTEX by EPA 8260C

Benzene	128	4.0	ug/L	4	5G07011	07/07/2015	07/08/2015	
Toluene	ND	4.0	"	"	"	"	"	
Ethylbenzene	23.8	4.0	"	"	"	"	"	
Xylenes, total	8.4	4.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	110 %	87.3-113			"	"	"	
Surrogate: Toluene-d8	93.8 %	90.9-108			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.4 %	88.6-111			"	"	"	

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Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

BH04
7/6/2015 12:04:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X507084-04 (Water)

BTEX by EPA 8260C

Benzene	ND	4.0	ug/L	4	5G07011	07/07/2015	07/08/2015	
Toluene	ND	4.0	"	"	"	"	"	
Ethylbenzene	59.4	4.0	"	"	"	"	"	
Xylenes, total	411	4.0	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	104 %	87.3-113			"	"	"	
<i>Surrogate: Toluene-d8</i>	98.5 %	90.9-108			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	97.5 %	88.6-111			"	"	"	

Origins Laboratory, Inc.



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 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

BH05

7/6/2015 12:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X507084-05 (Water)

BTEX by EPA 8260C

Benzene	25.1	4.0	ug/L	4	5G07011	07/07/2015	07/08/2015	
Toluene	ND	4.0	"	"	"	"	"	
Ethylbenzene	329	4.0	"	"	"	"	"	
Xylenes, total	2280	50.0	"	50	"	"	07/09/2015	
Surrogate: 1,2-Dichloroethane-d4	109 %	87.3-113			"	"	07/08/2015	
Surrogate: Toluene-d8	98.5 %	90.9-108			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.3 %	88.6-111			"	"	"	

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Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

BH06
7/6/2015 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X507084-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	5G07011	07/07/2015	07/08/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	36.6	1.0	"	"	"	"	"	
Xylenes, total	430	10.0	"	10	"	"	07/09/2015	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	104 %	87.3-113			"	"	07/08/2015	
<i>Surrogate: Toluene-d8</i>	113 %	90.9-108			"	"	" S-GC	
<i>Surrogate: 4-Bromofluorobenzene</i>	106 %	88.6-111			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

BH07

7/6/2015 12:33:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X507084-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	5G07011	07/07/2015	07/09/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	155	1.0	"	"	"	"	"	
Xylenes, total	2430	100	"	100	"	"	07/09/2015	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	109 %	87.3-113			"	"	"	
<i>Surrogate: Toluene-d8</i>	97.2 %	90.9-108			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	95.6 %	88.6-111			"	"	"	

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 6899 Pecos Street, Unit C
 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

BH08
7/6/2015 1:03:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X507084-08 (Water)

BTEX by EPA 8260C

Benzene	3.5	1.0	ug/L	1	5G07011	07/07/2015	07/08/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	13.9	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	104 %	87.3-113			"	"	"	
Surrogate: Toluene-d8	100 %	90.9-108			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.7 %	88.6-111			"	"	"	

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Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

BH09

7/6/2015 12:49:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X507084-09 (Water)

BTEX by EPA 8260C

Benzene	141	1.0	ug/L	1	5G07011	07/07/2015	07/08/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	103 %	87.3-113			"	"	"	
Surrogate: Toluene-d8	113 %	90.9-108			"	"	"	S-GC
Surrogate: 4-Bromofluorobenzene	96.7 %	88.6-111			"	"	"	

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 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

BH10
7/6/2015 12:42:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X507084-10 (Water)

BTEX by EPA 8260C

Benzene	1.2	1.0	ug/L	1	5G07011	07/07/2015	07/08/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	8.1	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	102 %	87.3-113			"	"	"	
Surrogate: Toluene-d8	96.6 %	90.9-108			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	88.6-111			"	"	"	

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 6899 Pecos Street, Unit C
 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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 5G07011 - EPA 5030B (Water)

Blank (5G07011-BLK1)

Prepared: 07/07/2015 Analyzed: 07/08/2015

Benzene	ND	1.0	ug/L							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	68		"	62.5	109		87.3-113			
Surrogate: Toluene-d8	60		"	62.5	96.3		90.9-108			
Surrogate: 4-Bromofluorobenzene	61		"	62.5	97.2		88.6-111			

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 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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 5G07011 - EPA 5030B (Water)

LCS (5G07011-BS1)

Prepared: 07/07/2015 Analyzed: 07/08/2015

Benzene	50.9	1.0	ug/L	50.0		102	75-126			
Toluene	49.1	1.0	"	50.0		98.2	78.7-126			
Ethylbenzene	50.5	1.0	"	50.0		101	80-130			
m,p-Xylene	102	2.0	"	100		102	77.2-133			
o-Xylene	52.0	1.0	"	50.0		104	77.9-126			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	87.3-113			
Surrogate: Toluene-d8	60		"	62.5		96.3	90.9-108			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.5	88.6-111			

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Christine Wasko
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 Project: KMG - Albert Sack Unit #1

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 5G07011 - EPA 5030B (Water)

Matrix Spike (5G07011-MS1)	Source: X507083-01			Prepared: 07/07/2015 Analyzed: 07/08/2015						
Benzene	52.4	1.0	ug/L	50.0	ND	105	74-130			
Toluene	50.6	1.0	"	50.0	ND	101	73-131			
Ethylbenzene	50.5	1.0	"	50.0	ND	101	76-132			
m,p-Xylene	103	2.0	"	100	ND	103	69-139			
o-Xylene	49.3	1.0	"	50.0	ND	98.6	74-131			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		103	87.3-113			
Surrogate: Toluene-d8	59		"	62.5		94.7	90.9-108			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.0	88.6-111			

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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Christine Wasko
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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 5G07011 - EPA 5030B (Water)

Matrix Spike Dup (5G07011-MSD1)	Source: X507083-01			Prepared: 07/07/2015 Analyzed: 07/08/2015						
Benzene	47.6	1.0	ug/L	50.0	ND	95.1	74-130	9.80	20	
Toluene	46.5	1.0	"	50.0	ND	93.0	73-131	8.40	20	
Ethylbenzene	46.7	1.0	"	50.0	ND	93.3	76-132	7.86	20	
m,p-Xylene	97.0	2.0	"	100	ND	97.0	69-139	5.55	20	
o-Xylene	47.5	1.0	"	50.0	ND	95.0	74-131	3.72	20	
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.9	87.3-113			
Surrogate: Toluene-d8	60		"	62.5		96.6	90.9-108			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		95.1	88.6-111			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Christine Wasko
Project Number: [none]
Project: KMG - Albert Sack Unit #1

Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

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

October 30, 2015

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - [none]

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. October 26, 2015. This project is associated with Origins project number X510299-01.

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 - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	X510299-01	Water	October 26, 2015 10:54	10/26/2015 17:00
BH02	X510299-02	Water	October 26, 2015 10:38	10/26/2015 17:00
BH03	X510299-03	Water	October 26, 2015 10:30	10/26/2015 17:00
BH04	X510299-04	Water	October 26, 2015 10:20	10/26/2015 17:00
BH05	X510299-05	Water	October 26, 2015 10:04	10/26/2015 17:00
BH06	X510299-06	Water	October 26, 2015 9:49	10/26/2015 17:00
BH07	X510299-07	Water	October 26, 2015 9:41	10/26/2015 17:00
BH08	X510299-08	Water	October 26, 2015 10:26	10/26/2015 17:00
BH09	X510299-09	Water	October 26, 2015 10:16	10/26/2015 17:00
BH10	X510299-10	Water	October 26, 2015 10:07	10/26/2015 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: [none]
Project: KMG - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH11	X510299-11	Water	October 26, 2015 10:40	10/26/2015 17:00
BH12	X510299-12	Water	October 26, 2015 9:53	10/26/2015 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: [none]
 Project: KMG - Albert Sack Unit #1

www.originslaboratory.com

X510299

ORIGINS
 LABORATORY, INC

page 2 of 2

Client: Tasman Geosciences
 Address: [Blank]
 Telephone Number: 352.262.9910
 Email Address: fcornez@tasman-geo.com

Project Manager: Bob Cornez
 Project Name: Albert Sack Unit
 Project Number: [Blank]
 Samples Collected By: Kate Folzmark

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analyst	Sample Instructions		
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #			Other	
BH11	10/26/15	1040	2	X				X					1	
BH12	↓	953	3	X				X					2	
													3	
													4	
													5	
													6	
													7	
													8	
													9	
													10	
Relinquished By: [Signature]	Date: 10/26/15	Time: 1610	Received By: [Signature]	Date: 10-26-15	Time: 1700	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>								
Relinquished By: [Signature]	Date: [Blank]	Time: [Blank]	Received By: [Blank]	Date: [Blank]	Time: [Blank]	Standard <input checked="" type="checkbox"/>								

Date Results Needed

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

Origins Laboratory, Inc.

Jefe 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 - Albert Sack Unit #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: XS10299

Client: Tasman
 Client Project ID: KMG - Albert Sack

Checklist Completed by: Jeff Smith

Shipped Via: HIP
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: U/A

Date/time completed: 10/27/13

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

Cooler Number/Temperature: 1 / 4.2 °C / 1 °C / 1 °C / 1 °C (Describe)

Thermometer ID: TCUB

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	X			
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		X		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		X		
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)	X			hcc
Additional Comments (if any):				

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

Jeff Smith
 Reviewed by (Project Manager)

10/27/13
 Date/Time Reviewed

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 - Albert Sack Unit #1

BH01
10/26/2015 10:54:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X510299-01 (Water)

BTEX by EPA 8260C

Benzene	133	4.0	ug/L	4	5J27012	10/27/2015	10/29/2015	
Toluene	ND	4.0	"	"	"	"	"	
Ethylbenzene	113	4.0	"	"	"	"	"	
Xylenes, total	1100	4.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	95.6 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	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 - Albert Sack Unit #1

BH02
10/26/2015 10:38:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X510299-02 (Water)

BTEX by EPA 8260C

Benzene	97.2	20.0	ug/L	20	5J27012	10/27/2015	10/29/2015	
Toluene	ND	20.0	"	"	"	"	"	
Ethylbenzene	ND	20.0	"	"	"	"	"	
Xylenes, total	ND	20.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	94.2 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.6 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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 - Albert Sack Unit #1

BH03
10/26/2015 10:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X510299-03 (Water)

BTEX by EPA 8260C

Benzene	27.0	1.0	ug/L	1	5J27012	10/27/2015	10/29/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	8.5	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	92.8 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	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 - Albert Sack Unit #1

BH04
10/26/2015 10:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X510299-04 (Water)

BTEX by EPA 8260C

Benzene	ND	4.0	ug/L	4	5J27012	10/27/2015	10/29/2015	
Toluene	ND	4.0	"	"	"	"	"	
Ethylbenzene	60.7	4.0	"	"	"	"	"	
Xylenes, total	210	4.0	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	94.8 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	97.8 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	98.8 %	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 - Albert Sack Unit #1

BH05
10/26/2015 10:04:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X510299-05 (Water)

BTEX by EPA 8260C

Benzene	6.8	1.0	ug/L	1	5J27012	10/27/2015	10/29/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	39.8	1.0	"	"	"	"	"	
Xylenes, total	223	1.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	93.6 %	84-121			"	"	10/29/2015	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	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 - Albert Sack Unit #1

BH06

10/26/2015 9:49:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X510299-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	5J27012	10/27/2015	10/29/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	11.2	1.0	"	"	"	"	"	
Xylenes, total	108	1.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	94.4 %	84-121			"	"	"	
Surrogate: Toluene-d8	105 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.1 %	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 - Albert Sack Unit #1

BH07

10/26/2015 9:41:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X510299-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	5J27012	10/27/2015	10/29/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	27.0	1.0	"	"	"	"	"	
Xylenes, total	189	1.0	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	93.2 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	103 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	100 %	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 - Albert Sack Unit #1

BH08
10/26/2015 10:26:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X510299-08 (Water)

BTEX by EPA 8260C

Benzene	2.0	1.0	ug/L	1	5J27012	10/27/2015	10/29/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	5.0	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	92.0 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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 - Albert Sack Unit #1

BH09
10/26/2015 10:16:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X510299-09 (Water)

BTEX by EPA 8260C

Benzene	171	1.0	ug/L	1	5J27012	10/27/2015	10/29/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	94.0 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.8 %	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 - Albert Sack Unit #1

BH10
10/26/2015 10:07:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X510299-10 (Water)

BTEX by EPA 8260C

Benzene	4.8	1.0	ug/L	1	5J27012	10/27/2015	10/29/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	37.4	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	89.3 %	84-121			"	"	"	
Surrogate: Toluene-d8	120 %	85-115			"	"	"	S-04
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 - Albert Sack Unit #1

BH11
10/26/2015 10:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X510299-11 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	5J27012	10/27/2015	10/29/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	95.7 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: [none]
 Project: KMG - Albert Sack Unit #1

BH12
10/26/2015 9:53:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X510299-12 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	5J27012	10/27/2015	10/29/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	119	4.0	"	4	"	"	10/29/2015	
Xylenes, total	552	4.0	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	90.9 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	105 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	99.7 %	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 - Albert Sack Unit #1

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 5J27012 - EPA 5030B (Water)

Blank (5J27012-BLK1)

Prepared: 10/27/2015 Analyzed: 10/29/2015

Benzene	ND	1.0	ug/L							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	58		"	62.5	93.4		84-121			
Surrogate: Toluene-d8	63		"	62.5	100		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 - Albert Sack Unit #1

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 5J27012 - EPA 5030B (Water)

LCS (5J27012-BS1)

Prepared: 10/27/2015 Analyzed: 10/29/2015

Benzene	49.2	1.0	ug/L	50.0		98.4	75-126			
Toluene	49.6	1.0	"	50.0		99.2	78.7-126			
Ethylbenzene	56.4	1.0	"	50.0		113	80-130			
m,p-Xylene	112	2.0	"	100		112	77.2-133			
o-Xylene	50.9	1.0	"	50.0		102	77.9-126			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.0	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 - Albert Sack Unit #1

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 5J27012 - EPA 5030B (Water)

Matrix Spike (5J27012-MS1)	Source: X510299-08			Prepared: 10/27/2015 Analyzed: 10/29/2015						
Benzene	51.2	1.0	ug/L	50.0	2.0	98.5	74-130			
Toluene	51.2	1.0	"	50.0	ND	102	73-131			
Ethylbenzene	59.9	1.0	"	50.0	5.0	110	76-132			
m,p-Xylene	106	2.0	"	100	ND	106	69-139			
o-Xylene	49.0	1.0	"	50.0	ND	98.0	74-131			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		98.4	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.6	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: [none]
 Project: KMG - Albert Sack Unit #1

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 5J27012 - EPA 5030B (Water)

Matrix Spike Dup (5J27012-MSD1)	Source: X510299-08			Prepared: 10/27/2015 Analyzed: 10/29/2015						
Benzene	56.3	1.0	ug/L	50.0	2.0	109	74-130	9.50	20	
Toluene	54.9	1.0	"	50.0	ND	110	73-131	7.09	20	
Ethylbenzene	67.3	1.0	"	50.0	5.0	125	76-132	11.6	20	
m,p-Xylene	117	2.0	"	100	ND	117	69-139	9.56	20	
o-Xylene	52.9	1.0	"	50.0	ND	106	74-131	7.75	20	
Surrogate: 1,2-Dichloroethane-d4	57		"	62.5		91.3	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.0	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

Origins Laboratory, Inc.



