

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 09, 2022

Levi Kirk
K.P. Kauffman
1675 Broadway
Denver, CO 80202

RE: George Norden

Work Order #2207364

Enclosed are the results of analyses for samples received by Summit Scientific on 07/26/22 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mikayla Axtell For Paul Shrewsbury
President



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DS-3@3'	2207364-01	Soil	07/26/22 11:05	07/26/22 16:00
DS-3@9'	2207364-02	Soil	07/26/22 11:15	07/26/22 16:00
DS-4@3'	2207364-03	Soil	07/26/22 11:30	07/26/22 16:00
DS-4@9'	2207364-04	Soil	07/26/22 11:40	07/26/22 16:00
DS-5@6'	2207364-05	Soil	07/26/22 12:15	07/26/22 16:00
DS-5@9'	2207364-06	Soil	07/26/22 12:50	07/26/22 16:00

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Summit Scientific 2207364

S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: K.P. Kauffman Company, Inc.

Project Manager: Lev. Kirk
~~Ray Gorka~~

Address: ~~1700 Lincoln Street, Suite 4550~~ 1675 Broadway

E-Mail: rgorka@kpk.com / Primary Contractor at Marcom

City/State/Zip: Denver, CO 80203 80202

Phone: ~~303-655-1400~~ 303-825-4822

Project Name: George Nerden

Sampler Name: HC

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Funt tube 915						
1	DS-3 @ 3'	7-26-22	1105	3			X			X									
2	DS-3 @ 9'		1115				X			X									
3	DS-4 @ 3'		1130				X			X									
4	DS-4 @ 9'		1140				X			X									
5	DS-5 @ 6'		1215				X			X									
6	DS-5 @ 9'		1250				X			X									
7																			
8																			
9																			
10																			

Relinquished by: <u>Huffman</u>	Date/Time: <u>7-26-22 1540</u>	Received by: <u>[Signature]</u>	Date/Time: <u>7-26-22 1600</u>	Turn Around Time (Check)	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day _____	72 hours _____
				24 hours _____	Standard <u>X</u>
				48 hours _____	
Temperature Upon Receipt: <u>9.1</u>	Corrected Temperature: <u>9.1</u>	HNO3 lot # _____		Sample Integrity:	
IR gun correction: <u>0</u>	IR gun #: <u>1</u>			Samples Intact: <u>Yes</u> No	

S₂

2207364

Sample Receipt Checklist

S2 Work Order#

Client: Kp Kauffman Client Project ID: George Norden

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____

-

Matrix (Check all that apply) Air Soil/Solid Water Other

Temp (°C) Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6 °C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	-			ON ICE
Were all samples received intact ⁽¹⁾ ?	-			
Was adequate sample volume provided ⁽¹⁾ ?	-			
If custody seals are present, are they intact ⁽¹⁾ ?	-			
Are samples due within 48 hours present?		-		
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen			-	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	-			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	-			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	-			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	-			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			-	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.			-	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			-	
If dissolved metals are requested, were samples field filtered?			✓	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

Custodian Printed Name

72622

Date/Time



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-3@3'
2207364-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/26/22 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BFG0518	07/28/22	07/29/22	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **07/26/22 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		110 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/26/22 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BFG0520	07/28/22	07/28/22	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **07/26/22 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		104 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Reported:
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DS-3@3'
2207364-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/26/22 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFG0487	07/27/22	07/28/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **07/26/22 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		75.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		58.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/26/22 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.355	0.0100	mg/L	1	BFG0502	07/27/22	07/28/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/26/22 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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08/09/22 10:12

