



February 01, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Hank's Pooling Unit 1

Project Number - 88527175

Attached are your analytical results for KMG - Hank's Pooling Unit 1 received by Origins Laboratory, Inc. January 26, 2017. This project is associated with Origins project number X701291-01.

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: 88527175

Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 01/26/17	X701291-01	Water	January 26, 2017 11:40	01/26/2017 13:24
BH02 - 01/26/17	X701291-02	Water	January 26, 2017 12:31	01/26/2017 13:24
BH03 - 01/26/17	X701291-03	Water	January 26, 2017 12:05	01/26/2017 13:24
BH04 - 01/26/17	X701291-04	Water	January 26, 2017 11:58	01/26/2017 13:24
BH05 - 01/26/17	X701291-05	Water	January 26, 2017 12:11	01/26/2017 13:24
BH06 - 01/26/17	X701291-06	Water	January 26, 2017 12:19	01/26/2017 13:24
BH07 - 01/26/17	X701291-07	Water	January 26, 2017 12:25	01/26/2017 13:24
BH08 - 01/26/17	X701291-08	Water	January 26, 2017 12:25	01/26/2017 13:24
BH09 - 01/26/17	X701291-09	Water	January 26, 2017 12:50	01/26/2017 13:24
BH10 - 01/26/17	X701291-10	Water	January 26, 2017 11:55	01/26/2017 13:24
BH11 - 01/26/17	X701291-11	Water	January 26, 2017 11:45	01/26/2017 13:24

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

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page 1 of 2

ORIGINS LABORATORY, INC **X701291**

Client: APC / Tasman
Address: 6899 Pecos Street, Unit C
Telephone Number: 303-487-1228
Email Address: bcornez@tasman-geo.com

Project Manager: Bob Cornez
Project Name: Hank's Pooling Unit #1
Project Number: 88527175
Samples Collected By: Matt P

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	As Summed in Container #		
BH01-01/26/17	1/26/17	11:40	3	X				X			X	1
BH02-01/26/17	1/26/17	12:31	3	X				X			X	2
BH03-01/26/17	1/26/17	12:05	3	X				X			X	3
BH04-01/26/17	1/26/17	11:58	3	X				X			X	4
BH05-01/26/17	1/26/17	12:11	3	X				X			X	5
BH06-01/26/17	1/26/17	12:19	3	X				X			X	6
BH07-01/26/17	1/26/17	12:25	3	X				X			X	7
BH08-01/26/17	1/26/17	12:25	3	X				X			X	8
BH09-01/26/17	1/26/17	12:50	3	X				X			X	9
BH10-01/26/17	1/26/17	11:55	3	X				X			X	10

Relinquished By: [Signature] Date: 1/26/17 Time: 13:24
Relinquished By: [Signature] Date: 1/26/17 Time: 13:24

Received By: [Signature] Date: 1/26/17 Time: 13:24
Received By: [Signature] Date: 1/26/17 Time: 13:24

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

Temp Received: 11.2 Date Results Needed: 1/26/17

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: 88527175
Project: KMG - Hank's Pooling Unit 1

www.originslaboratory.com

page 2 of 2

8/10/2017

Client: APC / Tasman
Address: 6899 Pecos Street, Unit C
Telephone Number: 303-487-1228
Email Address: bcornez@tasman-geo.com

Project Manager: Bob Cornez
Project Name: Hank's Pooling Unit #1
Project Number: 88527175
Samples Collected By: Math P

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis		Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summary	Other	Other	
6H11-01/26/17	11/26/17	11:45	3	X				X				STEX	1
													2
													3
													4
													5
													6
													7
													8
													9
													10

Relinquished By: [Signature] Date: 11/26/17 Time: 13:24

Relinquished By: [Signature] Date: 1-26-18 Time: 13:24

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

Temp Received: 4.7 Date Results Needed

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

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X701291

Client: Tasman

Client Project ID: Hank's Pooling Unit 1

Checklist Completed by: Jeff Smith

Shipped Via: H&D

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

Date/time completed: 1-27-12

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 4.2 °C 1 / °C 1 / °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"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) / (pH < 2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH > 10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

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

Jeff Smith
Reviewed by (Project Manager)

1-27-12
Date/Time Reviewed

Origins Laboratory, Inc.

Jeff Pellegrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH01 - 01/26/17

1/26/2017 11:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701291-01 (Water)

BTEX by EPA 8260C

Benzene	11.0	4.00	ug/L	4	B7A3001	01/30/2017	01/31/2017	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	54.4	4.00	"	"	"	"	"	
Xylenes, total	227	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	96.7 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH02 - 01/26/17

1/26/2017 12:31:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701291-02 (Water)

BTEX by EPA 8260C

Benzene	235	20.0	ug/L	20	B7A3001	01/30/2017	01/31/2017	
Toluene	ND	20.0	"	"	"	"	"	U
Ethylbenzene	532	20.0	"	"	"	"	"	
Xylenes, total	1280	20.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.3 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH03 - 01/26/17

1/26/2017 12:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701291-03 (Water)

BTEX by EPA 8260C

Benzene	251	4.00	ug/L	4	B7A3001	01/30/2017	01/31/2017
Toluene	70.9	4.00	"	"	"	"	"
Ethylbenzene	493	4.00	"	"	"	"	"
Xylenes, total	1720	4.00	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	98.1 %	84-121			"	"	"
Surrogate: Toluene-d8	104 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	104 %	84-114			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH04 - 01/26/17

1/26/2017 11:58:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701291-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7A3001	01/30/2017	01/31/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.6 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH05 - 01/26/17

1/26/2017 12:11:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701291-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7A3001	01/30/2017	01/31/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH06 - 01/26/17

1/26/2017 12:19:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701291-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7A3001	01/30/2017	01/31/2017	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	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH07 - 01/26/17

1/26/2017 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701291-07 (Water)

BTEX by EPA 8260C

Benzene	395	10.0	ug/L	10	B7A3001	01/30/2017	01/31/2017	
Toluene	ND	1.00	"	1	"	"	01/31/2017	U
Ethylbenzene	137	10.0	"	10	"	"	01/31/2017	
Xylenes, total	1490	10.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	01/31/2017	
Surrogate: Toluene-d8	100 %	85-115			"	"	01/31/2017	
Surrogate: 4-Bromofluorobenzene	102 %	84-114			"	"	01/31/2017	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH08 - 01/26/17

1/26/2017 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701291-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7A3001	01/30/2017	01/31/2017	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	105 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH09 - 01/26/17
1/26/2017 12:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701291-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7A3001	01/30/2017	01/31/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	104 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH10 - 01/26/17

1/26/2017 11:55:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701291-10 (Water)

BTEX by EPA 8260C

Benzene	3730	20.0	ug/L	20	B7A3001	01/30/2017	01/31/2017
Toluene	1670	20.0	"	"	"	"	"
Ethylbenzene	488	4.00	"	4	"	"	01/31/2017
Xylenes, total	4180	20.0	"	20	"	"	01/31/2017

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	01/31/2017
Surrogate: Toluene-d8	103 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH11 - 01/26/17

1/26/2017 11:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X701291-11 (Water)