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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Albert Sack Unit #1

Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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

February 01, 2016

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - [none]

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. January 25, 2016. This project is associated with Origins project number X601245-01.

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 - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	X601245-01	Water	January 25, 2016 12:05	01/25/2016 16:50
BH03	X601245-02	Water	January 25, 2016 13:35	01/25/2016 16:50
BH04	X601245-03	Water	January 25, 2016 12:40	01/25/2016 16:50
BH06	X601245-04	Water	January 25, 2016 12:20	01/25/2016 16:50
BH07	X601245-05	Water	January 25, 2016 13:00	01/25/2016 16:50
BH08	X601245-06	Water	January 25, 2016 12:30	01/25/2016 16:50
BH09	X601245-07	Water	January 25, 2016 13:08	01/25/2016 16:50
BH10	X601245-08	Water	January 25, 2016 12:48	01/25/2016 16:50
BH12	X601245-09	Water	January 25, 2016 12:28	01/25/2016 16:50

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 - Albert Sack Unit #1

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page 1 of 1

ORIGINS
 LABORATORY, INC

X601245

Project Manager: Bob Cornez
 Project Name: Albert Sack Unit #1
 Project Number: [blank]

Client: Tasman Geo
 Address: [blank]

Samples Collected By: Phil Hamilton
 APL Innov. Phil Hamilton
 Telephone Number: 912 230 2407
 Email Address: rcornez@tasman-geo.com

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative			Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Groundwater	Soil	Air Sample #		
BH01	12/5/16	1205	3	<input checked="" type="checkbox"/>		BTEX (826)					
BH03		1535	3	<input checked="" type="checkbox"/>							
BH04		1240	3	<input checked="" type="checkbox"/>							
BH06		1220	3	<input checked="" type="checkbox"/>							
BH07		1300	3	<input checked="" type="checkbox"/>							
BH08		1230	3	<input checked="" type="checkbox"/>							
BH09		1308	3	<input checked="" type="checkbox"/>							
BH10		1248	3	<input checked="" type="checkbox"/>							
BH12		1228	3	<input checked="" type="checkbox"/>							
Relinquished By: [Signature]	Date: 12/5/16	Time: 1050		Received By: [Signature]	Date: 12/5/16	Time: 1650		Turnaround Time: <input type="checkbox"/> Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input checked="" type="checkbox"/> 72 Hr		Standard: <input type="checkbox"/> <input checked="" type="checkbox"/>	

1725 EIK Pkce | Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Origins Laboratory, Inc.

Jefe 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 - Albert Sack Unit #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X601245 Client: Tasman
 Client Project ID: KMG - Albert Sack Unit 1
 Checklist Completed by: Jeff Smith Shipped Via: HD
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Date/time completed: 1/26/16 Airbill #: N/A
 Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____
 Cooler Number/Temperature: 1 / 9.3 °C _____ °C _____ °C _____ °C
 Thermometer ID: TOUS

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ^{(1)?}		X		Sampled Same Day
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		V		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact ^{(1)?}	X			
Was adequate sample volume provided ^{(1)?}	X			
Are short holding time analytes or samples with HTs due within 48 hours present ^{(1)?}		X		
Is a chain-of-custody (COC) present and filled out completely ^{(1)?}	X			
Does the COC agree with the number and type of sample bottles received ^{(1)?}	X			
Do the sample IDs on the bottle labels match the COC ^{(1)?}	X			
Is the COC properly relinquished by the client with date and time recorded ^{(1)?}	X			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		X		
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 HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)	X			HCL
Additional Comments (if any):				

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

Jeff Smith 1/26/16
 Reviewed by (Project Manager) Date/Time Reviewed

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

BH01

1/25/2016 12:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X601245-01 (Water)

BTEX by EPA 8260C

Benzene	100	4.0	ug/L	4	B6A2604	01/26/2016	01/27/2016	
Toluene	ND	4.0	"	"	"	"	"	U
Ethylbenzene	61.0	4.0	"	"	"	"	"	
Xylenes, total	404	4.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	91.2 %	84-121			"	"	"	
Surrogate: Toluene-d8	105 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	92.6 %	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: [none]
 Project: KMG - Albert Sack Unit #1

BH03

1/25/2016 1:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X601245-02 (Water)

BTEX by EPA 8260C

Benzene	53.6	1.0	ug/L	1	B6A2604	01/26/2016	01/27/2016	
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	12.0	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	92.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	105 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.5 %	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 - Albert Sack Unit #1

BH04

1/25/2016 12:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X601245-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	B6A2604	01/26/2016	01/27/2016	U
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	31.5	1.0	"	"	"	"	"	
Xylenes, total	106	1.0	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	92.0 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	106 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	95.3 %	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 - Albert Sack Unit #1

BH06

1/25/2016 12:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X601245-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	B6A2604	01/26/2016	01/27/2016	U
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	15.4	1.0	"	"	"	"	"	
Xylenes, total	161	1.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	92.3 %	84-121			"	"	"	
Surrogate: Toluene-d8	111 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.3 %	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 - Albert Sack Unit #1

BH07
1/25/2016 1:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X601245-05 (Water)

BTEX by EPA 8260C

Benzene	ND	4.0	ug/L	4	B6A2604	01/26/2016	01/27/2016	U
Toluene	ND	4.0	"	"	"	"	"	U
Ethylbenzene	57.4	4.0	"	"	"	"	"	
Xylenes, total	433	4.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	92.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	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 - Albert Sack Unit #1

BH08

1/25/2016 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X601245-06 (Water)

BTEX by EPA 8260C

Benzene	2.1	1.0	ug/L	1	B6A2604	01/26/2016	01/27/2016	
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	ND	1.0	"	"	"	"	"	U
Xylenes, total	ND	1.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	91.6 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.6 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.9 %	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 - Albert Sack Unit #1

BH09
1/25/2016 1:08:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X601245-07 (Water)

BTEX by EPA 8260C

Benzene	125	1.0	ug/L	1	B6A2604	01/26/2016	01/27/2016	
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	ND	1.0	"	"	"	"	"	U
Xylenes, total	ND	1.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.0 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	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 - Albert Sack Unit #1

BH10

1/25/2016 12:48:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X601245-08 (Water)

BTEX by EPA 8260C

Benzene	3.0	1.0	ug/L	1	B6A2604	01/26/2016	01/27/2016	
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	40.2	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	95.4 %	84-121			"	"	"	
Surrogate: Toluene-d8	132 %	85-115			"	"	"	S-04
Surrogate: 4-Bromofluorobenzene	94.3 %	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 - Albert Sack Unit #1

BH12

1/25/2016 12:28:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X601245-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	B6A2604	01/26/2016	01/27/2016	U
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	199	1.0	"	"	"	"	"	
Xylenes, total	774	5.0	"	5	"	"	01/29/2016	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	90.2 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	107 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	92.3 %	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 - Albert Sack Unit #1

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 B6A2604 - EPA 5030B (Water)

Blank (B6A2604-BLK1)

Prepared: 01/26/2016 Analyzed: 01/27/2016

Benzene	ND	1.0	ug/L							U
Toluene	ND	1.0	"							U
Ethylbenzene	ND	1.0	"							U
Xylenes, total	ND	1.0	"							U
Surrogate: 1,2-Dichloroethane-d4	58		"	62.5		92.4	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.7	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 - Albert Sack Unit #1

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 B6A2604 - EPA 5030B (Water)

LCS (B6A2604-BS1)

Prepared: 01/26/2016 Analyzed: 01/27/2016

Benzene	51.6	1.0	ug/L	50.0		103	73.3-129			
Toluene	53.2	1.0	"	50.0		106	76.2-123			
Ethylbenzene	54.9	1.0	"	50.0		110	73.6-130			
m,p-Xylene	107	2.0	"	100		107	76.1-126			
o-Xylene	52.2	1.0	"	50.0		104	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	55		"	62.5		87.4	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.2	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 - Albert Sack Unit #1

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 B6A2604 - EPA 5030B (Water)

Matrix Spike (B6A2604-MS1)	Source: X601247-07			Prepared: 01/26/2016 Analyzed: 01/27/2016						
Benzene	41.3	1.0	ug/L	50.0	ND	82.6	74-130			
Toluene	41.2	1.0	"	50.0	ND	82.4	73-131			
Ethylbenzene	41.3	1.0	"	50.0	ND	82.6	76-132			
m,p-Xylene	82.1	2.0	"	100	ND	82.1	69-139			
o-Xylene	43.0	1.0	"	50.0	ND	86.0	74-131			
Surrogate: 1,2-Dichloroethane-d4	56		"	62.5		89.0	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	58		"	62.5		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 - Albert Sack Unit #1

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 B6A2604 - EPA 5030B (Water)

Matrix Spike Dup (B6A2604-MSD1)	Source: X601247-07			Prepared: 01/26/2016 Analyzed: 01/27/2016						
Benzene	45.6	1.0	ug/L	50.0	ND	91.1	74-130	9.76	20	
Toluene	47.0	1.0	"	50.0	ND	94.1	73-131	13.3	20	
Ethylbenzene	47.8	1.0	"	50.0	ND	95.6	76-132	14.5	20	
m,p-Xylene	93.0	2.0	"	100	ND	93.0	69-139	12.5	20	
o-Xylene	48.2	1.0	"	50.0	ND	96.4	74-131	11.5	20	
Surrogate: 1,2-Dichloroethane-d4	55		"	62.5		88.0	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.0	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 - Albert Sack Unit #1

Notes and Definitions

U Sample is Non-Detect.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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

May 03, 2016

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - 88635365

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. April 26, 2016. This project is associated with Origins project number X604281-01.

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: 88635365
Project: KMG - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 04/26/16	X604281-01	Water	April 26, 2016 14:12	04/26/2016 17:00
BH02 - 04/26/16	X604281-02	Water	April 26, 2016 14:02	04/26/2016 17:00
BH03 - 04/26/16	X604281-03	Water	April 26, 2016 14:10	04/26/2016 17:00
BH04 - 04/26/16	X604281-04	Water	April 26, 2016 14:40	04/26/2016 17:00
BH06 - 04/26/16	X604281-05	Water	April 26, 2016 14:22	04/26/2016 17:00
BH07 - 04/26/16	X604281-06	Water	April 26, 2016 14:34	04/26/2016 17:00
BH08 - 04/26/16	X604281-07	Water	April 26, 2016 13:49	04/26/2016 17:00
BH09 - 04/26/16	X604281-08	Water	April 26, 2016 14:12	04/26/2016 17:00
BH10 - 04/26/16	X604281-09	Water	April 26, 2016 13:57	04/26/2016 17:00
BH12 - 04/26/16	X604281-10	Water	April 26, 2016 14:31	04/26/2016 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: 88635365
Project: KMG - Albert Sack Unit #1

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: 88635365
 Project: KMG - Albert Sack Unit #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X604281

Client: Tasman

Client Project ID: KMG - Albert Sack Unit 1

Checklist Completed by: Jeff Smith

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

Date/time completed: 4/27/16

Airbill #: NA

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

Cooler Number/Temperature: 1 / 5.0 °C / _____ °C / _____ °C (Describe)

Thermometer ID: TOCB

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"/>			
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"/>			HCL
Additional Comments (if any):				

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

Jeff Smith
 Reviewed by (Project Manager)

4/27/16
 Date/Time Reviewed

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: 88635365
 Project: KMG - Albert Sack Unit #1

BH01 - 04/26/16
4/26/2016 2:12:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X604281-01 (Water)

BTEX by EPA 8260C

Benzene	335	4.0	ug/L	4	B6D2806	04/28/2016	04/28/2016	
Toluene	ND	4.0	"	"	"	"	"	U
Ethylbenzene	193	4.0	"	"	"	"	"	
Xylenes, total	1070	4.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	103 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.1 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH02 - 04/26/16
4/26/2016 2:02:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X604281-02 (Water)

BTEX by EPA 8260C

Benzene	183	4.0	ug/L	4	B6D2806	04/28/2016	04/28/2016	
Toluene	ND	4.0	"	"	"	"	"	U
Ethylbenzene	ND	4.0	"	"	"	"	"	U
Xylenes, total	34.3	4.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	103 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.4 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH03 - 04/26/16
4/26/2016 2:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X604281-03 (Water)

BTEX by EPA 8260C

Benzene	166	1.0	ug/L	1	B6D2806	04/28/2016	04/29/2016	
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	23.8	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.5 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH04 - 04/26/16
4/26/2016 2:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X604281-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	B6D2806	04/28/2016	04/29/2016	U
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	15.7	1.0	"	"	"	"	"	
Xylenes, total	45.5	1.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	99.3 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.9 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.4 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH06 - 04/26/16
4/26/2016 2:22:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X604281-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	B6D2806	04/28/2016	04/29/2016	U
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	32.1	1.0	"	"	"	"	"	
Xylenes, total	323	1.0	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	101 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	113 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH07 - 04/26/16
4/26/2016 2:34:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X604281-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	B6D2806	04/28/2016	04/29/2016	U
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	30.8	1.0	"	"	"	"	"	
Xylenes, total	153	1.0	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	98.6 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	103 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH08 - 04/26/16
4/26/2016 1:49:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X604281-07 (Water)

BTEX by EPA 8260C

Benzene	5.1	1.0	ug/L	1	B6D2806	04/28/2016	04/29/2016	
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	ND	1.0	"	"	"	"	"	U
Xylenes, total	ND	1.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.4 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH09 - 04/26/16
4/26/2016 2:12:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X604281-08 (Water)

BTEX by EPA 8260C

Benzene	105	1.0	ug/L	1	B6D2806	04/28/2016	04/29/2016	
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	ND	1.0	"	"	"	"	"	U
Xylenes, total	ND	1.0	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.0 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.4 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH10 - 04/26/16
4/26/2016 1:57:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X604281-09 (Water)