DS-3@3'
2207364-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.70	0.215	mg/kg dry	1	BFG0486	07/27/22	07/28/22	EPA 6020B	
Barium	73.0	0.429	"	"	"	"	"	"	
Cadmium	0.234	0.215	"	"	"	"	"	"	
Copper	9.05	0.429	"	"	"	"	"	"	
Lead	12.3	0.215	"	"	"	"	"	"	
Nickel	5.31	0.429	"	"	"	"	"	"	
Selenium	0.568	0.279	"	"	"	"	"	"	
Silver	0.0738	0.0215	"	"	"	"	"	"	
Zinc	127	0.429	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 07/26/22 11:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFG0503	07/28/22	07/29/22	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: 07/26/22 11:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	65.2	0.0537	mg/L dry	1	BFG0492	07/27/22	07/29/22	EPA 6020B	
Magnesium	34.3	0.0537	"	"	"	"	"	"	
Sodium	209	0.0537	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 07/26/22 11:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.22	0.00100	units	1	BFH0010	08/01/22	08/01/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 07/26/22 11:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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DS-3@3'
2207364-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	93.2	%	1	BFG0525	07/28/22	07/28/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/26/22 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.92	0.0100	mmhos/cm	1	BFG0547	07/29/22	07/29/22	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **07/26/22 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.92		pH Units	1	BFG0548	07/29/22	07/29/22	EPA 9045D	

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1675 Broadway
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DS-3@9'
2207364-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFG0518	07/28/22	07/29/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFG0520	07/28/22	07/28/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		98.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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1675 Broadway
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Reported:
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DS-3@9'
2207364-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFG0487	07/27/22	07/28/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		67.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		59.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.219	0.0100	mg/L	1	BFG0502	07/27/22	07/28/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project Manager: Levi Kirk

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DS-3@9'
2207364-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.10	0.227	mg/kg dry	1	BFG0486	07/27/22	07/28/22	EPA 6020B	
Barium	81.8	0.455	"	"	"	"	"	"	
Cadmium	ND	0.227	"	"	"	"	"	"	
Copper	7.16	0.455	"	"	"	"	"	"	
Lead	7.11	0.227	"	"	"	"	"	"	
Nickel	4.73	0.455	"	"	"	"	"	"	
Selenium	0.753	0.296	"	"	"	"	"	"	
Silver	0.0494	0.0227	"	"	"	"	"	"	
Zinc	48.1	0.455	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFG0503	07/28/22	07/29/22	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	40.4	0.0568	mg/L dry	1	BFG0492	07/27/22	07/29/22	EPA 6020B	
Magnesium	19.6	0.0568	"	"	"	"	"	"	
Sodium	140	0.0568	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.52	0.00100	units	1	BFH0010	08/01/22	08/01/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
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Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-3@9'
2207364-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	88.0	%	1	BFG0525	07/28/22	07/28/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.03	0.0100	mmhos/cm	1	BFG0547	07/29/22	07/29/22	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **07/26/22 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.96		pH Units	1	BFG0548	07/29/22	07/29/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-4@3'
2207364-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFG0518	07/28/22	07/29/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		99.1 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFG0520	07/28/22	07/28/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		100 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-4@3'
2207364-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFG0487	07/27/22	07/28/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		56.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		47.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.175	0.0100	mg/L	1	BFG0502	07/27/22	07/28/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-4@3'
2207364-03 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.48	0.229	mg/kg dry	1	BFG0486	07/27/22	07/28/22	EPA 6020B
Barium	62.3	0.457	"	"	"	"	"	"
Cadmium	0.251	0.229	"	"	"	"	"	"
Copper	8.31	0.457	"	"	"	"	"	"
Lead	9.60	0.229	"	"	"	"	"	"
Nickel	4.72	0.457	"	"	"	"	"	"
Selenium	0.691	0.297	"	"	"	"	"	"
Silver	0.0836	0.0229	"	"	"	"	"	"
Zinc	112	0.457	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFG0503	07/28/22	07/29/22	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	40.6	0.0571	mg/L dry	1	BFG0492	07/27/22	07/29/22	EPA 6020B	
Magnesium	17.5	0.0571	"	"	"	"	"	"	
Sodium	79.1	0.0571	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.61	0.00100	units	1	BFH0010	08/01/22	08/01/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
 1675 Broadway
 Denver CO, 80202