BTEX by EPA 8260C

Benzene	3190	20.0	ug/L	20	B7A3001	01/30/2017	01/31/2017
Toluene	8.32	4.00	"	4	"	"	01/31/2017
Ethylbenzene	345	4.00	"	"	"	"	"
Xylenes, total	6780	20.0	"	20	"	"	01/31/2017
Surrogate: 1,2-Dichloroethane-d4	98.6 %	84-121			"	"	01/31/2017
Surrogate: Toluene-d8	103 %	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: 88527175
Project: KMG - Hank's Pooling 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 B7A3001 - EPA 5030B (Water)										
Blank (B7A3001-BLK1)					Prepared: 01/30/2017 Analyzed: 01/30/2017					
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	109		84-121			
Surrogate: Toluene-d8	59		"	62.5	95.1		85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5	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: 88527175
Project: KMG - Hank's Pooling 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 B7A3001 - EPA 5030B (Water)										
Blank (B7A3001-BLK2)					Prepared: 01/30/2017 Analyzed: 01/30/2017					
Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5	106		84-121			
Surrogate: Toluene-d8	63		"	62.5	101		85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5	96.0		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: 88527175
Project: KMG - Hank's Pooling 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 B7A3001 - EPA 5030B (Water)										
LCS (B7A3001-BS1)					Prepared: 01/30/2017 Analyzed: 01/30/2017					
Benzene	59.0	1.00	ug/L	50.0		118	73.3-129			
Toluene	56.8	1.00	"	50.0		114	76.2-123			
Ethylbenzene	58.3	1.00	"	50.0		117	73.6-130			
m,p-Xylene	115	2.00	"	100		115	76.1-126			
o-Xylene	57.0	1.00	"	50.0		114	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		100	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.2	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: 88527175
Project: KMG - Hank's Pooling 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 B7A3001 - EPA 5030B (Water)										
LCS (B7A3001-BS2)					Prepared: 01/30/2017 Analyzed: 01/30/2017					
Benzene	59.4	1.00	ug/L	50.0		119	73.3-129			
Toluene	57.7	1.00	"	50.0		115	76.2-123			
Ethylbenzene	59.0	1.00	"	50.0		118	73.6-130			
m,p-Xylene	118	2.00	"	100		118	76.1-126			
o-Xylene	59.9	1.00	"	50.0		120	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		98.5	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.6	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.4	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling 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 B7A3001 - EPA 5030B (Water)

Matrix Spike (B7A3001-MS1)		Source: X701292-01			Prepared: 01/30/2017 Analyzed: 01/30/2017					
Benzene	62.9	1.00	ug/L	50.0	0.830	124	74-130			
Toluene	58.7	1.00	"	50.0	ND	117	73-131			
Ethylbenzene	60.8	1.00	"	50.0	ND	122	76-132			
m,p-Xylene	121	2.00	"	100	0.330	121	69-139			
o-Xylene	59.5	1.00	"	50.0	0.130	119	74-131			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.9	84-121			
Surrogate: Toluene-d8	60		"	62.5		95.2	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		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: 88527175
Project: KMG - Hank's Pooling 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 B7A3001 - EPA 5030B (Water)

Matrix Spike (B7A3001-MS2)		Source: X701292-02			Prepared: 01/30/2017 Analyzed: 01/30/2017					
Benzene	56.4	1.00	ug/L	50.0	ND	113	74-130			
Toluene	52.7	1.00	"	50.0	ND	105	73-131			
Ethylbenzene	55.2	1.00	"	50.0	ND	110	76-132			
m,p-Xylene	110	2.00	"	100	ND	110	69-139			
o-Xylene	54.6	1.00	"	50.0	ND	109	74-131			
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	84-121			
Surrogate: Toluene-d8	60		"	62.5		96.0	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		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: 88527175
Project: KMG - Hank's Pooling 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 B7A3001 - EPA 5030B (Water)										
Matrix Spike Dup (B7A3001-MSD1)		Source: X701292-01			Prepared: 01/30/2017 Analyzed: 01/30/2017					
Benzene	69.6	1.00	ug/L	50.0	0.830	138	74-130	10.2	20	QM-07
Toluene	65.2	1.00	"	50.0	ND	130	73-131	10.5	20	
Ethylbenzene	67.4	1.00	"	50.0	ND	135	76-132	10.4	20	QM-07
m,p-Xylene	133	2.00	"	100	0.330	133	69-139	9.73	20	
o-Xylene	66.9	1.00	"	50.0	0.130	134	74-131	11.7	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	84-121			
Surrogate: Toluene-d8	60		"	62.5		96.6	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.4	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling 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 B7A3001 - EPA 5030B (Water)

Matrix Spike Dup (B7A3001-MSD2)		Source: X701292-02			Prepared: 01/30/2017 Analyzed: 01/30/2017					
Benzene	59.0	1.00	ug/L	50.0	ND	118	74-130	4.44	20	
Toluene	55.3	1.00	"	50.0	ND	111	73-131	4.81	20	
Ethylbenzene	56.3	1.00	"	50.0	ND	113	76-132	1.88	20	
m,p-Xylene	112	2.00	"	100	ND	112	69-139	2.22	20	
o-Xylene	56.2	1.00	"	50.0	ND	112	74-131	2.91	20	
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	84-121			
Surrogate: Toluene-d8	59		"	62.5		94.7	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: 88527175

Project: KMG - Hank's Pooling 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.



April 25, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Hank's Pooling Unit 1

Project Number - 88527175

Attached are your analytical results for KMG - Hank's Pooling Unit 1 received by Origins Laboratory, Inc. April 17, 2017. This project is associated with Origins project number Y704208-01.

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: 88527175
Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 4/17/17	Y704208-01	Water	April 17, 2017 11:28	04/17/2017 17:17
BH02 - 4/17/17	Y704208-02	Water	April 17, 2017 11:25	04/17/2017 17:17
BH03 - 4/17/17	Y704208-03	Water	April 17, 2017 12:10	04/17/2017 17:17
BH04 - 4/17/17	Y704208-04	Water	April 17, 2017 11:57	04/17/2017 17:17
BH05 - 4/17/17	Y704208-05	Water	April 17, 2017 12:23	04/17/2017 17:17
BH06 - 4/17/17	Y704208-06	Water	April 17, 2017 12:58	04/17/2017 17:17
BH07 - 4/17/17	Y704208-07	Water	April 17, 2017 13:09	04/17/2017 17:17
BH08 - 4/17/17	Y704208-08	Water	April 17, 2017 13:00	04/17/2017 17:17
BH09 - 4/17/17	Y704208-09	Water	April 17, 2017 13:37	04/17/2017 17:17
BH10 - 4/17/17	Y704208-10	Water	April 17, 2017 11:45	04/17/2017 17:17
BH11 - 4/17/17	Y704208-11	Water	April 17, 2017 11:41	04/17/2017 17:17
BH12 - 4/17/17	Y704208-12	Water	April 17, 2017 13:25	04/17/2017 17:17
BH13 - 4/17/17	Y704208-13	Water	April 17, 2017 11:58	04/17/2017 17:17
BH14 - 4/17/17	Y704208-14	Water	April 17, 2017 13:21	04/17/2017 17:17

Origins Laboratory, Inc.



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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: 88527175

Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH15 - 4/17/17	Y704208-15	Water	April 17, 2017 13:10	04/17/2017 17:17
BH16 - 4/17/17	Y704208-16	Water	April 17, 2017 12:25	04/17/2017 17:17
BH17 - 4/17/17	Y704208-17	Water	April 17, 2017 12:12	04/17/2017 17:17

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: 88527175
Project: KMG - Hank's Pooling Unit 1

ORIGINS
LABORATORY, INC

Client: *Tasman Geosciences For Anadarko*
Address: *6899 Pecos St, Unit C*
Denver, CO 80211

Telephone Number: _____
Email Address: *rcornez@tasman-geo.com*

Project Manager: *Bob Cornez*
Project Name: *Hanks Pooling Unit #1*
Project Number: *88527175*
Samples Collected By: *Mitch Weller, Max Garza*

www.originslaboratory.com

page 1 of 2

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis		Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #	Other		
BH 01 - 4/17/17	4-17-17	1128	3	X				X					1
BH 02 - 4/17/17		1125											2
BH 03 - 4/17/17		1210											3
BH 04 - 4/17/17		1157											4
BH 05 - 4/17/17		1233											5
BH 06 - 4/17/17		1258											6
BH 07 - 4/17/17		1309											7
BH 08 - 4/17/17		1300											8
BH 09 - 4/17/17		1337											9
BH 10 - 4/17/17		1145											10
Relinquished By: <i>Mitch Weller</i>	Date: 4-17-17	Time: 1717		Received By: <i>[Signature]</i>				Date: 4/17/17			Time: 1717	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:	Date:	Time:		Received By:				Date: 4/17/17			Time: 1717		

1725 Elk Place

Denver, CO 80211

Phone: 303.433.1322

Fax: 303.265.9645

Temp Received: *58°*

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.