BTEX by EPA 8260C

Benzene	ND	4.0	ug/L	4	B6D2806	04/28/2016	04/29/2016	U
Toluene	ND	4.0	"	"	"	"	"	U
Ethylbenzene	9.5	4.0	"	"	"	"	"	
Xylenes, total	ND	4.0	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	97.7 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.5 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.3 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH12 - 04/26/16
4/26/2016 2:31:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X604281-10 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	B6D2806	04/28/2016	04/29/2016	U
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	202	10.0	"	10	"	"	05/02/2016	
Xylenes, total	936	10.0	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	98.6 %	84-121			"	"	04/29/2016	
<i>Surrogate: Toluene-d8</i>	128 %	85-115			"	"	" S-04	
<i>Surrogate: 4-Bromofluorobenzene</i>	97.9 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B6D2806 - EPA 5030B (Water)

Blank (B6D2806-BLK1)

Prepared: 04/28/2016 Analyzed: 04/28/2016

Benzene	ND	1.0	ug/L							U
Toluene	ND	1.0	"							U
Ethylbenzene	ND	1.0	"							U
Xylenes, total	ND	1.0	"							U
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.9	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B6D2806 - EPA 5030B (Water)

LCS (B6D2806-BS1)

Prepared: 04/28/2016 Analyzed: 04/28/2016

Benzene	43.4	1.0	ug/L	50.0		86.8	73.3-129			
Toluene	44.1	1.0	"	50.0		88.1	76.2-123			
Ethylbenzene	43.2	1.0	"	50.0		86.4	73.6-130			
m,p-Xylene	86.6	2.0	"	100		86.6	76.1-126			
o-Xylene	41.6	1.0	"	50.0		83.1	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		100	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.8	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B6D2806 - EPA 5030B (Water)

Matrix Spike (B6D2806-MS1)	Source: X604314-08			Prepared: 04/28/2016 Analyzed: 04/28/2016						
Benzene	44.7	1.0	ug/L	50.0	ND	89.3	74-130			
Toluene	46.2	1.0	"	50.0	ND	92.3	73-131			
Ethylbenzene	46.0	1.0	"	50.0	ND	91.9	76-132			
m,p-Xylene	90.5	2.0	"	100	ND	90.5	69-139			
o-Xylene	43.0	1.0	"	50.0	ND	85.9	74-131			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		98.0	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.6	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B6D2806 - EPA 5030B (Water)

Matrix Spike Dup (B6D2806-MSD1)	Source: X604314-08			Prepared: 04/28/2016 Analyzed: 04/28/2016						
Benzene	50.3	1.0	ug/L	50.0	ND	101	74-130	11.9	20	
Toluene	52.7	1.0	"	50.0	ND	105	73-131	13.2	20	
Ethylbenzene	53.5	1.0	"	50.0	ND	107	76-132	15.2	20	
m,p-Xylene	106	2.0	"	100	ND	106	69-139	16.2	20	
o-Xylene	50.2	1.0	"	50.0	ND	100	74-131	15.6	20	
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.8	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: 88635365
Project: KMG - Albert Sack Unit #1

Notes and Definitions

U Sample is Non-Detect.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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

July 18, 2016

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - 88635365

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. July 12, 2016. This project is associated with Origins project number X607150-01.

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: 88635365
Project: KMG - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 7/12/16	X607150-01	Water	July 12, 2016 12:15	07/12/2016 15:10
BH02 - 7/12/16	X607150-02	Water	July 12, 2016 12:10	07/12/2016 15:10
BH03 - 7/12/16	X607150-03	Water	July 12, 2016 11:48	07/12/2016 15:10
BH04 - 7/12/16	X607150-04	Water	July 12, 2016 12:05	07/12/2016 15:10
BH05R - 7/12/16	X607150-05	Water	July 12, 2016 10:57	07/12/2016 15:10
BH06 - 7/12/16	X607150-06	Water	July 12, 2016 11:07	07/12/2016 15:10
BH07 - 7/12/16	X607150-07	Water	July 12, 2016 10:50	07/12/2016 15:10
BH08 - 7/12/16	X607150-08	Water	July 12, 2016 11:30	07/12/2016 15:10
BH09 - 7/12/16	X607150-09	Water	July 12, 2016 11:45	07/12/2016 15:10
BH10 - 7/12/16	X607150-10	Water	July 12, 2016 11:10	07/12/2016 15:10

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: 88635365
Project: KMG - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH11R - 7/12/16	X607150-11	Water	July 12, 2016 11:15	07/12/2016 15:10
BH12 - 7/12/16	X607150-12	Water	July 12, 2016 11:33	07/12/2016 15:10

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

ORIGINS
 LABORATORY, INC

X60150

www.originslaboratory.com

page 2 of 2

Client: Anadarko / Tasman Geosciences Project Manager: Bob Cornez
 Address: 6899 Pecos St, Unit C Project Name: Albert Sack Unit 1
Denver, CO 80221 Project Number: 88635365
 Telephone Number: _____ Samples Collected By: Mitch Weller
 Email Address: rcornez@tasman-geo.com

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions		
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #			Other	
BH18-7/12/16	7-12-16	1115	3	X				X					1	
BH12-7/12/16	↓	1153	↓	↓				↓					2	
													3	
													4	
													5	
													6	
													7	
													8	
													9	
													10	

Relinquished By: <u>Mitch Weller</u>	Date: 7-12-16	Time: 1510	Received By: <u>[Signature]</u>	Date: 7/12/16	Time: 1510
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

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

Temp Received: 18.2 Date Results Needed: _____

Origins Laboratory, Inc.

Jefe 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: 88635365
 Project: KMG - Albert Sack Unit #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X1007150

Client: Tasman
 Client Project ID: Albert Sack Unit 1

Checklist Completed by: Jen Pellegrini
 Date/time completed: 7/12/16

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

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

Cooler Number/Temperature: 1 / 18.2 °C _____ / _____ °C _____ / _____ °C (Describe)

Thermometer ID: TC03

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ^{(1)?}		X		sampled same day
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		✓		
Were all samples received intact ^{(1)?}	X			
Was adequate sample volume provided ^{(1)?}	X			
Are short holding time analytes or samples with HTs due within 48 hours present ^{(1)?}		X		
Is a chain-of-custody (COC) present and filled out completely ^{(1)?}	X			
Does the COC agree with the number and type of sample bottles received ^{(1)?}	X			
Do the sample IDs on the bottle labels match the COC ^{(1)?}	X			
Is the COC properly relinquished by the client with date and time recorded ^{(1)?}	X			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		X		
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)	X			HCL
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.

Jen Pellegrini
 Reviewed by (Project Manager)

7/13/16
 Date/Time Reviewed

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: 88635365
 Project: KMG - Albert Sack Unit #1

BH01 - 7/12/16
7/12/2016 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X607150-01 (Water)

BTEX by EPA 8260C

Benzene	38.7	4.00	ug/L	4	B6G1306	07/13/2016	07/13/2016	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	32.0	4.00	"	"	"	"	"	
Xylenes, total	196	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	93.2 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH02 - 7/12/16
7/12/2016 12:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X607150-02 (Water)

BTEX by EPA 8260C

Benzene	22.7	4.00	ug/L	4	B6G1306	07/13/2016	07/13/2016	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	ND	4.00	"	"	"	"	"	U
Xylenes, total	ND	4.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	92.4 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH03 - 7/12/16
7/12/2016 11:48:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X607150-03 (Water)

BTEX by EPA 8260C

Benzene	12.3	1.00	ug/L	1	B6G1306	07/13/2016	07/13/2016	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	2.31	1.00	"	"	"	"	"	
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	94.4 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH04 - 7/12/16
7/12/2016 12:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X607150-04 (Water)

BTEX by EPA 8260C

Benzene	1.26	1.00	ug/L	1	B6G1306	07/13/2016	07/13/2016	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	47.7	1.00	"	"	"	"	"	
Xylenes, total	149	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	91.4 %	84-121			"	"	"	
Surrogate: Toluene-d8	106 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH05R - 7/12/16
7/12/2016 10:57:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X607150-05 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B6G1306	07/13/2016	07/13/2016	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	43.1	4.00	"	"	"	"	"	
Xylenes, total	230	4.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	93.6 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	102 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	104 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH06 - 7/12/16
7/12/2016 11:07:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X607150-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6G1306	07/13/2016	07/13/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	9.15	1.00	"	"	"	"	"	
Xylenes, total	96.7	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	92.4 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	108 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	104 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH07 - 7/12/16
7/12/2016 10:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X607150-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6G1306	07/13/2016	07/13/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	10.8	1.00	"	"	"	"	"	
Xylenes, total	53.9	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	93.2 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	102 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	104 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH08 - 7/12/16
7/12/2016 11:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X607150-08 (Water)

BTEX by EPA 8260C

Benzene	2.31	1.00	ug/L	1	B6G1306	07/13/2016	07/13/2016	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	1.73	1.00	"	"	"	"	"	
Xylenes, total	22.9	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	93.4 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH09 - 7/12/16
7/12/2016 11:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X607150-09 (Water)

BTEX by EPA 8260C

Benzene	159	4.00	ug/L	4	B6G1306	07/13/2016	07/14/2016	
Toluene	ND	1.00	"	1	"	"	07/13/2016	U
Ethylbenzene	1.58	1.00	"	"	"	"	"	
Xylenes, total	1.96	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	92.6 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH10 - 7/12/16
7/12/2016 11:10:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X607150-10 (Water)

BTEX by EPA 8260C

Benzene	2.18	1.00	ug/L	1	B6G1306	07/13/2016	07/13/2016	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	14.8	1.00	"	"	"	"	"	
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	90.8 %	84-121			"	"	"	
Surrogate: Toluene-d8	110 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH11R - 7/12/16
7/12/2016 11:15:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X607150-11 (Water)

BTEX by EPA 8260C

Benzene	16.9	1.00	ug/L	1	B6G1306	07/13/2016	07/13/2016	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	34.5	1.00	"	"	"	"	"	
Xylenes, total	21.2	1.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	91.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	107 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH12 - 7/12/16
 7/12/2016 11:33:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 X607150-12 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B6G1306	07/13/2016	07/13/2016	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	73.4	4.00	"	"	"	"	"	
Xylenes, total	395	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	92.5 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B6G1306 - EPA 5030B (Water)

Blank (B6G1306-BLK1)

Prepared: 07/13/2016 Analyzed: 07/13/2016

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	59		"	62.5	94.3		84-121			
Surrogate: Toluene-d8	63		"	62.5	100		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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B6G1306 - EPA 5030B (Water)

LCS (B6G1306-BS1)

Prepared: 07/13/2016 Analyzed: 07/13/2016

Benzene	56.9	1.00	ug/L	50.0		114	73.3-129			
Toluene	57.7	1.00	"	50.0		115	76.2-123			
Ethylbenzene	56.1	1.00	"	50.0		112	73.6-130			
m,p-Xylene	115	2.00	"	100		115	76.1-126			
o-Xylene	56.5	1.00	"	50.0		113	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	56		"	62.5		89.0	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B6G1306 - EPA 5030B (Water)

Matrix Spike (B6G1306-MS1)	Source: X607150-11			Prepared: 07/13/2016 Analyzed: 07/13/2016						
Benzene	76.5	1.00	ug/L	50.0	16.9	119	74-130			
Toluene	59.6	1.00	"	50.0	ND	119	73-131			
Ethylbenzene	77.5	1.00	"	50.0	34.5	85.9	76-132			
m,p-Xylene	132	2.00	"	100	20.8	112	69-139			
o-Xylene	58.0	1.00	"	50.0	0.410	115	74-131			
Surrogate: 1,2-Dichloroethane-d4	58		"	62.5		93.3	84-121			
Surrogate: Toluene-d8	67		"	62.5		107	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B6G1306 - EPA 5030B (Water)

Matrix Spike Dup (B6G1306-MSD1)	Source: X607150-11			Prepared: 07/13/2016 Analyzed: 07/13/2016						
Benzene	73.6	1.00	ug/L	50.0	16.9	113	74-130	3.93	20	
Toluene	57.6	1.00	"	50.0	ND	115	73-131	3.43	20	
Ethylbenzene	79.7	1.00	"	50.0	34.5	90.4	76-132	2.82	20	
m,p-Xylene	129	2.00	"	100	20.8	108	69-139	2.69	20	
o-Xylene	55.6	1.00	"	50.0	0.410	110	74-131	4.31	20	
Surrogate: 1,2-Dichloroethane-d4	53		"	62.5		85.0	84-121			
Surrogate: Toluene-d8	66		"	62.5		105	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: 88635365
Project: KMG - Albert Sack Unit #1

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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

October 07, 2016

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - 88635365

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. October 03, 2016. This project is associated with Origins project number X610017-01.

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: 88635365
Project: KMG - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	X610017-01	Water	October 3, 2016 10:47	10/03/2016 15:01
BH02	X610017-02	Water	October 3, 2016 10:50	10/03/2016 15:01
BH03	X610017-03	Water	October 3, 2016 11:03	10/03/2016 15:01
BH04	X610017-04	Water	October 3, 2016 11:15	10/03/2016 15:01
BH05R	X610017-05	Water	October 3, 2016 11:19	10/03/2016 15:01
BH06	X610017-06	Water	October 3, 2016 11:30	10/03/2016 15:01
BH07	X610017-07	Water	October 3, 2016 11:37	10/03/2016 15:01
BH08	X610017-08	Water	October 3, 2016 11:50	10/03/2016 15:01
BH09	X610017-09	Water	October 3, 2016 12:00	10/03/2016 15:01
BH10	X610017-10	Water	October 3, 2016 12:15	10/03/2016 15:01

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: 88635365
Project: KMG - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH11R	X610017-11	Water	October 3, 2016 12:15	10/03/2016 15:01
BH12	X610017-12	Water	October 3, 2016 12:30	10/03/2016 15:01

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: 88635365
 Project: KMG - Albert Sack Unit #1

www.originslaboratory.com

page 1 of 2



X60017

Client: Amador/Tasman
 Address: 6899 Pecos Street
 Telephone Number: 979-255-4235
 Email Address: BCORNEZ@tasman-geo.com

Project Manager: Bob Cornez
 Project Name: Albert Sack Unit 4
 Project Number: 88635365
 Samples Collected By: Max Cornea

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions		
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summ #			Other	
BH01	10/3/16	10:47	3	X				X						
BH02		10:50	1	X										
BH03		11:03	1	X										
BH04		11:15	1	X										
BH05R		11:19	1	X										
BH06		11:30	1	X										
BH07		11:37	1	X										
BH08		11:50	1	X										
BH09		12:00	1	X										
BH10		12:15	1	X										
Relinquished By: Max Cornea	Date: 10/3/16	Time: 1:50	Received By: <i>[Signature]</i>	Date: 10/3/16	Time: 1:50	Received By: <i>[Signature]</i>	Date: 10/3/16	Time: 1:50	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>					

Date Results Needed

Origins Laboratory, Inc.