Project: George Norden

Project Number: [none]
 Project Manager: Levi Kirk

Reported:
 08/09/22 10:12

DS-4@3'
2207364-03 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	87.5	%	1	BFG0528	07/28/22	07/28/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.666	0.0100	mmhos/cm	1	BFG0547	07/29/22	07/29/22	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **07/26/22 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.97		pH Units	1	BFG0548	07/29/22	07/29/22	EPA 9045D	

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1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-4@9'
2207364-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFG0518	07/28/22	07/29/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFG0520	07/28/22	07/28/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-4@9'
2207364-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFG0487	07/27/22	07/28/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		68.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		58.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.162	0.0100	mg/L	1	BFG0502	07/27/22	07/28/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
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Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-4@9'
2207364-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	0.567	0.208	mg/kg dry	1	BFG0486	07/27/22	07/28/22	EPA 6020B
Barium	30.4	0.416	"	"	"	"	"	"
Cadmium	ND	0.208	"	"	"	"	"	"
Copper	3.36	0.416	"	"	"	"	"	"
Lead	3.85	0.208	"	"	"	"	"	"
Nickel	2.36	0.416	"	"	"	"	"	"
Selenium	0.446	0.270	"	"	"	"	"	"
Silver	0.0253	0.0208	"	"	"	"	"	"
Zinc	28.1	0.416	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFG0503	07/28/22	07/29/22	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	36.7	0.0520	mg/L dry	1	BFG0492	07/27/22	07/29/22	EPA 6020B	
Magnesium	16.8	0.0520	"	"	"	"	"	"	
Sodium	73.9	0.0520	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.54	0.00100	units	1	BFH0010	08/01/22	08/01/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-4@9'
2207364-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	96.2	%	1	BFG0528	07/28/22	07/28/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.737	0.0100	mmhos/cm	1	BFG0547	07/29/22	07/29/22	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **07/26/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.96		pH Units	1	BFG0548	07/29/22	07/29/22	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-5@6'
2207364-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFG0518	07/28/22	07/29/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFG0520	07/28/22	07/28/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		107 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-5@6'
2207364-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFG0487	07/27/22	07/28/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		71.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		47.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.430	0.0100	mg/L	1	BFG0502	07/27/22	07/28/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-5@6'
2207364-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.71	0.238	mg/kg dry	1	BFG0486	07/27/22	07/28/22	EPA 6020B	
Barium	99.2	0.477	"	"	"	"	"	"	
Cadmium	ND	0.238	"	"	"	"	"	"	
Copper	12.1	0.477	"	"	"	"	"	"	
Lead	12.7	0.238	"	"	"	"	"	"	
Nickel	8.39	0.477	"	"	"	"	"	"	
Selenium	0.952	0.310	"	"	"	"	"	"	
Silver	0.102	0.0238	"	"	"	"	"	"	
Zinc	49.0	0.477	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFG0503	07/28/22	07/29/22	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	30.6	0.0596	mg/L dry	1	BFG0492	07/27/22	07/29/22	EPA 6020B	
Magnesium	14.4	0.0596	"	"	"	"	"	"	
Sodium	156	0.0596	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.83	0.00100	units	1	BFH0010	08/01/22	08/01/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
 1675 Broadway
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Project: George Norden

Project Number: [none]
 Project Manager: Levi Kirk

Reported:
 08/09/22 10:12

DS-5@6'
2207364-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	83.9	%	1	BFG0528	07/28/22	07/28/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.00	0.0100	mmhos/cm	1	BFG0547	07/29/22	07/29/22	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **07/26/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.06		pH Units	1	BFG0548	07/29/22	07/29/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-5@9'
2207364-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFG0518	07/28/22	07/29/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFG0520	07/28/22	07/28/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-5@9'
2207364-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFG0487	07/27/22	07/28/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		64.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		51.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.166	0.0100	mg/L	1	BFG0502	07/27/22	07/28/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

