



July 21, 2021

Tasman Geosciences

Mike Jahn

6855 West 119th Avenue

Broomfield CO 80020

Project Name - KMG - Poudre 10,14,15,19,23,25-28 Project Number - 90379413

Attached are your analytical results for KMG - Poudre 10,14,15,19,23,25-28 received by Origins Laboratory, Inc. July 14, 2021. This project is associated with Origins project number Y107299-01.

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

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

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

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

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

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



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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90379413
Project: KMG - Poudre 10,14,15,19,23,25-28

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PW-B01@5'	Y107299-01	Soil	July 14, 2021 11:20	07/14/2021 18:15
PW-W01@3'	Y107299-02	Soil	July 14, 2021 12:37	07/14/2021 18:15
BG-01@3'	Y107299-03	Soil	July 14, 2021 14:55	07/14/2021 18:15
BG-01@5'	Y107299-04	Soil	July 14, 2021 14:55	07/14/2021 18:15
BG-02@3'	Y107299-05	Soil	July 14, 2021 15:11	07/14/2021 18:15
BG-02@5'	Y107299-06	Soil	July 14, 2021 15:11	07/14/2021 18:15
BG-03@3'	Y107299-07	Soil	July 14, 2021 14:44	07/14/2021 18:15
BG-03@5'	Y107299-08	Soil	July 14, 2021 14:44	07/14/2021 18:15

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90379413
Project: KMG - Poudre 10,14,15,19,23,25-28

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

Sample Receipt Checklist

Origins Work Order: Y107299 Client: Tasman
Client Project ID: Poudre 10,14,15,19,23,25-28

Checklist Completed by: JG Shipped Via: HD
Date/time completed: 7/14/12 (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, 123 °C / _____ °C / _____ °C (Describe)
Thermometer ID: T003

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

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

Reviewed by (Project Manager) [Signature] Date/Time Reviewed 7/14/12

Origins Laboratory, Inc.

Jordan A. Merrill

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90379413
Project: KMG - Poudre 10,14,15,19,23,25-28

PW-B01@5'

7/14/2021 11:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y107299-01 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1G1502	KDK	07/15/2021	07/15/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 82.2 % 50-150 " " "

GBTEX+TMBs

Naphthalene	ND	0.00380	mg/kg	1	B1G1501	KDK	07/15/2021	07/15/2021	U
Benzene	ND	0.00200	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Toluene	ND	0.00200	"	"	"	KDK	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.00200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 94.9 % 70-130 " " "
Surrogate: Toluene-d8 99.8 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 103 % 70-130 " " "

Origins Laboratory, Inc.

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6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90379413
Project: KMG - Poudre 10,14,15,19,23,25-28

PW-W01@3'

7/14/2021 12:37:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y107299-02 (Soil)

Boron (DTPA Sorbitol)

Boron	ND	0.199	mg/L	1	B1G1423	JMA	07/14/2021	07/15/2021	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1G1418	KDK	07/14/2021	07/15/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl	82.0 %	50-150			"	"	"	
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GBTEX+TMBs

Naphthalene	ND	0.00380	mg/kg	1	B1G1417	KDK	07/14/2021	07/15/2021	U
Benzene	ND	0.00200	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	KDK	"	"	U
Toluene	ND	0.00200	"	"	"	KDK	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.00200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130			"	"	"	
Surrogate: Toluene-d8	96.4 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

Metals by Saturated Paste

Calcium	0.703	0.0499	meq/L	1	[CALC]	CJM	07/15/2021	07/15/2021
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PW-W01@3'

7/14/2021 12:37:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y107299-02 (Soil)

Metals by Saturated Paste

Magnesium	0.336	0.0823	meq/L	1	[CALC]	CJM	07/15/2021	07/15/2021	
Sodium	2.39	0.0435	"	"	"	CJM	"	"	

pH in Soil by EPA 9045D

pH	8.39		pH Units	1	B1G1512	DJL	07/15/2021	07/15/2021	
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SAR by 20B Saturated Paste