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

ORIGINS

LABORATORY, INC

www.originslaboratory.com

page 2 of 2

Client: Tasman Geosciences for Anadenko

Address: 6809 Pecos St, Unit C
Denver, CO 80221

Telephone Number: _____

Email Address: fcornezz@tasman-gao.com

Project Manager: Bob Cornezz

Project Name: Hanks Pooling Unit #1

Project Number: 88527175

Samples Collected By: Mitch Weller, Max Garza

Temp Received: _____

Date Results Needed: _____

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #			Other
BH 11 - 4/17/17	4-17-17	1141	3	X				X				BTEX	1
BH 12 - 4/17/17		1325											2
BH 13 - 4/17/17		1158											3
BH 14 - 4/17/17		1321											4
BH 15 - 4/17/17		1310											5
BH 16 - 4/17/17		1225											6
BH 17 - 4/17/17		1212											7
													8
													9
													10

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:		
						Same Day	48 Hr	Standard
Michael D. Weller	4-17-17	1717				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:			
				4/19/17	1717			

Origins Laboratory, Inc.

Jeff Pellipini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4704208 Client: Tasman
Client Project ID: KMG - Hank's Pooling
Checklist Completed by: Dr. K Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)
Date/time completed: 4-18-17 1144 Airbill #: NA
Matrix(s) Received: (Check all that apply): Soil/Solid ☒ Water ☐ Other: ☐
(Describe)
Cooler Number/Temperature: 1 5.3 °C 1 °C 1 °C 1 °C
Thermometer ID: TOP3

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

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

Reviewed by (Project Manager)

Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH01 - 4/17/17

4/17/2017 11:28:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-01 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B7D2101	04/21/2017	04/23/2017	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	ND	4.00	"	"	"	"	"	U
Xylenes, total	ND	4.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	92.0 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH02 - 4/17/17

4/17/2017 11:25:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-02 (Water)

BTEX by EPA 8260C

Benzene	189	4.00	ug/L	4	B7D2101	04/21/2017	04/23/2017	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	715	4.00	"	"	"	"	"	
Xylenes, total	1030	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	71.9 %	84-121			"	"	"	S-04
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	111 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH03 - 4/17/17

4/17/2017 12:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-03 (Water)

BTEX by EPA 8260C

Benzene	49.6	4.00	ug/L	4	B7D2101	04/21/2017	04/23/2017	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	229	4.00	"	"	"	"	"	
Xylenes, total	448	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	88.0 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH04 - 4/17/17

4/17/2017 11:57:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2101	04/21/2017	04/23/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	92.8 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	108 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH05 - 4/17/17

4/17/2017 12:23:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2101	04/21/2017	04/23/2017	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	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH06 - 4/17/17

4/17/2017 12:58:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2101	04/21/2017	04/23/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	93.8 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH07 - 4/17/17
4/17/2017 1:09:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-07 (Water)

BTEX by EPA 8260C

Benzene	481	4.00	ug/L	4	B7D2101	04/21/2017	04/23/2017	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	108	4.00	"	"	"	"	"	
Xylenes, total	179	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	85.2 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.2 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	106 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH08 - 4/17/17
4/17/2017 1:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2101	04/21/2017	04/23/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	91.5 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.6 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	108 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH09 - 4/17/17
4/17/2017 1:37:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2101	04/21/2017	04/23/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.2 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH10 - 4/17/17

4/17/2017 11:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-10 (Water)

BTEX by EPA 8260C

Benzene	1720	100	ug/L	100	B7D2101	04/21/2017	04/23/2017
Toluene	136	100	"	"	"	"	"
Ethylbenzene	316	100	"	"	"	"	"
Xylenes, total	1510	100	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	106 %	84-121			"	"	"
Surrogate: Toluene-d8	102 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH11 - 4/17/17

4/17/2017 11:41:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-11 (Water)

BTEX by EPA 8260C

Benzene	1830	100	ug/L	100	B7D2101	04/21/2017	04/23/2017	
Toluene	ND	100	"	"	"	"	"	U
Ethylbenzene	935	100	"	"	"	"	"	
Xylenes, total	6350	100	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	110 %	84-121			"	"	"	
Surrogate: Toluene-d8	96.7 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	106 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH12 - 4/17/17
4/17/2017 1:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-12 (Water)

BTEX by EPA 8260C

Benzene	14.8	1.00	ug/L	1	B7D2101	04/21/2017	04/23/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	42.5	1.00	"	"	"	"	"	
Xylenes, total	264	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	95.4 %	84-121			"	"	04/24/2017	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH13 - 4/17/17

4/17/2017 11:58:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-13 (Water)

BTEX by EPA 8260C

Benzene	245	4.00	ug/L	4	B7D2101	04/21/2017	04/24/2017
Toluene	531	4.00	"	"	"	"	"
Ethylbenzene	9.54	1.00	"	1	"	"	04/23/2017
Xylenes, total	328	4.00	"	4	"	"	04/24/2017
Surrogate: 1,2-Dichloroethane-d4	110 %	84-121			"	"	04/23/2017
Surrogate: Toluene-d8	103 %	85-115			"	"	04/24/2017
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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH14 - 4/17/17
4/17/2017 1:21:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-14 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2101	04/21/2017	04/23/2017	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	103 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH15 - 4/17/17
4/17/2017 1:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-15 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2101	04/21/2017	04/23/2017	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	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	120 %	84-114			"	"	" S-07	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH16 - 4/17/17

4/17/2017 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-16 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2101	04/21/2017	04/23/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH17 - 4/17/17

4/17/2017 12:12:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y704208-17 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7D2101	04/21/2017	04/23/2017	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	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling 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 B7D2101 - EPA 5030B (Water)										
Blank (B7D2101-BLK1)					Prepared: 04/21/2017 Analyzed: 04/22/2017					
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	55		"	62.5	88.4		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: 88527175
Project: KMG - Hank's Pooling 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 B7D2101 - EPA 5030B (Water)										
Blank (B7D2101-BLK2)					Prepared: 04/21/2017 Analyzed: 04/22/2017					
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	58		"	62.5	92.8		84-121			
Surrogate: Toluene-d8	64		"	62.5	102		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: 88527175
Project: KMG - Hank's Pooling 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 B7D2101 - EPA 5030B (Water)										
LCS (B7D2101-BS1)					Prepared: 04/21/2017 Analyzed: 04/22/2017					
Benzene	45.6	1.00	ug/L	50.0		91.2	73.3-129			
Toluene	45.7	1.00	"	50.0		91.4	76.2-123			
Ethylbenzene	48.1	1.00	"	50.0		96.2	73.6-130			
m,p-Xylene	98.6	2.00	"	100		98.6	76.1-126			
o-Xylene	48.4	1.00	"	50.0		96.9	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	54		"	62.5		87.0	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.7	85-115			
Surrogate: 4-Bromofluorobenzene	67		"	62.5		108	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling 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 B7D2101 - EPA 5030B (Water)										
LCS (B7D2101-BS2)					Prepared: 04/21/2017 Analyzed: 04/22/2017					
Benzene	46.8	1.00	ug/L	50.0		93.7	73.3-129			
Toluene	49.1	1.00	"	50.0		98.2	76.2-123			
Ethylbenzene	49.0	1.00	"	50.0		98.1	73.6-130			
m,p-Xylene	100	2.00	"	100		100	76.1-126			
o-Xylene	49.8	1.00	"	50.0		99.7	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	53		"	62.5		84.7	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	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: 88527175
Project: KMG - Hank's Pooling 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 B7D2101 - EPA 5030B (Water)

