



April 17, 2018

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Hank's Pooling Unit 1

Project Number - [none]

Attached are your analytical results for KMG - Hank's Pooling Unit 1 received by Origins Laboratory, Inc. April 10, 2018. This project is associated with Origins project number Y804189-01.

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: [none]
Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 4/10/18	Y804189-01	Water	April 10, 2018 11:00	04/10/2018 17:00
BH02 - 4/10/18	Y804189-02	Water	April 10, 2018 11:45	04/10/2018 17:00
BH03 - 4/10/18	Y804189-03	Water	April 10, 2018 11:45	04/10/2018 17:00
BH04 - 4/10/18	Y804189-04	Water	April 10, 2018 11:35	04/10/2018 17:00
BH05 - 4/10/18	Y804189-05	Water	April 10, 2018 12:30	04/10/2018 17:00
BH06 - 4/10/18	Y804189-06	Water	April 10, 2018 12:15	04/10/2018 17:00
BH07 - 4/10/18	Y804189-07	Water	April 10, 2018 10:55	04/10/2018 17:00
BH08 - 4/10/18	Y804189-08	Water	April 10, 2018 12:00	04/10/2018 17:00
BH09 - 4/10/18	Y804189-09	Water	April 10, 2018 11:10	04/10/2018 17:00
BH10 - 4/10/18	Y804189-10	Water	April 10, 2018 10:30	04/10/2018 17:00
BH11 - 4/10/18	Y804189-11	Water	April 10, 2018 10:45	04/10/2018 17:00
BH12 - 4/10/18	Y804189-12	Water	April 10, 2018 11:35	04/10/2018 17:00
BH13 - 4/10/18	Y804189-13	Water	April 10, 2018 11:20	04/10/2018 17:00
BH14 - 4/10/18	Y804189-14	Water	April 10, 2018 11:10	04/10/2018 17:00

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH15 - 4/10/18	Y804189-15	Water	April 10, 2018 10:45	04/10/2018 17:00
BH16 - 4/10/18	Y804189-16	Water	April 10, 2018 12:15	04/10/2018 17:00
BH17 - 4/10/18	Y804189-17	Water	April 10, 2018 12:00	04/10/2018 17:00
BH18 - 4/10/18	Y804189-18	Water	April 10, 2018 10:30	04/10/2018 17:00
BH19 - 4/10/18	Y804189-19	Water	April 10, 2018 11:25	04/10/2018 17:00

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

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7804189

Client: Anadarko/Tasman Geosciences Project Manager/Send Report To: Bob Cornez

Address: 6899 Pecos St. Unit C Email Address: bcornez@tasman-geo.com

Denver, CO 80221 Project Name/Number: Hanks Pooling Unit 1/88527175

Telephone Number: 979-255-4235 Samples Collected By: Max Garcia

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative					Matrix			Analysis/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #	Other		
BH01 - 4/10/18	4/10/18	1100	3	X				X				BTEX	1
BH02 - 4/10/18		1145											2
BH03 - 4/10/18		1145											3
BH04 - 4/10/18		1135											4
BH05 - 4/10/18		1230											5
BH06 - 4/10/18		1215											6
BH07 - 4/10/18		1055											7
BH08 - 4/10/18		1200											8
BH09 - 4/10/18		1110											9
BH10 - 4/10/18		1030											10
Relinquished By: <i>MM</i>	Date: 4/10/18	Time: 1700	Received By: <i>DD</i>	Date: 4/10/18	Time: 1700	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard							
Relinquished By:	Date:	Time:	Received By:	Date:	Time:								

Origins Laboratory, Inc.

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

ORIGINS LABORATORY, INC

1/20/18 9

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page 2 of 2

Client: Anadarko/Tasman Geosciences Project Manager/Send Report To: Bob Cornez

Address: 6899 Pecos St. Unit C Email Address: bcornez@tasman-geo.com

Denver, CO 80221 Project Name/Number: Hanks Pooling Unit 1/88527175

Telephone Number: 979-255-4235 Samples Collected By: Max Tavares

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative	Matrix	Analysis/Method	Sample Instructions
BH11 - 4/10/18	4/10/18	10:45	3	Unpreserved	Groundwater	BTEX	1
BH12 - 4/10/18	4/10/18	11:35	1	Unpreserved	Soil	BTEX	2
BH13 - 4/10/18	4/10/18	11:20	1	Unpreserved	Soil	BTEX	3
BH14 - 4/10/18	4/10/18	11:10	1	Unpreserved	Soil	BTEX	4
BH15 - 4/10/18	4/10/18	10:45	1	Unpreserved	Soil	BTEX	5
BH16 - 4/10/18	4/10/18	12:15	1	Unpreserved	Soil	BTEX	6
BH17 - 4/10/18	4/10/18	12:00	1	Unpreserved	Soil	BTEX	7
BH18 - 4/10/18	4/10/18	10:30	1	Unpreserved	Soil	BTEX	8
BH19 - 4/10/18	4/10/18	11:25	1	Unpreserved	Soil	BTEX	9
							10
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:	
Max Tavares	4/10/18		[Signature]	4-10-18	1700	Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:		

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

Origins Laboratory, Inc.

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 204189

Client: Tasman

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

Checklist Completed by: JG

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

Date/time completed: 4/10/2018

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 4.6 °C _____ / _____ °C _____ / _____ °C _____ / _____ °C

Thermometer ID: T003

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

Date/Time Reviewed 4/12/18

Origins Laboratory, Inc.

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH01 - 4/10/18

4/10/2018 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-01 (Water)

BTEX by EPA 8260C

Benzene	7.31	1.00	ug/L	1	B8D1305	04/13/2018	04/14/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	31.9	1.00	"	"	"	"	"	
Xylenes, total	72.4	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	98.5 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.7 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH02 - 4/10/18

4/10/2018 11:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-02 (Water)

BTEX by EPA 8260C

Benzene	147	10.0	ug/L	10	B8D1305	04/13/2018	04/14/2018	
Toluene	ND	10.0	"	"	"	"	"	U
Ethylbenzene	471	10.0	"	"	"	"	"	
Xylenes, total	1290	10.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	104 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.5 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH03 - 4/10/18

4/10/2018 11:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-03 (Water)

BTEX by EPA 8260C

Benzene	22.9	4.00	ug/L	4	B8D1305	04/13/2018	04/16/2018	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	92.0	4.00	"	"	"	"	"	
Xylenes, total	16.5	4.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	98.7 %	84-121			"	"	"
Surrogate: Toluene-d8	102 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	97.2 %	84-114			"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH04 - 4/10/18

4/10/2018 11:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D1305	04/13/2018	04/16/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

101 % 84-121
100 % 85-115
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: [none]
Project: KMG - Hank's Pooling Unit 1

BH05 - 4/10/18

4/10/2018 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D1305	04/13/2018	04/14/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

105 % 84-121
98.8 % 85-115
96.7 % 84-114

" " "
" " "
" " "

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH06 - 4/10/18

4/10/2018 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D1305	04/13/2018	04/14/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

105 % 84-121
98.5 % 85-115
96.2 % 84-114

" " "
" " "
" " "

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH07 - 4/10/18

4/10/2018 10:55:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-07 (Water)

BTEX by EPA 8260C

Benzene	201	10.0	ug/L	10	B8D1305	04/13/2018	04/14/2018	
Toluene	ND	10.0	"	"	"	"	"	U
Ethylbenzene	ND	10.0	"	"	"	"	"	U
Xylenes, total	65.1	10.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	103 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.8 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.8 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH08 - 4/10/18

4/10/2018 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D1305	04/13/2018	04/16/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

101 % 84-121
101 % 85-115
97.9 % 84-114

" " "
" " "
" " "

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH09 - 4/10/18

4/10/2018 11:10:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D1305	04/13/2018	04/16/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

101 % 84-121
101 % 85-115
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: [none]
Project: KMG - Hank's Pooling Unit 1

BH10 - 4/10/18

4/10/2018 10:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-10 (Water)

BTEX by EPA 8260C

Benzene	1810	50.0	ug/L	50	B8D1305	04/13/2018	04/16/2018
Toluene	178	50.0	"	"	"	"	"
Ethylbenzene	206	50.0	"	"	"	"	"
Xylenes, total	1380	50.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"
Surrogate: Toluene-d8	102 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	99.3 %	84-114			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH11 - 4/10/18

4/10/2018 10:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-11 (Water)