DS-5@9'
2207364-06 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.68	0.214	mg/kg dry	1	BFG0486	07/27/22	07/28/22	EPA 6020B	
Barium	97.2	0.428	"	"	"	"	"	"	
Cadmium	ND	0.214	"	"	"	"	"	"	
Copper	8.52	0.428	"	"	"	"	"	"	
Lead	7.53	0.214	"	"	"	"	"	"	
Nickel	5.01	0.428	"	"	"	"	"	"	
Selenium	0.495	0.278	"	"	"	"	"	"	
Silver	0.0621	0.0214	"	"	"	"	"	"	
Zinc	45.3	0.428	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFG0503	07/28/22	07/29/22	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	33.5	0.0535	mg/L dry	1	BFG0492	07/27/22	07/29/22	EPA 6020B	
Magnesium	10.9	0.0535	"	"	"	"	"	"	
Sodium	66.8	0.0535	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.56	0.00100	units	1	BFH0010	08/01/22	08/01/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
 1675 Broadway
 Denver CO, 80202

Project: George Norden

Project Number: [none]
 Project Manager: Levi Kirk

Reported:
 08/09/22 10:12

DS-5@9'
2207364-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	93.4	%	1	BFG0528	07/28/22	07/28/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.665	0.0100	mmhos/cm	1	BFG0547	07/29/22	07/29/22	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **07/26/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.99		pH Units	1	BFG0548	07/29/22	07/29/22	EPA 9045D	

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1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BFG0518 - EPA 5030 Soil MS

Blank (BFG0518-BLK1)

Prepared: 07/28/22 Analyzed: 07/29/22

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0449		"	0.0400		112	50-150			
Surrogate: Toluene-d8	0.0409		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0414		"	0.0400		103	50-150			

LCS (BFG0518-BS1)

Prepared: 07/28/22 Analyzed: 07/29/22

Benzene	0.134	0.0020	mg/kg	0.150		89.5	70-130			
Toluene	0.135	0.0050	"	0.150		90.3	70-130			
Ethylbenzene	0.134	0.0050	"	0.150		89.4	70-130			
m,p-Xylene	0.250	0.010	"	0.300		83.3	70-130			
o-Xylene	0.137	0.0050	"	0.150		91.2	70-130			
1,2,4-Trimethylbenzene	0.138	0.0050	"	0.150		92.3	70-130			
1,3,5-Trimethylbenzene	0.139	0.0050	"	0.150		92.9	70-130			
Naphthalene	0.136	0.0038	"	0.150		90.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0390		"	0.0400		97.5	50-150			
Surrogate: Toluene-d8	0.0402		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	50-150			

Matrix Spike (BFG0518-MS1)

Source: 2207364-01

Prepared: 07/28/22 Analyzed: 07/29/22

Benzene	0.117	0.0020	mg/kg	0.150	ND	77.7	70-130			
Toluene	0.116	0.0050	"	0.150	ND	77.4	70-130			
Ethylbenzene	0.105	0.0050	"	0.150	ND	69.8	70-130			QM-07
m,p-Xylene	0.262	0.010	"	0.300	ND	87.3	70-130			
o-Xylene	0.118	0.0050	"	0.150	ND	78.4	70-130			
1,2,4-Trimethylbenzene	0.0984	0.0050	"	0.150	ND	65.6	70-130			QM-07
1,3,5-Trimethylbenzene	0.113	0.0050	"	0.150	ND	75.4	70-130			
Naphthalene	0.106	0.0038	"	0.150	ND	70.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0374		"	0.0400		93.4	50-150			
Surrogate: Toluene-d8	0.0412		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.2	50-150			

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1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BFG0518 - EPA 5030 Soil MS