Matrix Spike (B7D2101-MS1)		Source: Y704206-01			Prepared: 04/21/2017 Analyzed: 04/22/2017					
Benzene	46.8	1.00	ug/L	50.0	ND	93.7	74-130			
Toluene	48.0	1.00	"	50.0	ND	96.0	73-131			
Ethylbenzene	50.7	1.00	"	50.0	ND	101	76-132			
m,p-Xylene	103	2.00	"	100	ND	103	69-139			
o-Xylene	51.6	1.00	"	50.0	ND	103	74-131			
Surrogate: 1,2-Dichloroethane-d4	55		"	62.5		87.2	84-121			
Surrogate: Toluene-d8	63		"	62.5		102	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: 88527175
Project: KMG - Hank's Pooling 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 B7D2101 - EPA 5030B (Water)

Matrix Spike (B7D2101-MS2)		Source: Y704206-02			Prepared: 04/21/2017 Analyzed: 04/22/2017					
Benzene	45.4	1.00	ug/L	50.0	ND	90.8	74-130			
Toluene	47.6	1.00	"	50.0	ND	95.1	73-131			
Ethylbenzene	48.1	1.00	"	50.0	ND	96.2	76-132			
m,p-Xylene	98.9	2.00	"	100	ND	98.9	69-139			
o-Xylene	49.2	1.00	"	50.0	ND	98.4	74-131			
Surrogate: 1,2-Dichloroethane-d4	54		"	62.5		85.8	84-121			
Surrogate: Toluene-d8	65		"	62.5		104	85-115			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		106	84-114			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling 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 B7D2101 - EPA 5030B (Water)

Matrix Spike Dup (B7D2101-MSD1)		Source: Y704206-01			Prepared: 04/21/2017 Analyzed: 04/22/2017					
Benzene	46.6	1.00	ug/L	50.0	ND	93.2	74-130	0.471	20	
Toluene	47.4	1.00	"	50.0	ND	94.9	73-131	1.24	20	
Ethylbenzene	49.1	1.00	"	50.0	ND	98.2	76-132	3.15	20	
m,p-Xylene	101	2.00	"	100	ND	101	69-139	2.21	20	
o-Xylene	50.2	1.00	"	50.0	ND	100	74-131	2.79	20	
Surrogate: 1,2-Dichloroethane-d4	53		"	62.5		85.6	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		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: 88527175
Project: KMG - Hank's Pooling 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 B7D2101 - EPA 5030B (Water)

Matrix Spike Dup (B7D2101-MSD2)		Source: Y704206-02			Prepared: 04/21/2017 Analyzed: 04/22/2017					
Benzene	45.9	1.00	ug/L	50.0	ND	91.9	74-130	1.20	20	
Toluene	48.0	1.00	"	50.0	ND	96.1	73-131	1.02	20	
Ethylbenzene	48.3	1.00	"	50.0	ND	96.7	76-132	0.435	20	
m,p-Xylene	98.8	2.00	"	100	ND	98.8	69-139	0.0809	20	
o-Xylene	50.5	1.00	"	50.0	ND	101	74-131	2.59	20	
Surrogate: 1,2-Dichloroethane-d4	53		"	62.5		85.0	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	67		"	62.5		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: 88527175

Project: KMG - Hank's Pooling Unit 1

Notes and Definitions

U Sample is Non-Detect.

S-07 High surrogate in sample, however sample is non-detect. High surrogate indicates result values are biased high.

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.



July 25, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Hank's Pooling Unit 1

Project Number - 88527175

Attached are your analytical results for KMG - Hank's Pooling Unit 1 received by Origins Laboratory, Inc. July 18, 2017. This project is associated with Origins project number Y707207-01.

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: 88527175
Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01-7/18/17	Y707207-01	Water	July 18, 2017 12:05	07/18/2017 17:00
BH02-7/18/17	Y707207-02	Water	July 18, 2017 12:45	07/18/2017 17:00
BH03-7/18/17	Y707207-03	Water	July 18, 2017 12:22	07/18/2017 17:00
BH04-7/18/17	Y707207-04	Water	July 18, 2017 12:45	07/18/2017 17:00
BH05-7/18/17	Y707207-05	Water	July 18, 2017 12:34	07/18/2017 17:00
BH06-7/18/17	Y707207-06	Water	July 18, 2017 12:44	07/18/2017 17:00
BH07-7/18/17	Y707207-07	Water	July 18, 2017 12:55	07/18/2017 17:00
BH08-7/18/17	Y707207-08	Water	July 18, 2017 12:30	07/18/2017 17:00
BH09-7/18/17	Y707207-09	Water	July 18, 2017 12:20	07/18/2017 17:00
BH10-7/18/17	Y707207-10	Water	July 18, 2017 12:50	07/18/2017 17:00
BH11-7/18/17	Y707207-11	Water	July 18, 2017 13:00	07/18/2017 17:00
BH12-7/18/17	Y707207-12	Water	July 18, 2017 12:30	07/18/2017 17:00
BH13-7/18/17	Y707207-13	Water	July 18, 2017 13:05	07/18/2017 17:00
BH14-7/18/17	Y707207-14	Water	July 18, 2017 13:06	07/18/2017 17:00

Origins Laboratory, Inc.



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

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: 88527175

Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH15-7/18/17	Y707207-15	Water	July 18, 2017 11:44	07/18/2017 17:00
BH16-7/18/17	Y707207-16	Water	July 18, 2017 12:01	07/18/2017 17:00
BH17-7/18/17	Y707207-17	Water	July 18, 2017 12:10	07/18/2017 17:00

Origins Laboratory, Inc.



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

Jen Pellegrini For Noelle Doyle Mathis, President

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

ORIGINS
LABORATORY, INC

www.originslaboratory.com

9707201

page 1 of 2

Client: Anadarko / Tasman
Address: 6899 Pecos St, Denver
Telephone Number: 979-255-4235
Email Address: Cornez@tasman-geo.com

Project Manager: Bob Cornez
Project Name: Hank's Pooling Unit #1
Project Number: 88527175
Samples Collected By: Max G. Cornez, Tyler B.

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis		Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #	Other	BTEX	
BH01 - 7/18/17	7/18/17	1205	3	X									1
BH02 - 7/18/17		1245	1										2
BH03 - 7/18/17		1222											3
BH04 - 7/18/17		1245											4
BH05 - 7/18/17		1234											5
BH06 - 7/18/17		1244											6
BH07 - 7/18/17		1255											7
BH08 - 7/18/17		1230											8
BH09 - 7/18/17		1220											9
BH10 - 7/18/17		1250											10

Relinquished By: Max G. Cornez Date: 7/19/17 Time: 1700
Relinquished By: [Signature] Date: 7/19/17 Time: 1700

Received By: [Signature] Date: 7/18/17 Time: 1700
Received By: [Signature] Date: 7/18/17 Time: 1700

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

Date Results Needed

Temp Received-

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: 88527175
Project: KMG - Hank's Pooling Unit 1

ORIGINS LABORATORY, INC

Client: Anadarko/Tasman

Address: 6899 Pecos St, Denver

Telephone Number: 979-255-1435

Email Address: rcornez@tasman-geo.com

Project Manager: Bob Cornez

Project Name: Hank's Pooling Unit #1

Project Number: 88527175

Samples Collected By: Max G. Calvan D, Tyler B.