SAR	3.31		SAR	1	B1G1519	CJM	07/15/2021	07/15/2021	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.364	0.00500	mmhos/cm	1	B1G1515	DJL	07/15/2021	07/15/2021	
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Mike Jahn
Project Number: 90379413
Project: KMG - Poudre 10,14,15,19,23,25-28

BG-01@3'

7/14/2021 2:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y107299-03 (Soil)

Boron (DTPA Sorbitol)

Boron	0.199	0.199	mg/L	1	B1G1423	JMA	07/14/2021	07/15/2021
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Metals by Saturated Paste

Calcium	23.7	0.0499	meq/L	"	[CALC]	CJM	07/15/2021	07/15/2021
Magnesium	21.5	0.0823	"	"	"	CJM	"	"
Sodium	16.8	0.0435	"	"	"	CJM	"	"

pH in Soil by EPA 9045D

pH	7.61		pH Units	1	B1G1512	DJL	07/15/2021	07/15/2021
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SAR by 20B Saturated Paste

SAR	3.54		SAR	1	B1G1519	CJM	07/15/2021	07/15/2021
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	4.35	0.00500	mmhos/cm	1	B1G1515	DJL	07/15/2021	07/15/2021
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BG-01@5'

7/14/2021 2:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y107299-04 (Soil)

Boron (DTPA Sorbitol)

Boron	ND	0.198	mg/L	1	B1G1423	JMA	07/14/2021	07/15/2021
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Metals by Saturated Paste

Calcium	1.40	0.0499	meq/L	"	[CALC]	CJM	07/15/2021	07/15/2021
Magnesium	0.832	0.0823	"	"	"	CJM	"	"
Sodium	1.18	0.0435	"	"	"	CJM	"	"

pH in Soil by EPA 9045D

pH	8.15		pH Units	1	B1G1512	DJL	07/15/2021	07/15/2021
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SAR by 20B Saturated Paste

SAR	1.12		SAR	1	B1G1519	CJM	07/15/2021	07/15/2021
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.361	0.00500	mmhos/cm	1	B1G1515	DJL	07/15/2021	07/15/2021
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Project Number: 90379413
Project: KMG - Poudre 10,14,15,19,23,25-28

BG-02@3'

7/14/2021 3:11:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y107299-05 (Soil)

Boron (DTPA Sorbitol)

Boron	ND	0.198	mg/L	1	B1G1423	JMA	07/14/2021	07/15/2021
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Metals by Saturated Paste

Calcium	2.03	0.0499	meq/L	"	[CALC]	CJM	07/15/2021	07/15/2021
Magnesium	1.40	0.0823	"	"	"	CJM	"	"
Sodium	2.13	0.0435	"	"	"	CJM	"	"

pH in Soil by EPA 9045D

pH	8.09		pH Units	1	B1G1512	DJL	07/15/2021	07/15/2021
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SAR by 20B Saturated Paste

SAR	1.63		SAR	1	B1G1519	CJM	07/15/2021	07/15/2021
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.496	0.00500	mmhos/cm	1	B1G1515	DJL	07/15/2021	07/15/2021
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Project Number: 90379413
Project: KMG - Poudre 10,14,15,19,23,25-28

BG-02@5'

7/14/2021 3:11:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y107299-06 (Soil)

Boron (DTPA Sorbitol)

Boron	ND	0.202	mg/L	1	B1G1423	JMA	07/14/2021	07/15/2021
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Metals by Saturated Paste

Calcium	3.44	0.0499	meq/L	"	[CALC]	CJM	07/15/2021	07/15/2021
Magnesium	2.47	0.0823	"	"	"	CJM	"	"
Sodium	3.03	0.0435	"	"	"	CJM	"	"

pH in Soil by EPA 9045D

pH	7.85		pH Units	1	B1G1512	DJL	07/15/2021	07/15/2021
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SAR by 20B Saturated Paste

SAR	1.76		SAR	1	B1G1519	CJM	07/15/2021	07/15/2021
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.884	0.00500	mmhos/cm	1	B1G1515	DJL	07/15/2021	07/15/2021
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6855 West 119th Avenue
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Mike Jahn
Project Number: 90379413
Project: KMG - Poudre 10,14,15,19,23,25-28

BG-03@3'

