

# Test Report

## eANALYTICS LABORATORY

April 10, 2014

Client: Tasman Geosciences / Anadarko  
Project: Hanks Pooling Unit 1  
Lab ID: 1125  
Date Samples Received: 4/10/2014  
Number of Samples: 8  
Sample Condition: Samples arrived intact and in appropriate sample containers  
Sample Temperature: Within acceptable range of 2-6° C, or as specified in EPA Method

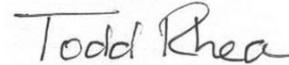
The quality control procedures associated with the requested analyses were satisfactorily passed before the samples were run.

Thank you for allowing eAnalytics Laboratory to provide laboratory services for you.

Sincerely,



Christopher Dieken  
Quality Assurance Manager



Todd Rhea  
Laboratory Manager

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538

Chain of Custody

# eANALYTICS

## LABORATORY

Chain of Custody Form

eANALYTICS LABORATORY			eANALYTICS LABORATORY																			
1767 Rocky Mountain Avenue Loveland CO 80538			Phone: (970) 667-6975			Fax: (970) 669-0941			www.eAnalyticsLab.com													
CLIENT INFORMATION <small>(*New Clients please fill out completely)</small>				ANALYSIS INFORMATION <small>(Select analysis by checking box on corresponding sample line)</small>																		
Company: Tasman Geosciences / Anadarko				Number of Containers Matrix: (S) Soil (W) Water (V) Vapor (O) Other	BTEX (EPA 8260)	BTEX/GRO (EPA 8260)	DRO/ORO (EPA 8015)	TPH-GRO/DRO/ORO (EPA 8260/8015)	SAR (US Dept of Ag Method 20B)	EC (US Dept of Ag Method 3)	pH (EPA 9045D)	Other Analysis										
Project: Hanks Pooling Unit 1																						
Project Manager: Paul Schneider																						
Sampler: Jenna Barker																						
Phone/Email: 720-987-9717 / JBarker@Tasman-Geo.com																						
Address: 6899 Pecos Street, Unit C Denver, CO 80221																						
Lab ID	Sample Name	Sampling Date/Time																				
1	N010@3	4/10/14 AM/PM	1 S		X	X																
2	S010@3		1 S		X	X																
3	E010@3		1 S		X	X																
4	W010@3		1 S		X	X																
5	PLO10@3		1 S		X	X																
6	DLO20@3		1 S		X	X																
7	DLO30@3		1 S		X	X																
8	GW01		3 W	X																		

Comments: By Tam 4/11/14 Please

<b>Turnaround Time (Business Days)</b> <small>TAT begins when sample is received by eANALYTICS</small> <input type="radio"/> Normal (5-10 Days) <input type="radio"/> 3 Day (1.25x) <input type="radio"/> 1 Day (2x) <input checked="" type="radio"/> Same Day (3x) <input type="radio"/> Next Bus. Morning (APC Pricing)		<b>Record of Custody</b> Relinquished by: <i>[Signature]</i> Date: 4/10/14 Company: Tasman Time: AM/PM Received by: _____ Date: _____ Company: _____ Time: _____ Relinquished by: _____ Date: _____ Company: _____ Time: _____ Received by: <i>[Signature]</i> Date: 4/10/14 Company: eANALYTICS Time: 2:00 PM	
<b>For eANALYTICS Use</b> Samples Received Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No eived Within Temperature Range (2-6°C): <input checked="" type="radio"/> Yes <input type="radio"/> No Sample Preservative: <input checked="" type="radio"/> Ice <input type="radio"/> None <input type="radio"/> Acid <input type="radio"/> Other			

WO# 8852175  
1125

eANALYTICS: Environmental testing made Easy

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eAnalytics Laboratory

1767 Rocky Mountain Avenue Loveland CO 80538

The results contained within this report relate only to the items analyzed



Client: Tasman Geosciences / Anadarko Lab ID: 1125  
 Project: Hanks Pooling Unit 1  
 Analysis: Volatile Organics Method: EPA8260  
 TPH EPA8260/8015

Sample Name	Benzene mg/kg	Toluene mg/kg	Ethyl- benzene mg/kg	Total Xylenes mg/kg	TPH	TPH	TPH	Date Sampled	Date Analyzed	Lab ID
					GRO C6-C10 mg/kg	DRO C10-C28 mg/kg	ORO C28-C36 mg/kg			
N01 @ 3	< 0.01	< 0.01	<b>0.295</b>	<b>2.15</b>	<b>217</b>	<b>55.1</b>	< 50	04/10/14	04/10/14	1125 1
S01 @ 3	<b>0.482</b>	< 0.01	<b>1.86</b>	<b>16.1</b>	<b>479</b>	<b>122</b>	< 50	04/10/14	04/10/14	1125 2
E01 @ 3	<b>0.397</b>	< 0.01	<b>1.63</b>	<b>0.535</b>	<b>248</b>	<b>128</b>	< 50	04/10/14	04/10/14	1125 3
W01 @ 3	< 0.01	< 0.01	< 0.01	<b>0.145</b>	<b>97.7</b>	< 50	< 50	04/10/14	04/10/14	1125 4
DL01 @ 3	<b>0.072</b>	< 0.01	<b>0.022</b>	<b>0.386</b>	< 50	< 50	< 50	04/10/14	04/10/14	1125 5
DL02 @ 3	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	< 50	04/10/14	04/10/14	1125 6
DL03 @ 3	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	< 50	04/10/14	04/10/14	1125 7





Client: Tasman Geosciences / Anadarko

Lab ID: 1125

Project: Hanks Pooling Unit 1

Method: EPA8260

Sample Name	Dibromo-fluoromethane % Recovery	1,2 Dichloro-ethane-D4 % Recovery	Toluene-D8 % Recovery	Bromo-fluorobenzene % Recovery	Date Sampled	Date Analyzed	Lab ID
N01 @ 3	87	93	107	108	04/10/14	04/10/14	1125 1
S01 @ 3	110	92	96	97	04/10/14	04/10/14	1125 2
E01 @ 3	102	109	108	104	04/10/14	04/10/14	1125 3
W01 @ 3	88	90	89	107	04/10/14	04/10/14	1125 4
DL01 @ 3	94	89	88	102	04/10/14	04/10/14	1125 5
DL02 @ 3	94	100	111	97	04/10/14	04/10/14	1125 6
DL03 @ 3	102	102	101	106	04/10/14	04/10/14	1125 7





Client: Tasman Geosciences / Anadarko Lab ID: 1125  
 Project: Hanks Pooling Unit 1  
 Analysis: Volatile Organics Method: EPA8260  
 TPH EPA8260/8015

Sample Name	Benzene % Rec	Toluene % Rec	Ethyl- benzene % Rec	Total Xylenes % Rec	TPH GRO C6-C10 % Rec	TPH DRO C10-C28 % Rec	TPH ORO C28-C36 % Rec	Date Analyzed	Lab ID
Laboratory Control Sample (70-130%)	96	103	91	92	91	95	104	04/10/14	LCS 1125 1
Method Blank	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 50 mg/kg	< 50 mg/kg	< 50 mg/kg	04/10/14	MB 1125 1

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1767 Rocky Mountain Avenue Loveland CO 80538



# Test Report

## eANALYTICS LABORATORY

April 20, 2014

Client: Tasman Geosciences / Anadarko  
Project: Hanks Pooling U1  
Lab ID: 1203  
Date Samples Received: 4/18/2014  
Number of Samples: 8  
Sample Condition: Samples arrived intact and in appropriate sample containers  
Sample Temperature: Within acceptable range of 2-6° C, or as specified in EPA Method

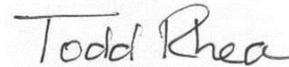
The quality control procedures associated with the requested analyses were satisfactorily passed before the samples were run.

Thank you for allowing eAnalytics Laboratory to provide laboratory services for you.

Sincerely,



Christopher Dieken  
Quality Assurance Manager



Todd Rhea  
Laboratory Manager

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538

Chain of Custody

# eANALYTICS

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eANALYTICS LABORATORY			1767 Rocky Mountain Avenue Loveland CO 80538   Phone: (970) 667-6975   Fax: (970) 669-0941   www.eAnalyticsLab.com																			
CLIENT INFORMATION <small>(*New Clients please fill out completely)</small>				ANALYSIS INFORMATION <small>(Select analysis by checking box on corresponding sample line)</small>																		
Company: Tasman Geosciences / Anadarko				Number of Containers	Matrix: (S) Soil (W) Water (V) Vapor (O) Other	BTEX (EPA 8260)	BTEX/GRO (EPA 8260)	DRO/ORO (EPA 8015)	TPH-GRO/DRO/ORO (EPA 8260/8015)	SAR (US Dept of Ag Method 20B)	EC (US Dept of Ag Method 3)	pH (EPA 9045D)	Other Analysis									
Project: Hanks Pooling u 1																						
Project Manager: Paul Schneider																						
Sampler: Jenna Barker																						
Phone/Email: 720-987-9717 / JBarker@Tasman-Geo.com																						
Address: 6899 Pecos Street, Unit C Denver, CO 80221																						
Lab ID	Sample Name	Sampling Date/Time																				
1	S02 @ 3	4/18/14 AM/PM	1	S		X	X															
2	S03 @ 3	4/18/14 AM/PM	1	S		X	X															
3	N02 @ 3	4/18/14 AM/PM	1	S		X	X															
4	N03 @ 3	4/18/14 AM/PM	1	S		X	X															
5	E02 @ 3	4/18/14 AM/PM	1	S		X	X															
6	SW01	4/18/14 AM/PM	3	W	X																	
7	SW02	4/18/14 AM/PM	3	W	X																	
8	SW03	4/18/14 AM/PM	3	W	X																	

Comments: By Tam ~~8/21/14~~ 8/21/14 Please

<b>Turnaround Time (Business Days)</b> TAT begins when sample is received by eANALYTICS <input type="radio"/> Normal (5-10 Days) <input type="radio"/> 3 Day (1.25x) <input type="radio"/> 1 Day (2x) <input type="radio"/> Same Day (3x) <input checked="" type="radio"/> Next Bus. Morning (APC Pricing)		<b>Record of Custody</b> Relinquished by: <i>[Signature]</i> Date: _____ Company: _____ Time: _____ AM/PM Received by: _____ Date: _____ Company: _____ Time: _____ AM/PM Relinquished by: _____ Date: _____ Company: _____ Time: _____ AM/PM Received by: <i>[Signature]</i> Date: 4-18-14 Company: eANALYTICS Time: 5:05 AM/PM	
<b>For eANALYTICS Use</b> Samples Received Intact: <input checked="" type="radio"/> Yes / <input type="radio"/> No eived Within Temperature Range (2-6°C): <input checked="" type="radio"/> Yes / <input type="radio"/> No Sample Preservative: <input checked="" type="radio"/> Ice / <input type="radio"/> None / <input type="radio"/> Acid / <input type="radio"/> Other			

WO # 8827175

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### eAnalytics Laboratory

1767 Rocky Mountain Avenue Loveland CO 80538

The results contained within this report relate only to the items analyzed



Client: Tasman Geosciences / Anadarko Lab ID: 1203  
 Project: Hanks Pooling U1  
 Analysis: Volatile Organics Method: EPA8260  
 TPH EPA8260/8015

Sample Name	Benzene mg/kg	Toluene mg/kg	Ethyl- benzene mg/kg	Total Xylenes mg/kg	TPH	TPH	TPH	Date Sampled	Date Analyzed	Lab ID
					GRO C6-C10 mg/kg	DRO C10-C28 mg/kg	ORO C28-C36 mg/kg			
S02 @ 3	0.879	< 0.01	4.44	34.9	579	58.8	< 50	04/18/14	04/18/14	1203 1
S03 @ 3	0.208	< 0.01	2.49	25.5	627	142	< 50	04/18/14	04/18/14	1203 2
N02 @ 3	6.64	< 0.01	20.0	206	3583	240	< 50	04/18/14	04/18/14	1203 3
N03 @ 3	0.250	< 0.01	4.51	63.2	955	234	< 50	04/18/14	04/18/14	1203 4
E02 @ 3	0.109	< 0.01	2.88	44.9	468	278	< 50	04/18/14	04/18/14	1203 5





**eANALYTICS**  
LABORATORY

Client: Tasman Geosciences / Anadarko

Lab ID: 1203

Project: Hanks Pooling U1

Method: EPA8260

Sample Name	Dibromo- fluoromethane % Recovery	1,2 Dichloro- ethane-D4 % Recovery	Toluene-D8 % Recovery	Bromo- fluorobenzene % Recovery	Date Sampled	Date Analyzed	Lab ID
S02 @ 3	108	89	105	103	04/18/14	04/18/14	1203 1
S03 @ 3	99	103	104	97	04/18/14	04/18/14	1203 2
N02 @ 3	107	110	98	95	04/18/14	04/18/14	1203 3
N03 @ 3	106	91	105	99	04/18/14	04/18/14	1203 4
E02 @ 3	88	91	106	104	04/18/14	04/18/14	1203 5

**eAnalytics Laboratory**

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**eANALYTICS**  
LABORATORY

Client: Tasman Geosciences / Anadarko Lab ID: 1203

Project: Hanks Pooling U1

Analysis: Volatile Organics Method: EPA8260  
TPH EPA8260/8015

Sample Name	Benzene % Rec	Toluene % Rec	Ethyl- benzene % Rec	Total Xylenes % Rec	TPH GRO C6-C10 % Rec	TPH DRO C10-C28 % Rec	TPH ORO C28-C36 % Rec	Date Analyzed	Lab ID	
Laboratory Control Sample (70-130%)	96	97	104	101	101	102	93	04/18/14	LCS	1203 1
Method Blank	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 50 mg/kg	< 50 mg/kg	< 50 mg/kg	04/18/14	MB	1203 1

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538



# Test Report

## eANALYTICS LABORATORY

April 30, 2014

Client: Tasman Geosciences / Anadarko  
Project: Hanks Pooling U#1  
Lab ID: 1223  
Date Samples Received: 4/22/2014  
Number of Samples: 7  
Sample Condition: Samples arrived intact and in appropriate sample containers  
Sample Temperature: Within acceptable range of 2-6° C, or as specified in EPA Method

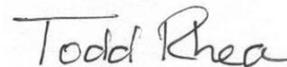
The quality control procedures associated with the requested analyses were satisfactorily passed before the samples were run.

Thank you for allowing eAnalytics Laboratory to provide laboratory services for you.

Sincerely,



Christopher Dieken  
Quality Assurance Manager



Todd Rhea  
Laboratory Manager

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538

Chain of Custody

# eANALYTICS

## LABORATORY

Chain of Custody Form

CLIENT INFORMATION			ANALYSIS INFORMATION						
Company: Tasman Geosciences / Anadarko			Number of Containers						
Project: Hanks Pooling U #1			Matrix: (S) Soil (W) Water (V) Vapor (O) Other						
Project Manager: Paul Schneider			BTEX (EPA 8260)						
Sampler: Jenna Barker			BTEX/GRO (EPA 8260)						
Phone/Email: 720-987-9717 / JBarker@Tasman-Geo.com			DROGRO (EPA 8015)						
Address: 6899 Pecos Street, Unit C Denver, CO 80221			TPH-GRO/DROGRO (EPA 8260/8015)						
			SAR (US Dept of Ag Method 208)						
			EC (US Dept of Ag Method 3)						
			PH (EPA 9045D)						
			Other Analysis						
Lab ID	Sample Name	Sampling Date/Time							
1	NETO1@3 - Hold	4/22/14	1	S		X	X		
2	NETO2@3 - Hold	4/22/14	1	S		X	X		
3	STD1@3 - Hold	4/22/14	1	S		X	X		
4	STD2@3 - Hold	4/22/14	1	S		X	X		
5	NWTO1@3 - Hold	4/22/14	1	S		X	X		
6	NWTO2@3 - Hold	4/22/14	1	S		X	X		
7	ETOL@3 - Hold	4/22/14	1	S		X	X		

Run PER JENNA B 4-28-14 (CD)

Comments: By 7am 4/23/14 Please

Turnaround Time (Business Days)  
 Normal (5-10 Days)  
 3 Day (1.25x)  
 1 Day (2x)  
 Same Day (3x)  
 Next Bus. Morning (APC Pricing)

Rush analysis requires an extra charge. If possible please inform eANALYTICS in advance for rush analysis.