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page 2 of 2

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis		Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa	Other		
BH11 - 7/18/17	7/18/17	1300	3	X				X				BrTex	1
BH12 - 7/18/17	7/18/17	1230											2
BH13 - 7/18/17		1305											3
BH14 - 7/18/17		1306											4
BH15 - 7/18/17		1144											5
BH16 - 7/18/17		1201											6
BH17 - 7/18/17		1210											7
													8
													9
													10

Relinquished By: Max Date: 7/18/17 Time: 1700

Relinquished By: _____ Date: _____ Time: _____

Received By: _____ Date: 7/18/17 Time: 1700

Received By: _____ Date: _____ Time: _____

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

Temp Received: 23

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: 88527175
Project: KMG - Hank's Pooling Unit 1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1707207

Client: Tasman

Client Project ID: KMG - Hank's Pooling Unit #1

Checklist Completed by: Dan Lee

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

Date/time completed: 7-19-17 1039

Airbill #: W3

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

Cooler Number/Temperature: / 12.3 °C / °C / °C (Describe)

Thermometer ID: 1004

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<u>/</u>			
Is there ice present (document if blue ice is used)	<u>/</u>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<u>/</u>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<u>/</u>		
Were all samples received intact ⁽¹⁾ ?	<u>/</u>			
Was adequate sample volume provided ⁽¹⁾ ?	<u>/</u>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<u>/</u>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<u>/</u>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<u>/</u>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<u>/</u>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<u>/</u>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		<u>/</u>		
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)		<u>/</u>		
Additional Comments (if any):				

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

Reviewed by JP (Project Manager)

Date/Time Reviewed 7/20/17

Origins Laboratory, Inc.

Jen Pellegrini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH01-7/18/17

7/18/2017 12:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-01 (Water)

BTEX by EPA 8260C

Benzene	7.84	1.00	ug/L	1	B7G2102	07/21/2017	07/21/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	63.6	1.00	"	"	"	"	"	
Xylenes, total	71.1	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	106 %	84-121			"	"	"	
Surrogate: Toluene-d8	104 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.1 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH02-7/18/17

7/18/2017 12:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-02 (Water)

BTEX by EPA 8260C

Benzene	43.5	4.00	ug/L	4	B7G2102	07/21/2017	07/21/2017	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	227	4.00	"	"	"	"	"	
Xylenes, total	524	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	107 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	94.2 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH03-7/18/17

7/18/2017 12:22:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-03 (Water)

BTEX by EPA 8260C

Benzene	23.8	4.00	ug/L	4	B7G2102	07/21/2017	07/21/2017	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	248	4.00	"	"	"	"	"	
Xylenes, total	248	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	106 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH04-7/18/17

7/18/2017 12:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-04 (Water)

BTEX by EPA 8260C

Benzene	9.07	1.00	ug/L	1	B7G2102	07/21/2017	07/21/2017	
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	99.3 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	84.2 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH05-7/18/17

7/18/2017 12:34:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2102	07/21/2017	07/21/2017	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	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	86.1 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH06-7/18/17

7/18/2017 12:44:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2102	07/21/2017	07/21/2017	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	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	84.6 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH07-7/18/17

7/18/2017 12:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-07 (Water)

BTEX by EPA 8260C

Benzene	415	10.0	ug/L	10	B7G2102	07/21/2017	07/21/2017	
Toluene	ND	10.0	"	"	"	"	"	U
Ethylbenzene	122	10.0	"	"	"	"	"	
Xylenes, total	652	10.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	107 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH08-7/18/17

7/18/2017 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2102	07/21/2017	07/21/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	9.62	1.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	107 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH09-7/18/17

7/18/2017 12:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2102	07/21/2017	07/21/2017	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	97.4 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.1 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH10-7/18/17

7/18/2017 12:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-10 (Water)

BTEX by EPA 8260C

Benzene	1450	10.0	ug/L	10	B7G2102	07/21/2017	07/21/2017
Toluene	48.2	10.0	"	"	"	"	"
Ethylbenzene	225	10.0	"	"	"	"	"
Xylenes, total	795	10.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	108 %	84-121			"	"	"
Surrogate: Toluene-d8	100 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	93.8 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH11-7/18/17
7/18/2017 1:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-11 (Water)

BTEX by EPA 8260C

Benzene	1410	20.0	ug/L	20	B7G2102	07/21/2017	07/21/2017	
Toluene	ND	20.0	"	"	"	"	"	U
Ethylbenzene	738	20.0	"	"	"	"	"	
Xylenes, total	4360	20.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	109 %	84-121			"	"	"
Surrogate: Toluene-d8	102 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	93.2 %	84-114			"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH12-7/18/17

7/18/2017 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-12 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2102	07/21/2017	07/21/2017	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	103 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	94.3 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH13-7/18/17
7/18/2017 1:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-13 (Water)

BTEX by EPA 8260C

Benzene	12.7	4.00	ug/L	4	B7G2102	07/21/2017	07/21/2017	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	19.4	4.00	"	"	"	"	"	
Xylenes, total	82.2	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	108 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.4 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH14-7/18/17
7/18/2017 1:06:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-14 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2102	07/21/2017	07/21/2017	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	98.9 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	94.6 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH15-7/18/17

7/18/2017 11:44:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-15 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2102	07/21/2017	07/21/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.9 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.1 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH16-7/18/17

7/18/2017 12:01:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-16 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2102	07/21/2017	07/21/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	94.5 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH17-7/18/17

7/18/2017 12:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y707207-17 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7G2102	07/21/2017	07/21/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.5 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	94.2 %	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: 88527175
Project: KMG - Hank's Pooling 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 B7G2102 - EPA 5030B (Water)										
Blank (B7G2102-BLK1)					Prepared: 07/21/2017 Analyzed: 07/21/2017					
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	67		"	62.5	107		84-121			
Surrogate: Toluene-d8	62		"	62.5	99.7		85-115			
Surrogate: 4-Bromofluorobenzene	59		"	62.5	94.3		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: 88527175
Project: KMG - Hank's Pooling 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 B7G2102 - EPA 5030B (Water)

LCS (B7G2102-BS1)

Prepared: 07/21/2017 Analyzed: 07/21/2017

Benzene	41.8	1.00	ug/L	50.0		83.6	73.3-129
Toluene	43.8	1.00	"	50.0		87.7	76.2-123
Ethylbenzene	42.0	1.00	"	50.0		84.0	73.6-130
m,p-Xylene	92.6	2.00	"	100		92.6	76.1-126
o-Xylene	45.9	1.00	"	50.0		91.8	76.6-124
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	84-121
Surrogate: Toluene-d8	61		"	62.5		98.0	85-115
Surrogate: 4-Bromofluorobenzene	53		"	62.5		84.1	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: 88527175
Project: KMG - Hank's Pooling 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 B7G2102 - EPA 5030B (Water)

Matrix Spike (B7G2102-MS1)		Source: Y707207-04			Prepared: 07/21/2017 Analyzed: 07/21/2017					
Benzene	47.5	1.00	ug/L	50.0	9.07	76.8	74-130			
Toluene	48.7	1.00	"	50.0	ND	97.4	73-131			
Ethylbenzene	46.4	1.00	"	50.0	ND	92.9	76-132			
m,p-Xylene	103	2.00	"	100	ND	103	69-139			
o-Xylene	50.7	1.00	"	50.0	ND	101	74-131			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		103	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.9	85-115			
Surrogate: 4-Bromofluorobenzene	54		"	62.5		86.6	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: 88527175
Project: KMG - Hank's Pooling 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 B7G2102 - EPA 5030B (Water)

Matrix Spike Dup (B7G2102-MSD1)		Source: Y707207-04			Prepared: 07/21/2017 Analyzed: 07/21/2017					
Benzene	54.6	1.00	ug/L	50.0	9.07	91.1	74-130	14.0	20	
Toluene	47.4	1.00	"	50.0	ND	94.8	73-131	2.66	20	
Ethylbenzene	46.4	1.00	"	50.0	ND	92.7	76-132	0.194	20	
m,p-Xylene	103	2.00	"	100	ND	103	69-139	0.631	20	
o-Xylene	50.6	1.00	"	50.0	ND	101	74-131	0.237	20	
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.5	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	53		"	62.5		85.3	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: 88527175

Project: KMG - Hank's Pooling 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 18, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Hank's Pooling Unit 1

Project Number - 88527175

Attached are your analytical results for KMG - Hank's Pooling Unit 1 received by Origins Laboratory, Inc. October 09, 2017. This project is associated with Origins project number Y710128-01.