Matrix Spike Dup (BFG0518-MSD1)	Source: 2207364-01			Prepared: 07/28/22 Analyzed: 07/29/22						
Benzene	0.115	0.0020	mg/kg	0.150	ND	76.9	70-130	1.01	30	
Toluene	0.113	0.0050	"	0.150	ND	75.6	70-130	2.33	30	
Ethylbenzene	0.105	0.0050	"	0.150	ND	70.0	70-130	0.315	30	
m,p-Xylene	0.265	0.010	"	0.300	ND	88.3	70-130	1.13	30	
o-Xylene	0.114	0.0050	"	0.150	ND	76.0	70-130	3.01	30	
1,2,4-Trimethylbenzene	0.107	0.0050	"	0.150	ND	71.1	70-130	8.05	30	
1,3,5-Trimethylbenzene	0.111	0.0050	"	0.150	ND	73.9	70-130	2.04	30	
Naphthalene	0.104	0.0038	"	0.150	ND	69.4	70-130	2.05	30	QM-07
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0396</i>		<i>"</i>	<i>0.0400</i>		<i>98.9</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0398</i>		<i>"</i>	<i>0.0400</i>		<i>99.6</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0398</i>		<i>"</i>	<i>0.0400</i>		<i>99.4</i>	<i>50-150</i>			

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BFG0520 - EPA 3550A

Blank (BFG0520-BLK1)

Prepared & Analyzed: 07/28/22

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							

LCS (BFG0520-BS1)

Prepared & Analyzed: 07/28/22

C10-C28 (DRO)	597	50	mg/kg	500	119	70-130				
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Matrix Spike (BFG0520-MS1)

Source: 2207364-01

Prepared & Analyzed: 07/28/22

C10-C28 (DRO)	571	50	mg/kg	500	17.8	111	70-130			
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Matrix Spike Dup (BFG0520-MSD1)

Source: 2207364-01

Prepared & Analyzed: 07/28/22

C10-C28 (DRO)	542	50	mg/kg	500	17.8	105	70-130	5.32	20	
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

PAH by EPA Method 8270D SIM - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BFG0487 - EPA 5030 Soil MS

Blank (BFG0487-BLK1)

Prepared & Analyzed: 07/27/22

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0390</i>		<i>"</i>	<i>0.0333</i>		<i>117</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0280</i>		<i>"</i>	<i>0.0333</i>		<i>84.1</i>	<i>40-150</i>			

LCS (BFG0487-BS1)

Prepared & Analyzed: 07/27/22

Acenaphthene	0.0328	0.00500	mg/kg	0.0333	98.5	31-137
Anthracene	0.0338	0.00500	"	0.0333	102	30-120
Benzo (a) anthracene	0.0282	0.00500	"	0.0333	84.7	30-120
Benzo (a) pyrene	0.0301	0.00500	"	0.0333	90.4	30-120
Benzo (b) fluoranthene	0.0305	0.00500	"	0.0333	91.6	30-120
Benzo (k) fluoranthene	0.0360	0.00500	"	0.0333	108	30-120
Chrysene	0.0318	0.00500	"	0.0333	95.3	30-120
Dibenz (a,h) anthracene	0.0308	0.00500	"	0.0333	92.5	30-120
Fluoranthene	0.0355	0.00500	"	0.0333	107	30-120
Fluorene	0.0298	0.00500	"	0.0333	89.4	30-120
Indeno (1,2,3-cd) pyrene	0.0285	0.00500	"	0.0333	85.5	30-120
Pyrene	0.0300	0.00500	"	0.0333	90.1	35-142
1-Methylnaphthalene	0.0337	0.00500	"	0.0333	101	35-142
2-Methylnaphthalene	0.0306	0.00500	"	0.0333	91.7	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0338</i>		<i>"</i>	<i>0.0333</i>	<i>101</i>	<i>40-150</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0353</i>		<i>"</i>	<i>0.0333</i>	<i>106</i>	<i>40-150</i>