For eANALYTICS Use  
 Samples Received Intact:  Yes /  No  
 Received Within Temperature Range (2-6°C):  Yes /  No  
 Sample Preservative:  Ice /  None /  Acid /  Other

Record of Custody  
 Relinquished by: [Signature] Date: 4/22/14  
 Company: Tasman  
 Received by: [Signature] Date: 4/22/14  
 Company: eANALYTICS

wo# 1223

eANALYTICS: Environmental testing made Easy

Page of

**e**ANALYTICS  
LABORATORY

Client: Tasman Geosciences / Anadarko Lab ID: 1223  
 Project: Hanks Pooling U#1  
 Analysis: Volatile Organics Method: EPA8260  
 TPH EPA8260/8015

Sample Name	Benzene mg/kg	Toluene mg/kg	Ethyl- benzene mg/kg	Total Xylenes mg/kg	TPH	TPH	TPH	Date Sampled	Date Analyzed	Lab ID
					GRO C6-C10 mg/kg	DRO C10-C28 mg/kg	ORO C28-C36 mg/kg			
NET01 @ 3	< 0.01	< 0.01	<b>5.80</b>	<b>51.2</b>	<b>1553</b>	<b>252</b>	< 50	04/22/14	04/29/14	1223 1
NET02 @ 3	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	< 50	04/22/14	04/29/14	1223 2
ST01 @ 3	< 0.01	< 0.01	<b>0.441</b>	<b>1.05</b>	<b>514</b>	<b>60.1</b>	< 50	04/22/14	04/29/14	1223 3
ST02 @ 3	<b>0.215</b>	< 0.01	<b>3.76</b>	<b>16.3</b>	<b>5083</b>	<b>63.6</b>	< 50	04/22/14	04/29/14	1223 4
NWT01 @ 3	<b>0.840</b>	< 0.01	<b>1.09</b>	<b>27.3</b>	<b>1078</b>	<b>415</b>	< 50	04/22/14	04/29/14	1223 5

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**eANALYTICS**  
LABORATORY

Client: Tasman Geosciences / Anadarko

Lab ID: 1223

Project: Hanks Pooling U#1

Method: EPA8260

Sample Name	Dibromo- fluoromethane % Recovery	1,2 Dichloro- ethane-D4 % Recovery	Toluene-D8 % Recovery	Bromo- fluorobenzene % Recovery	Date Sampled	Date Analyzed	Lab ID
NET01 @ 3	105	99	86	109	04/22/14	04/29/14	1223 1
NET02 @ 3	98	105	93	90	04/22/14	04/29/14	1223 2
ST01 @ 3	89	101	110	97	04/22/14	04/29/14	1223 3
ST02 @ 3	101	96	108	89	04/22/14	04/29/14	1223 4
NWT01 @ 3	86	106	93	92	04/22/14	04/29/14	1223 5

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**eANALYTICS**  
LABORATORY

Client: Tasman Geosciences / Anadarko Lab ID: 1223

Project: Hanks Pooling U#1

Analysis: Volatile Organics Method: EPA8260  
TPH EPA8260/8015

Sample Name	Benzene % Rec	Toluene % Rec	Ethyl- benzene % Rec	Total Xylenes % Rec	TPH GRO C6-C10 % Rec	TPH DRO C10-C28 % Rec	TPH ORO C28-C36 % Rec	Date Analyzed	Lab ID
Laboratory Control Sample (70-130%)	99	102	100	98	93	104	94	04/29/14	LCS 1223 1
Method Blank	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 50 mg/kg	< 50 mg/kg	< 50 mg/kg	04/29/14	MB 1223 1

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538

# Test Report

## eANALYTICS LABORATORY

April 23, 2014

Client: Tasman Geosciences / Anadarko

Project: Hanks Pooling U#1

Lab ID: 1223

Date Samples Received: 4/22/2014

Number of Samples: 7

Sample Condition: Samples arrived intact and in appropriate sample containers

Sample Temperature: Within acceptable range of 2-6° C, or as specified in EPA Method

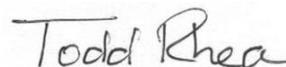
The quality control procedures associated with the requested analyses were satisfactorily passed before the samples were run.

Thank you for allowing eAnalytics Laboratory to provide laboratory services for you.

Sincerely,



Christopher Dieken  
Quality Assurance Manager



Todd Rhea  
Laboratory Manager

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538

Chain of Custody

# eANALYTICS

## LABORATORY

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eANALYTICS LABORATORY			ANALYSIS INFORMATION																		
1767 Rocky Mountain Avenue Loveland CO 80538			Phone: (970) 667-6975			Fax: (970) 669-0941			www.eAnalyticsLab.com												
CLIENT INFORMATION			ANALYSIS INFORMATION																		
(*New Clients please fill out completely)			(Select analysis by checking box on corresponding sample line)																		
Company: Tasman Geosciences / Anadarko			Number of Containers	Matrix: (S) Soil (W) Water (V) Vapor (O) Other	BTEX (EPA 8260)	BTEX/GRO (EPA 8260)	DRO/ORO (EPA 8015)	TPH-GRO/DRO/ORO (EPA 8260/8015)	SAR (US Dept of Ag Method 20B)	EC (US Dept of Ag Method 3)	pH (EPA 9045D)	Other Analysis									
Project: Hanks Pooling U #1																					
Project Manager: Paul Schneider																					
Sampler: Jenna Barker																					
Phone/Email: 720-987-9717 / JBarker@Tasman-Geo.com																					
Address: 6899 Pecos Street, Unit C																					
Denver, CO 80221																					
Lab ID	Sample Name	Sampling Date/Time																			
1	NETO1@3 - Hold	4/22/14 AM/PM	1	S		X	X														
2	NETO2@3 - Hold	4/22/14 AM/PM	1	S		X	X														
3	STO1@3 - Hold	4/22/14 AM/PM	1	S		X	X														
4	STO2@3 - Hold	4/22/14 AM/PM	1	S		X	X														
5	NWTO1@3 - Hold	4/22/14 AM/PM	1	S		X	X														
6	NWTO2@3 - Hold	4/22/14 AM/PM	1	S		X	X														
7	ETO1@3 - Hold	4/22/14 AM/PM	1	S		X	X														
Comments: By 7am 4/23/14 Please																					
<b>Turnaround Time (Business Days)</b> TAT begins when sample is received by eANALYTICS <input type="radio"/> Normal (5-10 Days) <input type="radio"/> 3 Day (1.25x) <input type="radio"/> 1 Day (2x) <input type="radio"/> Same Day (3x) <input checked="" type="radio"/> Next Bus. Morning (APC Pricing)							<b>Record of Custody</b> Relinquished by: <i>[Signature]</i> Date 4/22/14 Company: Tasman Time AM/PM Received by: _____ Date _____ Company: _____ Time AM/PM Relinquished by: _____ Date _____ Company: _____ Time AM/PM Received by: <i>[Signature]</i> Date 4/22/14 Company: eANALYTICS Time 1630 AM/PM														
<b>For eANALYTICS Use</b> Samples Received Intact <input checked="" type="radio"/> Yes <input type="radio"/> No Received Within Temperature Range (2-6°C) <input checked="" type="radio"/> Yes <input type="radio"/> No Sample Preservative <input checked="" type="radio"/> Ice <input type="radio"/> None <input type="radio"/> Acid <input type="radio"/> Other																					

WO # 1223

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eAnalytics Laboratory

1767 Rocky Mountain Avenue Loveland CO 80538

The results contained within this report relate only to the items analyzed



Client: Tasman Geosciences / Anadarko Lab ID: 1223  
 Project: Hanks Pooling U#1  
 Analysis: Volatile Organics Method: EPA8260  
 TPH EPA8260/8015

Sample Name	Benzene mg/kg	Toluene mg/kg	Ethyl- benzene mg/kg	Total Xylenes mg/kg	TPH	TPH	TPH	Date Sampled	Date Analyzed	Lab ID
					GRO C6-C10 mg/kg	DRO C10-C28 mg/kg	ORO C28-C36 mg/kg			
NWT02 @ 3	< 0.01	< 0.01	< 0.01	<b>0.028</b>	< 50	< 50	< 50	04/22/14	04/22/14	1223 6



Soil  
Quality Control - Analyses



Client: Tasman Geosciences / Anadarko Lab ID: 1223

Project: Hanks Pooling U#1

Analysis: Volatile Organics Method: EPA8260  
TPH EPA8260/8015

Sample Name	Benzene % Rec	Toluene % Rec	Ethyl- benzene % Rec	Total Xylenes % Rec	TPH GRO C6-C10 % Rec	TPH DRO C10-C28 % Rec	TPH ORO C28-C36 % Rec	Date Analyzed	Lab ID
Laboratory Control Sample (70-130%)	93	92	96	104	102	96	101	04/22/14	LCS 1223 1
Method Blank	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 50 mg/kg	< 50 mg/kg	< 50 mg/kg	04/22/14	MB 1223 1

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538

# Test Report

## eANALYTICS LABORATORY

April 30, 2014

Client: Tasman Geosciences / Anadarko

Project: Hanks Pooling U#1

Lab ID: 1223

Date Samples Received: 4/22/2014

Number of Samples: 7

Sample Condition: Samples arrived intact and in appropriate sample containers

Sample Temperature: Within acceptable range of 2-6° C, or as specified in EPA Method

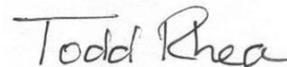
The quality control procedures associated with the requested analyses were satisfactorily passed before the samples were run.

Thank you for allowing eAnalytics Laboratory to provide laboratory services for you.

Sincerely,



Christopher Dieken  
Quality Assurance Manager



Todd Rhea  
Laboratory Manager

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538

Chain of Custody

# eANALYTICS

## LABORATORY

Chain of Custody Form

eANALYTICS LABORATORY			ANALYSIS INFORMATION											
1767 Rocky Mountain Avenue Loveland CO 80538			Phone: (970) 667-0975			Fax: (970) 669-0941			www.eAnalyticsLab.com					
CLIENT INFORMATION			ANALYSIS INFORMATION											
Company: Tasman Geosciences / Anadarko			Other Analysis											
Project: Hanks Pooling U #1														
Project Manager: Paul Schneider														
Sampler: Jenna Barker														
Phone/Email: 720-987-9717 / JBarker@Tasman-Geo.com														
Address: 6899 Pecos Street, Unit C Denver, CO 80221														
Lab ID	Sample Name	Sampling Date/Time	Number of Containers	Soil (S)	Water (W)	Vapor (V)	Other (O)	BTEX (EPA 8260)	BTEX/GRO (EPA 8260)	DRO/ORO (EPA 8015)	TPH-GRO/DRO/ORO (EPA 8260/8015)	SAR (US Dept of Ag Method 20B)	EC (US Dept of Ag Method 3)	pH (EPA 9045D)
1	NETO1@3 - Hold	4/22/14	1	S				X	X					
2	NETO2@3 - Hold	4/22/14	1	S				X	X					
3	STD1@3 - Hold	4/22/14	1	S				X	X					
4	STD2@3 - Hold	4/22/14	1	S				X	X					
5	NWTO1@3 - Hold	4/22/14	1	S				X	X					
6	NWTO2@3 - Hold	4/22/14	1	S				X	X					
7	ETO1@3 - Hold	4/22/14	1	S				X	X					

Run PER JENNA B 4-28-14 (CA)

- ETO1@3 should've been run with others Tedd R.

Comments: By 7am 4/23/14 Please

Turnaround Time (Business Days)  
 Normal (5-10 Days)  
 3 Day (1.25x)  
 1 Day (2x)  
 Same Day (3x)  
 Next Bus. Morning (APC Pricing)

Rush analysis requires an extra charge. If possible please inform eANALYTICS in advance for rush analysis.

Record of Custody  
 Relinquished by: [Signature] Date: 4/22/14  
 Company: Tasman  
 Received by: [Signature] Date: [Blank]  
 Company: [Blank] Title: [Blank]  
 Relinquished by: [Signature] Date: [Blank]  
 Company: [Blank] Title: [Blank]  
 Received by: [Signature] Date: 4/22/14  
 Company: eANALYTICS Title: 1030

For eANALYTICS Use  
 Samples Received Intact: Yes/No  
 Received Within Temperature Range (2-6°C): Yes/No  
 Sample Preservative: Ice/Acid/Other

wo# 1223

eANALYTICS: Environmental testing made Easy

Page of



Client: Tasman Geosciences / Anadarko Lab ID: 1223  
 Project: Hanks Pooling U#1  
 Analysis: Volatile Organics Method: EPA8260  
 TPH EPA8260/8015

Sample Name	Benzene mg/kg	Toluene mg/kg	Ethyl- benzene mg/kg	Total Xylenes mg/kg	TPH	TPH	TPH	Date Sampled	Date Analyzed	Lab ID
					GRO C6-C10 mg/kg	DRO C10-C28 mg/kg	ORO C28-C36 mg/kg			
ET01 @ 3	0.742	0.203	8.35	74.0	3758	706	< 50	04/22/14	04/30/14	1223 7





Client: Tasman Geosciences / Anadarko Lab ID: 1223

Project: Hanks Pooling U#1

Analysis: Volatile Organics Method: EPA8260  
TPH EPA8260/8015

Sample Name	Benzene % Rec	Toluene % Rec	Ethyl- benzene % Rec	Total Xylenes % Rec	TPH GRO C6-C10 % Rec	TPH DRO C10-C28 % Rec	TPH ORO C28-C36 % Rec	Date Analyzed	Lab ID
Laboratory Control Sample (70-130%)	90	89	96	104	102	104	102	04/30/14	LCS 1223 1
Method Blank	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 50 mg/kg	< 50 mg/kg	< 50 mg/kg	04/30/14	MB 1223 1

# Test Report

## eANALYTICS LABORATORY

April 24, 2014

Client: Tasman Geosciences / Anadarko

Project: Hanks Pooling

Lab ID: 1242

Date Samples Received: 4/24/2014

Number of Samples: 6

Sample Condition: Samples arrived intact and in appropriate sample containers

Sample Temperature: Within acceptable range of 2-6° C, or as specified in EPA Method

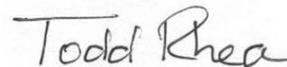
The quality control procedures associated with the requested analyses were satisfactorily passed before the samples were run.

Thank you for allowing eAnalytics Laboratory to provide laboratory services for you.

Sincerely,



Christopher Dieken  
Quality Assurance Manager



Todd Rhea  
Laboratory Manager

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538

Chain of Custody

# eANALYTICS

## LABORATORY

Chain of Custody Form

eANALYTICS LABORATORY			eANALYTICS LABORATORY																			
1767 Rocky Mountain Avenue Loveland CO 80538			Phone: (970) 667-6975			Fax: (970) 669-0941			www.eAnalyticsLab.com													
CLIENT INFORMATION				ANALYSIS INFORMATION																		
(*New Clients please fill out completely)				(Select analysis by checking box on corresponding sample line)																		
Company: Tasman Geosciences / Anadarko				Number of Containers	Matrix: (S) Soil (W) Water (V) Vapor (O) Other	BTEX (EPA 8260)	BTEX/GRO (EPA 8260)	DRO/ORO (EPA 8015)	TPH-GRO/DRO/ORO (EPA 8260/8015)	SAR (US Dept of Ag Method 20B)	EC (US Dept of Ag Method 3)	pH (EPA 9045D)	Other Analysis									
Project: <u>Hanks Pooling</u>																						
Project Manager: Paul Schneider																						
Sampler: Jenna Barker																						
Phone/Email: 720-987-9717 / JBarker@Tasman-Geo.com																						
Address: 6899 Pecos Street, Unit C Denver, CO 80221																						
Lab ID	Sample Name	Sampling Date/Time																				
1	ST03 @ 3 - Hold	4/24/14	AM/PM	1	S		X	X														
2	ST04 @ 3 - Hold	↓	AM/PM	1	S		X	X														
3	ET03 @ 3 - Hold	↓	AM/PM	1	S		X	X														
4	ET04 @ 3	↓	AM/PM	1	S		X	X														
5	NET03 @ 3	↓	AM/PM	1	S		X	X														
6	NET04 @ 3 - Hold	↓	AM/PM	1	S		X	X														
			AM/PM																			
			AM/PM																			
			AM/PM																			
			AM/PM																			
			AM/PM																			
			AM/PM																			
			AM/PM																			
			AM/PM																			
<b>Comments:</b> <u>By Tam 4/25/14 Please</u>																						
<b>Turnaround Time (Business Days)</b> TAT begins when sample is received by eANALYTICS <input type="radio"/> Normal (5-10 Days) <input type="radio"/> 3 Day (1.25x) <input type="radio"/> 1 Day (2x) <input checked="" type="radio"/> Same Day (3x) <input type="radio"/> Next Bus. Morning (APC Pricing)				Rush analysis requires an extra charge. If possible please inform eANALYTICS in advance for rush analysis.				<b>Record of Custody</b>														
For eANALYTICS Use Samples Received Intact <input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No Received Within Temperature Range (2-6°C) <input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No Sample Preservative <input checked="" type="checkbox"/> Ice / <input type="checkbox"/> None <input type="checkbox"/> Acid <input type="checkbox"/> Other				Relinquished by: <u>Tasman</u> Date: <u>4/24/14</u> Company: <u>Tasman</u> Time: _____ AM / PM Received by: _____ Date: _____ Company: _____ Time: _____ AM / PM Relinquished by: _____ Date: _____ Company: _____ Time: _____ AM / PM Received by: <u>[Signature]</u> Date: <u>4/24/14</u> Company: <u>eANALYTICS</u> Time: <u>4:00</u> AM / PM																		

WO# 1242

eANALYTICS: Environmental testing made Easy

Page 1 of 1

### eAnalytics Laboratory

1767 Rocky Mountain Avenue Loveland CO 80538

The results contained within this report relate only to the items analyzed





Client: Tasman Geosciences / Anadarko

Lab ID: 1242

Project: Hanks Pooling

Method: EPA8260

Sample Name	Dibromo-fluoromethane % Recovery	1,2 Dichloro-ethane-D4 % Recovery	Toluene-D8 % Recovery	Bromo-fluorobenzene % Recovery	Date Sampled	Date Analyzed	Lab ID
ET04 @ 3	107	107	107	105	04/24/14	04/24/14	1242 4
NET03 @ 3	100	97	93	94	04/24/14	04/24/14	1242 5



Client: Tasman Geosciences / Anadarko Lab ID: 1242

Project: Hanks Pooling

Analysis: Volatile Organics Method: EPA8260  
TPH EPA8260/8015

Sample Name	Benzene % Rec	Toluene % Rec	Ethyl- benzene % Rec	Total Xylenes % Rec	TPH GRO C6-C10 % Rec	TPH DRO C10-C28 % Rec	TPH ORO C28-C36 % Rec	Date Analyzed	Lab ID
Laboratory Control Sample (70-130%)	97	91	102	94	103	100	100	04/24/14	LCS 1242 1
Method Blank	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 50 mg/kg	< 50 mg/kg	< 50 mg/kg	04/24/14	MB 1242 1

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538

# Test Report

## eANALYTICS LABORATORY

April 29, 2014

Client: Tasman Geosciences / Anadarko  
Project: Hanks Pooling  
Lab ID: 1242  
Date Samples Received: 4/24/2014  
Number of Samples: 6  
Sample Condition: Samples arrived intact and in appropriate sample containers  
Sample Temperature: Within acceptable range of 2-6° C, or as specified in EPA Method

The quality control procedures associated with the requested analyses were satisfactorily passed before the samples were run.