Jefe 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: 88635365
 Project: KMG - Albert Sack Unit #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X610017

Client: Tasman

Client Project ID: Albert Sack Unit #1

Checklist Completed by: JRP Smk

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

Date/time completed: 10/3/16

Airbill #: NA

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

Cooler Number/Temperature: 1 10.7 °C / _____ °C / _____ °C (Describe)

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"/>			
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"/>	<input checked="" type="checkbox"/>		2x Vials for BHOZ were Rec-ndd Broken
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 HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+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.

JRP
 Reviewed by (Project Manager)

10/4/16
 Date/Time Reviewed

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH01

10/3/2016 10:47:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X610017-01 (Water)

BTEX by EPA 8260C

Benzene	36.9	1.00	ug/L	1	B6J0602	10/06/2016	10/06/2016	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	9.72	1.00	"	"	"	"	"	
Xylenes, total	81.0	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	106 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH02

10/3/2016 10:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X610017-02 (Water)

BTEX by EPA 8260C

Benzene	41.8	4.00	ug/L	4	B6J0602	10/06/2016	10/06/2016	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	ND	4.00	"	"	"	"	"	U
Xylenes, total	ND	4.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.5 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.7 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88635365
Project: KMG - Albert Sack Unit #1

BH03

10/3/2016 11:03:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X610017-03 (Water)

BTEX by EPA 8260C

Benzene	1.23	1.00	ug/L	1	B6J0602	10/06/2016	10/06/2016	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.6 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH04

10/3/2016 11:15:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X610017-04 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B6J0602	10/06/2016	10/06/2016	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	49.4	4.00	"	"	"	"	"	
Xylenes, total	247	4.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	101 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	105 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	98.2 %	84-114			"	"	"	

Origins Laboratory, Inc.



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 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH05R

10/3/2016 11:19:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X610017-05 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B6J0602	10/06/2016	10/06/2016	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	11.2	4.00	"	"	"	"	"	
Xylenes, total	63.7	4.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	99.9 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	100 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	98.7 %	84-114			"	"	"	

Origins Laboratory, Inc.



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 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH06

10/3/2016 11:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X610017-06 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B6J0602	10/06/2016	10/06/2016	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	49.7	4.00	"	"	"	"	"	
Xylenes, total	364	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"	
Surrogate: Toluene-d8	105 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.3 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH07

10/3/2016 11:37:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 X610017-07 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B6J0602	10/06/2016	10/06/2016	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	12.6	4.00	"	"	"	"	"	
Xylenes, total	140	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH08

10/3/2016 11:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 X610017-08 (Water)

BTEX by EPA 8260C

Benzene	3.57	1.00	ug/L	1	B6J0602	10/06/2016	10/06/2016	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	9.92	1.00	"	"	"	"	"	
Xylenes, total	12.8	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	94.0 %	84-121			"	"	"	
Surrogate: Toluene-d8	115 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH09

10/3/2016 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 X610017-09 (Water)

BTEX by EPA 8260C

Benzene	2.08	1.00	ug/L	1	B6J0602	10/06/2016	10/06/2016	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	99.3 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.3 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.8 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH10

10/3/2016 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X610017-10 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6J0602	10/06/2016	10/06/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	99.4 %	84-121			"	"	"	
Surrogate: Toluene-d8	119 %	85-115			"	"	"	S-04
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: 88635365
 Project: KMG - Albert Sack Unit #1

BH11R
10/3/2016 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X610017-11 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6J0602	10/06/2016	10/06/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	99.5 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.8 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.1 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH12

10/3/2016 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X610017-12 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B6J0602	10/06/2016	10/06/2016	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	27.2	4.00	"	"	"	"	"	
Xylenes, total	281	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	99.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	105 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B6J0602 - EPA 5030B (Water)

Blank (B6J0602-BLK1)

Prepared: 10/06/2016 Analyzed: 10/06/2016

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	61		"	62.5	97.3		85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5	96.9		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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B6J0602 - EPA 5030B (Water)

LCS (B6J0602-BS1)

Prepared: 10/06/2016 Analyzed: 10/06/2016

Benzene	47.7	1.00	ug/L	50.0		95.4	73.3-129			
Toluene	44.5	1.00	"	50.0		88.9	76.2-123			
Ethylbenzene	46.3	1.00	"	50.0		92.7	73.6-130			
m,p-Xylene	90.7	2.00	"	100		90.7	76.1-126			
o-Xylene	46.9	1.00	"	50.0		93.9	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.2	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B6J0602 - EPA 5030B (Water)

Matrix Spike (B6J0602-MS1)	Source: X610007-01			Prepared: 10/06/2016 Analyzed: 10/06/2016						
Benzene	47.4	1.00	ug/L	50.0	ND	94.9	74-130			
Toluene	45.1	1.00	"	50.0	ND	90.2	73-131			
Ethylbenzene	46.4	1.00	"	50.0	ND	92.7	76-132			
m,p-Xylene	92.5	2.00	"	100	ND	92.5	69-139			
o-Xylene	47.5	1.00	"	50.0	ND	95.0	74-131			
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5		103	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.9	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B6J0602 - EPA 5030B (Water)

Matrix Spike Dup (B6J0602-MSD1)	Source: X610007-01			Prepared: 10/06/2016 Analyzed: 10/06/2016						
Benzene	48.1	1.00	ug/L	50.0	ND	96.2	74-130	1.38	20	
Toluene	44.9	1.00	"	50.0	ND	89.8	73-131	0.489	20	
Ethylbenzene	46.9	1.00	"	50.0	ND	93.9	76-132	1.22	20	
m,p-Xylene	93.6	2.00	"	100	ND	93.6	69-139	1.17	20	
o-Xylene	47.3	1.00	"	50.0	ND	94.7	74-131	0.337	20	
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.9	85-115			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		103	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88635365
Project: KMG - Albert Sack Unit #1

Notes and Definitions

U Sample is Non-Detect.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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

January 16, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - 88635365

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. January 10, 2017. This project is associated with Origins project number X701094-01.

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: 88635365
Project: KMG - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 01/10/17	X701094-01	Water	January 10, 2017 13:30	01/10/2017 16:08
BH02 - 01/10/17	X701094-02	Water	January 10, 2017 15:10	01/10/2017 16:08
BH03 - 01/10/17	X701094-03	Water	January 10, 2017 14:45	01/10/2017 16:08
BH04 - 01/10/17	X701094-04	Water	January 10, 2017 13:37	01/10/2017 16:08
BH05R - 01/10/17	X701094-05	Water	January 10, 2017 14:10	01/10/2017 16:08
BH06 - 01/10/17	X701094-06	Water	January 10, 2017 14:25	01/10/2017 16:08
BH07 - 01/10/17	X701094-07	Water	January 10, 2017 13:53	01/10/2017 16:08
BH08 - 01/10/17	X701094-08	Water	January 10, 2017 14:50	01/10/2017 16:08
BH09 - 01/10/17	X701094-09	Water	January 10, 2017 14:17	01/10/2017 16:08
BH10 - 01/10/17	X701094-10	Water	January 10, 2017 14:32	01/10/2017 16:08
BH11R - 01/10/17	X701094-11	Water	January 10, 2017 14:02	01/10/2017 16:08
BH12 - 01/10/17	X701094-12	Water	January 10, 2017 13:45	01/10/2017 16:08

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: 88635365
 Project: KMG - Albert Sack Unit #1

www.originslaboratory.com

X701014

page 1 of 2

ORIGINS
 LABORATORY, INC

Client: Anal. Unit / Tasman
 Address: 6899 Pecos St
 Telephone Number: 979-265-4235
 Email Address: ycornez@tasmangeo.com

Project Manager: Bob Cornez
 Project Name: Albert Sack Unit 1
 Project Number: 88635365
 Samples Collected By: Max Gomez, Mitch Walker

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis		Sample Instructions				
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	As Summ #	Other						
BH01-11/01/17	11/01/17	13:30	3	X				X									
BH02-11/01/17		15:10															
BH03-11/01/17		14:45															
BH04-11/01/17		13:37															
BH05-11/01/17		14:10															
BH06-11/01/17		14:25															
BH07-11/01/17		13:53															
BH08-11/01/17		14:50															
BH09-11/01/17		14:17															
BH10-11/01/17		14:32															
Relinquished By:																	
Max Gomez	11/01/17		100														
Relinquished By:																	

Temp Received: 3.2 Date Results Needed

Origins Laboratory, Inc.

Jefe 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: 88635365
 Project: KMG - Albert Sack Unit #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X701094

Client: Tasman

Client Project ID: KMG-Albert Sack Unit #1

Checklist Completed by: Jeff Smith

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

Date/time completed: 1-11-12

Airbill #: NA

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

Cooler Number/Temperature: 137 °C / _____ °C / _____ °C (Describe)

Thermometer ID: TCB

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	✓			
Is there ice present (document if blue ice is used)	<			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		✓		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<		
Were all samples received intact ⁽¹⁾ ?	✓			
Was adequate sample volume provided ⁽¹⁾ ?	<			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		✓		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	✓			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		✓		
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)	<			HTC
Additional Comments (if any):				

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

Jeff Smith
 Reviewed by (Project Manager)

1-11-12
 Date/Time Reviewed

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH01 - 01/10/17
1/10/2017 1:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701094-01 (Water)

BTEX by EPA 8260C

Benzene	32.5	1.00	ug/L	1	B7A1103	01/11/2017	01/11/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	32.0	1.00	"	"	"	"	"	
Xylenes, total	230	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	104 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.4 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH02 - 01/10/17
1/10/2017 3:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701094-02 (Water)

BTEX by EPA 8260C

Benzene	37.3	1.00	ug/L	1	B7A1103	01/11/2017	01/11/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	3.59	1.00	"	"	"	"	"	
Xylenes, total	15.7	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	104 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.2 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.3 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH03 - 01/10/17
1/10/2017 2:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701094-03 (Water)

BTEX by EPA 8260C

Benzene	5.52	1.00	ug/L	1	B7A1103	01/11/2017	01/11/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	1.60	1.00	"	"	"	"	"	
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	84-121			"	"	"	
Surrogate: Toluene-d8	95.5 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.8 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH04 - 01/10/17
1/10/2017 1:37:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701094-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7A1103	01/11/2017	01/11/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	63.0	1.00	"	"	"	"	"	
Xylenes, total	262	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	104 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	105 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	97.5 %	84-114			"	"	"	

Origins Laboratory, Inc.



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 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH05R - 01/10/17
1/10/2017 2:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701094-05 (Water)

BTEX by EPA 8260C

Benzene	1.75	1.00	ug/L	1	B7A1103	01/11/2017	01/11/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	84.7	1.00	"	"	"	"	"	
Xylenes, total	264	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	104 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.8 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.7 %	84-114			"	"	"	

Origins Laboratory, Inc.



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 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH06 - 01/10/17
1/10/2017 2:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701094-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7A1103	01/11/2017	01/11/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	12.5	1.00	"	"	"	"	"	
Xylenes, total	108	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	106 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	102 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	99.7 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH07 - 01/10/17
1/10/2017 1:53:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701094-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7A1103	01/11/2017	01/11/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	40.0	1.00	"	"	"	"	"	
Xylenes, total	256	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	104 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	104 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	97.6 %	84-114			"	"	"	

Origins Laboratory, Inc.



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 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH08 - 01/10/17
1/10/2017 2:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701094-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7A1103	01/11/2017	01/11/2017	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	96.8 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.8 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH09 - 01/10/17
1/10/2017 2:17:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701094-09 (Water)

BTEX by EPA 8260C

Benzene	70.2	1.00	ug/L	1	B7A1103	01/11/2017	01/11/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	84-121			"	"	"	
Surrogate: Toluene-d8	97.5 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.0 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH10 - 01/10/17
1/10/2017 2:32:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701094-10 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7A1103	01/11/2017	01/11/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	106 %	84-121			"	"	"	
Surrogate: Toluene-d8	97.1 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.1 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH11R - 01/10/17
 1/10/2017 2:02:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 X701094-11 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7A1103	01/11/2017	01/11/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	50.4	1.00	"	"	"	"	"	
Xylenes, total	24.5	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	106 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	99.6 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	96.7 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH12 - 01/10/17
1/10/2017 1:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701094-12 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7A1103	01/11/2017	01/11/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	147	1.00	"	"	"	"	"	
Xylenes, total	718	4.00	"	4	"	"	01/12/2017	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	108 %	84-121			"	"	01/11/2017	
<i>Surrogate: Toluene-d8</i>	112 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	99.5 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7A1103 - EPA 5030B (Water)

Blank (B7A1103-BLK1)

Prepared: 01/11/2017 Analyzed: 01/11/2017

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	65		"	62.5	104		84-121			
Surrogate: Toluene-d8	60		"	62.5	96.0		85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5	97.3		84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7A1103 - EPA 5030B (Water)

Blank (B7A1103-BLK2)

Prepared: 01/11/2017 Analyzed: 01/11/2017

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	65		"	62.5	104		84-121			
Surrogate: Toluene-d8	60		"	62.5	96.1		85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5	98.7		84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7A1103 - EPA 5030B (Water)

LCS (B7A1103-BS1)

Prepared: 01/11/2017 Analyzed: 01/11/2017

Benzene	55.8	1.00	ug/L	50.0		112	73.3-129			
Toluene	53.0	1.00	"	50.0		106	76.2-123			
Ethylbenzene	54.0	1.00	"	50.0		108	73.6-130			
m,p-Xylene	108	2.00	"	100		108	76.1-126			
o-Xylene	53.9	1.00	"	50.0		108	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.1	84-121			
Surrogate: Toluene-d8	60		"	62.5		96.6	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7A1103 - EPA 5030B (Water)

LCS (B7A1103-BS2)

Prepared: 01/11/2017 Analyzed: 01/11/2017

Benzene	54.8	1.00	ug/L	50.0		110	73.3-129			
Toluene	50.0	1.00	"	50.0		100	76.2-123			
Ethylbenzene	50.6	1.00	"	50.0		101	73.6-130			
m,p-Xylene	101	2.00	"	100		101	76.1-126			
o-Xylene	51.1	1.00	"	50.0		102	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.5	84-121			
Surrogate: Toluene-d8	60		"	62.5		96.7	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7A1103 - EPA 5030B (Water)

Matrix Spike (B7A1103-MS1)	Source: X701084-01			Prepared: 01/11/2017 Analyzed: 01/11/2017						
Benzene	106	1.00	ug/L	50.0	58.1	95.6	74-130			
Toluene	56.4	1.00	"	50.0	0.390	112	73-131			
Ethylbenzene	81.8	1.00	"	50.0	32.5	98.7	76-132			
m,p-Xylene	114	2.00	"	100	5.11	109	69-139			
o-Xylene	55.6	1.00	"	50.0	0.360	110	74-131			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		96.9	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.1	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7A1103 - EPA 5030B (Water)