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: 88527175
Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01-10/9/17	Y710128-01	Water	October 9, 2017 11:50	10/09/2017 15:54
BH02-10/9/17	Y710128-02	Water	October 9, 2017 13:05	10/09/2017 15:54
BH03-10/9/17	Y710128-03	Water	October 9, 2017 12:50	10/09/2017 15:54
BH04-10/9/17	Y710128-04	Water	October 9, 2017 12:40	10/09/2017 15:54
BH05-10/9/17	Y710128-05	Water	October 9, 2017 12:45	10/09/2017 15:54
BH06-10/9/17	Y710128-06	Water	October 9, 2017 12:35	10/09/2017 15:54
BH07-10/9/17	Y710128-07	Water	October 9, 2017 12:25	10/09/2017 15:54
BH08-10/9/17	Y710128-08	Water	October 9, 2017 13:20	10/09/2017 15:54
BH09-10/9/17	Y710128-09	Water	October 9, 2017 12:00	10/09/2017 15:54
BH10-10/9/17	Y710128-10	Water	October 9, 2017 12:20	10/09/2017 15:54
BH11-10/9/17	Y710128-11	Water	October 9, 2017 12:10	10/09/2017 15:54
BH12-10/9/17	Y710128-12	Water	October 9, 2017 13:10	10/09/2017 15:54
BH13-10/9/17	Y710128-13	Water	October 9, 2017 12:30	10/09/2017 15:54
BH14-10/9/17	Y710128-14	Water	October 9, 2017 12:10	10/09/2017 15:54

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: 88527175

Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH15-10/9/17	Y710128-15	Water	October 9, 2017 12:00	10/09/2017 15:54
BH16-10/9/17	Y710128-16	Water	October 9, 2017 12:55	10/09/2017 15:54
BH17-10/9/17	Y710128-17	Water	October 9, 2017 13:00	10/09/2017 15:54

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: 88527175
Project: KMG - Hank's Pooling Unit 1

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page 4 of 2

171012b

ORIGINS
LABORATORY, INC

Client: Tasman Geosciences
Address:
Telephone Number:
Email Address: cornez@tasmangeo.com

Project Manager: Bob Cornez
Project Name: Hank's Pooling Unit 1
Project Number: 88527175
Samples Collected By: Max Goren

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative	Matrix	Analysis	Sample Instructions
BH01-10/9/17	10/9/17	11:50	3	Unpreserved	Soil	Other	1
BH02-10/9/17		13:05		HNO ₃	Soil	Other	2
BH03-10/9/17		12:50		HCl	Soil	Other	3
BH04-10/9/17		12:40		Unpreserved	Soil	Other	4
BH05-10/9/17		12:45		HNO ₃	Soil	Other	5
BH06-10/9/17		12:35		HCl	Soil	Other	6
BH07-10/9/17		12:25		Unpreserved	Soil	Other	7
BH08-10/9/17		13:20		HNO ₃	Soil	Other	8
BH09-10/9/17		12:00		HCl	Soil	Other	9
BH10-10/9/17		12:20		Unpreserved	Soil	Other	10
Relinquished By: <u>Max Goren</u>	Date: <u>10/9/17</u>	Time: <u>15:51</u>	Received By: <u></u>	Date: <u>10/9/17</u>	Time: <u>15:54</u>	Turnaround Time: <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard	
Relinquished By: <u></u>	Date: <u></u>	Time: <u></u>	Received By: <u></u>	Date: <u></u>	Time: <u></u>		

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: 88527175
Project: KMG - Hank's Pooling Unit 1

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page 2 of 2

1710128

Client: Asphalt/Asphalt

Address:

Telephone Number:

Email Address: cornez@tasman-geo.com

Project Manager: Bob Cornez

Project Name: Hank's Pooling Unit 1

Project Number: 88527175

Samples Collected By: Max Cornez

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #		
BH11-10/9/17	10/9/17	12:10	3	X				X				1
BH12-10/9/17		13:10										2
BH13-10/9/17		12:30										3
BH14-10/9/17		12:10										4
BH15-10/9/17		12:00										5
BH16-10/9/17		12:55										6
BH17-10/9/17		13:00										7
												8
												9
												10

Relinquished By: Max Date: 10/9/17 Time: 1554

Relinquished By: Date: Time:

Received By: Date: Time:

Received By: Date: 10/9/17 Time: 1554

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

Date Results Needed: 4.8

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: 88527175
Project: KMG - Hank's Pooling Unit 1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 710123

Client: Tasman

Client Project ID: KMG - Hank's Pooling Unit #1

Checklist Completed by: D. M.

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

Date/time completed: 10-9-17 1623

Airbill #: NA

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

Cooler Number/Temperature: 1 4.5 °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"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) / (pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

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

Reviewed by [Signature] (Project Manager)

Date/Time Reviewed 10/10/17

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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH01-10/9/17

10/9/2017 11:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-01 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B7J1206	10/12/2017	10/12/2017	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	36.4	4.00	"	"	"	"	"	
Xylenes, total	102	4.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	112 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH02-10/9/17
10/9/2017 1:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-02 (Water)

BTEX by EPA 8260C

Benzene	109	4.00	ug/L	4	B7J1206	10/12/2017	10/13/2017	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	850	50.0	"	50	"	"	10/13/2017	
Xylenes, total	1170	4.00	"	4	"	"	10/13/2017	

Surrogate: 1,2-Dichloroethane-d4	109 %	84-121			"	"	"	
Surrogate: Toluene-d8	105 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH03-10/9/17

10/9/2017 12:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-03 (Water)

BTEX by EPA 8260C

Benzene	19.4	4.00	ug/L	4	B7J1206	10/12/2017	10/13/2017	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	91.1	4.00	"	"	"	"	"	
Xylenes, total	27.0	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	112 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH04-10/9/17

10/9/2017 12:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J1206	10/12/2017	10/12/2017	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	103 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH05-10/9/17

10/9/2017 12:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J1206	10/12/2017	10/13/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	114 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH06-10/9/17

10/9/2017 12:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J1206	10/12/2017	10/13/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH07-10/9/17

10/9/2017 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-07 (Water)

BTEX by EPA 8260C

Benzene	308	4.00	ug/L	4	B7J1206	10/12/2017	10/13/2017	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	164	4.00	"	"	"	"	"	
Xylenes, total	456	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	100 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH08-10/9/17
10/9/2017 1:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J1206	10/12/2017	10/13/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH09-10/9/17

10/9/2017 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J1206	10/12/2017	10/13/2017	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	101 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH10-10/9/17

10/9/2017 12:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-10 (Water)

BTEX by EPA 8260C

Benzene	1260	20.0	ug/L	20	B7J1206	10/12/2017	10/13/2017
Toluene	48.8	20.0	"	"	"	"	"
Ethylbenzene	209	20.0	"	"	"	"	"
Xylenes, total	796	20.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"
Surrogate: Toluene-d8	100 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	99.0 %	84-114			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH11-10/9/17

10/9/2017 12:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-11 (Water)

BTEX by EPA 8260C

Benzene	1680	20.0	ug/L	20	B7J1206	10/12/2017	10/13/2017	
Toluene	ND	20.0	"	"	"	"	"	U
Ethylbenzene	955	20.0	"	"	"	"	"	
Xylenes, total	5660	20.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	108 %	84-121			"	"	"	
Surrogate: Toluene-d8	104 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH12-10/9/17
10/9/2017 1:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-12 (Water)