Thank you for allowing eAnalytics Laboratory to provide laboratory services for you.

Sincerely,



Christopher Dieken  
Quality Assurance Manager



Todd Rhea  
Laboratory Manager

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538

Chain of Custody

# eANALYTICS LABORATORY

Chain of Custody Form

CLIENT INFORMATION			ANALYSIS INFORMATION						
Company: Tasman Geosciences / Anadarko			Other Analysis						
Project: <u>Hanks Pooling</u>									
Project Manager: <u>Paul Schneider</u>									
Sampler: <u>Jenna Barker</u>									
Phone/Email: <u>720-987-9717 / JBarker@Tasman-Geo.com</u>									
Address: <u>6899 Pecos Street, Unit C</u> <u>Denver, CO 80221</u>									
Lab ID	Sample Name	Sampling Date/Time	Number of Containers	Misc. (S) / Soil	(W) Water	(V) Vapor	(O) Other		
1	ST03@3-Hold	4/24/14	1 S						
2	ST04@3-Hold	4/24/14	1 S						
3	ET03@3-Hold	4/24/14	1 S						
4	ET04@3	4/24/14	1 S						
5	NET03@3	4/24/14	1 S						
6	NET04@3-Hold	4/24/14	1 S						

*Handwritten note: Run PER Jenna B 4-28-14 (CO)*

Comments: By Tam 4/25/14 Please

<b>Turnaround Time (Business Days)</b> <input type="radio"/> Normal (5-10 Days) <input type="radio"/> 3 Day (1.25x) <input type="radio"/> 1 Day (2x) <input type="radio"/> Same Day (3x) <input checked="" type="radio"/> Next Bus. Morning (APC Pricing)		<b>Record of Custody</b> Retransmitted by: <u>Tasman</u> Date: <u>4/24/14</u> Company: <u>Tasman</u> Time: <u>AM</u> Received by: _____ Date: _____ Company: _____ Time: _____ Retransmitted by: _____ Date: _____ Company: <u>eANALYTICS</u> Time: <u>4:00 PM</u>	
Samples Received Intact: <input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No eived Within Temperature Range (2°C): <input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No Sample Preservative: <input checked="" type="checkbox"/> None / <input type="checkbox"/> Acid / <input type="checkbox"/> Other			

WO# 1242

eANALYTICS: Environmental testing made Easy

Page 1 of 1



Client: Tasman Geosciences / Anadarko Lab ID: 1242  
 Project: Hanks Pooling  
 Analysis: Volatile Organics Method: EPA8260  
 TPH EPA8260/8015

Sample Name	Benzene mg/kg	Toluene mg/kg	Ethyl- benzene mg/kg	Total Xylenes mg/kg	TPH	TPH	TPH	Date Sampled	Date Analyzed	Lab ID
					GRO C6-C10 mg/kg	DRO C10-C28 mg/kg	ORO C28-C36 mg/kg			
ST03 @ 3	< 0.01	< 0.01	<b>0.441</b>	<b>6.41</b>	<b>1004</b>	<b>767</b>	< 50	04/24/14	04/29/14	1242 1
ST04 @ 3	< 0.01	< 0.01	<b>0.023</b>	<b>6.46</b>	<b>2402</b>	<b>760</b>	< 50	04/24/14	04/29/14	1242 2
ET03 @ 3	< 0.01	< 0.01	<b>0.111</b>	<b>3.51</b>	<b>284</b>	<b>721</b>	< 50	04/24/14	04/29/14	1242 3
NET04 @ 3	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	< 50	04/24/14	04/29/14	1242 6



Client: Tasman Geosciences / Anadarko

Lab ID: 1242

Project: Hanks Pooling

Method: EPA8260

Sample Name	Dibromo-fluoromethane % Recovery	1,2 Dichloro-ethane-D4 % Recovery	Toluene-D8 % Recovery	Bromo-fluorobenzene % Recovery	Date Sampled	Date Analyzed	Lab ID
ST03 @ 3	99	104	100	109	04/24/14	04/29/14	1242 1
ST04 @ 3	100	90	111	100	04/24/14	04/29/14	1242 2
ET03 @ 3	90	100	109	89	04/24/14	04/29/14	1242 3
NET04 @ 3	106	89	88	99	04/24/14	04/29/14	1242 6

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538



Client: Tasman Geosciences / Anadarko Lab ID: 1242

Project: Hanks Pooling

Analysis: Volatile Organics Method: EPA8260  
TPH EPA8260/8015

Sample Name	Benzene % Rec	Toluene % Rec	Ethyl- benzene % Rec	Total Xylenes % Rec	TPH GRO C6-C10 % Rec	TPH DRO C10-C28 % Rec	TPH ORO C28-C36 % Rec	Date Analyzed	Lab ID
Laboratory Control Sample (70-130%)	99	102	100	98	93	104	94	04/29/14	LCS 1242 1
Method Blank	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 50 mg/kg	< 50 mg/kg	< 50 mg/kg	04/29/14	MB 1242 1

# Test Report

## eANALYTICS LABORATORY

May 22, 2014

Client: Tasman Geosciences / Anadarko

Project: Hanks Pooling Unit 1

Lab ID: 1432

Date Samples Received: 5/21/2014

Number of Samples: 17

Sample Condition: Samples arrived intact and in appropriate sample containers

Sample Temperature: Within acceptable range of 2-6° C, or as specified in EPA Method

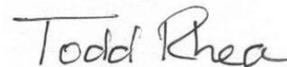
The quality control procedures associated with the requested analyses were satisfactorily passed before the samples were run.

Thank you for allowing eAnalytics Laboratory to provide laboratory services for you.

Sincerely,



Christopher Dieken  
Quality Assurance Manager



Todd Rhea  
Laboratory Manager

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538

Chain of Custody

# eANALYTICS

## LABORATORY

Chain of Custody Form

**eANALYTICS LABORATORY**

1767 Rocky Mountain Avenue Loveland CO 80538 | Phone: (970) 667-6975 | Fax: (970) 669-0941 | www.eAnalyticsLab.com

CLIENT INFORMATION <small>(*New Clients please fill out completely)</small>	ANALYSIS INFORMATION <small>(Select analysis by checking box on corresponding sample line)</small>										
Company: Tasman Geosciences / Anadarko	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">Number of Containers</td> <td style="width: 5%;">Matrix: (S) Soil (W) Water (V) Vapor (O) Other</td> <td style="width: 10%;">BTEX (EPA 8260)</td> <td style="width: 10%;">BTEX/GRO (EPA 8260)</td> <td style="width: 10%;">DRO/ORO (EPA 8015)</td> <td style="width: 10%;">TPH-GRO/DRO/ORO (EPA 8260/8015)</td> <td style="width: 10%;">SAR (US Dept of Ag Method 20B)</td> <td style="width: 10%;">EC (US Dept of Ag Method 3)</td> <td style="width: 10%;">pH (EPA 9045D)</td> <td style="width: 10%;">Other Analysis</td> </tr> </table>	Number of Containers	Matrix: (S) Soil (W) Water (V) Vapor (O) Other	BTEX (EPA 8260)	BTEX/GRO (EPA 8260)	DRO/ORO (EPA 8015)	TPH-GRO/DRO/ORO (EPA 8260/8015)	SAR (US Dept of Ag Method 20B)	EC (US Dept of Ag Method 3)	pH (EPA 9045D)	Other Analysis
Number of Containers		Matrix: (S) Soil (W) Water (V) Vapor (O) Other	BTEX (EPA 8260)	BTEX/GRO (EPA 8260)	DRO/ORO (EPA 8015)	TPH-GRO/DRO/ORO (EPA 8260/8015)	SAR (US Dept of Ag Method 20B)	EC (US Dept of Ag Method 3)	pH (EPA 9045D)	Other Analysis	
Project: <i>Hanks Pooling Unit 1</i>											
Project Manager: Paul Schneider / Phil Hamlin											
Sampler: Christine Wasko											
Phone/Email: 720-409-8791 / cwasko@tasman-geo.com											
Address: 6899 Pecos Street, Unit C Denver, CO 80221											

Lab ID	Sample Name	Sampling Date/Time	Number of Containers	Matrix: (S) Soil (W) Water (V) Vapor (O) Other	BTEX (EPA 8260)	BTEX/GRO (EPA 8260)	DRO/ORO (EPA 8015)	TPH-GRO/DRO/ORO (EPA 8260/8015)	SAR (US Dept of Ag Method 20B)	EC (US Dept of Ag Method 3)	pH (EPA 9045D)	Other Analysis
1	SET01@3'	4/21/14 820 AM/PM	1	S		XX						
2	SET02@3'	835 AM/PM										XX
3	SET03@3'	840 AM/PM										XX
4	SET04@3'	845 AM/PM										
5	SET05@3'	850 AM/PM										
6	SET06@3'	855 AM/PM										
7	SET07@3'	900 AM/PM										XX
8	SET08@3'	905 AM/PM										XX
9	SET09@3'	910 AM/PM										XX
10	SET10@3'	915 AM/PM										
11	SET11@3'	920 AM/PM										X
12	SET12@3'	925 AM/PM										
13	SET13@3'	950 AM/PM										X
14	SHT01@3'	930 AM/PM										
15	SHT02@3'	935 AM/PM										

Comments:

<p><b>Turnaround Time (Business Days)</b> TAT begins when sample is received by eANALYTICS</p> <p> <input type="radio"/> Normal (5-10 Days)  <input type="radio"/> 3 Day (1.25x)  <input type="radio"/> 1 Day (2x)  <input type="radio"/> Same Day (3x)  <input type="radio"/> Next Bus. Morning (APC Pricing)                 </p> <p>                     Rush analysis requires an extra charge. If possible please inform eANALYTICS in advance for rush analysis.                 </p>	<p><b>Record of Custody</b></p> <p>Relinquished by: <i>[Signature]</i> Date: <i>5/21/14</i></p> <p>Company: <i>TASMAN</i> Time: <i>1430</i> AM/PM</p> <hr/> <p>Received by: _____ Date: _____</p> <p>Company: _____ Time: _____ AM/PM</p> <hr/> <p>Relinquished by: _____ Date: _____</p> <p>Company: _____ Time: _____ AM/PM</p> <hr/> <p>Received by: <i>[Signature]</i> Date: <i>5/21/14</i></p> <p>Company: <b>eANALYTICS</b> Time: <i>1430</i> AM/PM</p>
<p><b>For eANALYTICS Use</b></p> <p>Samples Received Intact <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>Received Within Temperature Range (2-6°C) <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>Sample Preservative <input checked="" type="radio"/> Ice <input type="radio"/> None <input type="radio"/> Acid <input type="radio"/> Other</p>	

WO # *88527775* **eANALYTICS: Environmental testing made Easy** Page *1* of *2*  
*1432*

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538





Client: Tasman Geosciences / Anadarko Lab ID: 1432

Project: Hanks Pooling Unit 1

Analysis: Volatile Organics Method: EPA8260  
TPH EPA8260/8015

Sample Name	Benzene mg/kg	Toluene mg/kg	Ethyl- benzene mg/kg	Total Xylenes mg/kg	TPH GRO C6-C10 mg/kg	TPH DRO C10-C28 mg/kg	TPH ORO C28-C36 mg/kg	Date	Date	Lab ID
								Sampled	Analyzed	
SET02 @ 3'	<b>5.83</b>	<b>0.110</b>	<b>13.4</b>	<b>146</b>	<b>6413</b>	<b>332</b>	< 50	05/21/14	05/22/14	1432 2
SET03 @ 3'	<b>0.016</b>	< 0.01	<b>0.064</b>	<b>0.764</b>	< 50	< 50	< 50	05/21/14	05/22/14	1432 3
SET07 @ 3'	< 0.01	< 0.01	<b>0.010</b>	<b>0.168</b>	< 50	< 50	< 50	05/21/14	05/22/14	1432 7
SET08 @ 3'	<b>1.43</b>	< 0.01	<b>18.8</b>	<b>145</b>	<b>3367</b>	<b>1405</b>	< 50	05/21/14	05/22/14	1432 8
SET09 @ 3'	< 0.01	< 0.01	<b>0.063</b>	<b>0.887</b>	< 50	< 50	< 50	05/21/14	05/22/14	1432 9
SET11 @ 3'	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	< 50	05/21/14	05/22/14	1432 11
SET13 @ 3'	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	< 50	05/21/14	05/22/14	1432 13
SWT03 @ 3'	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	< 50	05/21/14	05/22/14	1432 16
SWT04 @ 3'	<b>0.343</b>	< 0.01	<b>2.87</b>	<b>23.1</b>	<b>1217</b>	<b>107</b>	< 50	05/21/14	05/22/14	1432 17

### eAnalytics Laboratory

1767 Rocky Mountain Avenue Loveland CO 80538



**eANALYTICS**  
LABORATORY

Client: Tasman Geosciences / Anadarko

Lab ID: 1432

Project: Hanks Pooling Unit 1

Method: EPA8260

Sample Name	Dibromo- fluoromethane % Recovery	1,2 Dichloro- ethane-D4 % Recovery	Toluene-D8 % Recovery	Bromo- fluorobenzene % Recovery	Date Sampled	Date Analyzed	Lab ID
SET02 @ 3'	96	97	100	101	05/21/14	05/22/14	1432 2
SET03 @ 3'	93	94	97	109	05/21/14	05/22/14	1432 3
SET07 @ 3'	101	109	106	88	05/21/14	05/22/14	1432 7
SET08 @ 3'	96	97	97	89	05/21/14	05/22/14	1432 8
SET09 @ 3'	101	106	87	111	05/21/14	05/22/14	1432 9
SET11 @ 3'	86	97	99	99	05/21/14	05/22/14	1432 11
SET13 @ 3'	92	103	95	89	05/21/14	05/22/14	1432 13
SWT03 @ 3'	94	91	100	111	05/21/14	05/22/14	1432 16
SWT04 @ 3'	94	99	98	90	05/21/14	05/22/14	1432 17

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538



Client: Tasman Geosciences / Anadarko Lab ID: 1432  
 Project: Hanks Pooling Unit 1  
 Analysis: Volatile Organics Method: EPA8260  
 TPH EPA8260/8015

Sample Name	Benzene % Rec	Toluene % Rec	Ethyl- benzene % Rec	Total Xylenes % Rec	TPH GRO C6-C10 % Rec	TPH DRO C10-C28 % Rec	TPH ORO C28-C36 % Rec	Date Analyzed	Lab ID
Laboratory Control Sample (70-130%)	91	101	92	103	101	92	91	05/22/14	LCS 1432 2
Method Blank	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 0.01 mg/kg	< 50 mg/kg	< 50 mg/kg	< 50 mg/kg	05/22/14	MB 1432 2

**eAnalytics Laboratory**

1767 Rocky Mountain Avenue Loveland CO 80538

January 22, 2016

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 21, 2016. This project is associated with Origins project number X601208-01.