Matrix Spike (B7A1103-MS2)	Source: X701084-02			Prepared: 01/11/2017 Analyzed: 01/11/2017						
Benzene	2640	1.00	ug/L	50.0	1330	NR	74-130			QM-07
Toluene	54.3	1.00	"	50.0	ND	109	73-131			
Ethylbenzene	484	1.00	"	50.0	271	425	76-132			QM-07
m,p-Xylene	844	2.00	"	100	974	NR	69-139			QM-07
o-Xylene	52.6	1.00	"	50.0	2.00	101	74-131			
Surrogate: 1,2-Dichloroethane-d4	48		"	62.5		76.5	84-121			S-04
Surrogate: Toluene-d8	62		"	62.5		99.5	85-115			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		103	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7A1103 - EPA 5030B (Water)

Matrix Spike Dup (B7A1103-MSD1)	Source: X701084-01			Prepared: 01/11/2017 Analyzed: 01/11/2017						
Benzene	103	1.00	ug/L	50.0	58.1	89.9	74-130	2.71	20	
Toluene	55.1	1.00	"	50.0	0.390	109	73-131	2.40	20	
Ethylbenzene	80.2	1.00	"	50.0	32.5	95.4	76-132	2.01	20	
m,p-Xylene	111	2.00	"	100	5.11	106	69-139	2.86	20	
o-Xylene	54.9	1.00	"	50.0	0.360	109	74-131	1.28	20	
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.5	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.1	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7A1103 - EPA 5030B (Water)

Matrix Spike Dup (B7A1103-MSD2)	Source: X701084-02				Prepared: 01/11/2017 Analyzed: 01/11/2017						
Benzene	2490	1.00	ug/L	50.0	1330	NR	74-130	5.78	20	QM-07	
Toluene	54.8	1.00	"	50.0	ND	110	73-131	0.971	20		
Ethylbenzene	465	1.00	"	50.0	271	388	76-132	3.89	20	QM-07	
m,p-Xylene	835	2.00	"	100	974	NR	69-139	1.07	20	QM-07	
o-Xylene	53.9	1.00	"	50.0	2.00	104	74-131	2.53	20		
Surrogate: 1,2-Dichloroethane-d4	49		"	62.5		79.1	84-121			S-04	
Surrogate: Toluene-d8	62		"	62.5		99.1	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: 88635365
Project: KMG - Albert Sack Unit #1

Notes and Definitions

U Sample is Non-Detect.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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



April 25, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - 88635365

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. April 17, 2017. This project is associated with Origins project number Y704198-01.

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: 88635365
Project: KMG - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01-04/17/17	Y704198-01	Water	April 17, 2017 10:41	04/17/2017 14:39
BH02-04/17/17	Y704198-02	Water	April 17, 2017 10:43	04/17/2017 14:39
BH04-04/17/17	Y704198-04	Water	April 17, 2017 10:57	04/17/2017 14:39
BH05R-04/17/17	Y704198-05	Water	April 17, 2017 11:09	04/17/2017 14:39
BH06-04/17/17	Y704198-06	Water	April 17, 2017 11:12	04/17/2017 14:39
BH07-04/17/17	Y704198-07	Water	April 17, 2017 11:24	04/17/2017 14:39
BH08-04/17/17	Y704198-08	Water	April 17, 2017 11:25	04/17/2017 14:39
BH09-04/17/17	Y704198-09	Water	April 17, 2017 11:38	04/17/2017 14:39
BH10-04/17/17	Y704198-10	Water	April 17, 2017 11:37	04/17/2017 14:39
BH11R-04/17/17	Y704198-11	Water	April 17, 2017 11:49	04/17/2017 14:39
BH12-04/17/17	Y704198-12	Water	April 17, 2017 11:51	04/17/2017 14:39

Analysis for sample BH03 was removed per the email from Mike Jahn on 04/18/17 due to the fact that all three vials contained headspace.

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: 88635365
 Project: KMG - Albert Sack Unit #1

www.originslaboratory.com

page 1 of 2

4704198

ORIGINS
 LABORATORY, INC

Client: Tasman Geosciences for APC
 Address: _____
 Telephone Number: (352) 262-9910
 Email Address: bcornez@tasmangeo.com

Project Manager: Bob Cornez
 Project Name: Albert Sack Unit 1
 Project Number: 88635365
 Samples Collected By: Kirk F. Weidner

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix				Analysis	Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summ #	Other			
BH01-04/17/17	4/17/17	1041	3	X	X	X	X	X	X	X	X	X		1
BH02-04/17/17	4/17/17	1043	3	X	X	X	X	X	X	X	X	X		2
BH03-04/17/17	4/17/17	1054	3	X	X	X	X	X	X	X	X	X		3
BH04-04/17/17	4/17/17	1057	3	X	X	X	X	X	X	X	X	X		4
BH05-04/17/17	4/17/17	1109	3	X	X	X	X	X	X	X	X	X		5
BH06-04/17/17	4/17/17	1112	3	X	X	X	X	X	X	X	X	X		6
BH07-04/17/17	4/17/17	1124	3	X	X	X	X	X	X	X	X	X		7
BH08-04/17/17	4/17/17	1125	3	X	X	X	X	X	X	X	X	X		8
BH09-04/17/17	4/17/17	1135	3	X	X	X	X	X	X	X	X	X		9
BH10-04/17/17	4/17/17	1137	3	X	X	X	X	X	X	X	X	X		10
Relinquished By:	Date: 4/17/17	Time: 1429	Received By:	Date: 4-17-17	Time: 1439	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:	Time:	Received By:	Date:	Time:									

Date Results Needed: 15.0.17

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: 88635365
 Project: KMG - Albert Sack Unit #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 7204198 Client: Tasman
 Client Project ID: KMG Albert Sack Unit #1
 Checklist Completed by: D. L... Shipped Via: ND
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Date/time completed: 4-12-12 1631 Airbill #: N/A
 Matrix(s) Received: (Check all that apply): Soil/Solid / Water Other: _____
 Cooler Number/Temperature: 1, 15.0 °C / _____ °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)?}		/		sampled same day
Is there ice present (document if blue ice is used)	/			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		/		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		/		
Were all samples received intact ^{(1)?}	/			
Was adequate sample volume provided ^{(1)?}	/			
Are short holding time analytes or samples with HTs due within 48 hours present ^{(1)?}		/		
Is a chain-of-custody (COC) present and filled out completely ^{(1)?}	/			
Does the COC agree with the number and type of sample bottles received ^{(1)?}	/			
Do the sample IDs on the bottle labels match the COC ^{(1)?}	/			
Is the COC properly relinquished by the client with date and time recorded ^{(1)?}	/			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	/			3 of 3 vials for per BMD3
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 HNO3, HCl, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)		/		
Additional Comments (if any):				

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

Reviewed by (Project Manager) [Signature] Date/Time Reviewed 4/12/12

Origins Laboratory, Inc.

Jefe 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: 88635365
 Project: KMG - Albert Sack Unit #1

BH01-04/17/17
 4/17/2017 10:41:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y704198-01 (Water)

BTEX by EPA 8260C

Benzene	10.5	1.00	ug/L	1	B7D2004	04/20/2017	04/21/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	28.4	1.00	"	"	"	"	"	
Xylenes, total	235	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	114 %	84-121			"	"	"	
Surrogate: Toluene-d8	87.9 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	118 %	84-114			"	"	"	S-04

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH02-04/17/17

4/17/2017 10:43:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y704198-02 (Water)

BTEX by EPA 8260C

Benzene	3.29	1.00	ug/L	1	B7D2004	04/20/2017	04/21/2017	
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	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	107 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH04-04/17/17
4/17/2017 10:57:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704198-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2004	04/20/2017	04/21/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	66.7	1.00	"	"	"	"	"	
Xylenes, total	250	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	107 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	86.5 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	122 %	84-114			"	"	" S-04	

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: 88635365
 Project: KMG - Albert Sack Unit #1

BH05R-04/17/17
4/17/2017 11:09:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704198-05 (Water)

BTEX by EPA 8260C

Benzene	1.11	1.00	ug/L	1	B7D2004	04/20/2017	04/21/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	74.5	1.00	"	"	"	"	"	
Xylenes, total	294	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	109 %	84-121			"	"	"	
Surrogate: Toluene-d8	94.0 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	115 %	84-114			"	"	"	S-04

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: 88635365
 Project: KMG - Albert Sack Unit #1

BH06-04/17/17

4/17/2017 11:12:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y704198-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2004	04/20/2017	04/21/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	3.66	1.00	"	"	"	"	"	
Xylenes, total	37.2	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	108 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	97.2 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	116 %	84-114			"	"	" S-04	

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: 88635365
 Project: KMG - Albert Sack Unit #1

BH07-04/17/17
 4/17/2017 11:24:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y704198-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2004	04/20/2017	04/21/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	38.6	1.00	"	"	"	"	"	
Xylenes, total	199	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	109 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	86.8 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	120 %	84-114			"	"	" S-04	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH08-04/17/17
 4/17/2017 11:25:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y704198-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2004	04/20/2017	04/21/2017	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	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	110 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH09-04/17/17

4/17/2017 11:38:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y704198-09 (Water)

BTEX by EPA 8260C

Benzene	9.96	1.00	ug/L	1	B7D2004	04/20/2017	04/21/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	90.6 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH10-04/17/17
 4/17/2017 11:37:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y704198-10 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2004	04/20/2017	04/21/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	91.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	106 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH11R-04/17/17
4/17/2017 11:49:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704198-11 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2004	04/20/2017	04/22/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	48.2	1.00	"	"	"	"	"	
Xylenes, total	9.02	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	87.3 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	100 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	116 %	84-114			"	"	" S-04	

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: 88635365
 Project: KMG - Albert Sack Unit #1

BH12-04/17/17
 4/17/2017 11:51:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y704198-12 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2004	04/20/2017	04/22/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	114	1.00	"	"	"	"	"	
Xylenes, total	994	20.0	"	20	"	"	04/24/2017	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	87.7 %	84-121			"	"	04/22/2017	
<i>Surrogate: Toluene-d8</i>	99.4 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	99.7 %	84-114			"	"	04/24/2017	

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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7D2004 - EPA 5030B (Water)

Blank (B7D2004-BLK1)

Prepared: 04/20/2017 Analyzed: 04/21/2017

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	70		"	62.5		111	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	67		"	62.5		107	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7D2004 - EPA 5030B (Water)

LCS (B7D2004-BS1)

Prepared: 04/20/2017 Analyzed: 04/21/2017

Benzene	43.4	1.00	ug/L	50.0		86.8	73.3-129			
Toluene	44.5	1.00	"	50.0		88.9	76.2-123			
Ethylbenzene	51.3	1.00	"	50.0		103	73.6-130			
m,p-Xylene	104	2.00	"	100		104	76.1-126			
o-Xylene	51.5	1.00	"	50.0		103	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	57		"	62.5		90.5	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		105	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7D2004 - EPA 5030B (Water)

Matrix Spike (B7D2004-MS1)	Source: Y704193-01			Prepared: 04/20/2017 Analyzed: 04/21/2017						
Benzene	46.0	1.00	ug/L	50.0	ND	92.1	74-130			
Toluene	49.0	1.00	"	50.0	ND	98.0	73-131			
Ethylbenzene	55.8	1.00	"	50.0	ND	112	76-132			
m,p-Xylene	113	2.00	"	100	ND	113	69-139			
o-Xylene	55.3	1.00	"	50.0	ND	111	74-131			
Surrogate: 1,2-Dichloroethane-d4	73		"	62.5		117	84-121			
Surrogate: Toluene-d8	65		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7D2004 - EPA 5030B (Water)

Matrix Spike Dup (B7D2004-MSD1)	Source: Y704193-01			Prepared: 04/20/2017 Analyzed: 04/21/2017						
Benzene	44.1	1.00	ug/L	50.0	ND	88.1	74-130	4.35	20	
Toluene	46.5	1.00	"	50.0	ND	92.9	73-131	5.34	20	
Ethylbenzene	53.5	1.00	"	50.0	ND	107	76-132	4.26	20	
m,p-Xylene	108	2.00	"	100	ND	108	69-139	4.35	20	
o-Xylene	53.1	1.00	"	50.0	ND	106	74-131	4.02	20	
Surrogate: 1,2-Dichloroethane-d4	72		"	62.5		115	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		106	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88635365
Project: KMG - Albert Sack Unit #1

Notes and Definitions

U Sample is Non-Detect.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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

April 25, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - 88635365

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. April 18, 2017. This project is associated with Origins project number Y704222-01.

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: 88635365
Project: KMG - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH03 - 04/18/17	Y704222-01	Water	April 18, 2017 12:05	04/18/2017 14:35

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: 88635365
 Project: KMG - Albert Sack Unit #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1704222

Client: Tasman
 Client Project ID: KMG - Albert Sack

Checklist Completed by: DL
 Date/time completed: 4.19.17 916

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

Matrix(s) Received: (Check all that apply) Soil/Solid Water Other: _____ (Describe)
 Cooler Number/Temperature: 1 / 3.8 °C _____ °C _____ °C _____ °C
 Thermometer ID: TCB

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	/			
Is there ice present (document if blue ice is used)	/			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		/		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		/		
Were all samples received intact ⁽¹⁾ ?	/			
Was adequate sample volume provided ⁽¹⁾ ?	/			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		/		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	/			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	/			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	/			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	/			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		/		
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)		/		
Additional Comments (if any):				

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

Reviewed by (Project Manager) [Signature] Date/Time Reviewed 4.19.17 916

Origins Laboratory, Inc.