BTEX by EPA 8260C

Benzene	7.26	1.00	ug/L	1	B7J1206	10/12/2017	10/13/2017	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	1.72	1.00	"	"	"	"	"	
Xylenes, total	12.7	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	110 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH13-10/9/17

10/9/2017 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-13 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B7J1206	10/12/2017	10/13/2017	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	ND	4.00	"	"	"	"	"	U
Xylenes, total	ND	4.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	112 %	84-121			"	"	"	
Surrogate: Toluene-d8	104 %	85-115			"	"	"	
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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH14-10/9/17

10/9/2017 12:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-14 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J1206	10/12/2017	10/13/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	7.47	1.00	"	"	"	"	"	
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH15-10/9/17

10/9/2017 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-15 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J1206	10/12/2017	10/13/2017	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	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH16-10/9/17

10/9/2017 12:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-16 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J1206	10/12/2017	10/13/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	84-121			"	"	"	
Surrogate: Toluene-d8	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH17-10/9/17
10/9/2017 1:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710128-17 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B7J1206	10/12/2017	10/13/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88527175
Project: KMG - Hank's Pooling 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 B7J1206 - EPA 5030B (Water)										
Blank (B7J1206-BLK1)					Prepared: 10/12/2017 Analyzed: 10/12/2017					
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	71		"	62.5	113		84-121			
Surrogate: Toluene-d8	64		"	62.5	103		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: 88527175
Project: KMG - Hank's Pooling 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 B7J1206 - EPA 5030B (Water)

LCS (B7J1206-BS1)

Prepared: 10/12/2017 Analyzed: 10/12/2017

Benzene	40.7	1.00	ug/L	50.0		81.4	73.3-129			
Toluene	43.1	1.00	"	50.0		86.1	76.2-123			
Ethylbenzene	44.0	1.00	"	50.0		88.0	73.6-130			
m,p-Xylene	91.7	2.00	"	100		91.7	76.1-126			
o-Xylene	41.7	1.00	"	50.0		83.5	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	73		"	62.5		116	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	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: 88527175
Project: KMG - Hank's Pooling 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 B7J1206 - EPA 5030B (Water)

Matrix Spike (B7J1206-MS1)		Source: Y710128-04			Prepared: 10/12/2017 Analyzed: 10/12/2017					
Benzene	50.8	1.00	ug/L	50.0	ND	102	74-130			
Toluene	54.2	1.00	"	50.0	ND	108	73-131			
Ethylbenzene	56.1	1.00	"	50.0	ND	112	76-132			
m,p-Xylene	118	2.00	"	100	ND	118	69-139			
o-Xylene	53.3	1.00	"	50.0	ND	107	74-131			
Surrogate: 1,2-Dichloroethane-d4	72		"	62.5		115	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	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: 88527175
Project: KMG - Hank's Pooling 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 B7J1206 - EPA 5030B (Water)

Matrix Spike Dup (B7J1206-MSD1)		Source: Y710128-04			Prepared: 10/12/2017 Analyzed: 10/12/2017					
Benzene	43.5	1.00	ug/L	50.0	ND	87.0	74-130	15.5	20	
Toluene	46.1	1.00	"	50.0	ND	92.3	73-131	16.1	20	
Ethylbenzene	47.0	1.00	"	50.0	ND	94.1	76-132	17.6	20	
m,p-Xylene	99.1	2.00	"	100	ND	99.1	69-139	17.4	20	
o-Xylene	44.5	1.00	"	50.0	ND	89.0	74-131	18.1	20	
Surrogate: 1,2-Dichloroethane-d4	74		"	62.5		119	84-121			
Surrogate: Toluene-d8	65		"	62.5		104	85-115			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		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: 88527175

Project: KMG - Hank's Pooling 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



January 11, 2018

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Hank's Pooling Unit 1

Project Number - 88527175

Attached are your analytical results for KMG - Hank's Pooling Unit 1 received by Origins Laboratory, Inc. January 04, 2018. This project is associated with Origins project number Y801085-01.

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: 88527175
Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01-1/4/18	Y801085-01	Water	January 4, 2018 11:00	01/04/2018 17:00
BH02-1/4/18	Y801085-02	Water	January 4, 2018 10:40	01/04/2018 17:00
BH03-1/4/18	Y801085-03	Water	January 4, 2018 10:55	01/04/2018 17:00
BH04-1/4/18	Y801085-04	Water	January 4, 2018 11:10	01/04/2018 17:00
BH05-1/4/18	Y801085-05	Water	January 4, 2018 10:45	01/04/2018 17:00
BH06-1/4/18	Y801085-06	Water	January 4, 2018 10:35	01/04/2018 17:00
BH07-1/4/18	Y801085-07	Water	January 4, 2018 10:35	01/04/2018 17:00
BH08-1/4/18	Y801085-08	Water	January 4, 2018 11:30	01/04/2018 17:00
BH09-1/4/18	Y801085-09	Water	January 4, 2018 11:15	01/04/2018 17:00
BH10-1/4/18	Y801085-10	Water	January 4, 2018 11:45	01/04/2018 17:00
BH11-1/4/18	Y801085-11	Water	January 4, 2018 11:40	01/04/2018 17:00
BH12-1/4/18	Y801085-12	Water	January 4, 2018 10:50	01/04/2018 17:00
BH13-1/4/18	Y801085-13	Water	January 4, 2018 11:00	01/04/2018 17:00
BH14-1/4/18	Y801085-14	Water	January 4, 2018 10:15	01/04/2018 17:00

Origins Laboratory, Inc.



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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: 88527175

Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH15-1/4/18	Y801085-15	Water	January 4, 2018 10:25	01/04/2018 17:00
BH16-1/4/18	Y801085-16	Water	January 4, 2018 10:15	01/04/2018 17:00
BH17-1/4/18	Y801085-17	Water	January 4, 2018 10:05	01/04/2018 17:00
BH18-1/4/18	Y801085-18	Water	January 4, 2018 10:25	01/04/2018 17:00
BH19-1/4/18	Y801085-19	Water	January 4, 2018 10:05	01/04/2018 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: 88527175
Project: KMG - Hank's Pooling Unit 1

ORIGINS
LABORATORY, INC

Client: APL/Tasman
Address:
Telephone Number:
Email Address: cornez@tasman-geo.com

Project Manager: Bob Cornez
Project Name: Hank's Pooling Unit 1
Project Number: 88527175
Samples Collected By: Max G. Alex D

www.originslaboratory.com
page 1 of 2

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summary		
BH01-14/18	1/4/18	11:00	3	X				X				1
BH02-14/18		10:40										2
BH03-14/18		10:55										3
BH04-14/18		11:10										4
BH05-14/18		10:45										5
BH06-14/18		10:35										6
BH07-14/18		10:35										7
BH08-14/18		11:30										8
BH09-14/18		11:15										9
BH10-14/18		11:45										10
Relinquished By: <u>M. V.</u>	Date: <u>1/4/18</u>	Time: <u>1700</u>	Received By: <u>[Signature]</u>	Date: <u>1/4/18</u>	Time: <u>1700</u>	Turnaround Time: <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: 5.4

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: 88527175
Project: KMG - Hank's Pooling Unit 1

ORIGINS
LABORATORY, INC

www.originslaboratory.com

page 2 of 2

Client: APR / TASMAN

Address: _____

Telephone Number: _____

Email Address: cornez@tasman-geo.com

Project Manager: Bob Cornez

Project Name: Hank's Pooling Unit 1

Project Number: 88527175

Samples Collected By: Max B. Max D.