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
N-S01 @ 5-7'	X601208-01	Soil	January 21, 2016 13:20	01/21/2016 16:57
N-E01 @ 5-7'	X601208-02	Soil	January 21, 2016 13:30	01/21/2016 16:57
N-E02 @ 5-7'	X601208-03	Soil	January 21, 2016 13:40	01/21/2016 16:57
N-E03 @ 5-7'	X601208-04	Soil	January 21, 2016 13:55	01/21/2016 16:57
N-N01 @ 5-7'	X601208-05	Soil	January 21, 2016 14:00	01/21/2016 16:57
N-W01 @ 5-7'	X601208-06	Soil	January 21, 2016 14:30	01/21/2016 16:57
N-W02 @ 5-7'	X601208-07	Soil	January 21, 2016 14:20	01/21/2016 16:57
N-W03 @ 5-7'	X601208-08	Soil	January 21, 2016 14:10	01/21/2016 16:57
S-W01 @ 5-7'	X601208-09	Soil	January 21, 2016 14:40	01/21/2016 16:57
S-E01 @ 5-7'	X601208-10	Soil	January 21, 2016 14:50	01/21/2016 16:57

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody 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
S-N01 @ 5-7'	X601208-11	Soil	January 21, 2016 15:00	01/21/2016 16:57

Origins Laboratory, Inc.



*The results in 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

www.originslaboratory.com

page 1 of 2

X601208

**ORIGINS**  
 LABORATORY, INC

Client: Tasman Geo  
 Address:  
 Telephone Number: 912 23 2807  
 Email Address: Cornez@tasman-geo.com

Project Manager: Bob Cornez  
 Project Name: Hank's Pooling Unit 1  
 Project Number:  
 Samples Collected By: Bob Nelson  
 A/C Invoice: Hank's Sam Lab

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	As Sampled	Other		
N-S0105-7	1/21/16	1320										Analysis is added! on 1/21/16 @ 1735 as per phone call with Brock Nelson JH 1/21/16
N-E0105-7		1330										
N-E0205-7		1340										
N-E0305-7		1355										
N-H0105-7		1400										
N-W0105-7		1430										
N-W0205-7		1420										
N-W0305-7		1410										
S-W0105-7		1440										
S-E0105-7		1450										
Relinquished By:				Time: 1657	Date: 1/21/16	Received By:		Time: 1657	Date: 1/21/16	Turnaround Time: Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		
Relinquished By:				Time:	Date:	Received By:		Time:	Date:			

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

Origins Laboratory, Inc.

*Jefe Pellegrini*

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



Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

Origins Laboratory

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

**Sample Receipt Checklist**

Origins Work Order: X601208

Client: Tasman

Client Project ID: Hank's Pooling Unit 1

Checklist Completed by: Jefe Smith

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

Date/time completed: 1/21/16

Airbill #: NA

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

Cooler Number/Temperature: 1 / 10 °C 1 / \_\_\_\_\_ °C 1 / \_\_\_\_\_ °C 1 / \_\_\_\_\_ °C

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)?</sup>	<input checked="" type="checkbox"/>			
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact <sup>(1)?</sup>	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)?</sup>	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)?</sup>		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)?</sup>		<input checked="" type="checkbox"/>		No # of containers No Analysis Matrix, Preservation
Does the COC agree with the number and type of sample bottles received <sup>(1)?</sup>			<input checked="" type="checkbox"/>	# and type of containers unidentified
Do the sample IDs on the bottle labels match the COC <sup>(1)?</sup>	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)?</sup>	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked <sup>(1)?</sup> (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 <sub>3</sub> ; HCl, H <sub>2</sub> SO <sub>4</sub> ) / (pH >10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup>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.

Jefe Smith  
 Reviewed by (Project Manager)

1/21/16  
 Date/Time Reviewed

Origins Laboratory, Inc.



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

Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**N-S01 @ 5-7'**  
**1/21/2016 1:20:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X601208-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	420	50	mg/kg	1	B6A2108	01/21/2016	01/22/2016	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	

*Surrogate: o-Terphenyl* 64.9 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	2920	50.0	mg/kg	250	B6A2109	01/21/2016	01/22/2016	
Benzene	0.788	0.050	"	25	"	"	01/21/2016	
Toluene	0.122	0.050	"	"	"	"	"	
Ethylbenzene	6.86	0.498	"	250	"	"	01/22/2016	
Xylenes, total	25.9	0.498	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4* 109 % 70-130 " " "

*Surrogate: Toluene-d8* 117 % 70-130 " " "

*Surrogate: 4-Bromofluorobenzene* 99.7 % 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

**N-E01 @ 5-7'**  
**1/21/2016 1:30:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X601208-02 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	50	mg/kg	1	B6A2108	01/21/2016	01/22/2016	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	

*Surrogate: o-Terphenyl* 55.7 % 59-131 " " " S-04

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>20.2</b>	5.00	mg/kg	25	B6A2109	01/21/2016	01/21/2016	
Benzene	<b>0.096</b>	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	
Ethylbenzene	ND	0.050	"	"	"	"	"	
Xylenes, total	<b>0.214</b>	0.050	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4* 94.6 % 70-130 " " "

*Surrogate: Toluene-d8* 101 % 70-130 " " "

*Surrogate: 4-Bromofluorobenzene* 99.9 % 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

**N-E02 @ 5-7'**  
**1/21/2016 1:40:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X601208-03 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	50	mg/kg	1	B6A2108	01/21/2016	01/22/2016	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	

*Surrogate: o-Terphenyl* 69.0 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>8.46</b>	5.00	mg/kg	25	B6A2109	01/21/2016	01/21/2016	
Benzene	ND	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	
Ethylbenzene	ND	0.050	"	"	"	"	"	
Xylenes, total	<b>0.114</b>	0.050	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4* 92.2 % 70-130 " " "  
*Surrogate: Toluene-d8* 99.6 % 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

**N-E03 @ 5-7'**  
**1/21/2016 1:55:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X601208-04 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	50	mg/kg	1	B6A2108	01/21/2016	01/22/2016	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	

*Surrogate: o-Terphenyl*      62.7 %      59-131      "      "      "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>8.08</b>	5.00	mg/kg	25	B6A2109	01/21/2016	01/21/2016	
Benzene	ND	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	
Ethylbenzene	ND	0.050	"	"	"	"	"	
Xylenes, total	ND	0.050	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4*      93.7 %      70-130      "      "      "

*Surrogate: Toluene-d8*      102 %      70-130      "      "      "

*Surrogate: 4-Bromofluorobenzene*      97.5 %      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

**N-N01 @ 5-7'**  
**1/21/2016 2:00:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X601208-05 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	50	mg/kg	1	B6A2108	01/21/2016	01/22/2016	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	

*Surrogate: o-Terphenyl* 65.5 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>489</b>	5.00	mg/kg	25	B6A2109	01/21/2016	01/22/2016	
Benzene	ND	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	
Ethylbenzene	<b>0.180</b>	0.050	"	"	"	"	"	
Xylenes, total	<b>0.655</b>	0.050	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4* 96.2 % 70-130 " " "  
*Surrogate: Toluene-d8* 102 % 70-130 " " "  
*Surrogate: 4-Bromofluorobenzene* 96.0 % 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

**N-W01 @ 5-7'**  
**1/21/2016 2:30:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X601208-06 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	88	50	mg/kg	1	B6A2108	01/21/2016	01/22/2016	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	

Surrogate: *o*-Terphenyl 68.5 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	1870	50.0	mg/kg	250	B6A2109	01/21/2016	01/22/2016	
Benzene	0.428	0.050	"	25	"	"	01/21/2016	
Toluene	0.056	0.050	"	"	"	"	"	
Ethylbenzene	4.60	0.050	"	"	"	"	"	
Xylenes, total	18.0	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 95.7 % 70-130 " " "

Surrogate: Toluene-d8 208 % 70-130 " " " S-04

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

**N-W02 @ 5-7'**  
**1/21/2016 2:20:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X601208-07 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	50	mg/kg	1	B6A2108	01/21/2016	01/22/2016	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	
<i>Surrogate: o-Terphenyl</i>	69.8 %	59-131			"	"	"	

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>59.9</b>	5.00	mg/kg	25	B6A2109	01/21/2016	01/22/2016	
Benzene	ND	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	
Ethylbenzene	<b>0.159</b>	0.050	"	"	"	"	"	
Xylenes, total	<b>1.57</b>	0.050	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	94.3 %	70-130			"	"	"	
<i>Surrogate: Toluene-d8</i>	103 %	70-130			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	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

**N-W03 @ 5-7'**  
**1/21/2016 2:10:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X601208-08 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	50	mg/kg	1	B6A2108	01/21/2016	01/22/2016	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	

*Surrogate: o-Terphenyl*      77.8 %      59-131      "      "      "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>34.8</b>	5.00	mg/kg	25	B6A2109	01/21/2016	01/22/2016	
Benzene	ND	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	
Ethylbenzene	ND	0.050	"	"	"	"	"	
Xylenes, total	ND	0.050	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4*      95.0 %      70-130      "      "      "

*Surrogate: Toluene-d8*      104 %      70-130      "      "      "

*Surrogate: 4-Bromofluorobenzene*      97.8 %      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

**S-W01 @ 5-7'**  
**1/21/2016 2:40:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X601208-09 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	50	mg/kg	1	B6A2108	01/21/2016	01/22/2016	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	

*Surrogate: o-Terphenyl* 55.3 % 59-131 " " " S-04

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B6A2109	01/21/2016	01/21/2016	
Benzene	ND	0.002	"	"	"	"	"	
Toluene	ND	0.002	"	"	"	"	"	
Ethylbenzene	ND	0.002	"	"	"	"	"	
Xylenes, total	ND	0.002	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4* 102 % 70-130 " " "

*Surrogate: Toluene-d8* 95.9 % 70-130 " " "

*Surrogate: 4-Bromofluorobenzene* 98.9 % 70-130 " " "

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**S-E01 @ 5-7'**  
**1/21/2016 2:50:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X601208-10 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	50	mg/kg	1	B6A2108	01/21/2016	01/22/2016	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	

*Surrogate: o-Terphenyl* 68.8 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B6A2109	01/21/2016	01/22/2016	
Benzene	ND	0.002	"	"	"	"	"	
Toluene	ND	0.002	"	"	"	"	"	
Ethylbenzene	ND	0.002	"	"	"	"	"	
Xylenes, total	ND	0.002	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4* 105 % 70-130 " " "  
*Surrogate: Toluene-d8* 93.0 % 70-130 " " "  
*Surrogate: 4-Bromofluorobenzene* 93.8 % 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

**S-N01 @ 5-7'**  
**1/21/2016 3:00:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X601208-11 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	50	mg/kg	1	B6A2108	01/21/2016	01/22/2016	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	

*Surrogate: o-Terphenyl* 70.4 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B6A2109	01/21/2016	01/22/2016	
Benzene	ND	0.002	"	"	"	"	"	
Toluene	ND	0.002	"	"	"	"	"	
Ethylbenzene	ND	0.002	"	"	"	"	"	
Xylenes, total	ND	0.002	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4* 99.9 % 70-130 " " "  
*Surrogate: Toluene-d8* 94.6 % 70-130 " " "  
*Surrogate: 4-Bromofluorobenzene* 97.7 % 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

**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 B6A2109 - EPA 5030 (soil)**

**Blank (B6A2109-BLK1)**

Prepared: 01/21/2016 Analyzed: 01/21/2016

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							
Benzene	ND	0.002	"							
Toluene	ND	0.002	"							
Ethylbenzene	ND	0.002	"							
Xylenes, total	ND	0.002	"							
Surrogate: 1,2-Dichloroethane-d4	63.1		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	58.6		"	62.5		93.8	70-130			
Surrogate: 4-Bromofluorobenzene	60.0		"	62.5		96.0	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

**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 B6A2109 - EPA 5030 (soil)**

**Blank (B6A2109-BLK2)**

Prepared: 01/21/2016 Analyzed: 01/21/2016

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							
Benzene	ND	0.002	"							
Toluene	ND	0.002	"							
Ethylbenzene	ND	0.002	"							
Xylenes, total	ND	0.002	"							
Surrogate: 1,2-Dichloroethane-d4	66.8		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	58.8		"	62.5		94.2	70-130			
Surrogate: 4-Bromofluorobenzene	58.6		"	62.5		93.8	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

**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 B6A2109 - EPA 5030 (soil)**

**LCS (B6A2109-BS1)**

Prepared: 01/21/2016 Analyzed: 01/21/2016

Benzene	0.082	0.002	mg/kg	0.100		81.6	77.1-124			
Toluene	0.088	0.002	"	0.100		87.6	74.5-128			
Ethylbenzene	0.112	0.002	"	0.100		112	66.4-127			
m,p-Xylene	0.221	0.004	"	0.200		110	76.6-124			
o-Xylene	0.109	0.002	"	0.100		109	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	60.2		ug/kg	62.5		96.3	70-130			
Surrogate: Toluene-d8	54.0		"	62.5		86.5	70-130			
Surrogate: 4-Bromofluorobenzene	61.4		"	62.5		98.3	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

**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 B6A2109 - EPA 5030 (soil)**

**LCS (B6A2109-BS2)**

Prepared: 01/21/2016 Analyzed: 01/22/2016

Benzene	0.084	0.002	mg/kg	0.100		84.5	77.1-124			
Toluene	0.095	0.002	"	0.100		94.8	74.5-128			
Ethylbenzene	0.116	0.002	"	0.100		116	66.4-127			
m,p-Xylene	0.225	0.004	"	0.200		112	76.6-124			
o-Xylene	0.114	0.002	"	0.100		114	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	63.1		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	55.9		"	62.5		89.4	70-130			
Surrogate: 4-Bromofluorobenzene	61.3		"	62.5		98.1	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

**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
<b>Batch B6A2109 - EPA 5030 (soil)</b>										
<b>LCS Dup (B6A2109-BSD1)</b>					Prepared: 01/21/2016 Analyzed: 01/22/2016					
Benzene	0.101	0.002	mg/kg	0.100	101	77.1-124	21.6	20	QR-02	
Toluene	0.100	0.002	"	0.100	99.6	74.5-128	12.8	20		
Ethylbenzene	0.092	0.002	"	0.100	92.2	66.4-127	19.4	20		
m,p-Xylene	0.193	0.004	"	0.200	96.6	76.6-124	13.3	20		
o-Xylene	0.098	0.002	"	0.100	97.7	76.6-124	11.0	20		
Surrogate: 1,2-Dichloroethane-d4	63.4		ug/kg	62.5	102	70-130				
Surrogate: Toluene-d8	62.0		"	62.5	99.2	70-130				
Surrogate: 4-Bromofluorobenzene	56.7		"	62.5	90.7	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

**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 B6A2109 - EPA 5030 (soil)**

**LCS Dup (B6A2109-BSD2)**

Prepared: 01/21/2016 Analyzed: 01/22/2016

Benzene	0.103	0.002	mg/kg	0.100		103	77.1-124	19.7	20	
Toluene	0.102	0.002	"	0.100		102	74.5-128	7.37	20	
Ethylbenzene	0.096	0.002	"	0.100		95.8	66.4-127	19.0	20	
m,p-Xylene	0.200	0.004	"	0.200		100	76.6-124	11.5	20	
o-Xylene	0.101	0.002	"	0.100		101	76.6-124	11.6	20	
Surrogate: 1,2-Dichloroethane-d4	60.8		ug/kg	62.5		97.2	70-130			
Surrogate: Toluene-d8	62.4		"	62.5		99.8	70-130			
Surrogate: 4-Bromofluorobenzene	58.5		"	62.5		93.6	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

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B6A2108 - EPA 3580**

**Blank (B6A2108-BLK1)**

Prepared: 01/21/2016 Analyzed: 01/21/2016

Diesel (C10-C28)	ND	50	mg/kg							
Residual Range Organics (C28-C36)	ND	200	"							
Surrogate: o-Terphenyl	41		"	50.0		82.4	59-131			

**Blank (B6A2108-BLK2)**

Prepared: 01/21/2016 Analyzed: 01/21/2016

Diesel (C10-C28)	ND	50	mg/kg							
Residual Range Organics (C28-C36)	ND	200	"							
Surrogate: o-Terphenyl	40		"	50.0		79.4	59-131			

**LCS (B6A2108-BS1)**

Prepared: 01/21/2016 Analyzed: 01/21/2016

Diesel (C10-C28)	920	50	mg/kg				64-121			
Residual Range Organics (C28-C36)	930	200	"				58-124			
Surrogate: o-Terphenyl	48		"	50.0		96.3	59-131			

**LCS (B6A2108-BS2)**

Prepared: 01/21/2016 Analyzed: 01/21/2016

Diesel (C10-C28)	760	50	mg/kg				64-121			
Residual Range Organics (C28-C36)	730	200	"				58-124			
Surrogate: o-Terphenyl	41		"	50.0		81.1	59-131			

**Matrix Spike (B6A2108-MS1)**

**Source: X601205-01**

Prepared: 01/21/2016 Analyzed: 01/21/2016

Diesel (C10-C28)	800	50	mg/kg		45		53-125			
Residual Range Organics (C28-C36)	760	200	"		17		47-133			

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

**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B6A2108 - EPA 3580</b>										
<b>Matrix Spike (B6A2108-MS1)</b>		<b>Source: X601205-01</b>			Prepared: 01/21/2016 Analyzed: 01/21/2016					
Surrogate: o-Terphenyl	40		mg/kg	50.0		80.3	59-131			
<b>Matrix Spike (B6A2108-MS2)</b>		<b>Source: X601205-02</b>			Prepared: 01/21/2016 Analyzed: 01/21/2016					
Diesel (C10-C28)	760	50	mg/kg				53-125			
Residual Range Organics (C28-C36)	740	200	"				47-133			
Surrogate: o-Terphenyl	39		"	50.0		77.8	59-131			
<b>Matrix Spike Dup (B6A2108-MSD1)</b>		<b>Source: X601205-01</b>			Prepared: 01/21/2016 Analyzed: 01/21/2016					
Diesel (C10-C28)	800	50	mg/kg		45		53-125	0.00714	20	
Residual Range Organics (C28-C36)	740	200	"		17		47-133	1.88	20	
Surrogate: o-Terphenyl	41		"	50.0		81.3	59-131			
<b>Matrix Spike Dup (B6A2108-MSD2)</b>		<b>Source: X601205-02</b>			Prepared: 01/21/2016 Analyzed: 01/21/2016					
Diesel (C10-C28)	720	50	mg/kg				53-125	5.43	20	
Residual Range Organics (C28-C36)	680	200	"				47-133	7.69	20	
Surrogate: o-Terphenyl	38		"	50.0		75.4	59-131			

Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

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

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### Notes and Definitions

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

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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

November 03, 2016

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. November 02, 2016. This project is associated with Origins project number X611036-01.