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BFG0487 - EPA 5030 Soil MS

Matrix Spike (BFG0487-MS1)	Source: 2207358-01			Prepared & Analyzed: 07/27/22								
Acenaphthene	0.0381	0.00500	mg/kg	0.0333	ND	114	31-137					
Anthracene	0.0251	0.00500	"	0.0333	0.00479	60.9	30-120					
Benzo (a) anthracene	0.0201	0.00500	"	0.0333	ND	60.4	30-120					
Benzo (a) pyrene	0.0218	0.00500	"	0.0333	ND	65.5	30-120					
Benzo (b) fluoranthene	0.0199	0.00500	"	0.0333	ND	59.6	30-120					
Benzo (k) fluoranthene	0.0218	0.00500	"	0.0333	ND	65.4	30-120					
Chrysene	0.0317	0.00500	"	0.0333	0.0156	48.1	30-120					
Dibenz (a,h) anthracene	0.0219	0.00500	"	0.0333	ND	65.6	30-120					
Fluoranthene	0.0263	0.00500	"	0.0333	ND	78.8	30-120					
Fluorene	0.0568	0.00500	"	0.0333	0.0300	80.2	30-120					
Indeno (1,2,3-cd) pyrene	0.0206	0.00500	"	0.0333	ND	61.9	30-120					
Pyrene	0.0295	0.00500	"	0.0333	0.0142	45.8	35-142					
1-Methylnaphthalene	0.0219	0.00500	"	0.0333	ND	65.7	15-130					
2-Methylnaphthalene	0.0206	0.00500	"	0.0333	ND	61.9	15-130					
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0193</i>		<i>"</i>	<i>0.0333</i>		<i>57.9</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0247</i>		<i>"</i>	<i>0.0333</i>		<i>74.2</i>	<i>40-150</i>					

Matrix Spike Dup (BFG0487-MSD1)	Source: 2207358-01			Prepared & Analyzed: 07/27/22								
Acenaphthene	0.0286	0.00500	mg/kg	0.0333	ND	85.9	31-137	28.2	30			
Anthracene	0.0347	0.00500	"	0.0333	0.00479	89.6	30-120	32.0	30			QR-02
Benzo (a) anthracene	0.0195	0.00500	"	0.0333	ND	58.4	30-120	3.33	30			
Benzo (a) pyrene	0.0250	0.00500	"	0.0333	ND	75.1	30-120	13.6	30			
Benzo (b) fluoranthene	0.0238	0.00500	"	0.0333	ND	71.5	30-120	18.1	30			
Benzo (k) fluoranthene	0.0258	0.00500	"	0.0333	ND	77.5	30-120	17.0	30			
Chrysene	0.0356	0.00500	"	0.0333	0.0156	60.0	30-120	11.8	30			
Dibenz (a,h) anthracene	0.0278	0.00500	"	0.0333	ND	83.3	30-120	23.8	30			
Fluoranthene	0.0280	0.00500	"	0.0333	ND	83.9	30-120	6.28	30			
Fluorene	0.0421	0.00500	"	0.0333	0.0300	36.1	30-120	29.7	30			
Indeno (1,2,3-cd) pyrene	0.0254	0.00500	"	0.0333	ND	76.1	30-120	20.6	30			
Pyrene	0.0368	0.00500	"	0.0333	0.0142	67.8	35-142	22.2	30			
1-Methylnaphthalene	0.0203	0.00500	"	0.0333	ND	60.8	15-130	7.64	50			
2-Methylnaphthalene	0.0184	0.00500	"	0.0333	ND	55.2	15-130	11.4	50			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0185</i>		<i>"</i>	<i>0.0333</i>		<i>55.4</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0284</i>		<i>"</i>	<i>0.0333</i>		<i>85.3</i>	<i>40-150</i>					

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BFG0502 - EPA 3050B

Blank (BFG0502-BLK1)