Jefe 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: 88635365
 Project: KMG - Albert Sack Unit #1

BH03 - 04/18/17
4/18/2017 12:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704222-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2401	04/24/2017	04/24/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	99.6 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7D2401 - EPA 5030B (Water)

Blank (B7D2401-BLK1)

Prepared: 04/24/2017 Analyzed: 04/24/2017

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
<i>Surrogate: 1,2-Dichloroethane-d4</i>	62		"	62.5	99.0		84-121			
<i>Surrogate: Toluene-d8</i>	63		"	62.5	101		85-115			
<i>Surrogate: 4-Bromofluorobenzene</i>	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7D2401 - EPA 5030B (Water)

LCS (B7D2401-BS1)

Prepared: 04/24/2017 Analyzed: 04/24/2017

Benzene	49.9	1.00	ug/L	50.0		99.8	73.3-129			
Toluene	49.3	1.00	"	50.0		98.6	76.2-123			
Ethylbenzene	48.3	1.00	"	50.0		96.6	73.6-130			
m,p-Xylene	97.9	2.00	"	100		97.9	76.1-126			
o-Xylene	49.1	1.00	"	50.0		98.2	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.6	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.6	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7D2401 - EPA 5030B (Water)

Matrix Spike (B7D2401-MS1)	Source: Y704223-02			Prepared: 04/24/2017 Analyzed: 04/24/2017						
Benzene	62.4	1.00	ug/L	50.0	ND	125	74-130			
Toluene	63.1	1.00	"	50.0	ND	126	73-131			
Ethylbenzene	64.1	1.00	"	50.0	ND	128	76-132			
m,p-Xylene	129	2.00	"	100	ND	129	69-139			
o-Xylene	62.0	1.00	"	50.0	ND	124	74-131			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.3	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.6	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7D2401 - EPA 5030B (Water)

Matrix Spike Dup (B7D2401-MSD1)	Source: Y704223-02			Prepared: 04/24/2017 Analyzed: 04/24/2017						
Benzene	65.5	1.00	ug/L	50.0	ND	131	74-130	4.79	20	QM-07
Toluene	65.9	1.00	"	50.0	ND	132	73-131	4.26	20	QM-07
Ethylbenzene	67.6	1.00	"	50.0	ND	135	76-132	5.34	20	QM-07
m,p-Xylene	134	2.00	"	100	ND	134	69-139	4.17	20	
o-Xylene	65.0	1.00	"	50.0	ND	130	74-131	4.73	20	
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.4	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.4	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: 88635365
Project: KMG - Albert Sack Unit #1

Notes and Definitions

U Sample is Non-Detect.

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

July 31, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - 88635365

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. July 25, 2017. This project is associated with Origins project number Y707291-01.

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: 88635365
Project: KMG - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01-7/25/2017	Y707291-01	Water	July 25, 2017 12:50	07/25/2017 14:15
BH02-7/25/2017	Y707291-02	Water	July 25, 2017 12:25	07/25/2017 14:15
BH03-7/25/2017	Y707291-03	Water	July 25, 2017 12:50	07/25/2017 14:15
BH04-7/25/2017	Y707291-04	Water	July 25, 2017 12:35	07/25/2017 14:15
BH05R-7/25/2017	Y707291-05	Water	July 25, 2017 12:15	07/25/2017 14:15
BH06-7/25/2017	Y707291-06	Water	July 25, 2017 12:25	07/25/2017 14:15
BH07-7/25/2017	Y707291-07	Water	July 25, 2017 12:00	07/25/2017 14:15
BH08-7/25/2017	Y707291-08	Water	July 25, 2017 12:05	07/25/2017 14:15
BH09-7/25/2017	Y707291-09	Water	July 25, 2017 13:00	07/25/2017 14:15
BH10-7/25/2017	Y707291-10	Water	July 25, 2017 11:50	07/25/2017 14:15
BH11R-7/25/2017	Y707291-11	Water	July 25, 2017 12:45	07/25/2017 14:15
BH12-7/25/2017	Y707291-12	Water	July 25, 2017 12:44	07/25/2017 14:15

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: 88635365
 Project: KMG - Albert Sack Unit #1

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page 4 of 2



707291

Client: Amador / Tasman
 Project Manager: Bob Cornez
 Project Name: Albert Sack Unit 4
 Project Number: 88635365
 Telephone Number: 979-255-4235
 Address: _____
 Samples Collected By: Max G. Mitch W.
 Email Address: rcornez@tasman-geo.com

Fax: 303.265.9645 | Phone: 303.433.1322 | Denver, CO 80211

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis		Sample Instructions		
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #	Other	Date		Time	
BH01-7/25/2017	7/25/2017	1250	3	X				X						1	
BH02-7/25/2017		1225												2	
BH03-7/25/2017		1250												3	
BH04-7/25/2017		1235												4	
BH05R-7/25/2017		1215												5	
BH06-7/25/2017		1225												6	
BH07-7/25/2017		1200												7	
BH08-7/25/2017		1205												8	
BH09-7/25/2017		1300												9	
BH10-7/25/2017		1150												10	
Relinquished by: <u>MW</u>	Date: <u>7/25/17</u>	Time: <u>1415</u>	Received by: <u>[Signature]</u>	Date: <u>7-25-17</u>	Time: <u>1415</u>	Turnaround Time: <input type="checkbox"/> Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input checked="" type="checkbox"/> Standard									
Relinquished by:	Date:	Time:	Received by:	Date:	Time:										

Date Results Needed

Temp Received: 10.1°C

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: 88635365
 Project: KMG - Albert Sack Unit #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 470226 Client: Tasman
 Client Project ID: KMG - Albert Sack Unit 3
 Checklist Completed by: Dank Shipped Via: HD
 Date/time completed: 7-25-17 1425 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: NA
 Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____
 Cooler Number/Temperature: 1 / 10.6 °C _____ / _____ °C _____ / _____ °C (Describe)
 Thermometer ID: 7003

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 HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+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: [Signature] (Project Manager)

Date/Time Reviewed: 7/26/17

Origins Laboratory, Inc.

Jefe 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: 88635365
 Project: KMG - Albert Sack Unit #1

BH01-7/25/2017

7/25/2017 12:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y707291-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2609	07/26/2017	07/27/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	6.19	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	109 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH02-7/25/2017
7/25/2017 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707291-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2609	07/26/2017	07/27/2017	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	98.4 %	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: 88635365
Project: KMG - Albert Sack Unit #1

BH03-7/25/2017
7/25/2017 12:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707291-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2609	07/26/2017	07/27/2017	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	99.5 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH04-7/25/2017
7/25/2017 12:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707291-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2609	07/26/2017	07/27/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	35.1	1.00	"	"	"	"	"	
Xylenes, total	214	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	110 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	109 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH05R-7/25/2017
7/25/2017 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707291-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2609	07/26/2017	07/27/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	8.64	1.00	"	"	"	"	"	
Xylenes, total	77.2	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	108 %	84-121			"	"	"	
Surrogate: Toluene-d8	104 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH06-7/25/2017
7/25/2017 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707291-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2609	07/26/2017	07/27/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	2.57	1.00	"	"	"	"	"	
Xylenes, total	41.9	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	108 %	84-121			"	"	"	
Surrogate: Toluene-d8	106 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH07-7/25/2017
7/25/2017 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707291-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2609	07/26/2017	07/27/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	10.3	1.00	"	"	"	"	"	
Xylenes, total	128	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	105 %	84-121			"	"	"	
Surrogate: Toluene-d8	107 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH08-7/25/2017
7/25/2017 12:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707291-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2609	07/26/2017	07/27/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	110 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH09-7/25/2017
7/25/2017 1:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707291-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2609	07/26/2017	07/27/2017	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	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH10-7/25/2017
7/25/2017 11:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707291-10 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2609	07/26/2017	07/27/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	104 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH11R-7/25/2017
7/25/2017 12:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707291-11 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2609	07/26/2017	07/27/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	12.0	1.00	"	"	"	"	"	
Xylenes, total	2.52	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	106 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	115 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	107 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH12-7/25/2017
7/25/2017 12:44:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707291-12 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B7G2609	07/26/2017	07/27/2017	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	70.1	4.00	"	"	"	"	"	
Xylenes, total	545	4.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	104 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	102 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7G2609 - EPA 5030B (Water)

Blank (B7G2609-BLK1)

Prepared: 07/26/2017 Analyzed: 07/27/2017

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	68		"	62.5	108		84-121			
Surrogate: Toluene-d8	63		"	62.5	101		85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5	103		84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7G2609 - EPA 5030B (Water)

LCS (B7G2609-BS1)

Prepared: 07/26/2017 Analyzed: 07/26/2017

Benzene	46.1	1.00	ug/L	50.0		92.1	73.3-129			
Toluene	46.6	1.00	"	50.0		93.1	76.2-123			
Ethylbenzene	47.0	1.00	"	50.0		94.1	73.6-130			
m,p-Xylene	91.5	2.00	"	100		91.5	76.1-126			
o-Xylene	48.0	1.00	"	50.0		96.1	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		103	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7G2609 - EPA 5030B (Water)

Matrix Spike (B7G2609-MS1)	Source: Y707291-08			Prepared: 07/26/2017 Analyzed: 07/26/2017						
Benzene	45.6	1.00	ug/L	50.0	ND	91.2	74-130			
Toluene	45.3	1.00	"	50.0	ND	90.6	73-131			
Ethylbenzene	45.4	1.00	"	50.0	ND	90.8	76-132			
m,p-Xylene	89.1	2.00	"	100	ND	89.1	69-139			
o-Xylene	46.2	1.00	"	50.0	ND	92.3	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	65		"	62.5		103	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7G2609 - EPA 5030B (Water)

Matrix Spike Dup (B7G2609-MSD1)	Source: Y707291-08			Prepared: 07/26/2017 Analyzed: 07/27/2017						
Benzene	44.2	1.00	ug/L	50.0	ND	88.4	74-130	3.12	20	
Toluene	43.7	1.00	"	50.0	ND	87.4	73-131	3.59	20	
Ethylbenzene	43.6	1.00	"	50.0	ND	87.1	76-132	4.16	20	
m,p-Xylene	85.1	2.00	"	100	ND	85.1	69-139	4.61	20	
o-Xylene	45.3	1.00	"	50.0	ND	90.5	74-131	1.97	20	
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5		104	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88635365
Project: KMG - Albert Sack Unit #1

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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

October 26, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - 88635365

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. October 18, 2017. This project is associated with Origins project number Y710274-01.

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: 88635365
Project: KMG - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 10/18/2017	Y710274-01	Water	October 18, 2017 13:15	10/18/2017 17:15
BH02 10/18/2017	Y710274-02	Water	October 18, 2017 13:25	10/18/2017 17:15
BH03 10/18/2017	Y710274-03	Water	October 18, 2017 13:05	10/18/2017 17:15
BH04 10/18/2017	Y710274-04	Water	October 18, 2017 13:05	10/18/2017 17:15
BH05R 10/18/2017	Y710274-05	Water	October 18, 2017 12:50	10/18/2017 17:15
BH06 10/18/2017	Y710274-06	Water	October 18, 2017 12:40	10/18/2017 17:15
BH07 10/18/2017	Y710274-07	Water	October 18, 2017 13:00	10/18/2017 17:15
BH08 10/18/2017	Y710274-08	Water	October 18, 2017 13:15	10/18/2017 17:15
BH09 10/18/2017	Y710274-09	Water	October 18, 2017 12:50	10/18/2017 17:15
BH10 10/18/2017	Y710274-10	Water	October 18, 2017 12:35	10/18/2017 17:15
BH11R 10/18/2017	Y710274-11	Water	October 18, 2017 12:40	10/18/2017 17:15
BH12 10/18/2017	Y710274-12	Water	October 18, 2017 12:30	10/18/2017 17:15

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: 88635365
 Project: KMG - Albert Sack Unit #1

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710274

page 1 of 2

ORIGINS
 LABORATORY, INC

Client: Anadarko/Tasman
 Address: 6899 N Pecos St
 Telephone Number: 9704816909
 Email Address: jcornez@originslab.com

Project Manager: Bob Cornez
 Project Name: Albert Sack Unit 1
 Project Number: 88635365
 Samples Collected by: MJK G-4724

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Other		
BH01 10/18/2017	10/18/2017	1315	3	X				X			BTEX	1
BH02 10/18/2017		1325		X				X				2
BH03 10/18/2017		1305		X				X				3
BH04 10/18/2017		1305		X				X				4
BH05R 10/18/2017		1250		X				X				5
BH06 10/18/2017		1240		X				X				6
BH07 10/18/2017		1300		X				X				7
BH08 10/18/2017		1315		X				X				8
BH09 10/18/2017		1250		X				X				9
BH10 10/18/2017		1235		X				X				10
Relinquished By: <i>[Signature]</i>	Date: 10/18/2017	Time: 1715	Received By: <i>[Signature]</i>	Date: 10/18/17	Time: 1715	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard <input type="checkbox"/>						
Relinquished By: <i>[Signature]</i>	Date: 10/18/2017	Time: 1715	Received By: <i>[Signature]</i>	Date: 10/18/17	Time: 1715							

Date Results Needed

1.31

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

Origins Laboratory, Inc.

Jefe 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: 88635365
 Project: KMG - Albert Sack Unit #1

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page 2 of 2



DL
 17102474

Client: Anadarco/Tasman
 Address: 6899 N Pecos St
 Telephone Number: 9704816909
 Email Address:

Project Manager: Bob Cornez
 Project Name: Albert Sack Unit 1
 Project Number:
 Samples Collected By:

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #			
BH11 R	10/18/2017	1240	3	X				X			BTEX	1	
BH12	10/18/2017	1230	3	X				X			" "	2	
												3	
												4	
												5	
												6	
												7	
												8	
												9	
												10	
Relinquished By: <i>[Signature]</i>	Date: 10/18/2017	Time: MS	Received By: <i>[Signature]</i>	Date: 10/18/17	Time: 1715	Date Results Needed: <input type="text"/>							

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: 88635365
 Project: KMG - Albert Sack Unit #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1710274

Client: Tasman

Client Project ID: MG- Albert Sack Unit 1

Checklist Completed by: DM

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

Date/time completed: 10-17-17 9:55

Airbill #: N/A

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

Cooler Number/Temperature: / 1.3 °C / _____ °C / _____ °C (Describe) _____ °C

Thermometer ID: 9003

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"/>			
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 HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+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: [Signature] Project Manager

Date/Time Reviewed: 10/20/17

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH01 10/18/2017
10/18/2017 1:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710274-01 (Water)

BTEX by EPA 8260C

Benzene	16.9	1.00	ug/L	1	B7J2307	10/23/2017	10/23/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	32.4	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH02 10/18/2017
10/18/2017 1:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710274-02 (Water)

BTEX by EPA 8260C

Benzene	2.88	1.00	ug/L	1	B7J2307	10/23/2017	10/23/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	4.27	1.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	99.5 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.5 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH03 10/18/2017
 10/18/2017 1:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y710274-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J2307	10/23/2017	10/23/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.3 %	84-114			"	"	"	

Origins Laboratory, Inc.