7/14/2021 2:44:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y107299-07 (Soil)

Boron (DTPA Sorbitol)

Boron	0.258	0.199	mg/L	1	B1G1424	JMA	07/14/2021	07/15/2021
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Metals by Saturated Paste

Calcium	8.57	0.0499	meq/L	"	[CALC]	CJM	07/15/2021	07/15/2021
Magnesium	7.55	0.0823	"	"	"	CJM	"	"
Sodium	9.76	0.0435	"	"	"	CJM	"	"

pH in Soil by EPA 9045D

pH	7.79		pH Units	1	B1G1512	DJL	07/15/2021	07/15/2021
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SAR by 20B Saturated Paste

SAR	3.44		SAR	1	B1G1519	CJM	07/15/2021	07/15/2021
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	2.24	0.00500	mmhos/cm	1	B1G1515	DJL	07/15/2021	07/15/2021
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Mike Jahn
Project Number: 90379413
Project: KMG - Poudre 10,14,15,19,23,25-28

BG-03@5'

7/14/2021 2:44:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y107299-08 (Soil)

Boron (DTPA Sorbitol)

Boron	ND	0.201	mg/L	1	B1G1424	JMA	07/14/2021	07/15/2021
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Metals by Saturated Paste

Calcium	5.71	0.0499	meq/L	"	[CALC]	CJM	07/15/2021	07/15/2021
Magnesium	4.58	0.0823	"	"	"	CJM	"	"
Sodium	5.47	0.0435	"	"	"	CJM	"	"

pH in Soil by EPA 9045D

pH	8.00		pH Units	1	B1G1512	DJL	07/15/2021	07/15/2021
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SAR by 20B Saturated Paste

SAR	2.41		SAR	1	B1G1519	CJM	07/15/2021	07/15/2021
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.44	0.00500	mmhos/cm	1	B1G1515	DJL	07/15/2021	07/15/2021
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Broomfield CO 80020

Mike Jahn
Project Number: 90379413
Project: KMG - Poudre 10,14,15,19,23,25-28

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1G1417 - EPA 5030 (soil)										
Blank (B1G1417-BLK1)					Prepared: 07/14/2021 Analyzed: 07/14/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.00380	"							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		92.2	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1G1417 - EPA 5030 (soil)										
LCS (B1G1417-BS1)					Prepared: 07/14/2021 Analyzed: 07/14/2021					
1,2,4-Trimethylbenzene	0.108	0.00200	mg/kg	0.100		108	70-130			
Naphthalene	0.103	0.0100	"	0.100		103	70-130			
1,3,5-Trimethylbenzene	0.107	0.00200	"	0.100		107	70-130			
Benzene	0.0833	0.00200	"	0.100		83.3	70-130			
Ethylbenzene	0.0996	0.00200	"	0.100		99.6	70-130			
m,p-Xylene	0.214	0.00400	"	0.200		107	70-130			
o-Xylene	0.112	0.00200	"	0.100		112	70-130			
Toluene	0.0941	0.00200	"	0.100		94.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		89.7	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.7	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1G1417 - EPA 5030 (soil)										
Matrix Spike (B1G1417-MS1)		Source: Y107291-01			Prepared: 07/14/2021 Analyzed: 07/14/2021					
1,2,4-Trimethylbenzene	0.0934	0.00200	mg/kg	0.100	0.00162	91.7	70-130			
Naphthalene	0.0900	0.0100	"	0.100	0.00686	83.2	70-130			
1,3,5-Trimethylbenzene	0.0903	0.00200	"	0.100	0.00106	89.2	70-130			
Benzene	0.0805	0.00200	"	0.100	ND	80.5	70-130			
Ethylbenzene	0.0905	0.00200	"	0.100	ND	90.5	70-130			
m,p-Xylene	0.194	0.00400	"	0.200	0.000740	96.4	70-130			
o-Xylene	0.100	0.00200	"	0.100	ND	100	70-130			
Toluene	0.0882	0.00200	"	0.100	ND	88.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		90.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90379413
Project: KMG - Poudre 10,14,15,19,23,25-28