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
RT-S01 @ 3'	X611036-01	Soil	November 2, 2016 15:00	11/02/2016 17:20
RT-S01 @ 6'	X611036-02	Soil	November 2, 2016 15:05	11/02/2016 17:20
RT-S02 @ 6'	X611036-03	Soil	November 2, 2016 15:10	11/02/2016 17:20
RT-S02 @ 3'	X611036-04	Soil	November 2, 2016 15:15	11/02/2016 17:20
RT-S03 @ 3'	X611036-05	Soil	November 2, 2016 15:20	11/02/2016 17:20
RT-S03 @ 6'	X611036-06	Soil	November 2, 2016 15:25	11/02/2016 17:20
RT-E01 @ 3'	X611036-07	Soil	November 2, 2016 15:30	11/02/2016 17:20
RT-E01 @ 6'	X611036-08	Soil	November 2, 2016 15:35	11/02/2016 17:20
RT-NE01 @ 3'	X611036-09	Soil	November 2, 2016 15:40	11/02/2016 17:20
RT-NE01 @ 6'	X611036-10	Soil	November 2, 2016 15:45	11/02/2016 17:20

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
RT-NE02 @ 3'	X611036-11	Soil	November 2, 2016 15:50	11/02/2016 17:20
RT-NE02 @ 6'	X611036-12	Soil	November 2, 2016 15:55	11/02/2016 17:20
RT-N01 @ 3'	X611036-13	Soil	November 2, 2016 16:00	11/02/2016 17:20
RT-N01 @ 6'	X611036-14	Soil	November 2, 2016 16:05	11/02/2016 17:20

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody 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

X611036

page 1 of 2

Client: APC  
 Address: \_\_\_\_\_  
 Project Manager: Bob Cornez  
 Project Name: Hank's Pooling Unit 1  
 Project Number: \_\_\_\_\_  
 Telephone Number: 970 470 9042  
 Email Address: rcornez@tasmangeo.com  
 Samples Collected By: R. Min

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa #			Other
RT-50103	11/21/16	1500	2	X				X				1	
RT-50106		1505	1									2	
RT-50206		1510	1									3	
RT-50203		1515	1									4	
RT-50303		1520	1									5	
RT-50306		1525	1									6	
RT-E0103		1530	1									7	
RT-E0106		1535	1									8	
RT-NE0103		1540	1									9	
RT-NE0106		1545	1									10	
Relinquished By: _____	Date: <u>11/21/16</u>	Time: <u>1720</u>	Time: _____	Received By: _____	Received By: _____	Date: _____	Date: <u>11/21/16</u>	Time: _____	Time: <u>1720</u>	Turnaround Time: <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard			
Relinquished By: _____	Date: _____	Time: _____	Time: _____	Received By: _____	Received By: _____	Date: _____	Date: _____	Time: _____	Time: _____				

Temp Received: 5.7 Date Results Needed \_\_\_\_\_

Origins Laboratory, Inc.

*Jefe Pellegrini*

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



Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [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: X611036

Client: Tasman

Client Project ID: Hank's Pooling Unit

Checklist Completed by: Jeff Smith

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

Date/time completed: 11-2-16

Airbill #: N/A

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

Cooler Number/Temperature: 1 15.7 °C 1 °C 1 °C (Describe) 1 °C

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)?</sup>	X			
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact <sup>(1)?</sup>	✓			
Was adequate sample volume provided <sup>(1)?</sup>	✓			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)?</sup>		X		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)?</sup>	✓			
Does the COC agree with the number and type of sample bottles received <sup>(1)?</sup>	✓			
Do the sample IDs on the bottle labels match the COC <sup>(1)?</sup>	✓			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)?</sup>	✓			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>			✓	
Are samples preserved that require preservation and was it checked <sup>(1)?</sup> (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 <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH >10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)			✓	
Additional Comments (if any):				

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

Jeff Smith  
 Reviewed By (Project Manager)

11/2/16  
 Date/Time Reviewed

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-S01 @ 3'**  
**11/2/2016 3:00:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	445	25.0	mg/kg	1	B6K0205	11/02/2016	11/02/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	59.7 %	59-131			"	"	"	
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**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	143	5.00	mg/kg	25	B6K0203	11/02/2016	11/02/2016	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	0.110	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	99.0 %	70-130			"	"	11/03/2016	
Surrogate: Toluene-d8	98.4 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	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

**RT-S01 @ 6'**  
**11/2/2016 3:05:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-02 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	<b>206</b>	25.0	mg/kg	1	B6K0205	11/02/2016	11/02/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 63.6 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>409</b>	5.00	mg/kg	25	B6K0203	11/02/2016	11/02/2016	
Benzene	<b>0.246</b>	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	<b>0.723</b>	0.050	"	"	"	"	"	
Xylenes, total	<b>6.35</b>	0.050	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4* 102 % 70-130 " " 11/03/2016  
*Surrogate: Toluene-d8* 98.0 % 70-130 " " "  
*Surrogate: 4-Bromofluorobenzene* 106 % 70-130 " " "

Origins Laboratory, Inc.



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 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-S02 @ 6'**  
**11/2/2016 3:10:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-03 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K0205	11/02/2016	11/02/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 63.2 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6K0203	11/02/2016	11/03/2016	U
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	<b>0.130</b>	0.050	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4* 101 % 70-130 " " "  
*Surrogate: Toluene-d8* 103 % 70-130 " " "  
*Surrogate: 4-Bromofluorobenzene* 99.7 % 70-130 " " "

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-S02 @ 3'**  
**11/2/2016 3:15:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-04 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K0205	11/02/2016	11/02/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 64.2 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B6K0203	11/02/2016	11/03/2016	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

*Surrogate: 1,2-Dichloroethane-d4* 105 % 70-130 " " "  
*Surrogate: Toluene-d8* 101 % 70-130 " " "  
*Surrogate: 4-Bromofluorobenzene* 99.6 % 70-130 " " "

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 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-S03 @ 3'**  
**11/2/2016 3:20:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-05 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	32.6	25.0	mg/kg	1	B6K0205	11/02/2016	11/02/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: *o*-Terphenyl 68.6 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B6K0203	11/02/2016	11/03/2016	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

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

Origins Laboratory, Inc.



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 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-S03 @ 6'**  
**11/2/2016 3:25:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-06 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K0205	11/02/2016	11/03/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 62.9 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6K0203	11/02/2016	11/03/2016	U
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

*Surrogate: 1,2-Dichloroethane-d4* 98.1 % 70-130 " " "  
*Surrogate: Toluene-d8* 103 % 70-130 " " "  
*Surrogate: 4-Bromofluorobenzene* 99.6 % 70-130 " " "

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-E01 @ 3'**  
**11/2/2016 3:30:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-07 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	1800	25.0	mg/kg	1	B6K0205	11/02/2016	11/02/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: *o*-Terphenyl 68.5 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	1570	50.0	mg/kg	250	B6K0203	11/02/2016	11/03/2016	
Benzene	ND	0.050	"	25	"	"	11/02/2016	U
Toluene	0.067	0.050	"	"	"	"	"	
Ethylbenzene	0.728	0.050	"	"	"	"	"	
Xylenes, total	12.5	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 102 % 70-130 " " 11/03/2016  
 Surrogate: Toluene-d8 95.3 % 70-130 " " "  
 Surrogate: 4-Bromofluorobenzene 115 % 70-130 " " "

Origins Laboratory, Inc.



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 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-E01 @ 6'**  
**11/2/2016 3:35:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-08 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	502	25.0	mg/kg	1	B6K0205	11/02/2016	11/03/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: *o*-Terphenyl 61.3 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	2650	50.0	mg/kg	250	B6K0203	11/02/2016	11/03/2016	
Benzene	0.232	0.050	"	25	"	"	11/02/2016	
Toluene	0.172	0.050	"	"	"	"	"	
Ethylbenzene	12.2	0.498	"	250	"	"	11/03/2016	
Xylenes, total	88.0	0.498	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 99.0 % 70-130 " " "

Surrogate: Toluene-d8 75.7 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 117 % 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

**RT-NE01 @ 3'**  
**11/2/2016 3:40:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-09 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K0205	11/02/2016	11/03/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 70.9 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6K0203	11/02/2016	11/03/2016	U
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

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

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-NE01 @ 6'**  
**11/2/2016 3:45:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-10 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K0205	11/02/2016	11/03/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl*      70.5 %      59-131      "      "      "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B6K0203	11/02/2016	11/03/2016	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

*Surrogate: 1,2-Dichloroethane-d4*      103 %      70-130      "      "      "

*Surrogate: Toluene-d8*      102 %      70-130      "      "      "

*Surrogate: 4-Bromofluorobenzene*      99.5 %      70-130      "      "      "

Origins Laboratory, Inc.



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 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-NE02 @ 3'**  
**11/2/2016 3:50:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-11 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K0205	11/02/2016	11/03/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 69.4 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B6K0203	11/02/2016	11/03/2016	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

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

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-NE02 @ 6'**  
**11/2/2016 3:55:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-12 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K0205	11/02/2016	11/03/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 68.3 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6K0203	11/02/2016	11/03/2016	U
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

*Surrogate: 1,2-Dichloroethane-d4* 97.7 % 70-130 " " "  
*Surrogate: Toluene-d8* 102 % 70-130 " " "  
*Surrogate: 4-Bromofluorobenzene* 100 % 70-130 " " "

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-N01 @ 3'**  
**11/2/2016 4:00:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-13 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K0205	11/02/2016	11/03/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 67.6 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6K0203	11/02/2016	11/03/2016	U
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

*Surrogate: 1,2-Dichloroethane-d4* 98.8 % 70-130 " " "  
*Surrogate: Toluene-d8* 104 % 70-130 " " "  
*Surrogate: 4-Bromofluorobenzene* 100 % 70-130 " " "

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-N01 @ 6'**  
**11/2/2016 4:05:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611036-14 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K0205	11/02/2016	11/03/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 68.3 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>116</b>	5.00	mg/kg	25	B6K0203	11/02/2016	11/03/2016	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

*Surrogate: 1,2-Dichloroethane-d4* 100 % 70-130 " " "  
*Surrogate: Toluene-d8* 98.9 % 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

**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 B6K0203 - EPA 5030 (soil)**

**Blank (B6K0203-BLK1)**

Prepared: 11/02/2016 Analyzed: 11/02/2016

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	66		ug/kg	62.5		106	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.6	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [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 B6K0203 - EPA 5030 (soil)**

**Blank (B6K0203-BLK2)**

Prepared: 11/02/2016 Analyzed: 11/03/2016

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	66		ug/kg	62.5		106	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	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 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 B6K0203 - EPA 5030 (soil)**

**LCS (B6K0203-BS1)**

Prepared: 11/02/2016 Analyzed: 11/02/2016

Benzene	0.093	0.002	mg/kg	0.100		92.9	77.1-124			
Toluene	0.113	0.002	"	0.100		113	74.5-128			
Ethylbenzene	0.112	0.002	"	0.100		112	66.4-127			
m,p-Xylene	0.225	0.004	"	0.200		112	76.6-124			
o-Xylene	0.115	0.002	"	0.100		115	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	58		ug/kg	62.5		93.2	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.7	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [none]  
 Project: KMG - 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 B6K0203 - EPA 5030 (soil)**

**LCS (B6K0203-BS2)**

Prepared: 11/02/2016 Analyzed: 11/02/2016

Benzene	0.106	0.002	mg/kg	0.100		106	77.1-124			
Toluene	0.103	0.002	"	0.100		103	74.5-128			
Ethylbenzene	0.085	0.002	"	0.100		84.6	66.4-127			
m,p-Xylene	0.170	0.004	"	0.200		85.1	76.6-124			
o-Xylene	0.085	0.002	"	0.100		84.9	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	72		ug/kg	62.5		115	70-130			
Surrogate: Toluene-d8	68		"	62.5		109	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [none]  
 Project: KMG - 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 B6K0203 - EPA 5030 (soil)

Matrix Spike (B6K0203-MS1)	Source: X610325-01			Prepared: 11/02/2016 Analyzed: 11/02/2016						
Benzene	0.090	0.002	mg/kg	0.100	ND	90.3	71.8-126			
Toluene	0.106	0.002	"	0.100	ND	106	65.1-130			
Ethylbenzene	0.107	0.002	"	0.100	ND	107	62.2-130			
m,p-Xylene	0.212	0.004	"	0.200	ND	106	46.5-137			
o-Xylene	0.106	0.002	"	0.100	ND	106	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	61		ug/kg	62.5		98.3	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.3	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.9	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

**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 B6K0203 - EPA 5030 (soil)

Matrix Spike (B6K0203-MS2)	Source: X610325-02			Prepared: 11/02/2016 Analyzed: 11/03/2016						
Benzene	0.093	0.002	mg/kg	0.100	ND	93.1	71.8-126			
Toluene	0.111	0.002	"	0.100	ND	111	65.1-130			
Ethylbenzene	0.111	0.002	"	0.100	ND	111	62.2-130			
m,p-Xylene	0.218	0.004	"	0.200	ND	109	46.5-137			
o-Xylene	0.108	0.002	"	0.100	ND	108	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	59		ug/kg	62.5		93.9	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.3	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.4	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

**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 B6K0203 - EPA 5030 (soil)

Matrix Spike Dup (B6K0203-MSD1)	Source: X610325-01			Prepared: 11/02/2016 Analyzed: 11/02/2016						
Benzene	0.073	0.002	mg/kg	0.100	ND	73.5	71.8-126	20.5	11.3	QR-02
Toluene	0.086	0.002	"	0.100	ND	85.8	65.1-130	21.0	15.4	QR-02
Ethylbenzene	0.085	0.002	"	0.100	ND	85.0	62.2-130	23.3	19.6	QR-02
m,p-Xylene	0.173	0.004	"	0.200	ND	86.4	46.5-137	20.4	19.2	QR-02
o-Xylene	0.085	0.002	"	0.100	ND	84.8	54.2-134	21.9	17.9	QR-02
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.8	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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 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 B6K0203 - EPA 5030 (soil)

Matrix Spike Dup (B6K0203-MSD2)	Source: X610325-02			Prepared: 11/02/2016 Analyzed: 11/03/2016						
Benzene	0.087	0.002	mg/kg	0.100	ND	87.1	71.8-126	6.66	11.3	
Toluene	0.104	0.002	"	0.100	ND	104	65.1-130	7.12	15.4	
Ethylbenzene	0.103	0.002	"	0.100	ND	103	62.2-130	8.17	19.6	
m,p-Xylene	0.204	0.004	"	0.200	ND	102	46.5-137	6.28	19.2	
o-Xylene	0.103	0.002	"	0.100	ND	103	54.2-134	4.77	17.9	
Surrogate: 1,2-Dichloroethane-d4	60		ug/kg	62.5		96.3	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.0	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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 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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**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B6K0205 - EPA 3580**

**Blank (B6K0205-BLK1)**

Prepared: 11/02/2016 Analyzed: 11/02/2016

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	41		"	50.0		81.1	59-131			

**LCS (B6K0205-BS1)**

Prepared: 11/02/2016 Analyzed: 11/02/2016

Diesel (C10-C28)	949	50.0	mg/kg	1000		94.9	64-121			
Residual Range Organics (C28-C40)	847	200	"	1000		84.7	58-124			
Surrogate: o-Terphenyl	37		"	50.0		73.7	59-131			

**Matrix Spike (B6K0205-MS1)**

**Source: X611035-01**

Prepared: 11/02/2016 Analyzed: 11/02/2016

Diesel (C10-C28)	989	50.0	mg/kg	1000	23.1	96.6	53-125			
Residual Range Organics (C28-C40)	835	200	"	1000	26.6	80.8	47-133			
Surrogate: o-Terphenyl	39		"	50.0		78.4	59-131			

**Matrix Spike Dup (B6K0205-MSD1)**

**Source: X611035-01**

Prepared: 11/02/2016 Analyzed: 11/02/2016

Diesel (C10-C28)	918	50.0	mg/kg	1000	23.1	89.5	53-125	7.71	20	
Residual Range Organics (C28-C40)	781	200	"	1000	26.6	75.4	47-133	6.84	20	
Surrogate: o-Terphenyl	42		"	50.0		83.4	59-131			

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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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**Notes and Definitions**

U Sample is Non-Detect.