BTEX by EPA 8260C

Benzene	1550	50.0	ug/L	50	B8D1305	04/13/2018	04/16/2018	
Toluene	ND	4.00	"	4	"	"	04/14/2018	U
Ethylbenzene	25.3	4.00	"	"	"	"	"	
Xylenes, total	6080	50.0	"	50	"	"	04/16/2018	

Surrogate: 1,2-Dichloroethane-d4	94.6 %	84-121			"	"	04/14/2018	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.7 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH12 - 4/10/18

4/10/2018 11:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-12 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D1305	04/13/2018	04/14/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	3.60	1.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"
Surrogate: Toluene-d8	101 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	99.3 %	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: [none]
Project: KMG - Hank's Pooling Unit 1

BH13 - 4/10/18

4/10/2018 11:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
Y804189-13 (Water)

BTEX by EPA 8260C

Benzene	6.66	1.00	ug/L	1	B8D1305	04/13/2018	04/14/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

100 %
99.9 %
101 %

84-121
85-115
84-114

"
"
"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH14 - 4/10/18

4/10/2018 11:10:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
Y804189-14 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D1305	04/13/2018	04/14/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

100 % 84-121
100 % 85-115
101 % 84-114

" " "
" " "
" " "

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH15 - 4/10/18

4/10/2018 10:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-15 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D1305	04/13/2018	04/14/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

101 % 84-121
100 % 85-115
98.8 % 84-114

" " "
" " "
" " "

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH16 - 4/10/18

4/10/2018 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-16 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D1305	04/13/2018	04/14/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

101 % 84-121
99.6 % 85-115
102 % 84-114

" " "
" " "
" " "

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH17 - 4/10/18

4/10/2018 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
Y804189-17 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D1305	04/13/2018	04/14/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

99.9 % 84-121
100 % 85-115
100 % 84-114

" " "
" " "
" " "

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH18 - 4/10/18

4/10/2018 10:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-18 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D1305	04/13/2018	04/14/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

99.6 % 84-121
102 % 85-115
99.8 % 84-114

" " "
" " "
" " "

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH19 - 4/10/18

4/10/2018 11:25:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y804189-19 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D1305	04/13/2018	04/14/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

99.2 % 84-121
99.7 % 85-115
101 % 84-114

" " "
" " "
" " "

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - 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 B8D1305 - EPA 5030B (Water)										
Blank (B8D1305-BLK1)					Prepared: 04/13/2018 Analyzed: 04/13/2018					
Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5		105	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.6	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.3	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: [none]
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 B8D1305 - EPA 5030B (Water)

Blank (B8D1305-BLK2)

Prepared: 04/13/2018 Analyzed: 04/16/2018

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	62		"	62.5		98.7	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.4	84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - 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 B8D1305 - EPA 5030B (Water)										
LCS (B8D1305-BS1)					Prepared: 04/13/2018 Analyzed: 04/13/2018					
Benzene	56.4	1.00	ug/L	50.0		113	73.3-129			
Toluene	56.7	1.00	"	50.0		113	76.2-123			
Ethylbenzene	58.4	1.00	"	50.0		117	73.6-130			
m,p-Xylene	115	2.00	"	100		115	76.1-126			
o-Xylene	56.5	1.00	"	50.0		113	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5		106	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.5	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - 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 B8D1305 - EPA 5030B (Water)

LCS (B8D1305-BS2)

Prepared: 04/13/2018 Analyzed: 04/16/2018

Benzene	57.4	1.00	ug/L	50.0		115	73.3-129			
Toluene	58.2	1.00	"	50.0		116	76.2-123			
Ethylbenzene	61.0	1.00	"	50.0		122	73.6-130			
m,p-Xylene	118	2.00	"	100		118	76.1-126			
o-Xylene	56.9	1.00	"	50.0		114	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.0	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - 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 B8D1305 - EPA 5030B (Water)

Matrix Spike (B8D1305-MS1)		Source: Y804182-08			Prepared: 04/13/2018 Analyzed: 04/13/2018					
Benzene	65.4	1.00	ug/L	50.0	ND	131	74-130			QM-07
Toluene	64.8	1.00	"	50.0	ND	130	73-131			
Ethylbenzene	66.7	1.00	"	50.0	ND	133	76-132			QM-07
m,p-Xylene	131	2.00	"	100	ND	131	69-139			
o-Xylene	62.4	1.00	"	50.0	ND	125	74-131			
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5		107	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.8	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.1	84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - 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 B8D1305 - EPA 5030B (Water)

Matrix Spike (B8D1305-MS2)		Source: Y804182-09			Prepared: 04/13/2018 Analyzed: 04/13/2018					
Benzene	59.3	1.00	ug/L	50.0	ND	119	74-130			
Toluene	59.7	1.00	"	50.0	ND	119	73-131			
Ethylbenzene	63.0	1.00	"	50.0	ND	126	76-132			
m,p-Xylene	122	2.00	"	100	ND	122	69-139			
o-Xylene	57.5	1.00	"	50.0	ND	115	74-131			
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5		107	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.3	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - 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 B8D1305 - EPA 5030B (Water)										
Matrix Spike Dup (B8D1305-MSD1)		Source: Y804182-08			Prepared: 04/13/2018 Analyzed: 04/13/2018					
Benzene	59.3	1.00	ug/L	50.0	ND	119	74-130	9.86	20	
Toluene	59.2	1.00	"	50.0	ND	118	73-131	9.02	20	
Ethylbenzene	61.4	1.00	"	50.0	ND	123	76-132	8.38	20	
m,p-Xylene	121	2.00	"	100	ND	121	69-139	7.89	20	
o-Xylene	56.9	1.00	"	50.0	ND	114	74-131	9.26	20	
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5		107	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - 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 B8D1305 - EPA 5030B (Water)

Matrix Spike Dup (B8D1305-MSD2)		Source: Y804182-09			Prepared: 04/13/2018 Analyzed: 04/13/2018					
Benzene	61.0	1.00	ug/L	50.0	ND	122	74-130	2.81	20	
Toluene	60.8	1.00	"	50.0	ND	122	73-131	1.84	20	
Ethylbenzene	63.8	1.00	"	50.0	ND	128	76-132	1.28	20	
m,p-Xylene	124	2.00	"	100	ND	124	69-139	1.53	20	
o-Xylene	58.7	1.00	"	50.0	ND	117	74-131	2.05	20	
Surrogate: 1,2-Dichloroethane-d4	58		"	62.5		93.0	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.9	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - 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.

August 03, 2018

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Hank's Pooling Unit 1

Project Number - [none]

Attached are your analytical results for KMG - Hank's Pooling Unit 1 received by Origins Laboratory, Inc. July 31, 2018. This project is associated with Origins project number Y808002-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 073118	Y808002-01	Water	July 31, 2018 10:56	07/31/2018 17:00
BH02 - 073118	Y808002-02	Water	July 31, 2018 10:05	07/31/2018 17:00
BH03 - 073118	Y808002-03	Water	July 31, 2018 11:11	07/31/2018 17:00
BH04 - 073118	Y808002-04	Water	July 31, 2018 11:10	07/31/2018 17:00
BH05 - 073118	Y808002-05	Water	July 31, 2018 10:37	07/31/2018 17:00
BH06 - 073118	Y808002-06	Water	July 31, 2018 10:50	07/31/2018 17:00
BH07 - 073118	Y808002-07	Water	July 31, 2018 10:40	07/31/2018 17:00
BH08 - 073118	Y808002-08	Water	July 31, 2018 11:05	07/31/2018 17:00
BH09 - 073118	Y808002-09	Water	July 31, 2018 9:35	07/31/2018 17:00
BH10 - 073118	Y808002-10	Water	July 31, 2018 11:20	07/31/2018 17:00
BH11 - 073118	Y808002-11	Water	July 31, 2018 10:20	07/31/2018 17:00
BH12 - 073118	Y808002-12	Water	July 31, 2018 10:55	07/31/2018 17:00
BH13 - 073118	Y808002-13	Water	July 31, 2018 11:16	07/31/2018 17:00
BH14 - 073118	Y808002-14	Water	July 31, 2018 10:45	07/31/2018 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: [none]

Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH15 - 073118	Y808002-15	Water	July 31, 2018 9:45	07/31/2018 17:00
BH16 - 073118	Y808002-16	Water	July 31, 2018 10:22	07/31/2018 17:00
BH17 - 073118	Y808002-17	Water	July 31, 2018 9:55	07/31/2018 17:00
BH18 - 073118	Y808002-18	Water	July 31, 2018 10:25	07/31/2018 17:00
BH19 - 073118	Y808002-19	Water	July 31, 2018 10:35	07/31/2018 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.