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1G1417 - EPA 5030 (soil)										
Matrix Spike Dup (B1G1417-MSD1)		Source: Y107291-01			Prepared: 07/14/2021 Analyzed: 07/14/2021					
1,2,4-Trimethylbenzene	0.102	0.00200	mg/kg	0.100	0.00162	100	70-130	8.69	20	
Naphthalene	0.102	0.0100	"	0.100	0.00686	95.2	70-130	12.5	20	
1,3,5-Trimethylbenzene	0.101	0.00200	"	0.100	0.00106	100	70-130	11.5	20	
Benzene	0.0882	0.00200	"	0.100	ND	88.2	70-130	9.15	20	
Ethylbenzene	0.0972	0.00200	"	0.100	ND	97.2	70-130	7.20	20	
m,p-Xylene	0.213	0.00400	"	0.200	0.000740	106	70-130	9.44	20	
o-Xylene	0.110	0.00200	"	0.100	ND	110	70-130	9.78	20	
Toluene	0.0991	0.00200	"	0.100	ND	99.1	70-130	11.7	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		93.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1G1418 - EPA 3550B										
Blank (B1G1418-BLK1)					Prepared: 07/14/2021 Analyzed: 07/14/2021					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	19		"	25.0		75.7	50-150			

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Mike Jahn
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Extractable Petroleum Hydrocarbons by 8015D - 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 B1G1418 - EPA 3550B

LCS (B1G1418-BS1)

Prepared: 07/14/2021 Analyzed: 07/14/2021

Diesel (C10-C28)	987	50.0	mg/kg	1000		98.7	70-130			
Residual Range Organics (C28-C40)	1100	200	"	1000		110	70-130			
Surrogate: o-Terphenyl	55		"	50.0		110	50-150			

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Extractable Petroleum Hydrocarbons by 8015D - 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 B1G1418 - EPA 3550B

Matrix Spike (B1G1418-MS1)		Source: Y107291-01			Prepared: 07/14/2021 Analyzed: 07/14/2021					
Diesel (C10-C28)	916	50.0	mg/kg	1000	ND	91.6	70-130			
Residual Range Organics (C28-C40)	1060	200	"	1000	ND	106	70-130			
Surrogate: o-Terphenyl	49		"	50.0		97.9	50-150			

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Extractable Petroleum Hydrocarbons by 8015D - 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 B1G1418 - EPA 3550B

Matrix Spike Dup (B1G1418-MSD1)		Source: Y107291-01			Prepared: 07/14/2021 Analyzed: 07/14/2021					
Diesel (C10-C28)	805	50.0	mg/kg	1000	ND	80.5	70-130	12.9	35	
Residual Range Organics (C28-C40)	865	200	"	1000	ND	86.5	70-130	19.8	35	
Surrogate: o-Terphenyl	44		"	50.0		87.2	50-150			