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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November 04, 2016

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. November 03, 2016. This project is associated with Origins project number X611049-01.

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
RT-S04@6'	X611049-01	Soil	November 3, 2016 15:00	11/03/2016 18:26
RT-W01@6'	X611049-02	Soil	November 3, 2016 15:05	11/03/2016 18:26
RT-W02@6'	X611049-03	Soil	November 3, 2016 15:10	11/03/2016 18:26

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody 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



461049

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page | of |

Client: APC  
 Project Manager: Bob Cornez  
 Address: Hank's Pooling Unit 1  
 Project Name: Hank's Pooling Unit 1  
 Project Number: R141A  
 Telephone Number: 970 470 9042  
 Email Address: rcornez@originslab.com  
 Samples Collected By: R141A

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa #		
RT-50426	11/3/16	1500	2 X					X			8260 815 P20 815 P20	1
RT-50126	↓	1505	2 X					X			X X X X	2
RT-50226		1510	2 X					X			X X X X	3
												4
												5
												6
												7
												8
												9
												10

Relinquished By: [Signature]  
 Date: 11/3/16  
 Time: 1826

Received By: [Signature]  
 Date: 11/3/16  
 Time: 1826

Temp Received: 1.0  
 Date Results Needed

Origins Laboratory, Inc.

*Jefe Pellegrini*

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

Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [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: X611049 Client: Tasman  
 Checklist Completed by: Jeff Smil Client Project ID: Hank's Pooling unit #1  
 Date/time completed: 11-3-16 Shipped Via: 177D  
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)  
 Airbill #: N/A

Matrix(s) Received: (Check all that apply):  Soil/Solid  Water  Other: \_\_\_\_\_  
 Cooler Number/Temperature: 1 / 1.0 °C \_\_\_\_\_ / \_\_\_\_\_ °C \_\_\_\_\_ / \_\_\_\_\_ °C (Describe)  
 Thermometer ID: T603

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)</sup> ?	X			
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		f		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		S		
Were all samples received intact <sup>(1)</sup> ?	f			
Was adequate sample volume provided <sup>(1)</sup> ?	X			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?				
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	f			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	S			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	S			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	S			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>if yes, contact client and note in narrative.</b>			X	
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)			X	
Additional Comments (if any):				

<sup>(1)</sup>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 11-3-16

Origins Laboratory, Inc.

*Jeff 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

**RT-S04@6'**  
**11/3/2016 3:00:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611049-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	<b>26.1</b>	25.0	mg/kg	1	B6K0305	11/03/2016	11/03/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 67.8 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>24.8</b>	5.00	mg/kg	25	B6K0304	11/03/2016	11/04/2016	
Benzene	<b>0.130</b>	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	<b>0.228</b>	0.050	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4* 103 % 70-130 " " "  
*Surrogate: Toluene-d8* 95.1 % 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

RT-W01@6'  
 11/3/2016 3:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
 X611049-02 (Soil)

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	3050	25.0	mg/kg	1	B6K0305	11/03/2016	11/03/2016	
Residual Range Organics (C28-C40)	230	100	"	"	"	"	"	

Surrogate: o-Terphenyl 102 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	4330	50.0	mg/kg	250	B6K0304	11/03/2016	11/04/2016	
Benzene	7.20	0.498	"	"	"	"	"	
Toluene	ND	0.498	"	"	"	"	"	U
Ethylbenzene	12.1	0.498	"	"	"	"	"	
Xylenes, total	165	0.498	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 101 % 70-130 " " "

Surrogate: Toluene-d8 119 % 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

**RT-W02@6'**  
**11/3/2016 3:10:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611049-03 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	433	25.0	mg/kg	1	B6K0305	11/03/2016	11/03/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 66.1 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	2690	50.0	mg/kg	250	B6K0304	11/03/2016	11/04/2016	
Benzene	2.74	0.498	"	"	"	"	"	
Toluene	ND	0.498	"	"	"	"	"	U
Ethylbenzene	8.42	0.498	"	"	"	"	"	
Xylenes, total	87.9	0.498	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4* 101 % 70-130 " " "  
*Surrogate: Toluene-d8* 111 % 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

**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 B6K0304 - EPA 5030 (soil)**

**Blank (B6K0304-BLK1)**

Prepared: 11/03/2016 Analyzed: 11/04/2016

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	59		ug/kg	62.5		94.3	70-130			
Surrogate: Toluene-d8	67		"	62.5		108	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	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

**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 B6K0304 - EPA 5030 (soil)

**LCS (B6K0304-BS1)**

Prepared: 11/03/2016 Analyzed: 11/04/2016

Benzene	0.113	0.002	mg/kg	0.100		113	77.1-124			
Toluene	0.110	0.002	"	0.100		110	74.5-128			
Ethylbenzene	0.098	0.002	"	0.100		98.3	66.4-127			
m,p-Xylene	0.199	0.004	"	0.200		99.5	76.6-124			
o-Xylene	0.098	0.002	"	0.100		97.8	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	58		ug/kg	62.5		92.0	70-130			
Surrogate: Toluene-d8	68		"	62.5		109	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	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

**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 B6K0304 - EPA 5030 (soil)

Matrix Spike (B6K0304-MS1)	Source: X611048-01			Prepared: 11/03/2016 Analyzed: 11/04/2016						
Benzene	0.192	0.002	mg/kg	0.200	96.0	71.8-126				
Toluene	0.184	0.002	"	0.200	91.9	65.1-130				
Ethylbenzene	0.157	0.002	"	0.200	78.4	62.2-130				
m,p-Xylene	0.300	0.004	"	0.400	75.1	46.5-137				
o-Xylene	0.185	0.002	"	0.200	92.7	54.2-134				
Surrogate: 1,2-Dichloroethane-d4	58		ug/kg	62.5	92.8	70-130				
Surrogate: Toluene-d8	71		"	62.5	113	70-130				
Surrogate: 4-Bromofluorobenzene	67		"	62.5	107	70-130				

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 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 B6K0304 - EPA 5030 (soil)

Matrix Spike Dup (B6K0304-MSD1)	Source: X611048-01			Prepared: 11/03/2016 Analyzed: 11/04/2016						
Benzene	0.181	0.002	mg/kg	0.200	90.4	71.8-126	6.03	11.3		
Toluene	0.173	0.002	"	0.200	86.4	65.1-130	6.17	15.4		
Ethylbenzene	0.161	0.002	"	0.200	80.5	62.2-130	2.64	19.6		
m,p-Xylene	0.277	0.004	"	0.400	69.3	46.5-137	7.99	19.2		
o-Xylene	0.177	0.002	"	0.200	88.5	54.2-134	4.70	17.9		
Surrogate: 1,2-Dichloroethane-d4	51		ug/kg	62.5	81.0	70-130				
Surrogate: Toluene-d8	64		"	62.5	102	70-130				
Surrogate: 4-Bromofluorobenzene	63		"	62.5	101	70-130				

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 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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**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B6K0305 - EPA 3580**

**Blank (B6K0305-BLK1)**

Prepared: 11/03/2016 Analyzed: 11/03/2016

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	41		"	50.0		81.2	59-131			

**LCS (B6K0305-BS1)**

Prepared: 11/03/2016 Analyzed: 11/03/2016

Diesel (C10-C28)	1020	50.0	mg/kg	1000		102	64-121			
Residual Range Organics (C28-C40)	966	200	"	1000		96.6	58-124			
Surrogate: o-Terphenyl	39		"	50.0		77.9	59-131			

**Matrix Spike (B6K0305-MS1)**

**Source: X611048-01**

Prepared: 11/03/2016 Analyzed: 11/03/2016

Diesel (C10-C28)	1080	50.0	mg/kg	1000	16.6	106	53-125			
Residual Range Organics (C28-C40)	935	200	"	1000	19.5	91.5	47-133			
Surrogate: o-Terphenyl	40		"	50.0		80.1	59-131			

**Matrix Spike Dup (B6K0305-MSD1)**

**Source: X611048-01**

Prepared: 11/03/2016 Analyzed: 11/03/2016

Diesel (C10-C28)	1070	50.0	mg/kg	1000	16.6	105	53-125	0.850	20	
Residual Range Organics (C28-C40)	965	200	"	1000	19.5	94.6	47-133	3.31	20	
Surrogate: o-Terphenyl	45		"	50.0		89.1	59-131			

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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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November 07, 2016

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. November 04, 2016. This project is associated with Origins project number X611069-01.

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
RT-N03 @ 6'	X611069-01	Soil	November 4, 2016 14:30	11/04/2016 17:00
GW-11/04/16	X611069-02	Water	November 4, 2016 14:00	11/04/2016 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

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X611069

Client: Tasman

Client Project ID: Hanks Pooling Unit 1

Checklist Completed by: Jeff Smith

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

Date/time completed: 11-4-12

Airbill #: N/A

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

Cooler Number/Temperature: 1 12.4 °C 1 °C 1 °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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)	<input checked="" type="checkbox"/>			<u>Hic</u>
Additional Comments (if any):				

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

Reviewed by: [Signature] (Project Manager)

Date/Time Reviewed: 11-4-12

Origins Laboratory, Inc.

[Signature]

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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

**RT-N03 @ 6'**  
**11/4/2016 2:30:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611069-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	29.0	25.0	mg/kg	1	B6K0402	11/04/2016	11/04/2016	
Residual Range Organics (C28-C40)	209	100	"	"	"	"	"	

Surrogate: *o*-Terphenyl 77.3 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B6K0304	11/04/2016	11/04/2016	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 96.0 % 70-130 " " "  
 Surrogate: Toluene-d8 103 % 70-130 " " "  
 Surrogate: 4-Bromofluorobenzene 99.7 % 70-130 " " "

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 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**GW-11/04/16**  
**11/4/2016 2:00:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611069-02 (Water)**

**BTEX by EPA 8260C**

Benzene	108	1.00	ug/L	1	B6K0403	11/04/2016	11/05/2016	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	48.7	1.00	"	"	"	"	"	
Xylenes, total	240	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	94.9 %	84-114			"	"	"	

Origins Laboratory, Inc.



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 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
<b>Batch B6K0304 - EPA 5030 (soil)</b>										
<b>Blank (B6K0304-BLK1)</b>										
					Prepared: 11/03/2016 Analyzed: 11/04/2016					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	59		ug/kg	62.5		94.3	70-130			
Surrogate: Toluene-d8	67		"	62.5		108	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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 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 B6K0304 - EPA 5030 (soil)**

**LCS (B6K0304-BS1)**

Prepared: 11/03/2016 Analyzed: 11/04/2016

Benzene	0.113	0.002	mg/kg	0.100		113	77.1-124			
Toluene	0.110	0.002	"	0.100		110	74.5-128			
Ethylbenzene	0.098	0.002	"	0.100		98.3	66.4-127			
m,p-Xylene	0.199	0.004	"	0.200		99.5	76.6-124			
o-Xylene	0.098	0.002	"	0.100		97.8	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	58		ug/kg	62.5		92.0	70-130			
Surrogate: Toluene-d8	68		"	62.5		109	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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 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 B6K0304 - EPA 5030 (soil)

Matrix Spike (B6K0304-MS1)	Source: X611048-01			Prepared: 11/03/2016 Analyzed: 11/04/2016						
Benzene	0.192	0.002	mg/kg	0.200	ND	96.0	71.8-126			
Toluene	0.184	0.002	"	0.200	ND	91.9	65.1-130			
Ethylbenzene	0.157	0.002	"	0.200	ND	78.4	62.2-130			
m,p-Xylene	0.300	0.004	"	0.400	ND	75.1	46.5-137			
o-Xylene	0.185	0.002	"	0.200	ND	92.7	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	58		ug/kg	62.5		92.8	70-130			
Surrogate: Toluene-d8	71		"	62.5		113	70-130			
Surrogate: 4-Bromofluorobenzene	67		"	62.5		107	70-130			

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 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 B6K0304 - EPA 5030 (soil)

Matrix Spike Dup (B6K0304-MSD1)	Source: X611048-01			Prepared: 11/03/2016 Analyzed: 11/04/2016						
Benzene	0.181	0.002	mg/kg	0.200	ND	90.4	71.8-126	6.03	11.3	
Toluene	0.173	0.002	"	0.200	ND	86.4	65.1-130	6.17	15.4	
Ethylbenzene	0.161	0.002	"	0.200	ND	80.5	62.2-130	2.64	19.6	
m,p-Xylene	0.277	0.004	"	0.400	ND	69.3	46.5-137	7.99	19.2	
o-Xylene	0.177	0.002	"	0.200	ND	88.5	54.2-134	4.70	17.9	
Surrogate: 1,2-Dichloroethane-d4	51		ug/kg	62.5		81.0	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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 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 B6K0403 - EPA 5030B (Water)**

**Blank (B6K0403-BLK1)**

Prepared: 11/04/2016 Analyzed: 11/04/2016

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
<i>Surrogate: 1,2-Dichloroethane-d4</i>	61		"	62.5		98.1	84-121			
<i>Surrogate: Toluene-d8</i>	64		"	62.5		102	85-115			
<i>Surrogate: 4-Bromofluorobenzene</i>	62		"	62.5		98.9	84-114			

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 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 B6K0403 - EPA 5030B (Water)**

**LCS (B6K0403-BS1)**

Prepared: 11/04/2016 Analyzed: 11/04/2016

Benzene	55.8	1.00	ug/L	50.0		112	73.3-129			
Toluene	56.4	1.00	"	50.0		113	76.2-123			
Ethylbenzene	58.3	1.00	"	50.0		117	73.6-130			
m,p-Xylene	117	2.00	"	100		117	76.1-126			
o-Xylene	58.0	1.00	"	50.0		116	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		98.1	84-121			
Surrogate: Toluene-d8	65		"	62.5		104	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.5	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [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 B6K0403 - EPA 5030B (Water)

Matrix Spike (B6K0403-MS1)	Source: X610344-01			Prepared: 11/04/2016 Analyzed: 11/04/2016						
Benzene	52.7	1.00	ug/L	50.0	0.340	105	74-130			
Toluene	52.1	1.00	"	50.0	0.130	104	73-131			
Ethylbenzene	52.6	1.00	"	50.0	ND	105	76-132			
m,p-Xylene	106	2.00	"	100	ND	106	69-139			
o-Xylene	52.7	1.00	"	50.0	ND	105	74-131			
Surrogate: 1,2-Dichloroethane-d4	54		"	62.5		86.1	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	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 B6K0403 - EPA 5030B (Water)**

Matrix Spike Dup (B6K0403-MSD1)	Source: X610344-01			Prepared: 11/04/2016 Analyzed: 11/04/2016						
Benzene	54.4	1.00	ug/L	50.0	0.340	108	74-130	3.23	20	
Toluene	52.7	1.00	"	50.0	0.130	105	73-131	1.13	20	
Ethylbenzene	53.0	1.00	"	50.0	ND	106	76-132	0.795	20	
m,p-Xylene	106	2.00	"	100	ND	106	69-139	0.0189	20	
o-Xylene	53.4	1.00	"	50.0	ND	107	74-131	1.45	20	
Surrogate: 1,2-Dichloroethane-d4	57		"	62.5		91.9	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.1	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [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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**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B6K0402 - EPA 3580**

**Blank (B6K0402-BLK1)**

Prepared: 11/04/2016 Analyzed: 11/04/2016

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	40		"	50.0		79.4	59-131			

**Blank (B6K0402-BLK2)**

Prepared: 11/04/2016 Analyzed: 11/04/2016

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	36		"	50.0		71.5	59-131			

**LCS (B6K0402-BS1)**

Prepared: 11/04/2016 Analyzed: 11/04/2016

Diesel (C10-C28)	902	50.0	mg/kg	1000		90.2	64-121			
Residual Range Organics (C28-C40)	871	200	"	1000		87.1	58-124			
Surrogate: o-Terphenyl	36		"	50.0		71.7	59-131			

**LCS (B6K0402-BS2)**

Prepared: 11/04/2016 Analyzed: 11/04/2016

Diesel (C10-C28)	877	50.0	mg/kg	1000		87.7	64-121			
Residual Range Organics (C28-C40)	836	200	"	1000		83.6	58-124			
Surrogate: o-Terphenyl	35		"	50.0		71.0	59-131			

**Matrix Spike (B6K0402-MS1)**

Source: X610348-01

Prepared: 11/04/2016 Analyzed: 11/04/2016

Diesel (C10-C28)	1840	50.0	mg/kg	1000	1390	45.2	53-125			QM-07
Residual Range Organics (C28-C40)	4140	200	"	1000	3820	32.2	47-133			QM-4X

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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

**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B6K0402 - EPA 3580</b>										
<b>Matrix Spike (B6K0402-MS1)</b>		<b>Source: X610348-01</b>			Prepared: 11/04/2016 Analyzed: 11/04/2016					
Surrogate: o-Terphenyl	39		mg/kg	50.0		78.4	59-131			
<b>Matrix Spike (B6K0402-MS2)</b>		<b>Source: X610348-02</b>			Prepared: 11/04/2016 Analyzed: 11/04/2016					
Diesel (C10-C28)	1070	50.0	mg/kg	1000	276	79.1	53-125			
Residual Range Organics (C28-C40)	1290	200	"	1000	479	81.5	47-133			
Surrogate: o-Terphenyl	45		"	50.0		89.8	59-131			
<b>Matrix Spike Dup (B6K0402-MSD1)</b>		<b>Source: X610348-01</b>			Prepared: 11/04/2016 Analyzed: 11/04/2016					
Diesel (C10-C28)	1990	50.0	mg/kg	1000	1390	60.2	53-125	28.5	20	QM-07
Residual Range Organics (C28-C40)	4380	200	"	1000	3820	55.5	47-133	53.0	20	QM-4X
Surrogate: o-Terphenyl	37		"	50.0		73.3	59-131			
<b>Matrix Spike Dup (B6K0402-MSD2)</b>		<b>Source: X610348-02</b>			Prepared: 11/04/2016 Analyzed: 11/04/2016					
Diesel (C10-C28)	1010	50.0	mg/kg	1000	276	73.5	53-125	7.35	20	
Residual Range Organics (C28-C40)	1140	200	"	1000	479	65.8	47-133	21.3	20	QM-07
Surrogate: o-Terphenyl	41		"	50.0		82.1	59-131			

Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

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

---

**Notes and Definitions**

U Sample is Non-Detect.

QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

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.*

November 10, 2016

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. November 09, 2016. This project is associated with Origins project number X611123-01.

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
RT-N04 @ 6'	X611123-01	Soil	November 9, 2016 14:35	11/09/2016 16:40
RT-S05 @ 6'	X611123-02	Soil	November 9, 2016 14:40	11/09/2016 16:40
RT-E02 @ 6'	X611123-03	Soil	November 9, 2016 14:45	11/09/2016 16:40
RT-N05 @ 6'	X611123-04	Soil	November 9, 2016 14:50	11/09/2016 16:40
RT-W03 @ 6'	X611123-05	Soil	November 9, 2016 14:55	11/09/2016 16:40

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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 page 1 of 1

**X611123**

**ORIGINS**  
 LABORATORY, INC

Client: APL  
 Project Manager: Robert Cornez  
 Address: Hank's Pooling Unit 1  
 Project Name: Hank's Pooling Unit 1  
 Project Number:                       
 Telephone Number: 303-884-1525  
 Email Address: rcornez@tasman-geo.com  
 Samples Collected By: Zak M. Mike J

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summ #			Con. #
RT-N04E6'	11/4/16	1435	2	X				X					1 Sun. Day
RT-S05E6'		1440											2
RT-E02E6'		1445											3
RT-N05E6'		1450											4
RT-W03E6'		1455											5
													6
													7
													8
													9
													10

Analysis: TRH-DRO/DR, R015, G-120, G-12X

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

Relinquished By: Zak M. Mike J Date: 11/4/16 Time: 16:40  
 Relinquished By: [Signature] Date: 11/9/16 Time: 16:40

Temp Received: 5.7 Date Results Needed:                     

Origins Laboratory, Inc.

*Jefe Pellegrini*

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

Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [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: X 61123

Client: Tasman  
 Client Project ID: Hank's Pooling Unit 1

Checklist Completed by: JH Sm-L

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

Date/time completed: 11-9-12

Airbill #: NA

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

Cooler Number/Temperature: 1 15.7 °C 1 °C 1 °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 <sup>(1)</sup> ?	X			
Is there ice present (document if blue ice is used)	✓			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		✓		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<		
Were all samples received intact <sup>(1)</sup> ?	X			
Was adequate sample volume provided <sup>(1)</sup> ?	X			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		X		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	X			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	✓			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>			X	
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (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 <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH >10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)			X	
Additional Comments (if any):				

<sup>(1)</sup>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) JH Sm-L Date/Time Reviewed 11-9-12

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

**RT-N04 @ 6'**  
**11/9/2016 2:35:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611123-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K0907	11/09/2016	11/09/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 67.2 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6K0906	11/09/2016	11/09/2016	U
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

*Surrogate: 1,2-Dichloroethane-d4* 98.6 % 70-130 " " "  
*Surrogate: Toluene-d8* 102 % 70-130 " " "  
*Surrogate: 4-Bromofluorobenzene* 99.6 % 70-130 " " "

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-S05 @ 6'**  
**11/9/2016 2:40:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611123-02 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	<b>294</b>	25.0	mg/kg	1	B6K0907	11/09/2016	11/09/2016	
Residual Range Organics (C28-C40)	<b>153</b>	100	"	"	"	"	"	

Surrogate: *o*-Terphenyl 67.3 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>1580</b>	50.0	mg/kg	250	B6K0906	11/09/2016	11/10/2016	
Benzene	ND	0.050	"	25	"	"	11/10/2016	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	<b>3.21</b>	0.050	"	"	"	"	"	
Xylenes, total	<b>25.4</b>	0.498	"	250	"	"	11/10/2016	

Surrogate: 1,2-Dichloroethane-d4 98.3 % 70-130 " " "  
 Surrogate: Toluene-d8 81.6 % 70-130 " " "  
 Surrogate: 4-Bromofluorobenzene 111 % 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

**RT-E02 @ 6'**  
**11/9/2016 2:45:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611123-03 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K0907	11/09/2016	11/09/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 73.8 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6K0906	11/09/2016	11/10/2016	U
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

*Surrogate: 1,2-Dichloroethane-d4* 95.3 % 70-130 " " "  
*Surrogate: Toluene-d8* 102 % 70-130 " " "  
*Surrogate: 4-Bromofluorobenzene* 98.8 % 70-130 " " "

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-N05 @ 6'**  
**11/9/2016 2:50:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611123-04 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	40.6	25.0	mg/kg	1	B6K0907	11/09/2016	11/09/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl*      70.9 %      59-131      "      "      "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	1570	50.0	mg/kg	250	B6K0906	11/09/2016	11/10/2016	
Benzene	2.59	0.050	"	25	"	"	11/10/2016	
Toluene	0.056	0.050	"	"	"	"	"	
Ethylbenzene	5.42	0.050	"	"	"	"	"	
Xylenes, total	34.9	0.498	"	250	"	"	11/10/2016	

*Surrogate: 1,2-Dichloroethane-d4*      103 %      70-130      "      "      "

*Surrogate: Toluene-d8*      88.3 %      70-130      "      "      "

*Surrogate: 4-Bromofluorobenzene*      102 %      70-130      "      "      "

Origins Laboratory, Inc.



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 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-W03 @ 6'**  
**11/9/2016 2:55:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611123-05 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	<b>99.3</b>	25.0	mg/kg	1	B6K0907	11/09/2016	11/09/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

*Surrogate: o-Terphenyl* 66.1 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>1960</b>	50.0	mg/kg	250	B6K0906	11/09/2016	11/10/2016	
Benzene	<b>1.33</b>	0.050	"	25	"	"	11/10/2016	
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	<b>7.96</b>	0.050	"	"	"	"	"	
Xylenes, total	<b>58.7</b>	0.498	"	250	"	"	11/10/2016	

*Surrogate: 1,2-Dichloroethane-d4* 94.4 % 70-130 " " "  
*Surrogate: Toluene-d8* 80.4 % 70-130 " " "  
*Surrogate: 4-Bromofluorobenzene* 106 % 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

**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 B6K0906 - EPA 5030 (soil)**

**Blank (B6K0906-BLK1)**

Prepared: 11/09/2016 Analyzed: 11/09/2016

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	68		ug/kg	62.5		109	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.1	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

**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
<b>Batch B6K0906 - EPA 5030 (soil)</b>										
<b>Blank (B6K0906-BLK2)</b>										
					Prepared: 11/09/2016 Analyzed: 11/09/2016					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		105	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.3	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 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 B6K0906 - EPA 5030 (soil)

**LCS (B6K0906-BS1)**

Prepared: 11/09/2016 Analyzed: 11/09/2016

Benzene	0.097	0.002	mg/kg	0.100		96.9	77.1-124			
Toluene	0.097	0.002	"	0.100		96.7	74.5-128			
Ethylbenzene	0.094	0.002	"	0.100		93.8	66.4-127			
m,p-Xylene	0.212	0.004	"	0.200		106	76.6-124			
o-Xylene	0.094	0.002	"	0.100		94.4	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	68		ug/kg	62.5		108	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.1	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

**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 B6K0906 - EPA 5030 (soil)**

**LCS (B6K0906-BS2)**

Prepared: 11/09/2016 Analyzed: 11/09/2016

Benzene	0.093	0.002	mg/kg	0.100		93.1	77.1-124			
Toluene	0.092	0.002	"	0.100		92.4	74.5-128			
Ethylbenzene	0.093	0.002	"	0.100		92.5	66.4-127			
m,p-Xylene	0.210	0.004	"	0.200		105	76.6-124			
o-Xylene	0.095	0.002	"	0.100		95.0	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	54		ug/kg	62.5		86.6	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.7	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		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

**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 B6K0906 - EPA 5030 (soil)

Matrix Spike (B6K0906-MS1)	Source: X611031-01			Prepared: 11/09/2016 Analyzed: 11/09/2016						
Benzene	0.091	0.002	mg/kg	0.100	ND	90.5	71.8-126			
Toluene	0.105	0.002	"	0.100	ND	105	65.1-130			
Ethylbenzene	0.090	0.002	"	0.100	ND	89.9	62.2-130			
m,p-Xylene	0.179	0.004	"	0.200	ND	89.3	46.5-137			
o-Xylene	0.087	0.002	"	0.100	ND	87.2	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	74		ug/kg	62.5		119	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		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

**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 B6K0906 - EPA 5030 (soil)

Matrix Spike (B6K0906-MS2)	Source: X611031-03			Prepared: 11/09/2016 Analyzed: 11/09/2016						
Benzene	0.097	0.002	mg/kg	0.100	ND	96.9	71.8-126			
Toluene	0.110	0.002	"	0.100	ND	110	65.1-130			
Ethylbenzene	0.095	0.002	"	0.100	ND	95.4	62.2-130			
m,p-Xylene	0.190	0.004	"	0.200	ND	95.1	46.5-137			
o-Xylene	0.092	0.002	"	0.100	ND	91.7	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	70		ug/kg	62.5		112	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [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 B6K0906 - EPA 5030 (soil)

Matrix Spike Dup (B6K0906-MSD1)	Source: X611031-01			Prepared: 11/09/2016 Analyzed: 11/09/2016						
Benzene	0.083	0.002	mg/kg	0.100	ND	83.2	71.8-126	8.38	11.3	
Toluene	0.097	0.002	"	0.100	ND	96.9	65.1-130	7.61	15.4	
Ethylbenzene	0.081	0.002	"	0.100	ND	81.4	62.2-130	9.90	19.6	
m,p-Xylene	0.164	0.004	"	0.200	ND	81.9	46.5-137	8.62	19.2	
o-Xylene	0.083	0.002	"	0.100	ND	83.3	54.2-134	4.53	17.9	
Surrogate: 1,2-Dichloroethane-d4	73		ug/kg	62.5		117	70-130			
Surrogate: Toluene-d8	65		"	62.5		104	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [none]  
 Project: KMG - 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 B6K0906 - EPA 5030 (soil)

Matrix Spike Dup (B6K0906-MSD2)	Source: X611031-03			Prepared: 11/09/2016 Analyzed: 11/09/2016						
Benzene	0.093	0.002	mg/kg	0.100	ND	93.3	71.8-126	3.70	11.3	
Toluene	0.104	0.002	"	0.100	ND	104	65.1-130	4.73	15.4	
Ethylbenzene	0.089	0.002	"	0.100	ND	88.9	62.2-130	7.01	19.6	
m,p-Xylene	0.176	0.004	"	0.200	ND	88.2	46.5-137	7.56	19.2	
o-Xylene	0.086	0.002	"	0.100	ND	86.5	54.2-134	5.88	17.9	
Surrogate: 1,2-Dichloroethane-d4	71		ug/kg	62.5		114	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.2	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

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B6K0907 - EPA 3580**

**Blank (B6K0907-BLK1)**

Prepared: 11/09/2016 Analyzed: 11/09/2016

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	46		"	50.0		92.6	59-131			

**Blank (B6K0907-BLK2)**

Prepared: 11/09/2016 Analyzed: 11/09/2016

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	38		"	50.0		75.8	59-131			

**LCS (B6K0907-BS1)**

Prepared: 11/09/2016 Analyzed: 11/09/2016

Diesel (C10-C28)	832	50.0	mg/kg	1000		83.2	64-121			
Residual Range Organics (C28-C40)	827	200	"	1000		82.7	58-124			
Surrogate: o-Terphenyl	40		"	50.0		81.0	59-131			

**LCS (B6K0907-BS2)**

Prepared: 11/09/2016 Analyzed: 11/09/2016

Diesel (C10-C28)	818	50.0	mg/kg	1000		81.8	64-121			
Residual Range Organics (C28-C40)	821	200	"	1000		82.1	58-124			
Surrogate: o-Terphenyl	39		"	50.0		78.8	59-131			

**Matrix Spike (B6K0907-MS1)**

Source: X611062-02

Prepared: 11/09/2016 Analyzed: 11/09/2016

Diesel (C10-C28)	804	50.0	mg/kg	1000	13.1	79.1	53-125			
Residual Range Organics (C28-C40)	801	200	"	1000	12.4	78.8	47-133			

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

**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B6K0907 - EPA 3580</b>										
<b>Matrix Spike (B6K0907-MS1)</b>			<b>Source: X611062-02</b>			Prepared: 11/09/2016 Analyzed: 11/09/2016				
Surrogate: o-Terphenyl	38		mg/kg	50.0		76.8	59-131			
<b>Matrix Spike (B6K0907-MS2)</b>			<b>Source: X611062-03</b>			Prepared: 11/09/2016 Analyzed: 11/09/2016				
Diesel (C10-C28)	866	50.0	mg/kg	1000	ND	86.6	53-125			
Residual Range Organics (C28-C40)	857	200	"	1000	12.2	84.4	47-133			
Surrogate: o-Terphenyl	43		"	50.0		86.0	59-131			
<b>Matrix Spike Dup (B6K0907-MSD1)</b>			<b>Source: X611062-02</b>			Prepared: 11/09/2016 Analyzed: 11/09/2016				
Diesel (C10-C28)	702	50.0	mg/kg	1000	13.1	68.9	53-125	13.9	20	
Residual Range Organics (C28-C40)	699	200	"	1000	12.4	68.7	47-133	13.7	20	
Surrogate: o-Terphenyl	35		"	50.0		69.4	59-131			
<b>Matrix Spike Dup (B6K0907-MSD2)</b>			<b>Source: X611062-03</b>			Prepared: 11/09/2016 Analyzed: 11/09/2016				
Diesel (C10-C28)	807	50.0	mg/kg	1000	ND	80.7	53-125	7.07	20	
Residual Range Organics (C28-C40)	805	200	"	1000	12.2	79.2	47-133	6.36	20	
Surrogate: o-Terphenyl	39		"	50.0		77.4	59-131			

Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

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

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**Notes and Definitions**

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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

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Jen Pellegrini For Noelle Doyle Mathis, President

November 11, 2016

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. November 10, 2016. This project is associated with Origins project number X611144-01.

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
RT-S06@6'	X611144-01	Soil	November 10, 2016 12:00	11/10/2016 16:23
RT-S07@6'	X611144-02	Soil	November 10, 2016 12:15	11/10/2016 16:23
RT-E03@6'	X611144-03	Soil	November 10, 2016 12:30	11/10/2016 16:23

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody 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

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X611144 page 1 of 1



Client: ARC  
 Address: \_\_\_\_\_  
 Project Manager: Bob Cornez  
 Project Name: Hank's Pooling Unit 1  
 Project Number: \_\_\_\_\_  
 Telephone Number: 9704709042  
 Email Address: rcornez@tgs.mt-geo.com  
 Samples Collected By: R. Levin

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa #			Other
RT-506@6'	11/10/16	1200	2	X				X				1	
RT-507@6'	↓	1215	↓	↓				↓				2	
RT-503@6'	↓	1230	↓	↓				↓				3	
												4	
												5	
												6	
												7	
												8	
												9	
												10	

Relinquished By: \_\_\_\_\_  
 Date: 11/10/16  
 Time: 1623

Relinquished By: \_\_\_\_\_  
 Date: 11/10/16  
 Time: 1623

Received By: \_\_\_\_\_  
 Date: 11/10/16  
 Time: 1623

Received By: \_\_\_\_\_  
 Date: 11/10/16  
 Time: 1623

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

Temp Received: 2.5 Date Results Needed

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody 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: X61144 Client: Tasman Geosciences  
 Client Project ID: Hank's pooling unit 1  
 Checklist Completed by: J. Pellegrini Shipped Via: Pickup  
 Date/time completed: 1/10/12 (UPS, FedEx, Hand Delivered, Pick-up, etc.)  
 Airbill #: NA  
 Matrix(s) Received: (Check all that apply):  Soil/Solid  Water  Other: \_\_\_\_\_  
 Cooler Number/Temperature: 1 12.5 °C 1 °C 1 °C (Describe) \_\_\_\_\_ °C  
 Thermometer ID: 1003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)</sup> ?	X			
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact <sup>(1)</sup> ?	X			
Was adequate sample volume provided <sup>(1)</sup> ?	X			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		X		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	X			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	X			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	X			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	X			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>			X	
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (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 <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH >10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)			X	
Additional Comments (if any):				

<sup>(1)</sup> 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.