Jen Pellegrini For Noelle Doyle Mathis, President

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

ORIGINS LABORATORY, INC

www.originslaboratory.com

page 1 of 2

1908002

Client: APC/Tasman Project Manager/Send Report To: Bob Cornez

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

Denver, CO 80221 Project Name/Number: Hank's Pooling Unit 1/88527175

Telephone Number: 970.481.6909 Samples Collected By: Max Dabylea

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #		
BH01-073118	7/31/18	1056	3	X	X			X			BTEX	1
BH02-073118		1005	1	X								2
BH03-073118		1111			X							3
BH04-073118		1110			X							4
BH05-073118		1037			X							5
BH06-073118		1050			X							6
BH07-073118		1040		X								7
BH08-073118		1105		X								8
BH09-073118		0935		X								9
BH10-073118		1120	1	X								10
Relinquished By: <u>Bob Cornez</u>	Date: <u>7/31/18</u>	Time: <u>1700</u>		Received By: <u>[Signature]</u>	Date: <u>7/31/18</u>	Time: <u>1700</u>	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard					
Relinquished By:	Date:	Time:		Received By:	Date:	Time:						

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

www.originslaboratory.com

page 2 of 2

1908002

ORIGINS LABORATORY, INC

Client: APC / Tasman Project Manager/Send Report To: _____

Address: _____ Email Address: _____

Project Name/Number: Hank's Pooling Unit 1 / 88527175

Telephone Number: _____ Samples Collected By: _____

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative					Matrix				Analysis/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #	Other			
BH11-073118	7/31/18	1020	3	X				X					BTEX	1
BH12-073118		1055	1	X										2
BH13-073118		1116			X									3
BH14-073118		1045			X									4
BH15-073118		0945	1		X									5
BH16-073118		1022			X									6
BH17-073118		0955			X									7
BH18-073118		1025	1		X									8
BH19-073118		1035	1		X									9
														10
Relinquished By: <i>Di Jan</i>	Date: 7/31/18	Time: 1700	Received By: <i>[Signature]</i>	Date: 7/31/18	Time: 1700	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard								
Relinquished By:	Date:	Time:	Received By:	Date:	Time:									

Print, Baseline, Mandated.

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Origins Laboratory, Inc.

Jefe Pellegrini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: Y208002

Client: Tasman

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

Checklist Completed by: JG

Shipped Via: HD

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

Date/time completed: 8/1/2018

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 2.7 °C / / °C / / °C / / °C (Describe)

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<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 8/2/18

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: [none]
Project: KMG - Hank's Pooling Unit 1

BH01 - 073118

7/31/2018 10:56:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-01 (Water)

BTEX by EPA 8260C

Benzene	3.65	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	21.0	1.00	"	"	"	JTD	"	"	
Xylenes, total	36.3	1.00	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	97.6 %	84-121			"	"	"	"
Surrogate: Toluene-d8	98.3 %	85-115			"	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	84-114			"	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH02 - 073118

7/31/2018 10:05:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-02 (Water)

BTEX by EPA 8260C

Benzene	125	10.0	ug/L	10	B8H0202	JTD	08/02/2018	08/02/2018	
Toluene	ND	10.0	"	"	"	JTD	"	"	U
Ethylbenzene	1100	10.0	"	"	"	JTD	"	"	
Xylenes, total	1650	10.0	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	97.3 %	84-121	"	"	"
Surrogate: Toluene-d8	104 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	106 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH03 - 073118

7/31/2018 11:11:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-03 (Water)

BTEX by EPA 8260C

Benzene	15.2	4.00	ug/L	4	B8H0202	JTD	08/02/2018	08/02/2018	
Toluene	ND	4.00	"	"	"	JTD	"	"	U
Ethylbenzene	338	4.00	"	"	"	JTD	"	"	
Xylenes, total	50.6	4.00	"	"	"	JTD	"	"	

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

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH04 - 073118

7/31/2018 11:10:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.6 %	84-121	"	"	"
Surrogate: Toluene-d8	106 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	97.3 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH05 - 073118

7/31/2018 10:37:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.8 %	84-121	"	"	"
Surrogate: Toluene-d8	101 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	94.9 %	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: [none]
Project: KMG - Hank's Pooling Unit 1

BH06 - 073118

7/31/2018 10:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.6 %	84-121	"	"	"
Surrogate: Toluene-d8	97.7 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	99.7 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH07 - 073118

7/31/2018 10:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-07 (Water)

BTEX by EPA 8260C

Benzene	690	4.00	ug/L	4	B8H0202	JTD	08/02/2018	08/02/2018	
Toluene	ND	4.00	"	"	"	JTD	"	"	U
Ethylbenzene	145	4.00	"	"	"	JTD	"	"	
Xylenes, total	197	4.00	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	107 %	84-121	"	"	"
Surrogate: Toluene-d8	104 %	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: [none]
Project: KMG - Hank's Pooling Unit 1

BH08 - 073118

7/31/2018 11:05:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	91.0 %	84-121	"	"	"
Surrogate: Toluene-d8	102 %	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: [none]
Project: KMG - Hank's Pooling Unit 1

BH09 - 073118

7/31/2018 9:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.1 %	84-121	"	"	"
Surrogate: Toluene-d8	98.5 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH10 - 073118

7/31/2018 11:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-10 (Water)

BTEX by EPA 8260C

Benzene	1350	100	ug/L	100	B8H0202	JTD	08/02/2018	08/03/2018
Toluene	80.8	1.00	"	1	"	JTD	"	08/02/2018
Ethylbenzene	214	100	"	100	"	JTD	"	08/03/2018
Xylenes, total	1030	100	"	"	"	JTD	"	"

Surrogate: 1,2-Dichloroethane-d4	104 %	84-121			"	"	"
Surrogate: Toluene-d8	106 %	85-115			"	"	08/02/2018
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: [none]
Project: KMG - Hank's Pooling Unit 1

BH11 - 073118

7/31/2018 10:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-11 (Water)

BTEX by EPA 8260C

Benzene	1650	50.0	ug/L	50	B8H0202	JTD	08/02/2018	08/02/2018	
Toluene	ND	50.0	"	"	"	JTD	"	"	U
Ethylbenzene	1960	50.0	"	"	"	JTD	"	"	
Xylenes, total	11600	50.0	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	98.0 %	84-121			"	"	"	"
Surrogate: Toluene-d8	101 %	85-115			"	"	"	"
Surrogate: 4-Bromofluorobenzene	106 %	84-114			"	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH12 - 073118

7/31/2018 10:55:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-12 (Water)

BTEX by EPA 8260C

Benzene	2.06	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	4.61	1.00	"	"	"	JTD	"	"	
Xylenes, total	27.6	1.00	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	92.1 %	84-121			"	"	"
Surrogate: Toluene-d8	104 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	97.1 %	84-114			"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH13 - 073118

7/31/2018 11:16:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-13 (Water)

BTEX by EPA 8260C

Benzene	2.84	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	97.3 %	84-121			"	"	"
Surrogate: Toluene-d8	102 %	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: [none]
Project: KMG - Hank's Pooling Unit 1

BH14 - 073118

7/31/2018 10:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-14 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.3 %	84-121	"	"	"
Surrogate: Toluene-d8	103 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	95.3 %	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: [none]
Project: KMG - Hank's Pooling Unit 1

BH15 - 073118
7/31/2018 9:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-15 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.2 %	84-121	"	"	"
Surrogate: Toluene-d8	99.1 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH16 - 073118

7/31/2018 10:22:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-16 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.2 %	84-121	"	"	"
Surrogate: Toluene-d8	100 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	97.3 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH17 - 073118
7/31/2018 9:55:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-17 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.3 %	84-121			"	"	"
Surrogate: Toluene-d8	99.9 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	98.1 %	84-114			"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH18 - 073118

7/31/2018 10:25:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-18 (Water)

BTEX by EPA 8260C

Benzene	3.56	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	93.3 %	84-121			"	"	"
Surrogate: Toluene-d8	101 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	98.0 %	84-114			"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH19 - 073118

7/31/2018 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y808002-19 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8H0202	JTD	08/02/2018	08/02/2018	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	92.4 %	84-121	"	"	"
Surrogate: Toluene-d8	99.6 %	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: [none]
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 B8H0202 - EPA 5030B (Water)