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Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1G1501 - EPA 5030 (soil)										
Blank (B1G1501-BLK1)					Prepared: 07/15/2021 Analyzed: 07/15/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Toluene	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Xylenes, total	ND	0.00200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		94.9	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1G1501 - EPA 5030 (soil)										
LCS (B1G1501-BS1)					Prepared: 07/15/2021 Analyzed: 07/15/2021					
1,2,4-Trimethylbenzene	0.0545	0.00200	mg/kg	0.0500		109	70-130			
Naphthalene	0.0505	0.0100	"	0.0500		101	70-130			
1,3,5-Trimethylbenzene	0.0536	0.00200	"	0.0500		107	70-130			
Benzene	0.0503	0.00200	"	0.0500		101	70-130			
Ethylbenzene	0.0551	0.00200	"	0.0500		110	70-130			
m,p-Xylene	0.112	0.00400	"	0.100		112	70-130			
o-Xylene	0.0547	0.00200	"	0.0500		109	70-130			
Toluene	0.0540	0.00200	"	0.0500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		95.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1G1501 - EPA 5030 (soil)										
Matrix Spike (B1G1501-MS1)		Source: Y107297-09			Prepared: 07/15/2021 Analyzed: 07/15/2021					
1,2,4-Trimethylbenzene	0.0828	0.00200	mg/kg	0.100	0.000560	82.2	70-130			
Naphthalene	0.0743	0.0100	"	0.100	0.000700	73.6	70-130			
1,3,5-Trimethylbenzene	0.0811	0.00200	"	0.100	ND	81.1	70-130			
Benzene	0.0753	0.00200	"	0.100	ND	75.3	70-130			
Ethylbenzene	0.0841	0.00200	"	0.100	ND	84.1	70-130			
m,p-Xylene	0.179	0.00400	"	0.200	0.000580	89.4	70-130			
o-Xylene	0.0925	0.00200	"	0.100	ND	92.5	70-130			
Toluene	0.0834	0.00200	"	0.100	ND	83.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		91.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1G1501 - EPA 5030 (soil)										
Matrix Spike Dup (B1G1501-MSD1)	Source: Y107297-09				Prepared: 07/15/2021 Analyzed: 07/15/2021					
1,2,4-Trimethylbenzene	0.0870	0.00200	mg/kg	0.100	0.000560	86.5	70-130	5.02	20	
Naphthalene	0.0804	0.0100	"	0.100	0.000700	79.7	70-130	7.92	20	
1,3,5-Trimethylbenzene	0.0845	0.00200	"	0.100	ND	84.5	70-130	4.11	20	
Benzene	0.0791	0.00200	"	0.100	ND	79.1	70-130	5.00	20	
Ethylbenzene	0.0888	0.00200	"	0.100	ND	88.8	70-130	5.46	20	
m,p-Xylene	0.190	0.00400	"	0.200	0.000580	94.5	70-130	5.50	20	
o-Xylene	0.0973	0.00200	"	0.100	ND	97.3	70-130	5.06	20	
Toluene	0.0866	0.00200	"	0.100	ND	86.6	70-130	3.72	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		94.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1G1502 - EPA 3550B										
Blank (B1G1502-BLK1)					Prepared: 07/15/2021 Analyzed: 07/15/2021					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	19		"	25.0		77.1	50-150			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1G1502 - EPA 3550B										
LCS (B1G1502-BS1)					Prepared: 07/15/2021 Analyzed: 07/15/2021					
Diesel (C10-C28)	911	50.0	mg/kg	1000		91.1	70-130			
Residual Range Organics (C28-C40)	1030	200	"	1000		103	70-130			
Surrogate: o-Terphenyl	52		"	50.0		103	50-150			

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Extractable Petroleum Hydrocarbons by 8015D - 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 B1G1502 - EPA 3550B

Matrix Spike (B1G1502-MS1)		Source: Y107297-09			Prepared: 07/15/2021 Analyzed: 07/15/2021					
Diesel (C10-C28)	885	50.0	mg/kg	1000	ND	88.5	70-130			
Residual Range Organics (C28-C40)	1050	200	"	1000	ND	105	70-130			
Surrogate: o-Terphenyl	50		"	50.0		101	50-150			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1G1502 - EPA 3550B										
Matrix Spike Dup (B1G1502-MSD1)		Source: Y107297-09			Prepared: 07/15/2021 Analyzed: 07/15/2021					
Diesel (C10-C28)	890	50.0	mg/kg	1000	ND	89.0	70-130	0.496	35	
Residual Range Organics (C28-C40)	1010	200	"	1000	ND	101	70-130	3.16	35	
Surrogate: o-Terphenyl	49		"	50.0		97.9	50-150			

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Extractable Petroleum Hydrocarbons by 8015D - 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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Saturated Paste - 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 B1G1512 - NO PREP

Duplicate (B1G1512-DUP1)		Source: Y107267-11		Prepared: 07/15/2021 Analyzed: 07/15/2021						
pH	7.40		pH Units		7.39			0.135	25	

Batch B1G1515 - NO PREP

Blank (B1G1515-BLK1)		Prepared: 07/15/2021 Analyzed: 07/15/2021								
Specific Conductance (EC)	0.00220	0.00500	mmhos/cm							
Duplicate (B1G1515-DUP1)		Source: Y107292-09		Prepared: 07/15/2021 Analyzed: 07/15/2021						
Specific Conductance (EC)	0.748	0.00500	mmhos/cm		0.686			8.69	25	

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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.

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