J. Pellegrini Reviewed by (Project Manager) 1/10/12 Date/Time Reviewed

Origins Laboratory, Inc.



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

Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

**RT-S06@6'**  
**11/10/2016 12:00:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611144-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	101	25.0	mg/kg	1	B6K1003	11/10/2016	11/11/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: *o*-Terphenyl 57.8 % 59-131 " " " S-DUP

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	7.69	5.00	mg/kg	25	B6K1001	"	11/11/2016	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 99.7 % 70-130 " " " "  
 Surrogate: Toluene-d8 100 % 70-130 " " " "  
 Surrogate: 4-Bromofluorobenzene 100 % 70-130 " " " "

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

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

RT-S07@6'  
 11/10/2016 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
 X611144-02 (Soil)

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K1003	11/10/2016	11/10/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: *o*-Terphenyl 60.3 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>38.2</b>	5.00	mg/kg	25	B6K1001	"	11/11/2016	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 97.2 % 70-130 " " "  
 Surrogate: Toluene-d8 106 % 70-130 " " "  
 Surrogate: 4-Bromofluorobenzene 109 % 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

RT-E03@6'  
 11/10/2016 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611144-03 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K1003	11/10/2016	11/11/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: *o*-Terphenyl 49.8 % 59-131 " " " S-DUP

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6K1001	"	11/11/2016	U
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	<b>0.164</b>	0.050	"	"	"	"	"	
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 98.4 % 70-130  
 Surrogate: Toluene-d8 101 % 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

**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 B6K1001 - EPA 5030 (soil)**

**Blank (B6K1001-BLK1)**

Prepared: 11/10/2016 Analyzed: 11/10/2016

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.1	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 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 B6K1001 - EPA 5030 (soil)

**LCS (B6K1001-BS1)**

Prepared: 11/10/2016 Analyzed: 11/10/2016

Benzene	0.104	0.002	mg/kg	0.100		104	77.1-124			
Toluene	0.116	0.002	"	0.100		116	74.5-128			
Ethylbenzene	0.105	0.002	"	0.100		105	66.4-127			
m,p-Xylene	0.210	0.004	"	0.200		105	76.6-124			
o-Xylene	0.103	0.002	"	0.100		103	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		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

**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 B6K1001 - EPA 5030 (soil)

Matrix Spike (B6K1001-MS1)	Source: X611099-01			Prepared: 11/10/2016 Analyzed: 11/10/2016						
Benzene	0.090	0.002	mg/kg	0.100	ND	89.9	71.8-126			
Toluene	0.100	0.002	"	0.100	ND	100	65.1-130			
Ethylbenzene	0.089	0.002	"	0.100	ND	88.7	62.2-130			
m,p-Xylene	0.177	0.004	"	0.200	ND	88.3	46.5-137			
o-Xylene	0.086	0.002	"	0.100	ND	85.9	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	66		ug/kg	62.5		106	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.9	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

**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 B6K1001 - EPA 5030 (soil)

Matrix Spike Dup (B6K1001-MSD1)	Source: X611099-01			Prepared: 11/10/2016 Analyzed: 11/10/2016						
Benzene	0.091	0.002	mg/kg	0.100	ND	91.0	71.8-126	1.17	11.3	
Toluene	0.104	0.002	"	0.100	ND	104	65.1-130	3.75	15.4	
Ethylbenzene	0.092	0.002	"	0.100	ND	91.7	62.2-130	3.35	19.6	
m,p-Xylene	0.182	0.004	"	0.200	ND	91.2	46.5-137	3.20	19.2	
o-Xylene	0.088	0.002	"	0.100	ND	88.1	54.2-134	2.48	17.9	
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [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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**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B6K1003 - EPA 3580**

**Blank (B6K1003-BLK1)**

Prepared: 11/10/2016 Analyzed: 11/10/2016

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	39		"	50.0		78.1	59-131			

**LCS (B6K1003-BS1)**

Prepared: 11/10/2016 Analyzed: 11/10/2016

Diesel (C10-C28)	951	50.0	mg/kg	1000		95.1	64-121			
Residual Range Organics (C28-C40)	974	200	"	1000		97.4	58-124			
Surrogate: o-Terphenyl	47		"	50.0		93.3	59-131			

**Matrix Spike (B6K1003-MS1)**

Source: X611122-02

Prepared: 11/10/2016 Analyzed: 11/10/2016

Diesel (C10-C28)	850	50.0	mg/kg	1000	16.9	83.3	53-125			
Residual Range Organics (C28-C40)	895	200	"	1000	13.6	88.1	47-133			
Surrogate: o-Terphenyl	42		"	50.0		84.4	59-131			

**Matrix Spike Dup (B6K1003-MSD1)**

Source: X611122-02

Prepared: 11/10/2016 Analyzed: 11/10/2016

Diesel (C10-C28)	822	50.0	mg/kg	1000	16.9	80.5	53-125	3.41	20	
Residual Range Organics (C28-C40)	826	200	"	1000	13.6	81.2	47-133	8.16	20	
Surrogate: o-Terphenyl	41		"	50.0		81.7	59-131			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody 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

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**Notes and Definitions**

U Sample is Non-Detect.

S-DUP Duplicate analysis confirmed surrogate failure due to matrix effects.

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

November 15, 2016

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. November 14, 2016. This project is associated with Origins project number X611171-01.

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
Background-11/14/16	X611171-01	Soil	November 14, 2016 14:30	11/14/2016 17:03
RT-W04@6'	X611171-02	Soil	November 14, 2016 14:00	11/14/2016 17:03
RT-W05@6'	X611171-03	Soil	November 14, 2016 14:15	11/14/2016 17:03

Origins Laboratory, Inc.



*The results in 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

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

Sample Receipt Checklist

Origins Work Order: **XG11171**

Client: Tasman  
 Client Project ID: Hank's Pooling Unit 1

Checklist Completed by: JEP Smith  
 Date/time completed: 11-14-12

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

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

Cooler Number/Temperature: 1 / 3.7 °C 1 °C 1 °C (Describe) 1 °C

Thermometer ID: T653

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)</sup> ?	X			
Is there ice present (document if blue ice is used)	<			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<		
Were all samples received intact <sup>(1)</sup> ?	X			
Was adequate sample volume provided <sup>(1)</sup> ?	X			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?	.	X		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>			X	
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)			<	
Additional Comments (if any):				

<sup>(1)</sup> 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.

JEP Smith  
 Reviewed by (Project Manager)

11-14-12  
 Date/Time Reviewed

Origins Laboratory, Inc.



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

Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

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

**Background-11/14/16**  
**11/14/2016 2:30:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X611171-01 (Soil)**

**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	<b>0.0944</b>		mmhos/cm	1	B6K1408	11/14/2016	11/14/2016	
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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

RT-W04@6'  
 11/14/2016 2:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
 X611171-02 (Soil)

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6K1402	11/14/2016	11/14/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: *o*-Terphenyl 62.9 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>6.02</b>	5.00	mg/kg	25	B6K1401	11/14/2016	11/14/2016	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	<b>0.125</b>	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 98.6 % 70-130 " " "  
 Surrogate: Toluene-d8 99.6 % 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

RT-W05@6'  
 11/14/2016 2:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
 X611171-03 (Soil)

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	32.5	25.0	mg/kg	1	B6K1402	11/14/2016	11/14/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 54.2 % 59-131 " " " S-04

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6K1401	11/14/2016	11/14/2016	U
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	0.112	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 100 % 70-130 " " "

Surrogate: Toluene-d8 100 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 100 % 70-130 " " "

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [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
<b>Batch B6K1401 - EPA 5030 (soil)</b>										
<b>Blank (B6K1401-BLK1)</b>										
					Prepared: 11/14/2016 Analyzed: 11/14/2016					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.4	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [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 B6K1401 - EPA 5030 (soil)**

**Blank (B6K1401-BLK2)**

Prepared: 11/14/2016 Analyzed: 11/14/2016

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	68		ug/kg	62.5		108	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [none]  
 Project: KMG - 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 B6K1401 - EPA 5030 (soil)**

**LCS (B6K1401-BS1)**

Prepared: 11/14/2016 Analyzed: 11/14/2016

Benzene	0.089	0.002	mg/kg	0.100		89.2	77.1-124			
Toluene	0.089	0.002	"	0.100		88.5	74.5-128			
Ethylbenzene	0.086	0.002	"	0.100		85.9	66.4-127			
m,p-Xylene	0.191	0.004	"	0.200		95.3	76.6-124			
o-Xylene	0.086	0.002	"	0.100		85.8	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	68		ug/kg	62.5		110	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.0	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

**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 B6K1401 - EPA 5030 (soil)**

**LCS (B6K1401-BS2)**

Prepared: 11/14/2016 Analyzed: 11/14/2016

Benzene	0.094	0.002	mg/kg	0.100		93.8	77.1-124			
Toluene	0.092	0.002	"	0.100		92.0	74.5-128			
Ethylbenzene	0.091	0.002	"	0.100		90.6	66.4-127			
m,p-Xylene	0.205	0.004	"	0.200		102	76.6-124			
o-Xylene	0.093	0.002	"	0.100		93.0	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	69		ug/kg	62.5		111	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.6	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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Tasman Geosciences  
 6899 Pecos Street, Unit C  
 Denver CO 80211

Bob Cornez  
 Project Number: [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 B6K1401 - EPA 5030 (soil)

Matrix Spike (B6K1401-MS1)	Source: X611119-01			Prepared: 11/14/2016 Analyzed: 11/14/2016						
Benzene	0.099	0.002	mg/kg	0.100	ND	99.2	71.8-126			
Toluene	0.099	0.002	"	0.100	ND	98.9	65.1-130			
Ethylbenzene	0.095	0.002	"	0.100	0.0007	94.3	62.2-130			
m,p-Xylene	0.216	0.004	"	0.200	ND	108	46.5-137			
o-Xylene	0.095	0.002	"	0.100	0.0003	94.8	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	69		ug/kg	62.5		110	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.8	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6K1401 - EPA 5030 (soil)

Matrix Spike (B6K1401-MS2)	Source: X611119-02			Prepared: 11/14/2016 Analyzed: 11/14/2016						
Benzene	0.103	0.002	mg/kg	0.100	ND	103	71.8-126			
Toluene	0.099	0.002	"	0.100	ND	98.9	65.1-130			
Ethylbenzene	0.094	0.002	"	0.100	0.0009	93.6	62.2-130			
m,p-Xylene	0.213	0.004	"	0.200	ND	107	46.5-137			
o-Xylene	0.096	0.002	"	0.100	0.0004	95.4	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	69		ug/kg	62.5		111	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.9	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6K1401 - EPA 5030 (soil)

Matrix Spike Dup (B6K1401-MSD1)	Source: X611119-01			Prepared: 11/14/2016 Analyzed: 11/14/2016						
Benzene	0.083	0.002	mg/kg	0.100	ND	83.0	71.8-126	17.8	11.3	QR-02
Toluene	0.080	0.002	"	0.100	ND	80.5	65.1-130	20.5	15.4	QR-02
Ethylbenzene	0.076	0.002	"	0.100	0.0007	75.0	62.2-130	22.6	19.6	QR-02
m,p-Xylene	0.168	0.004	"	0.200	ND	84.1	46.5-137	25.0	19.2	QR-02
o-Xylene	0.077	0.002	"	0.100	0.0003	76.7	54.2-134	21.1	17.9	QR-02
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		106	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.3	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.2	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6K1401 - EPA 5030 (soil)

Matrix Spike Dup (B6K1401-MSD2)	Source: X611119-02			Prepared: 11/14/2016 Analyzed: 11/14/2016						
Benzene	0.085	0.002	mg/kg	0.100	ND	84.7	71.8-126	19.3	11.3	QR-02
Toluene	0.081	0.002	"	0.100	ND	80.8	65.1-130	20.1	15.4	QR-02
Ethylbenzene	0.077	0.002	"	0.100	0.0009	75.9	62.2-130	20.7	19.6	QR-02
m,p-Xylene	0.170	0.004	"	0.200	ND	85.1	46.5-137	22.5	19.2	QR-02
o-Xylene	0.077	0.002	"	0.100	0.0004	76.6	54.2-134	21.7	17.9	QR-02
Surrogate: 1,2-Dichloroethane-d4	56		ug/kg	62.5		89.3	70-130			
Surrogate: Toluene-d8	62		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B6K1402 - EPA 3580**

**Blank (B6K1402-BLK1)**

Prepared: 11/14/2016 Analyzed: 11/14/2016

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	31		"	50.0		62.0	59-131			

**Blank (B6K1402-BLK2)**

Prepared: 11/14/2016 Analyzed: 11/14/2016

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	35		"	50.0		70.6	59-131			

**LCS (B6K1402-BS1)**

Prepared: 11/14/2016 Analyzed: 11/14/2016

Diesel (C10-C28)	843	50.0	mg/kg	1000		84.3	64-121			
Residual Range Organics (C28-C40)	830	200	"	1000		83.0	58-124			
Surrogate: o-Terphenyl	42		"	50.0		84.1	59-131			

**LCS (B6K1402-BS2)**

Prepared: 11/14/2016 Analyzed: 11/14/2016

Diesel (C10-C28)	820	50.0	mg/kg	1000		82.0	64-121			
Residual Range Organics (C28-C40)	786	200	"	1000		78.6	58-124			
Surrogate: o-Terphenyl	41		"	50.0		81.7	59-131			

**Matrix Spike (B6K1402-MS1)**

Source: X611129-01

Prepared: 11/14/2016 Analyzed: 11/14/2016

Diesel (C10-C28)	868	50.0	mg/kg	1000	16.2	85.2	53-125			
Residual Range Organics (C28-C40)	817	200	"	1000	15.5	80.1	47-133			

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 Denver CO 80211

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

**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B6K1402 - EPA 3580</b>										
<b>Matrix Spike (B6K1402-MS1)</b>		<b>Source: X611129-01</b>			Prepared: 11/14/2016 Analyzed: 11/14/2016					
Surrogate: o-Terphenyl	42		mg/kg	50.0		83.8	59-131			
<b>Matrix Spike (B6K1402-MS2)</b>		<b>Source: X611129-02</b>			Prepared: 11/14/2016 Analyzed: 11/14/2016					
Diesel (C10-C28)	855	50.0	mg/kg	1000	35.4	81.9	53-125			
Residual Range Organics (C28-C40)	789	200	"	1000	14.5	77.5	47-133			
Surrogate: o-Terphenyl	40		"	50.0		80.4	59-131			
<b>Matrix Spike Dup (B6K1402-MSD1)</b>		<b>Source: X611129-01</b>			Prepared: 11/14/2016 Analyzed: 11/14/2016					
Diesel (C10-C28)	894	50.0	mg/kg	1000	16.2	87.8	53-125	2.98	20	
Residual Range Organics (C28-C40)	867	200	"	1000	15.5	85.2	47-133	6.13	20	
Surrogate: o-Terphenyl	44		"	50.0		88.0	59-131			
<b>Matrix Spike Dup (B6K1402-MSD2)</b>		<b>Source: X611129-02</b>			Prepared: 11/14/2016 Analyzed: 11/14/2016					
Diesel (C10-C28)	861	50.0	mg/kg	1000	35.4	82.6	53-125	0.780	20	
Residual Range Organics (C28-C40)	809	200	"	1000	14.5	79.5	47-133	2.55	20	
Surrogate: o-Terphenyl	41		"	50.0		82.6	59-131			

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 Denver CO 80211

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 Project: KMG - Hank's Pooling Unit 1

**Classical Chemistry Parameters - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B6K1408 - NO PREP</b>										
<b>Blank (B6K1408-BLK1)</b>					Prepared: 11/14/2016 Analyzed: 11/14/2016					
Specific Conductance (EC)	0.00320		mmhos/cm							
<b>Duplicate (B6K1408-DUP1)</b>					<b>Source: X611168-01</b> Prepared: 11/14/2016 Analyzed: 11/14/2016					
Specific Conductance (EC)	0.184		mmhos/cm		0.207			11.5	25	

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Denver CO 80211

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

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**Notes and Definitions**

U Sample is Non-Detect.

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

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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Jen Pellegrini For Noelle Doyle Mathis, President