Blank (B8H0202-BLK1)

Prepared: 08/02/2018 Analyzed: 08/02/2018

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5	101		84-121			
Surrogate: Toluene-d8	63		"	62.5	101		85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5	96.8		84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - 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 B8H0202 - EPA 5030B (Water)

LCS (B8H0202-BS1)

Prepared: 08/02/2018 Analyzed: 08/02/2018

Benzene	54.8	1.00	ug/L	50.0	110	73.3-129
Toluene	56.4	1.00	"	50.0	113	76.2-123
Ethylbenzene	59.4	1.00	"	50.0	119	73.6-130
m,p-Xylene	115	2.00	"	100	115	76.1-126
o-Xylene	54.4	1.00	"	50.0	109	76.6-124
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5	103	84-121
Surrogate: Toluene-d8	65		"	62.5	104	85-115
Surrogate: 4-Bromofluorobenzene	65		"	62.5	104	84-114

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
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 B8H0202 - EPA 5030B (Water)

Matrix Spike (B8H0202-MS1)		Source: Y808002-01			Prepared: 08/02/2018 Analyzed: 08/02/2018					
Benzene	53.9	1.00	ug/L	50.0	3.65	100	74-130			
Toluene	50.5	1.00	"	50.0	ND	101	73-131			
Ethylbenzene	84.3	1.00	"	50.0	21.0	127	76-132			
m,p-Xylene	148	2.00	"	100	30.4	118	69-139			
o-Xylene	60.3	1.00	"	50.0	5.92	109	74-131			
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5		107	84-121			
Surrogate: Toluene-d8	65		"	62.5		104	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: [none]
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 B8H0202 - EPA 5030B (Water)

Matrix Spike Dup (B8H0202-MSD1)		Source: Y808002-01			Prepared: 08/02/2018 Analyzed: 08/02/2018					
Benzene	53.9	1.00	ug/L	50.0	3.65	100	74-130	0.0371	20	
Toluene	47.1	1.00	"	50.0	ND	94.2	73-131	6.91	20	
Ethylbenzene	82.8	1.00	"	50.0	21.0	124	76-132	1.77	20	
m,p-Xylene	145	2.00	"	100	30.4	115	69-139	2.05	20	
o-Xylene	59.0	1.00	"	50.0	5.92	106	74-131	2.16	20	
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5		104	84-121			
Surrogate: Toluene-d8	62		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

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 31, 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. October 26, 2018. This project is associated with Origins project number Y810415-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

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

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 102618	Y810415-01	Water	October 26, 2018 14:08	10/26/2018 16:45
BH02 - 102618	Y810415-02	Water	October 26, 2018 14:25	10/26/2018 16:45
BH03 - 102618	Y810415-03	Water	October 26, 2018 14:20	10/26/2018 16:45
BH04 - 102618	Y810415-04	Water	October 26, 2018 13:13	10/26/2018 16:45
BH05 - 102618	Y810415-05	Water	October 26, 2018 13:28	10/26/2018 16:45
BH06 - 102618	Y810415-06	Water	October 26, 2018 13:02	10/26/2018 16:45
BH07 - 102618	Y810415-07	Water	October 26, 2018 14:36	10/26/2018 16:45
BH08 - 102618	Y810415-08	Water	October 26, 2018 13:41	10/26/2018 16:45
BH09 - 102618	Y810415-09	Water	October 26, 2018 13:42	10/26/2018 16:45
BH10 - 102618	Y810415-10	Water	October 26, 2018 14:41	10/26/2018 16:45
BH11 - 102618	Y810415-11	Water	October 26, 2018 14:54	10/26/2018 16:45
BH12 - 102618	Y810415-12	Water	October 26, 2018 14:14	10/26/2018 16:45
BH13 - 102618	Y810415-13	Water	October 26, 2018 14:01	10/26/2018 16:45
BH14 - 102618	Y810415-14	Water	October 26, 2018 13:25	10/26/2018 16:45

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 - 102618	Y810415-15	Water	October 26, 2018 12:52	10/26/2018 16:45
BH16 - 102618	Y810415-16	Water	October 26, 2018 13:00	10/26/2018 16:45
BH17 - 102618	Y810415-17	Water	October 26, 2018 12:47	10/26/2018 16:45
BH18 - 102618	Y810415-18	Water	October 26, 2018 13:52	10/26/2018 16:45
BH19 - 102618	Y810415-19	Water	October 26, 2018 13:15	10/26/2018 16:45

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

www.originslaboratory.com

page 1 of 2

7810415

ORIGINS
LABORATORY, INC

Client: ATC / Tasman Project Manager/Send Report To: Bob Cornez
Address: 6899 N Pecos Email Address: BobCornez@tasmangeo.com
Denver CO 80211 Project Name/Number: Hank's Pooling Unit 1/88527175
Telephone Number: 815-979-8348 Samples Collected By: Alison Dahl / Brian Gabel

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative					Matrix			Analysis/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #	Other		
BH01 - 10/26/18	10/26/2018	1408	3	X				X				BTEX	1
BH02 - 10/26/18		1425	1	X									2
BH03 - 10/26/18		1420	1		X								3
BH04 - 10/26/18		1313	1	X									4
BH05 - 10/26/18		1328	1	X									5
BH06 - 10/26/18		1302	1	X									6
BH07 - 10/26/18		1436	1	X									7
BH08 - 10/26/18		1341	1	X									8
BH09 - 10/26/18		1342	1	X									9
BH10 - 10/26/18		1441	1	X									10
Relinquished By: <u>Alison Dahl</u>	Date: <u>10/26/2018</u>	Time: <u>1645</u>	Time: <u>1645</u>	Received By: <u>[Signature]</u>	Date: <u>10/26/18</u>	Time: <u>1645</u>	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard						
Relinquished By:	Date:	Time:	Time:	Received By:	Date:	Time:							

Date Results Needed:

5.0

Comments:

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

www.originslaboratory.com
page 2 of 2

Y10415

ORIGINS
LABORATORY, INC

Client: APC/Tasman Project Manager/Send Report To: Bob Cornez
Address: _____ Email Address: RCornez@tasman-geo.com
Telephone Number: 815-979-8348 Project Name/Number: Hank's Pooling Unit 1/88527175
Samples Collected By: Alison Dahl/Brian Gabriel

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #		
BH11 - 10/26/18	10/26/2018	1454	3	X				X			BTEX	1
BH12 - 10/26/18		1414	1	X								2
BH13 - 10/26/18		1401	1	X								3
BH14 - 10/26/18		1345	1	X								4
BH15 - 10/26/18		1352	1	X								5
BH16 - 10/26/18		1308	1	X								6
BH17 - 10/26/18		1247	1	X								7
BH18 - 10/26/18		1352	1	X								8
BH19 - 10/26/18		1315	1	X								9
												10
Relinquished By: <u>Ute Dole</u>	Date: <u>10/26/2018</u>	Time: <u>1645</u>	Received By: <u>[Signature]</u>	Date: <u>10/26/18</u>	Time: <u>1645</u>	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:	Time:							

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: Y810415

Client: Tasman

Client Project ID: KMG - Hank's Pooling Unit

Checklist Completed by: JG

Shipped Via: HD

Date/time completed: 10/29/2018

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

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

Cooler Number/Temperature: 1 / 5.0 °C 1 / 1 °C 1 / 1 °C 1 / 1 °C

Thermometer ID: T003

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

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

Reviewed by (Project Manager) JG

Date/Time Reviewed 10/29/18

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 - 102618

10/26/2018 2:08:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-01 (Water)

BTEX by EPA 8260C

Benzene	3.30	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	20.0	1.00	"	"	"	KDK	"	"	
Xylenes, total	33.0	1.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	114 %	84-121			"	"	"	"
Surrogate: Toluene-d8	95.9 %	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

BH02 - 102618

10/26/2018 2:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-02 (Water)

BTEX by EPA 8260C

Benzene	68.5	10.0	ug/L	10	B8J2903	KDK	10/29/2018	10/30/2018	
Toluene	ND	10.0	"	"	"	KDK	"	"	U
Ethylbenzene	581	10.0	"	"	"	KDK	"	"	
Xylenes, total	818	10.0	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	119 %	84-121			"	"	"	
Surrogate: Toluene-d8	93.1 %	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

BH03 - 102618

10/26/2018 2:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-03 (Water)