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air / Surface / Other			
BH11-1/4/18	1/4/18	11:40	3	X				X				X	
BH12-1/4/18		10:50											
BH13-1/4/18		11:00											
BH14-1/4/18		10:15											
BH15-1/4/18		10:25											
BH16-1/4/18		10:15											
BH17-1/4/18		10:05											
BH18-1/4/18		10:25											
BH19-1/4/18		10:05											

Relinquished By: Max

Date: 1/4/18

Time: 11:00

Received By: [Signature]

Date: 1/4/18

Time: 17:00

Turnaround Time:

Same Day ☐ 24 Hr ☐ 48 Hr ☐ 72 Hr ☐ Standard ☒

Date Results Needed: 5.4

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: 88527175
Project: KMG - Hank's Pooling Unit 1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: y801085

Client: Tasman

Client Project ID: KMG - Hank's Pooling Unit #

Checklist Completed by: SC

Shipped Via: HD

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

Date/time completed: 1/9/18

Airbill #: D/A

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

Cooler Number/Temperature: 1 154 °C 1 °C 1 °C 1 °C

Thermometer ID: 1003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) (pH < 2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH > 10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

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

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 1/9/18

Origins Laboratory, Inc.

[Signature]

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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH01-1/4/18
1/4/2018 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-01 (Water)

BTEX by EPA 8260C

Benzene	1.41	1.00	ug/L	1	B8A1002	01/10/2018	01/10/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	7.48	1.00	"	"	"	"	"	
Xylenes, total	11.6	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	99.1 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH02-1/4/18
1/4/2018 10:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-02 (Water)

BTEX by EPA 8260C

Benzene	121	4.00	ug/L	4	B8A1002	01/10/2018	01/10/2018	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	578	4.00	"	"	"	"	"	
Xylenes, total	680	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH03-1/4/18
1/4/2018 10:55:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-03 (Water)

BTEX by EPA 8260C

Benzene	51.9	1.00	ug/L	1	B8A1002	01/10/2018	01/10/2018
Toluene	1.28	1.00	"	"	"	"	"
Ethylbenzene	305	10.0	"	10	"	"	01/11/2018
Xylenes, total	112	1.00	"	1	"	"	01/10/2018

Surrogate: 1,2-Dichloroethane-d4	99.3 %	84-121			"	"	"
Surrogate: Toluene-d8	105 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	98.2 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH04-1/4/18
1/4/2018 11:10:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A1002	01/10/2018	01/10/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.6 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH05-1/4/18
1/4/2018 10:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A1002	01/10/2018	01/10/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.0 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH06-1/4/18
1/4/2018 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A1002	01/10/2018	01/10/2018	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	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH07-1/4/18
1/4/2018 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-07 (Water)

BTEX by EPA 8260C

Benzene	166	4.00	ug/L	4	B8A1002	01/10/2018	01/10/2018	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	56.0	4.00	"	"	"	"	"	
Xylenes, total	ND	4.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH08-1/4/18
1/4/2018 11:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A1002	01/10/2018	01/10/2018	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	100 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH09-1/4/18
1/4/2018 11:15:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A1002	01/10/2018	01/11/2018	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	99.5 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH10-1/4/18
1/4/2018 11:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-10 (Water)

BTEX by EPA 8260C

Benzene	2730	50.0	ug/L	50	B8A1002	01/10/2018	01/11/2018
Toluene	142	10.0	"	10	"	"	01/11/2018
Ethylbenzene	272	10.0	"	"	"	"	"
Xylenes, total	1430	10.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	96.0 %	84-121			"	"	"
Surrogate: Toluene-d8	102 %	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: 88527175
Project: KMG - Hank's Pooling Unit 1

BH11-1/4/18
1/4/2018 11:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-11 (Water)

BTEX by EPA 8260C

Benzene	1670	20.0	ug/L	20	B8A1002	01/10/2018	01/11/2018	
Toluene	ND	20.0	"	"	"	"	"	U
Ethylbenzene	818	20.0	"	"	"	"	"	
Xylenes, total	5420	20.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	98.5 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.0 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH12-1/4/18
1/4/2018 10:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-12 (Water)

BTEX by EPA 8260C

Benzene	1.73	1.00	ug/L	1	B8A1002	01/10/2018	01/11/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	2.38	1.00	"	"	"	"	"	
Xylenes, total	16.1	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	97.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	104 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.0 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH13-1/4/18
1/4/2018 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-13 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A1002	01/10/2018	01/11/2018	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	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.0 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH14-1/4/18
1/4/2018 10:15:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-14 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A1002	01/10/2018	01/11/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.4 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH15-1/4/18
1/4/2018 10:25:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-15 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A1002	01/10/2018	01/11/2018	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	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.9 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH16-1/4/18
1/4/2018 10:15:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-16 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A1002	01/10/2018	01/11/2018	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	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.8 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH17-1/4/18
1/4/2018 10:05:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-17 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A1002	01/10/2018	01/11/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.0 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH18-1/4/18
1/4/2018 10:25:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-18 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A1002	01/10/2018	01/11/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	82.0	1.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	99.6 %	84-121			"	"	"	
Surrogate: Toluene-d8	105 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.4 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling Unit 1

BH19-1/4/18
1/4/2018 10:05:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y801085-19 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8A1002	01/10/2018	01/11/2018	U
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	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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: 88527175
Project: KMG - Hank's Pooling 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 B8A1002 - EPA 5030B (Water)										
Blank (B8A1002-BLK1)					Prepared: 01/10/2018 Analyzed: 01/10/2018					
Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5	102		84-121			
Surrogate: Toluene-d8	63		"	62.5	100		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: 88527175
Project: KMG - Hank's Pooling 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 B8A1002 - EPA 5030B (Water)

LCS (B8A1002-BS1)

Prepared: 01/10/2018 Analyzed: 01/10/2018

Benzene	49.4	1.00	ug/L	50.0		98.8	73.3-129
Toluene	48.8	1.00	"	50.0		97.5	76.2-123
Ethylbenzene	49.6	1.00	"	50.0		99.2	73.6-130
m,p-Xylene	98.9	2.00	"	100		98.9	76.1-126
o-Xylene	49.5	1.00	"	50.0		98.9	76.6-124
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.8	84-121
Surrogate: Toluene-d8	63		"	62.5		101	85-115
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.6	84-114

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 88527175
Project: KMG - Hank's Pooling 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 B8A1002 - EPA 5030B (Water)

Matrix Spike (B8A1002-MS1)		Source: Y801085-01			Prepared: 01/10/2018 Analyzed: 01/10/2018					
Benzene	59.9	1.00	ug/L	50.0	1.41	117	74-130			
Toluene	51.3	1.00	"	50.0	ND	103	73-131			
Ethylbenzene	110	1.00	"	50.0	7.48	204	76-132			QM-07
m,p-Xylene	171	2.00	"	100	7.87	163	69-139			QM-07
o-Xylene	57.6	1.00	"	50.0	3.71	108	74-131			
Surrogate: 1,2-Dichloroethane-d4	58		"	62.5		92.8	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		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: 88527175
Project: KMG - Hank's Pooling 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 B8A1002 - EPA 5030B (Water)										
Matrix Spike Dup (B8A1002-MSD1)	Source: Y801085-01				Prepared: 01/10/2018 Analyzed: 01/10/2018					
Benzene	58.0	1.00	ug/L	50.0	1.41	113	74-130	3.31	20	
Toluene	53.0	1.00	"	50.0	ND	106	73-131	3.15	20	
Ethylbenzene	80.2	1.00	"	50.0	7.48	145	76-132	31.0	20	QM-07, QR-03
m,p-Xylene	123	2.00	"	100	7.87	115	69-139	32.5	20	QR-03
o-Xylene	59.6	1.00	"	50.0	3.71	112	74-131	3.36	20	
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.3	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.2	84-114			

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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: 88527175

Project: KMG - Hank's Pooling Unit 1

Notes and Definitions

U Sample is Non-Detect.

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

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President