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 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH04 10/18/2017
10/18/2017 1:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710274-04 (Water)

BTEX by EPA 8260C

Benzene	2.46	1.00	ug/L	1	B7J2307	10/23/2017	10/24/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	118	1.00	"	"	"	"	"	
Xylenes, total	413	10.0	"	10	"	"	10/25/2017	
Surrogate: 1,2-Dichloroethane-d4	99.0 %	84-121			"	"	10/24/2017	
Surrogate: Toluene-d8	101 %	85-115			"	"	10/25/2017	
Surrogate: 4-Bromofluorobenzene	101 %	84-114			"	"	10/24/2017	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH05R 10/18/2017
10/18/2017 12:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710274-05 (Water)

BTEX by EPA 8260C

Benzene	1.04	1.00	ug/L	1	B7J2307	10/23/2017	10/24/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	8.38	1.00	"	"	"	"	"	
Xylenes, total	47.0	1.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	99.0 %	84-121			"	"	"	
Surrogate: Toluene-d8	105 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.7 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH06 10/18/2017
 10/18/2017 12:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y710274-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J2307	10/23/2017	10/24/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	25.3	1.00	"	"	"	"	"	
Xylenes, total	371	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	99.2 %	84-121			"	"	"	
Surrogate: Toluene-d8	124 %	85-115			"	"	"	S-04
Surrogate: 4-Bromofluorobenzene	101 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH07 10/18/2017
 10/18/2017 1:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y710274-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J2307	10/23/2017	10/24/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	221	10.0	"	10	"	"	10/25/2017	
Xylenes, total	677	1.00	"	1	"	"	10/24/2017	
Surrogate: 1,2-Dichloroethane-d4	97.6 %	84-121			"	"	"	
Surrogate: Toluene-d8	115 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH08 10/18/2017
 10/18/2017 1:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y710274-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J2307	10/23/2017	10/24/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.5 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH09 10/18/2017
 10/18/2017 12:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y710274-09 (Water)

BTEX by EPA 8260C

Benzene	1.20	1.00	ug/L	1	B7J2307	10/23/2017	10/24/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.0 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.9 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.1 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH10 10/18/2017
10/18/2017 12:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710274-10 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J2307	10/23/2017	10/24/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.1 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.0 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH11R 10/18/2017
 10/18/2017 12:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y710274-11 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J2307	10/23/2017	10/24/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	3.55	1.00	"	"	"	"	"	
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	98.8 %	84-121			"	"	"	
Surrogate: Toluene-d8	120 %	85-115			"	"	"	S-04
Surrogate: 4-Bromofluorobenzene	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH12 10/18/2017
10/18/2017 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710274-12 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J2307	10/23/2017	10/24/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	40.5	1.00	"	"	"	"	"	
Xylenes, total	298	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	99.1 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	112 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	99.1 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7J2307 - EPA 5030B (Water)

Blank (B7J2307-BLK1)

Prepared: 10/23/2017 Analyzed: 10/23/2017

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	64		"	62.5	102		84-121			
Surrogate: Toluene-d8	61		"	62.5	98.2		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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7J2307 - EPA 5030B (Water)

LCS (B7J2307-BS1)

Prepared: 10/23/2017 Analyzed: 10/23/2017

Benzene	54.4	1.00	ug/L	50.0		109	73.3-129			
Toluene	54.1	1.00	"	50.0		108	76.2-123			
Ethylbenzene	55.4	1.00	"	50.0		111	73.6-130			
m,p-Xylene	110	2.00	"	100		110	76.1-126			
o-Xylene	55.3	1.00	"	50.0		111	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.9	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.2	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7J2307 - EPA 5030B (Water)

Matrix Spike (B7J2307-MS1)	Source: Y710274-01			Prepared: 10/23/2017 Analyzed: 10/25/2017						
Benzene	58.7	1.00	ug/L	50.0	16.9	83.6	74-130			
Toluene	57.2	1.00	"	50.0	ND	114	73-131			
Ethylbenzene	54.9	1.00	"	50.0	0.350	109	76-132			
m,p-Xylene	124	2.00	"	100	30.3	93.7	69-139			
o-Xylene	55.3	1.00	"	50.0	2.08	106	74-131			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.0	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.8	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B7J2307 - EPA 5030B (Water)

Matrix Spike Dup (B7J2307-MSD1)	Source: Y710274-01			Prepared: 10/23/2017 Analyzed: 10/23/2017						
Benzene	75.6	1.00	ug/L	50.0	16.9	117	74-130	25.1	20	QR-02
Toluene	58.1	1.00	"	50.0	ND	116	73-131	1.56	20	
Ethylbenzene	60.6	1.00	"	50.0	0.350	121	76-132	9.92	20	
m,p-Xylene	151	2.00	"	100	30.3	121	69-139	19.8	20	
o-Xylene	61.4	1.00	"	50.0	2.08	119	74-131	10.4	20	
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.9	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	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: 88635365
Project: KMG - Albert Sack Unit #1

Notes and Definitions

U Sample is Non-Detect.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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.



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

January 29, 2018

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - 88635365

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. January 23, 2018. This project is associated with Origins project number Y801322-01.

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: 88635365
Project: KMG - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 1/23/18	Y801322-01	Water	January 23, 2018 13:10	01/23/2018 17:00
BH02 - 1/23/18	Y801322-02	Water	January 23, 2018 12:55	01/23/2018 17:00
BH03 - 1/23/18	Y801322-03	Water	January 23, 2018 12:45	01/23/2018 17:00
BH05R - 1/23/18	Y801322-04	Water	January 23, 2018 13:15	01/23/2018 17:00
BH06 - 1/23/18	Y801322-05	Water	January 23, 2018 13:25	01/23/2018 17:00
BH07 - 1/23/18	Y801322-06	Water	January 23, 2018 13:05	01/23/2018 17:00
BH08 - 1/23/18	Y801322-07	Water	January 23, 2018 12:35	01/23/2018 17:00
BH09 - 1/23/18	Y801322-08	Water	January 23, 2018 12:45	01/23/2018 17:00
BH10 - 1/23/18	Y801322-09	Water	January 23, 2018 12:55	01/23/2018 17:00
BH11R - 1/23/18	Y801322-10	Water	January 23, 2018 12:30	01/23/2018 17:00
BH12 - 1/23/18	Y801322-11	Water	January 23, 2018 12:25	01/23/2018 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: 88635365
 Project: KMG - Albert Sack Unit #1

www.originslaboratory.com

page 1 of 2

y 801322

ORIGINS
 LABORATORY, INC

Client: ARC/TASMAN Project Manager/Send Report To: Bob Cornez
 Address: 6899 N Pecos St. Email Address: RCORNEZ@TASMAN-800.CO
Denver CO 80221 Project Name/Number: Albert Sack Unit #1 88635365
 Telephone Number: 9704816909 Samples Collected By: Max Dehlygen

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air/Surface		
BH01 - 1/23/18	1/23/18	1330	3	X				X			BTEX	
BH02 - 1/23/18		1255	↓									
BH03 - 1/23/18		1245	↓									
BH04 - 1/23/18												
BH05 - 1/23/18		1315	3									
BH06 - 1/23/18		1325	↓									
BH07 - 1/23/18		1305	↓									
BH08 - 1/23/18		1235	↓									
BH09 - 1/23/18		1245	↓									
BH10 - 1/23/18		1255	↓									
Relinquished By: <u>Max Dehlygen</u>	Date: 1/23/18	Time: 1700	Time: 1700	Received By: <u>[Signature]</u>	Date: 1/23/18	Time: 1700	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>					

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

Origins Laboratory, Inc.

Jefe 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: 88635365
 Project: KMG - Albert Sack Unit #1

www.originslaboratory.com
 page 2 of 2

1401522
 1991067

ORIGINS
 LABORATORY, INC

Client: APC / TASMAN Project Manager/Send Report To: _____
 Address: _____ Email Address: _____
 Project Name/Number: Albert Sack Unit 1/88635365
 Telephone Number: _____ Samples Collected By: _____

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analyzti/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Surmas Container #		
BH11R - 1/23/18	1/23/18	1230	3	X				X			BTEX	1
BH12 - 1/23/18	1/23/18	1225	3	X				X				2
												3
												4
												5
												6
												7
												8
												9
												10

Relinquished By: <u>[Signature]</u>	Date: 1/23/18	Time: 1700	Received By: <u>[Signature]</u>	Date: 1/25/18	Time: 1700
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Turnaround Time:
 Some Day 24 Hr
 48 Hr 72 Hr
 Standard

Origins Laboratory, Inc.

Jefe 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: 88635365
 Project: KMG - Albert Sack Unit #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y801322

Client: Tasman
 Client Project ID: KMG-Albert Sack unit 1

Checklist Completed by: JL
 Date/time completed: 1/24/12

Shipped Via: HD
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: N/A

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

Cooler Number/Temperature: L 1 4.0 °C _____ °C _____ °C (Describe) _____ °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"/>			
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 Na ₂ SO 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 JL (Project Manager)

Date/Time Reviewed 1/25/12

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: 88635365
 Project: KMG - Albert Sack Unit #1

BH01 - 1/23/18
1/23/2018 1:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801322-01 (Water)

BTEX by EPA 8260C

Benzene	12.1	1.00	ug/L	1	B8A2403	01/24/2018	01/24/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	5.56	1.00	"	"	"	"	"	
Xylenes, total	9.26	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	97.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH02 - 1/23/18
1/23/2018 12:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801322-02 (Water)

BTEX by EPA 8260C

Benzene	64.0	1.00	ug/L	1	B8A2403	01/24/2018	01/24/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	13.5	1.00	"	"	"	"	"	
Xylenes, total	48.8	1.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	99.2 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	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: 88635365
Project: KMG - Albert Sack Unit #1

BH03 - 1/23/18
1/23/2018 12:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801322-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A2403	01/24/2018	01/24/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	99.5 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH05R - 1/23/18
1/23/2018 1:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801322-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A2403	01/24/2018	01/24/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	11.2	1.00	"	"	"	"	"	
Xylenes, total	31.7	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	99.5 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	99.6 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH06 - 1/23/18
1/23/2018 1:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801322-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A2403	01/24/2018	01/24/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	14.6	1.00	"	"	"	"	"	
Xylenes, total	92.6	1.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	100 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	107 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH07 - 1/23/18
1/23/2018 1:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801322-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A2403	01/24/2018	01/24/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	72.3	1.00	"	"	"	"	"	
Xylenes, total	470	5.00	"	5	"	"	01/25/2018	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	101 %	84-121			"	"	01/24/2018	
<i>Surrogate: Toluene-d8</i>	102 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	99.5 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH08 - 1/23/18

1/23/2018 12:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y801322-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A2403	01/24/2018	01/24/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	99.5 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.5 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.9 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: 88635365
 Project: KMG - Albert Sack Unit #1

BH09 - 1/23/18
 1/23/2018 12:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y801322-08 (Water)

BTEX by EPA 8260C

Benzene	198	1.00	ug/L	1	B8A2403	01/24/2018	01/24/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	1.62	1.00	"	"	"	"	"	
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	93.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	111 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH10 - 1/23/18
1/23/2018 12:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801322-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A2403	01/24/2018	01/24/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.9 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH11R - 1/23/18

1/23/2018 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y801322-10 (Water)

BTEX by EPA 8260C

Benzene	8.59	1.00	ug/L	1	B8A2403	01/24/2018	01/24/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	12.9	1.00	"	"	"	"	"	
Xylenes, total	1.00	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	94.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	109 %	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: 88635365
 Project: KMG - Albert Sack Unit #1

BH12 - 1/23/18
1/23/2018 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801322-11 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B8A2403	01/24/2018	01/24/2018	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	39.8	4.00	"	"	"	"	"	
Xylenes, total	384	4.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	99.2 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	102 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B8A2403 - EPA 5030B (Water)

Blank (B8A2403-BLK1)

Prepared: 01/24/2018 Analyzed: 01/24/2018

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	63		"	62.5		101	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.8	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B8A2403 - EPA 5030B (Water)

LCS (B8A2403-BS1)

Prepared: 01/24/2018 Analyzed: 01/24/2018

Benzene	51.2	1.00	ug/L	50.0		102	73.3-129			
Toluene	48.5	1.00	"	50.0		97.1	76.2-123			
Ethylbenzene	47.7	1.00	"	50.0		95.4	73.6-130			
m,p-Xylene	98.1	2.00	"	100		98.1	76.1-126			
o-Xylene	48.7	1.00	"	50.0		97.4	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5		103	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.3	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B8A2403 - EPA 5030B (Water)

Matrix Spike (B8A2403-MS1)	Source: Y801322-01			Prepared: 01/24/2018 Analyzed: 01/24/2018						
Benzene	61.7	1.00	ug/L	50.0	12.1	99.3	74-130			
Toluene	52.0	1.00	"	50.0	ND	104	73-131			
Ethylbenzene	53.2	1.00	"	50.0	5.56	95.3	76-132			
m,p-Xylene	107	2.00	"	100	9.26	98.2	69-139			
o-Xylene	51.4	1.00	"	50.0	0.920	101	74-131			
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5		105	84-121			
Surrogate: Toluene-d8	63		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	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: 88635365
 Project: KMG - Albert Sack Unit #1

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 B8A2403 - EPA 5030B (Water)

Matrix Spike Dup (B8A2403-MSD1)	Source: Y801322-01			Prepared: 01/24/2018 Analyzed: 01/24/2018						
Benzene	63.8	1.00	ug/L	50.0	12.1	103	74-130	3.28	20	
Toluene	52.5	1.00	"	50.0	ND	105	73-131	0.842	20	
Ethylbenzene	56.1	1.00	"	50.0	5.56	101	76-132	5.27	20	
m,p-Xylene	113	2.00	"	100	9.26	104	69-139	5.18	20	
o-Xylene	53.1	1.00	"	50.0	0.920	104	74-131	3.21	20	
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		103	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.7	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.9	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88635365
Project: KMG - Albert Sack Unit #1

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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

February 01, 2018

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - [none]

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. January 26, 2018. This project is associated with Origins project number Y801384-01.

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 - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH04-1/26/18	Y801384-01	Water	January 26, 2018 12:30	01/26/2018 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.

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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

Sample Receipt Checklist

Origins Work Order: Y 801354 Client: Tasman
 Client Project ID: KMG - Albert Sack
 Checklist Completed by: Dan Lee Shipped Via: Pick-up
 Date/time completed: 1-29-12 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: 29
 Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____
 Cooler Number/Temperature: 1 / 3.1 °C _____ °C _____ °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"/>			
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: [Signature] (Project Manager)

Date/Time Reviewed: 1/30/12

Origins Laboratory, Inc.