BTEX by EPA 8260C

Benzene	21.4	4.00	ug/L	4	B8J2903	KDK	10/29/2018	10/30/2018	
Toluene	ND	4.00	"	"	"	KDK	"	"	U
Ethylbenzene	122	4.00	"	"	"	KDK	"	"	
Xylenes, total	12.8	4.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	111 %	84-121	"	"	"
Surrogate: Toluene-d8	96.4 %	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

BH04 - 102618

10/26/2018 1:13:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	119 %	84-121			"	"	"
Surrogate: Toluene-d8	95.1 %	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

BH05 - 102618

10/26/2018 1:28:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	122 %	84-121			"	"	"	S-07
Surrogate: Toluene-d8	96.4 %	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

BH06 - 102618

10/26/2018 1:02:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	121 %	84-121	"	"	"
Surrogate: Toluene-d8	96.4 %	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 - 102618

10/26/2018 2:36:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-07 (Water)

BTEX by EPA 8260C

Benzene	256	4.00	ug/L	4	B8J2903	KDK	10/29/2018	10/30/2018	
Toluene	ND	4.00	"	"	"	KDK	"	"	U
Ethylbenzene	30.5	4.00	"	"	"	KDK	"	"	
Xylenes, total	46.5	4.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	121 %	84-121	"	"	"	"	"	"	
Surrogate: Toluene-d8	95.6 %	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

BH08 - 102618

10/26/2018 1:41:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	122 %	84-121			"	"	"	S-07
Surrogate: Toluene-d8	97.2 %	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

BH09 - 102618

10/26/2018 1:42:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	123 %	84-121			"	"	"	S-07
Surrogate: Toluene-d8	95.7 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

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

BH10 - 102618

10/26/2018 2:41:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-10 (Water)

BTEX by EPA 8260C

Benzene	2260	100	ug/L	100	B8J2903	KDK	10/29/2018	10/31/2018
Toluene	17.9	1.00	"	1	"	KDK	"	"
Ethylbenzene	360	100	"	100	"	KDK	"	"
Xylenes, total	1540	100	"	"	"	KDK	"	"

Surrogate: 1,2-Dichloroethane-d4	90.8 %	84-121			"	"	"
Surrogate: Toluene-d8	91.7 %	85-115			"	"	10/30/2018
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

BH11 - 102618

10/26/2018 2:54:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-11 (Water)

BTEX by EPA 8260C

Benzene	1200	50.0	ug/L	50	B8J2903	KDK	10/29/2018	10/30/2018	
Toluene	ND	50.0	"	"	"	KDK	"	"	U
Ethylbenzene	601	50.0	"	"	"	KDK	"	"	
Xylenes, total	4740	50.0	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	120 %	84-121			"	"	"	"
Surrogate: Toluene-d8	92.7 %	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

BH12 - 102618

10/26/2018 2:14:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-12 (Water)

BTEX by EPA 8260C

Benzene	1.99	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	1.22	1.00	"	"	"	KDK	"	"	
Xylenes, total	5.87	1.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	116 %	84-121			"	"	"	
Surrogate: Toluene-d8	95.5 %	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

BH13 - 102618

10/26/2018 2:01:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-13 (Water)

BTEX by EPA 8260C

Benzene	7.91	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	84-121			"	"	"
Surrogate: Toluene-d8	98.2 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	96.1 %	84-114			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

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

BH14 - 102618

10/26/2018 1:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-14 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	110 %	84-121	"	"	"
Surrogate: Toluene-d8	97.8 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	96.5 %	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

BH15 - 102618
10/26/2018 12:52:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-15 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	84-121	"	"	"
Surrogate: Toluene-d8	98.0 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	94.1 %	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 - 102618

10/26/2018 1:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-16 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	84-121	"	"	"
Surrogate: Toluene-d8	98.4 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	95.8 %	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

BH17 - 102618
10/26/2018 12:47:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-17 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	84-121	"	"	"
Surrogate: Toluene-d8	98.7 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	96.1 %	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

BH18 - 102618

10/26/2018 1:52:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-18 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	84-121	"	"	"
Surrogate: Toluene-d8	98.2 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	97.1 %	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 - 102618

10/26/2018 1:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y810415-19 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8J2903	KDK	10/29/2018	10/30/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	84-121	"	"	"
Surrogate: Toluene-d8	99.1 %	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

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 B8J2903 - EPA 5030B (Water)

Blank (B8J2903-BLK1)

Prepared: 10/29/2018 Analyzed: 10/30/2018

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5	108		84-121			
Surrogate: Toluene-d8	62		"	62.5	99.2		85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5	96.4		84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 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 B8J2903 - EPA 5030B (Water)

LCS (B8J2903-BS1)

Prepared: 10/29/2018 Analyzed: 10/30/2018

Benzene	51.6	1.00	ug/L	50.0	103	73.3-129
Toluene	52.8	1.00	"	50.0	106	76.2-123
Ethylbenzene	53.0	1.00	"	50.0	106	73.6-130
m,p-Xylene	110	2.00	"	100	110	76.1-126
o-Xylene	50.1	1.00	"	50.0	100	76.6-124
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5	108	84-121
Surrogate: Toluene-d8	62		"	62.5	99.5	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
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Batch B8J2903 - EPA 5030B (Water)

Matrix Spike (B8J2903-MS1)		Source: Y810415-09			Prepared: 10/29/2018 Analyzed: 10/30/2018					
Benzene	53.5	1.00	ug/L	50.0	ND	107	74-130			
Toluene	54.8	1.00	"	50.0	ND	110	73-131			
Ethylbenzene	54.1	1.00	"	50.0	ND	108	76-132			
m,p-Xylene	112	2.00	"	100	ND	112	69-139			
o-Xylene	51.3	1.00	"	50.0	ND	103	74-131			
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5		106	84-121			
Surrogate: Toluene-d8	61		"	62.5		98.4	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: 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 B8J2903 - EPA 5030B (Water)

Matrix Spike Dup (B8J2903-MSD1)		Source: Y810415-09			Prepared: 10/29/2018 Analyzed: 10/30/2018					
Benzene	57.0	1.00	ug/L	50.0	ND	114	74-130	6.44	20	
Toluene	58.6	1.00	"	50.0	ND	117	73-131	6.59	20	
Ethylbenzene	56.9	1.00	"	50.0	ND	114	76-132	5.02	20	
m,p-Xylene	118	2.00	"	100	ND	118	69-139	5.19	20	
o-Xylene	54.6	1.00	"	50.0	ND	109	74-131	6.19	20	
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5		105	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.4	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.9	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

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.

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.



January 15, 2019

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Hank's Pooling Unit 1

Project Number - [none]

Attached are your analytical results for KMG - Hank's Pooling Unit 1 received by Origins Laboratory, Inc. January 09, 2019. This project is associated with Origins project number Y901112-01.

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: [none]
Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 010919	Y901112-01	Water	January 9, 2019 13:04	01/09/2019 17:00
BH02 - 010919	Y901112-02	Water	January 9, 2019 13:42	01/09/2019 17:00
BH03 - 010919	Y901112-03	Water	January 9, 2019 13:15	01/09/2019 17:00
BH04 - 010919	Y901112-04	Water	January 9, 2019 12:47	01/09/2019 17:00
BH05 - 010919	Y901112-05	Water	January 9, 2019 12:24	01/09/2019 17:00
BH06 - 010919	Y901112-06	Water	January 9, 2019 12:35	01/09/2019 17:00
BH07 - 010919	Y901112-07	Water	January 9, 2019 13:26	01/09/2019 17:00
BH09 - 010919	Y901112-08	Water	January 9, 2019 12:55	01/09/2019 17:00
BH10 - 010919	Y901112-09	Water	January 9, 2019 13:35	01/09/2019 17:00
BH11 - 010919	Y901112-10	Water	January 9, 2019 13:32	01/09/2019 17:00
BH12 - 010919	Y901112-11	Water	January 9, 2019 12:42	01/09/2019 17:00
BH13 - 010919	Y901112-12	Water	January 9, 2019 13:08	01/09/2019 17:00
BH15 - 010919	Y901112-13	Water	January 9, 2019 12:17	01/09/2019 17:00
BH16 - 010919	Y901112-14	Water	January 9, 2019 12:13	01/09/2019 17:00

Origins Laboratory, Inc.



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

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH17 - 010919	Y901112-15	Water	January 9, 2019 12:03	01/09/2019 17:00
BH18 - 010919	Y901112-16	Water	January 9, 2019 12:07	01/09/2019 17:00
BH19 - 010919	Y901112-17	Water	January 9, 2019 12:30	01/09/2019 17:00

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

ORIGINS LABORATORY, INC

www.originslaboratory.com

page 1 of 2

1901112

Client: APC / Tasman
Address: 6899 N Pecos St
Denver CO 80221
Telephone Number: 815-979-8348

Project Manager/Send Report To: Bob Cornez
Email Address: rcornez@tasman-geo.com
Project Name/Number: Hank's Pooling Unit 1 / 88521175
Samples Collected By: Alison Dahl, Brian Gabel

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #		
BH01 - 010919	1/9/2019	1304	3	X	X			X			BTEX	1
BH02 - 010919		1342	1									2
BH03 - 010919		1315	1									3
BH04 - 010919		1247	1									4
BH05 - 010919		1224	1									5
BH06 - 010919		1235	1									6
BH07 - 010919		1326	1									7
BH09 - 010919		1255	1									8
BH10 - 010919		1335	1									9
BH11 - 010919		1332	1									10
Relinquished By: <i>Alison Dahl</i>	Date: 1/9/2019	Time: 1430						Received By: <i>g</i>	Date: 1/9/19	Time: 1100	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard	
Relinquished By:	Date:	Time:						Received By:	Date:	Time:		

Comments:

Date Results Needed: 3.3

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: [none]
Project: KMG - Hank's Pooling Unit 1

ORIGINS
LABORATORY, INC

www.originslaboratory.com

page 2 of 2

Client: APC / Tasman

Address: 6899 N Pecos St
Denver CO 80221


Telephone Number: 815-979-8348

Project Manager/Send Report To: Bob Cornez

Email Address: rcornez@tasman-geo.com

Project Name/Number: Hanks Pooling / 88587175

Samples Collected By: Allison Dahl, Brian Gabel

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative					Matrix			Analysts/Method			Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #	Other				
BH12 - 010919	1/9/2019	1242	3	X				X			X	BTEX		1	Standard <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr
BH13 - 010919		1308												2	
BH15 - 010919		1217												3	
BH16 - 010919		1213												4	
BH17 - 010919		1203												5	
BH18 - 010919		1207												6	
BH19 - 010919		1230												7	
														8	
														9	
														10	
Reinquinshed By: Ali Dahl	Date: 1/9/2019	Time: 1430		Received By: 	Date: 1/9/19	Time: 1700		Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard							

Origins Laboratory, Inc.

Jeff Pellipini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y901112

Client: Tasman

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

Checklist Completed by: JG

Shipped Via: HD

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

Date/time completed: 1 / 10 / 2019

Airbill #: N/A

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

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

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<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) OP

Date/Time Reviewed 1/11/19

Origins Laboratory, Inc.

Jefe Pellegrini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH01 - 010919

1/9/2019 1:04:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-01 (Water)

BTEX by EPA 8260C

Benzene	5.48	1.00	ug/L	1	B9A1006	JTD	01/10/2019	01/10/2019	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	50.5	1.00	"	"	"	JTD	"	"	
Xylenes, total	93.8	1.00	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	110 %	84-121	"	"	"
Surrogate: Toluene-d8	91.5 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH02 - 010919

1/9/2019 1:42:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-02 (Water)

BTEX by EPA 8260C

Benzene	74.9	4.00	ug/L	4	B9A1006	JTD	01/10/2019	01/10/2019	
Toluene	ND	4.00	"	"	"	JTD	"	"	U
Ethylbenzene	627	4.00	"	"	"	JTD	"	"	
Xylenes, total	904	4.00	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	98.3 %	84-121	"	"	"
Surrogate: Toluene-d8	90.0 %	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: [none]
Project: KMG - Hank's Pooling Unit 1

BH03 - 010919

1/9/2019 1:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-03 (Water)

BTEX by EPA 8260C

Benzene	32.7	4.00	ug/L	4	B9A1006	JTD	01/10/2019	01/10/2019	
Toluene	ND	4.00	"	"	"	JTD	"	"	U
Ethylbenzene	246	4.00	"	"	"	JTD	"	"	
Xylenes, total	33.4	4.00	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	104 %	84-121	"	"	"
Surrogate: Toluene-d8	96.5 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH04 - 010919
1/9/2019 12:47:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1006	JTD	01/10/2019	01/10/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121	"	"	"
Surrogate: Toluene-d8	98.8 %	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: [none]
Project: KMG - Hank's Pooling Unit 1

BH05 - 010919
1/9/2019 12:24:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1006	JTD	01/10/2019	01/10/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	112 %	84-121	"	"	"
Surrogate: Toluene-d8	97.0 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	99.6 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH06 - 010919
1/9/2019 12:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1006	JTD	01/10/2019	01/10/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	112 %	84-121	"	"	"
Surrogate: Toluene-d8	96.4 %	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: [none]
Project: KMG - Hank's Pooling Unit 1

BH07 - 010919

1/9/2019 1:26:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-07 (Water)

BTEX by EPA 8260C

Benzene	204	10.0	ug/L	10	B9A1006	JTD	01/10/2019	01/10/2019	
Toluene	ND	10.0	"	"	"	JTD	"	"	U
Ethylbenzene	79.3	10.0	"	"	"	JTD	"	"	
Xylenes, total	280	10.0	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	98.9 %	84-121	"	"	"
Surrogate: Toluene-d8	97.0 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH09 - 010919
1/9/2019 12:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1006	JTD	01/10/2019	01/10/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.7 %	84-121	"	"	"
Surrogate: Toluene-d8	101 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH10 - 010919

1/9/2019 1:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-09 (Water)

BTEX by EPA 8260C

Benzene	2650	50.0	ug/L	50	B9A1006	KDK	01/10/2019	01/11/2019
Toluene	73.7	10.0	"	10	"	JTD	"	01/10/2019
Ethylbenzene	577	10.0	"	"	"	JTD	"	"
Xylenes, total	2390	10.0	"	"	"	JTD	"	"

Surrogate: 1,2-Dichloroethane-d4	99.5 %	84-121	"	"	"
Surrogate: Toluene-d8	95.0 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH11 - 010919

1/9/2019 1:32:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-10 (Water)

BTEX by EPA 8260C

Benzene	1340	10.0	ug/L	10	B9A1006	JTD	01/10/2019	01/10/2019	
Toluene	ND	10.0	"	"	"	JTD	"	"	U
Ethylbenzene	757	10.0	"	"	"	JTD	"	"	
Xylenes, total	6020	100	"	100	"	KDK	"	01/11/2019	

Surrogate: 1,2-Dichloroethane-d4	84.4 %	84-121	"	"	01/10/2019
Surrogate: Toluene-d8	94.8 %	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: [none]
Project: KMG - Hank's Pooling Unit 1

BH12 - 010919
1/9/2019 12:42:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-11 (Water)

BTEX by EPA 8260C

Benzene	2.11	1.00	ug/L	1	B9A1006	KDK	01/10/2019	01/11/2019	
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	1.28	1.00	"	"	"	KDK	"	"	
Xylenes, total	8.92	1.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	112 %	84-121			"	"	01/10/2019
Surrogate: Toluene-d8	97.0 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	84-114			"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH13 - 010919

1/9/2019 1:08:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-12 (Water)

BTEX by EPA 8260C

Benzene	1.68	1.00	ug/L	1	B9A1006	JTD	01/10/2019	01/10/2019	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	84-121			"	"	"
Surrogate: Toluene-d8	97.9 %	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: [none]
Project: KMG - Hank's Pooling Unit 1

BH15 - 010919
1/9/2019 12:17:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-13 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1006	JTD	01/10/2019	01/10/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	113 %	84-121	"	"	"
Surrogate: Toluene-d8	97.1 %	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: [none]
Project: KMG - Hank's Pooling Unit 1

BH16 - 010919
1/9/2019 12:13:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-14 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1006	JTD	01/10/2019	01/10/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	84-121	"	"	"
Surrogate: Toluene-d8	96.6 %	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: [none]
Project: KMG - Hank's Pooling Unit 1

BH17 - 010919
1/9/2019 12:03:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-15 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1006	JTD	01/10/2019	01/10/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	84-121	"	"	"
Surrogate: Toluene-d8	96.0 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH18 - 010919
1/9/2019 12:07:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-16 (Water)