Jefe 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 - Albert Sack Unit #1

BH04-1/26/18

1/26/2018 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801384-01 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B8A3001	01/30/2018	01/30/2018	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	30.0	4.00	"	"	"	"	"	
Xylenes, total	152	4.00	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	102 %	84-121			"	"	"	
<i>Surrogate: Toluene-d8</i>	102 %	85-115			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	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 - Albert Sack Unit #1

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 B8A3001 - EPA 5030B (Water)

Blank (B8A3001-BLK1)

Prepared: 01/30/2018 Analyzed: 01/30/2018

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	61		"	62.5	97.7		85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5	98.5		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 - Albert Sack Unit #1

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 B8A3001 - EPA 5030B (Water)

Blank (B8A3001-BLK2)

Prepared: 01/30/2018 Analyzed: 01/30/2018

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	70		"	62.5		112	84-121			
Surrogate: Toluene-d8	61		"	62.5		98.1	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	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 - Albert Sack Unit #1

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 B8A3001 - EPA 5030B (Water)

LCS (B8A3001-BS1)

Prepared: 01/30/2018 Analyzed: 01/30/2018

Benzene	48.4	1.00	ug/L	50.0		96.8	73.3-129			
Toluene	46.7	1.00	"	50.0		93.4	76.2-123			
Ethylbenzene	45.0	1.00	"	50.0		89.9	73.6-130			
m,p-Xylene	88.6	2.00	"	100		88.6	76.1-126			
o-Xylene	45.1	1.00	"	50.0		90.1	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.9	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.3	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.6	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 - Albert Sack Unit #1

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 B8A3001 - EPA 5030B (Water)

LCS (B8A3001-BS2)

Prepared: 01/30/2018 Analyzed: 01/30/2018

Benzene	46.9	1.00	ug/L	50.0		93.8	73.3-129			
Toluene	44.2	1.00	"	50.0		88.4	76.2-123			
Ethylbenzene	42.9	1.00	"	50.0		85.8	73.6-130			
m,p-Xylene	85.8	2.00	"	100		85.8	76.1-126			
o-Xylene	43.2	1.00	"	50.0		86.4	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		103	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.9	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.2	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 - Albert Sack Unit #1

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 B8A3001 - EPA 5030B (Water)

Matrix Spike (B8A3001-MS1)	Source: Y801361-01			Prepared: 01/30/2018 Analyzed: 01/30/2018						
Benzene	49.5	1.00	ug/L	50.0	ND	99.0	74-130			
Toluene	48.2	1.00	"	50.0	0.150	96.1	73-131			
Ethylbenzene	48.1	1.00	"	50.0	ND	96.2	76-132			
m,p-Xylene	95.3	2.00	"	100	ND	95.3	69-139			
o-Xylene	47.8	1.00	"	50.0	ND	95.5	74-131			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		96.9	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.8	84-114			

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 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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 B8A3001 - EPA 5030B (Water)

Matrix Spike (B8A3001-MS2)	Source: Y801351-01			Prepared: 01/30/2018 Analyzed: 01/30/2018						
Benzene	49.5	1.00	ug/L	50.0	ND	99.0	74-130			
Toluene	46.2	1.00	"	50.0	0.140	92.1	73-131			
Ethylbenzene	45.4	1.00	"	50.0	0.070	90.6	76-132			
m,p-Xylene	90.3	2.00	"	100	ND	90.3	69-139			
o-Xylene	46.1	1.00	"	50.0	ND	92.2	74-131			
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5		105	84-121			
Surrogate: Toluene-d8	60		"	62.5		96.0	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.2	84-114			

Origins Laboratory, Inc.



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 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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 B8A3001 - EPA 5030B (Water)

Matrix Spike Dup (B8A3001-MSD1)	Source: Y801361-01			Prepared: 01/30/2018 Analyzed: 01/30/2018						
Benzene	47.0	1.00	ug/L	50.0	ND	94.1	74-130	5.08	20	
Toluene	45.1	1.00	"	50.0	0.150	89.8	73-131	6.69	20	
Ethylbenzene	44.8	1.00	"	50.0	ND	89.5	76-132	7.17	20	
m,p-Xylene	89.0	2.00	"	100	ND	89.0	69-139	6.86	20	
o-Xylene	44.7	1.00	"	50.0	ND	89.4	74-131	6.62	20	
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.2	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.7	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.2	84-114			

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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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 B8A3001 - EPA 5030B (Water)

Matrix Spike Dup (B8A3001-MSD2)	Source: Y801351-01			Prepared: 01/30/2018 Analyzed: 01/30/2018						
Benzene	51.0	1.00	ug/L	50.0	ND	102	74-130	3.10	20	
Toluene	48.0	1.00	"	50.0	0.140	95.6	73-131	3.76	20	
Ethylbenzene	46.7	1.00	"	50.0	0.070	93.3	76-132	2.97	20	
m,p-Xylene	93.0	2.00	"	100	ND	93.0	69-139	2.99	20	
o-Xylene	47.4	1.00	"	50.0	ND	94.7	74-131	2.72	20	
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.9	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.0	84-114			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Albert Sack Unit #1

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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

February 12, 2018

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver CO 80211

Project Name - KMG - Albert Sack Unit #1

Project Number - [none]

Attached are your analytical results for KMG - Albert Sack Unit #1 received by Origins Laboratory, Inc. February 09, 2018. This project is associated with Origins project number Y802148-01.

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 - Albert Sack Unit #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@5'	Y802148-01	Soil	February 9, 2018 16:16	02/09/2018 17:38

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 - Albert Sack Unit #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y602148

Client: Tasman
 Client Project ID: KMG - Albert Sack Unit #1

Checklist Completed by: Dan Lee

Shipped Via: STB
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: NA

Date/time completed: 2-9-12

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

Cooler Number/Temperature: 1 3.3 °C 1 °C 1 °C (Describe) _____ °C

Thermometer ID: 603

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"/>			
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"/>			<u>ph</u>
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 2-9-12

Origins Laboratory, Inc.

Jefe 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 - Albert Sack Unit #1

B01@5'
2/9/2018 4:16:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y802148-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B8B0903	02/09/2018	02/09/2018	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 77.4 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B8B0902	02/09/2018	02/09/2018	U
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 98.0 % 70-130 " " "
Surrogate: Toluene-d8 101 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 99.5 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.25		pH Units	1	B8B0905	02/09/2018	02/09/2018	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.127		mmhos/cm	"	B8B0904	02/09/2018	"	
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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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 B8B0902 - EPA 5030 (soil)

Blank (B8B0902-BLK2)

Prepared: 02/09/2018 Analyzed: 02/09/2018

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		102	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.4	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: [none]
 Project: KMG - Albert Sack Unit #1

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 B8B0902 - EPA 5030 (soil)

LCS (B8B0902-BS1)

Prepared: 02/09/2018 Analyzed: 02/09/2018

Benzene	0.106	0.002	mg/kg	0.100		106	77.1-124			
Toluene	0.102	0.002	"	0.100		102	74.5-128			
Ethylbenzene	0.101	0.002	"	0.100		101	66.4-127			
m,p-Xylene	0.204	0.004	"	0.200		102	76.6-124			
o-Xylene	0.105	0.002	"	0.100		105	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	59		ug/kg	62.5		95.0	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.6	70-130			

Origins Laboratory, Inc.



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 Denver CO 80211

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 Project: KMG - Albert Sack Unit #1

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 B8B0902 - EPA 5030 (soil)

LCS (B8B0902-BS2)

Prepared: 02/09/2018 Analyzed: 02/09/2018

Benzene	0.096	0.002	mg/kg	0.100		96.0	77.1-124			
Toluene	0.092	0.002	"	0.100		92.4	74.5-128			
Ethylbenzene	0.091	0.002	"	0.100		90.7	66.4-127			
m,p-Xylene	0.183	0.004	"	0.200		91.4	76.6-124			
o-Xylene	0.096	0.002	"	0.100		96.0	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	60		ug/kg	62.5		96.2	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.3	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.3	70-130			

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 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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 B8B0902 - EPA 5030 (soil)

Matrix Spike (B8B0902-MS1)	Source: Y802124-01			Prepared: 02/09/2018 Analyzed: 02/09/2018						
Benzene	0.111	0.002	mg/kg	0.100	0.010	101	71.8-126			
Toluene	0.080	0.002	"	0.100	ND	80.1	65.1-130			
Ethylbenzene	0.103	0.002	"	0.100	0.011	92.3	62.2-130			
m,p-Xylene	0.259	0.004	"	0.200	0.098	80.6	46.5-137			
o-Xylene	0.120	0.002	"	0.100	0.026	94.4	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		103	70-130			
Surrogate: Toluene-d8	51		"	62.5		82.0	70-130			
Surrogate: 4-Bromofluorobenzene	73		"	62.5		116	70-130			

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 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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 B8B0902 - EPA 5030 (soil)

Matrix Spike (B8B0902-MS2)	Source: Y802124-02			Prepared: 02/09/2018 Analyzed: 02/09/2018						
Benzene	0.102	0.002	mg/kg	0.100	ND	102	71.8-126			
Toluene	0.081	0.002	"	0.100	ND	80.5	65.1-130			
Ethylbenzene	0.090	0.002	"	0.100	ND	90.2	62.2-130			
m,p-Xylene	0.183	0.004	"	0.200	ND	91.3	46.5-137			
o-Xylene	0.095	0.002	"	0.100	0.0004	94.9	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	60		ug/kg	62.5		96.7	70-130			
Surrogate: Toluene-d8	53		"	62.5		84.7	70-130			
Surrogate: 4-Bromofluorobenzene	81		"	62.5		129	70-130			

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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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 B8B0902 - EPA 5030 (soil)

Matrix Spike Dup (B8B0902-MSD1)	Source: Y802124-01			Prepared: 02/09/2018 Analyzed: 02/09/2018						
Benzene	0.102	0.002	mg/kg	0.100	0.010	91.9	71.8-126	8.61	11.3	
Toluene	0.065	0.002	"	0.100	ND	65.3	65.1-130	20.4	15.4	QR-02
Ethylbenzene	0.092	0.002	"	0.100	0.011	81.0	62.2-130	11.6	19.6	
m,p-Xylene	0.260	0.004	"	0.200	0.098	81.3	46.5-137	0.532	19.2	
o-Xylene	0.113	0.002	"	0.100	0.026	87.0	54.2-134	6.35	17.9	
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		103	70-130			
Surrogate: Toluene-d8	50		"	62.5		79.8	70-130			
Surrogate: 4-Bromofluorobenzene	76		"	62.5		121	70-130			

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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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 B8B0902 - EPA 5030 (soil)

Matrix Spike Dup (B8B0902-MSD2)	Source: Y802124-02			Prepared: 02/09/2018 Analyzed: 02/09/2018						
Benzene	0.094	0.002	mg/kg	0.100	ND	94.4	71.8-126	7.27	11.3	
Toluene	0.079	0.002	"	0.100	ND	78.7	65.1-130	2.29	15.4	
Ethylbenzene	0.083	0.002	"	0.100	ND	83.0	62.2-130	8.29	19.6	
m,p-Xylene	0.167	0.004	"	0.200	ND	83.7	46.5-137	8.65	19.2	
o-Xylene	0.088	0.002	"	0.100	0.0004	87.3	54.2-134	8.37	17.9	
Surrogate: 1,2-Dichloroethane-d4	62		ug/kg	62.5		98.4	70-130			
Surrogate: Toluene-d8	55		"	62.5		88.4	70-130			
Surrogate: 4-Bromofluorobenzene	76		"	62.5		122	70-130			

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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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 B8B0903 - EPA 3550B

Blank (B8B0903-BLK1)

Prepared: 02/09/2018 Analyzed: 02/09/2018

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

Blank (B8B0903-BLK2)

Prepared: 02/09/2018 Analyzed: 02/09/2018

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	45		"	50.0		90.9	59-131			

LCS (B8B0903-BS1)

Prepared: 02/09/2018 Analyzed: 02/09/2018

Diesel (C10-C28)	984	50.0	mg/kg	1000		98.4	64-121			
Residual Range Organics (C28-C40)	963	200	"	1000		96.3	58-124			
Surrogate: o-Terphenyl	53		"	50.0		106	59-131			

LCS (B8B0903-BS2)

Prepared: 02/09/2018 Analyzed: 02/09/2018

Diesel (C10-C28)	939	50.0	mg/kg	1000		93.9	64-121			
Residual Range Organics (C28-C40)	906	200	"	1000		90.6	58-124			
Surrogate: o-Terphenyl	48		"	50.0		95.5	59-131			

Matrix Spike (B8B0903-MS1)

Source: Y802124-01

Prepared: 02/09/2018 Analyzed: 02/09/2018

Diesel (C10-C28)	1200	50.0	mg/kg	1000	450	74.5	53-125			
Residual Range Organics (C28-C40)	1050	200	"	1000	230	81.6	47-133			

Origins Laboratory, Inc.



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

Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

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 B8B0903 - EPA 3550B										
Matrix Spike (B8B0903-MS1)			Source: Y802124-01		Prepared: 02/09/2018 Analyzed: 02/09/2018					
Surrogate: o-Terphenyl	50		mg/kg	50.0		101	59-131			
Matrix Spike (B8B0903-MS2)			Source: Y802124-02		Prepared: 02/09/2018 Analyzed: 02/09/2018					
Diesel (C10-C28)	1030	50.0	mg/kg	1000	82.8	94.7	53-125			
Residual Range Organics (C28-C40)	873	200	"	1000	48.8	82.4	47-133			
Surrogate: o-Terphenyl	47		"	50.0		93.6	59-131			
Matrix Spike Dup (B8B0903-MSD1)			Source: Y802124-01		Prepared: 02/09/2018 Analyzed: 02/09/2018					
Diesel (C10-C28)	1280	50.0	mg/kg	1000	450	82.8	53-125	10.6	20	
Residual Range Organics (C28-C40)	1070	200	"	1000	230	84.4	47-133	3.34	20	
Surrogate: o-Terphenyl	50		"	50.0		101	59-131			
Matrix Spike Dup (B8B0903-MSD2)			Source: Y802124-02		Prepared: 02/09/2018 Analyzed: 02/09/2018					
Diesel (C10-C28)	1050	50.0	mg/kg	1000	82.8	96.7	53-125	2.10	20	
Residual Range Organics (C28-C40)	905	200	"	1000	48.8	85.6	47-133	3.76	20	
Surrogate: o-Terphenyl	47		"	50.0		93.8	59-131			

Origins Laboratory, Inc.



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Tasman Geosciences
 6899 Pecos Street, Unit C
 Denver CO 80211

Bob Cornez
 Project Number: [none]
 Project: KMG - Albert Sack Unit #1

Classical Chemistry Parameters - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B8B0904 - NO PREP										
Blank (B8B0904-BLK1)					Prepared: 02/09/2018 Analyzed: 02/09/2018					
Specific Conductance (EC)	0.00670		mmhos/cm							
Duplicate (B8B0904-DUP1)					Source: Y802135-01 Prepared: 02/09/2018 Analyzed: 02/09/2018					
Specific Conductance (EC)	0.167		mmhos/cm		0.184			9.39	25	
Batch B8B0905 - NO PREP										
Duplicate (B8B0905-DUP1)					Source: Y802135-01 Prepared: 02/09/2018 Analyzed: 02/09/2018					
pH	6.97		pH Units		7.67			9.56	25	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Albert Sack Unit #1

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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Jen Pellegrini For Noelle Doyle Mathis, President