BTEX by EPA 8260C

Benzene	1.82	1.00	ug/L	1	B9A1006	JTD	01/10/2019	01/11/2019	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	110 %	84-121			"	"	"
Surrogate: Toluene-d8	97.1 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	99.8 %	84-114			"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH19 - 010919
1/9/2019 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y901112-17 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B9A1006	JTD	01/10/2019	01/11/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	112 %	84-121	"	"	"
Surrogate: Toluene-d8	96.9 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
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 B9A1006 - EPA 5030B (Water)

Blank (B9A1006-BLK1)

Prepared: 01/10/2019 Analyzed: 01/10/2019

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5	104		84-121			
Surrogate: Toluene-d8	61		"	62.5	98.4		85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5	101		84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - 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 B9A1006 - EPA 5030B (Water)										
LCS (B9A1006-BS1)					Prepared: 01/10/2019 Analyzed: 01/10/2019					
Benzene	44.3	1.00	ug/L				73.3-129			
Toluene	45.4	1.00	"				76.2-123			
Ethylbenzene	45.8	1.00	"				73.6-130			
m,p-Xylene	92.7	2.00	"				76.1-126			
o-Xylene	45.2	1.00	"				76.6-124			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		103	84-121			
Surrogate: Toluene-d8	60		"	62.5		96.6	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.0	84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
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 B9A1006 - EPA 5030B (Water)

Matrix Spike (B9A1006-MS1)		Source: Y901112-01			Prepared: 01/10/2019 Analyzed: 01/10/2019					
Benzene	61.5	1.00	ug/L		5.48		74-130			
Toluene	52.8	1.00	"		0.190		73-131			
Ethylbenzene	107	1.00	"		50.5		76-132			
m,p-Xylene	223	2.00	"		76.6		69-139			
o-Xylene	71.3	1.00	"		17.3		74-131			
Surrogate: 1,2-Dichloroethane-d4	58		"	62.5		92.5	84-121			
Surrogate: Toluene-d8	60		"	62.5		95.4	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - 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 B9A1006 - EPA 5030B (Water)

Matrix Spike Dup (B9A1006-MSD1)		Source: Y901112-01			Prepared: 01/10/2019 Analyzed: 01/10/2019					
Benzene	60.6	1.00	ug/L		5.48		74-130	1.43	20	
Toluene	49.8	1.00	"		0.190		73-131	5.77	20	
Ethylbenzene	95.4	1.00	"		50.5		76-132	11.5	20	
m,p-Xylene	189	2.00	"		76.6		69-139	16.3	20	
o-Xylene	66.8	1.00	"		17.3		74-131	6.55	20	
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	84-121			
Surrogate: Toluene-d8	58		"	62.5		92.6	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

Origins Laboratory, Inc.



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

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - 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



April 11, 2019

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - Hank's Pooling Unit 1

Project Number - [none]

Attached are your analytical results for KMG - Hank's Pooling Unit 1 received by Origins Laboratory, Inc. April 05, 2019. This project is associated with Origins project number Y904148-01.

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: [none]
Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01 - 040519	Y904148-01	Water	April 5, 2019 13:53	04/05/2019 17:02
BH02 - 040519	Y904148-02	Water	April 5, 2019 14:01	04/05/2019 17:02
BH03 - 040519	Y904148-03	Water	April 5, 2019 14:09	04/05/2019 17:02
BH04 - 040519	Y904148-04	Water	April 5, 2019 13:14	04/05/2019 17:02
BH05 - 040519	Y904148-05	Water	April 5, 2019 13:25	04/05/2019 17:02
BH06 - 040519	Y904148-06	Water	April 5, 2019 13:32	04/05/2019 17:02
BH07 - 040519	Y904148-07	Water	April 5, 2019 13:29	04/05/2019 17:02
BH08 - 040519	Y904148-08	Water	April 5, 2019 13:37	04/05/2019 17:02
BH09 - 040519	Y904148-09	Water	April 5, 2019 13:43	04/05/2019 17:02
BH10 - 040519	Y904148-10	Water	April 5, 2019 14:25	04/05/2019 17:02
BH11 - 040519	Y904148-11	Water	April 5, 2019 14:14	04/05/2019 17:02
BH12 - 040519	Y904148-12	Water	April 5, 2019 13:52	04/05/2019 17:02
BH13 - 040519	Y904148-13	Water	April 5, 2019 14:18	04/05/2019 17:02
BH14 - 040519	Y904148-14	Water	April 5, 2019 12:58	04/05/2019 17:02

Origins Laboratory, Inc.



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

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - Hank's Pooling Unit 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH15 - 040519	Y904148-15	Water	April 5, 2019 13:19	04/05/2019 17:02
BH16 - 040519	Y904148-16	Water	April 5, 2019 12:56	04/05/2019 17:02
BH17 - 040519	Y904148-17	Water	April 5, 2019 13:03	04/05/2019 17:02
BH18 - 040519	Y904148-18	Water	April 5, 2019 13:09	04/05/2019 17:02
BH19 - 040519	Y904148-19	Water	April 5, 2019 12:50	04/05/2019 17:02

Origins Laboratory, Inc.



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

Jen Pellegrini For Noelle Doyle Mathis, President

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

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page 1 of 2

1904148

ORIGINS LABORATORY, INC

Client: APC / Tasman Project Manager/Send Report To: Bob Cornez

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

Denver CO 80221 Project Name/Number: Hank's Pooling Unit 1/8858717S

Telephone Number: 303-487-1228 Samples Collected By: Alison Dahl, Brian Gabel

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #		
BH01-040519	4/5/2019	1353	3	X				X			BTEX	1
BH02-040519		1401	1									2
BH03-040519		1409	1									3
BH04-040519		1314	1									4
BH05-040519		1325	1									5
BH06-040519		1332	1									6
BH07-040519		1329	1									7
BH08-040519		1337	1									8
BH09-040519		1343	1									9
BH10-040519	4/5/2019	1425	1									10
Relinquished By: <u>Wing</u>	Date: 4/5/2019	Time: 1545		Received By: <u>Bob</u>	Date: 04/05/19	Time: 1702		Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard				
Relinquished By:	Date:	Time:		Received By:	Date:	Time:						

Date Results Needed: 2.5

Comments:

Origins Laboratory, Inc.

Jefe Pellegrini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

www.originslaboratory.com
page 2 of 2

1904148

ORIGINS
LABORATORY, INC

Client: APC / Tasman
Address: 6899 N Pecos St
Denver CO 80221
Telephone Number: 303-487-1228

Project Manager/Send Report To: Bob Cornez
Email Address: rcornez@tasman-geo.com
Project Name/Number: Hank's Pooling / 88521175
Samples Collected By: Alison Dahl, Brian Gabel

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysts/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Sampling Canister #		
BH11-040519	4/5/2019	1414	3	X				X			BTEX	1
BH12-040519		1352										2
BH13-040519		1418										3
BH14-040519		1258										4
BH15-040519		1319										5
BH16-040519		1256										6
BH17-040519		1303										7
BH18-040519		1309										8
BH19-040519		1250										9
												10

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
Alison Dahl	4/5/2019	1545	Bob Cornez	4/15/19	1703	Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard

Date Results Needed:

2.5

Comments:

Origins Laboratory, Inc.

Jefe Pellegrini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y904145

Client: Tasman

Client Project ID: Hanks Pooling #1

Checklist Completed by: JG

Shipped Via: HD

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

Date/time completed: 4/8/2019

Airbill #: N/A

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

Cooler Number/Temperature: 1 2.5 °C / °C / °C (Describe) °C

Thermometer ID: T003

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

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

Reviewed by (Project Manager) JG

Date/Time Reviewed 4/8/19

Origins Laboratory, Inc.

Jefe Pellegrini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH01 - 040519

4/5/2019 1:53:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-01 (Water)

BTEX by EPA 8260D

Benzene	5.62	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	7.93	1.00	"	"	"	JTD	"	"	
Xylenes, total	45.3	1.00	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130			"	"	"	"
Surrogate: Toluene-d8	100 %	70-130			"	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH02 - 040519

4/5/2019 2:01:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-02 (Water)

BTEX by EPA 8260D

Benzene	13.8	4.00	ug/L	4	B9D1007	JTD	04/10/2019	04/11/2019	
Toluene	ND	4.00	"	"	"	JTD	"	"	U
Ethylbenzene	420	4.00	"	"	"	JTD	"	"	
Xylenes, total	332	4.00	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	102 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130	"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH03 - 040519

4/5/2019 2:09:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-03 (Water)

BTEX by EPA 8260D

Benzene	30.7	4.00	ug/L	4	B9D1007	JTD	04/10/2019	04/11/2019	
Toluene	ND	4.00	"	"	"	JTD	"	"	U
Ethylbenzene	162	4.00	"	"	"	JTD	"	"	
Xylenes, total	27.8	4.00	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH04 - 040519

4/5/2019 1:14:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-04 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	98.5 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH05 - 040519

4/5/2019 1:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-05 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	98.8 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	104 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH06 - 040519

4/5/2019 1:32:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-06 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	110 %	70-130			"	"	"
Surrogate: Toluene-d8	98.2 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH07 - 040519

4/5/2019 1:29:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-07 (Water)

BTEX by EPA 8260D

Benzene	70.3	10.0	ug/L	10	B9D1007	JTD	04/10/2019	04/11/2019	
Toluene	ND	10.0	"	"	"	JTD	"	"	U
Ethylbenzene	22.3	10.0	"	"	"	JTD	"	"	
Xylenes, total	162	10.0	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130			"	"	"	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH08 - 040519

4/5/2019 1:37:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-08 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	98.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH09 - 040519

4/5/2019 1:43:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-09 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130			"	"	"
Surrogate: Toluene-d8	97.5 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH10 - 040519

4/5/2019 2:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-10 (Water)

BTEX by EPA 8260D

Benzene	1270	10.0	ug/L	10	B9D1007	JTD	04/10/2019	04/11/2019
Toluene	20.9	10.0	"	"	"	JTD	"	"
Ethylbenzene	268	10.0	"	"	"	JTD	"	"
Xylenes, total	1020	10.0	"	"	"	JTD	"	"

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130			"	"	"
Surrogate: Toluene-d8	100 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH11 - 040519

4/5/2019 2:14:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-11 (Water)

BTEX by EPA 8260D

Benzene	663	10.0	ug/L	10	B9D1007	JTD	04/10/2019	04/11/2019	
Toluene	ND	10.0	"	"	"	JTD	"	"	U
Ethylbenzene	112	10.0	"	"	"	JTD	"	"	
Xylenes, total	2870	10.0	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130			"	"	"	"
Surrogate: Toluene-d8	99.8 %	70-130			"	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH12 - 040519

4/5/2019 1:52:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-12 (Water)

BTEX by EPA 8260D

Benzene	1.86	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	2.12	1.00	"	"	"	JTD	"	"	
Xylenes, total	13.7	1.00	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130			"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"	

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH13 - 040519

4/5/2019 2:18:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-13 (Water)

BTEX by EPA 8260D

Benzene	56.6	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	
Toluene	2.24	1.00	"	"	"	JTD	"	"	
Ethylbenzene	2.08	1.00	"	"	"	JTD	"	"	
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130	"	"	"	"	"	"	
Surrogate: Toluene-d8	99.2 %	70-130	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"	"	"	"	

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH14 - 040519
4/5/2019 12:58:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-14 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	70-130			"	"	"
Surrogate: Toluene-d8	99.1 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH15 - 040519

4/5/2019 1:19:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-15 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	70-130	"	"	"
Surrogate: Toluene-d8	99.1 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH16 - 040519
4/5/2019 12:56:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-16 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	110 %	70-130			"	"	"
Surrogate: Toluene-d8	98.8 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH17 - 040519

4/5/2019 1:03:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-17 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130			"	"	"
Surrogate: Toluene-d8	98.4 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH18 - 040519

4/5/2019 1:09:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-18 (Water)

BTEX by EPA 8260D

Benzene	51.5	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	8.31	1.00	"	"	"	JTD	"	"	
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130			"	"	"	
Surrogate: Toluene-d8	97.1 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"	

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

BH19 - 040519
4/5/2019 12:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904148-19 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B9D1007	JTD	04/10/2019	04/11/2019	U
Toluene	ND	1.00	"	"	"	JTD	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JTD	"	"	U
Xylenes, total	ND	1.00	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130			"	"	"
Surrogate: Toluene-d8	98.0 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B9D1007 - EPA 5030B (Water)

Blank (B9D1007-BLK1)

Prepared: 04/10/2019 Analyzed: 04/10/2019

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	105		70-130			
Surrogate: Toluene-d8	62		"	62.5	98.8		70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5	102		70-130			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - Hank's Pooling Unit 1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B9D1007 - EPA 5030B (Water)

Blank (B9D1007-BLK2)

Prepared: 04/10/2019 Analyzed: 04/10/2019

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		70-130			
Surrogate: Toluene-d8	62		"	62.5	99.3		70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5	102		70-130			

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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: [none]
Project: KMG - Hank's Pooling Unit 1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B9D1007 - EPA 5030B (Water)

LCS (B9D1007-BS1)

Prepared: 04/10/2019 Analyzed: 04/10/2019

Benzene	50.4	1.00	ug/L	50.0		101	70-130			
Toluene	50.9	1.00	"	50.0		102	70-130			
Ethylbenzene	51.3	1.00	"	50.0		103	70-130			
m,p-Xylene	103	2.00	"	100		103	70-130			
o-Xylene	51.5	1.00	"	50.0		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		100	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.8	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9D1007 - EPA 5030B (Water)										
LCS (B9D1007-BS2)					Prepared: 04/10/2019 Analyzed: 04/10/2019					
Benzene	46.5	1.00	ug/L	50.0		93.0	70-130			
Toluene	45.6	1.00	"	50.0		91.2	70-130			
Ethylbenzene	45.2	1.00	"	50.0		90.3	70-130			
m,p-Xylene	91.3	2.00	"	100		91.3	70-130			
o-Xylene	47.3	1.00	"	50.0		94.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.8	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B9D1007 - EPA 5030B (Water)

Matrix Spike (B9D1007-MS1)		Source: Y904150-01			Prepared: 04/10/2019 Analyzed: 04/10/2019					
Benzene	64.7	1.00	ug/L	50.0	22.4	84.5	70-130			
Toluene	48.5	1.00	"	50.0	ND	97.0	70-130			
Ethylbenzene	49.4	1.00	"	50.0	ND	98.8	70-130			
m,p-Xylene	99.1	2.00	"	100	ND	99.1	70-130			
o-Xylene	49.8	1.00	"	50.0	ND	99.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		103	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.9	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B9D1007 - EPA 5030B (Water)

Matrix Spike (B9D1007-MS2)		Source: Y904150-02			Prepared: 04/10/2019 Analyzed: 04/11/2019					
Benzene	101	1.00	ug/L	50.0	65.2	71.6	70-130			
Toluene	40.9	1.00	"	50.0	0.490	80.8	70-130			
Ethylbenzene	41.2	1.00	"	50.0	0.090	82.1	70-130			
m,p-Xylene	82.6	2.00	"	100	ND	82.6	70-130			
o-Xylene	41.7	1.00	"	50.0	ND	83.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5		104	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.2	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B9D1007 - EPA 5030B (Water)

Matrix Spike Dup (B9D1007-MSD1)		Source: Y904150-01			Prepared: 04/10/2019 Analyzed: 04/10/2019					
Benzene	64.1	1.00	ug/L	50.0	22.4	83.3	70-130	0.978	20	
Toluene	48.5	1.00	"	50.0	ND	97.0	70-130	0.0619	20	
Ethylbenzene	48.8	1.00	"	50.0	ND	97.6	70-130	1.20	20	
m,p-Xylene	97.7	2.00	"	100	ND	97.7	70-130	1.45	20	
o-Xylene	48.6	1.00	"	50.0	ND	97.3	70-130	2.36	20	
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		103	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	70-130			

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

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B9D1007 - EPA 5030B (Water)

Matrix Spike Dup (B9D1007-MSD2)		Source: Y904150-02			Prepared: 04/10/2019 Analyzed: 04/11/2019					
Benzene	103	1.00	ug/L	50.0	65.2	75.5	70-130	1.91	20	
Toluene	43.5	1.00	"	50.0	0.490	85.9	70-130	6.14	20	
Ethylbenzene	44.0	1.00	"	50.0	0.090	87.8	70-130	6.67	20	
m,p-Xylene	87.8	2.00	"	100	ND	87.8	70-130	6.04	20	
o-Xylene	44.0	1.00	"	50.0	ND	87.9	70-130	5.35	20	
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5		105	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	70-130			

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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

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.

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