Prepared: 07/27/22 Analyzed: 07/28/22

Boron ND 0.0100 mg/L

LCS (BFG0502-BS1)

Prepared: 07/27/22 Analyzed: 07/28/22

Boron 4.78 0.0100 mg/L 5.00 95.6 80-120

Duplicate (BFG0502-DUP1)

Source: 2207357-01

Prepared: 07/27/22 Analyzed: 07/28/22

Boron 0.200 0.0100 mg/L 0.182 9.58 20

Matrix Spike (BFG0502-MS1)

Source: 2207357-01

Prepared: 07/27/22 Analyzed: 07/28/22

Boron 5.21 0.0100 mg/L 5.00 0.182 101 75-125

Matrix Spike Dup (BFG0502-MSD1)

Source: 2207357-01

Prepared: 07/27/22 Analyzed: 07/28/22

Boron 5.16 0.0100 mg/L 5.00 0.182 99.6 75-125 0.980 25

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Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BFG0486 - EPA 3050B

Blank (BFG0486-BLK1)

Prepared: 07/27/22 Analyzed: 07/28/22

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Selenium	ND	0.260	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							

LCS (BFG0486-BS1)

Prepared: 07/27/22 Analyzed: 07/28/22

Arsenic	48.0	0.200	mg/kg wet	40.0	120	80-120
Barium	44.5	0.400	"	40.0	111	80-120
Cadmium	2.36	0.200	"	2.00	118	80-120
Copper	44.6	0.400	"	40.0	112	80-120
Lead	21.2	0.200	"	20.0	106	80-120
Nickel	43.0	0.400	"	40.0	107	80-120
Selenium	4.22	0.260	"	4.00	106	80-120
Silver	2.22	0.0200	"	2.00	111	80-120
Zinc	45.2	0.400	"	40.0	113	80-120

Duplicate (BFG0486-DUP1)

Source: 2207364-01

Prepared: 07/27/22 Analyzed: 07/28/22

Arsenic	1.73	0.215	mg/kg dry	1.70	1.45	20
Barium	82.7	0.429	"	73.0	12.5	20
Cadmium	0.227	0.215	"	0.234	2.91	20
Copper	9.17	0.429	"	9.05	1.38	20
Lead	10.4	0.215	"	12.3	17.2	20
Nickel	6.42	0.429	"	5.31	19.0	20
Selenium	0.592	0.279	"	0.568	4.10	20
Silver	0.0663	0.0215	"	0.0738	10.6	20
Zinc	119	0.429	"	127	7.18	20

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Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

Batch BFG0486 - EPA 3050B

Matrix Spike (BFG0486-MS1)

Source: 2207364-01

Prepared: 07/27/22 Analyzed: 07/28/22

Arsenic	50.1	0.215	mg/kg dry	42.9	1.70	113	75-125			
Barium	118	0.429	"	42.9	73.0	104	75-125			
Cadmium	2.73	0.215	"	2.15	0.234	116	75-125			
Copper	54.5	0.429	"	42.9	9.05	106	75-125			
Lead	33.6	0.215	"	21.5	12.3	99.1	75-125			
Nickel	50.2	0.429	"	42.9	5.31	105	75-125			
Selenium	4.49	0.279	"	4.29	0.568	91.4	75-125			
Silver	2.37	0.0215	"	2.15	0.0738	107	75-125			
Zinc	176	0.429	"	42.9	127	113	75-125			

Matrix Spike Dup (BFG0486-MSD1)

Source: 2207364-01

Prepared: 07/27/22 Analyzed: 07/28/22

Arsenic	48.6	0.215	mg/kg dry	42.9	1.70	109	75-125	3.07	25
Barium	107	0.429	"	42.9	73.0	79.9	75-125	9.27	25
Cadmium	2.89	0.215	"	2.15	0.234	124	75-125	5.75	25
Copper	52.7	0.429	"	42.9	9.05	102	75-125	3.46	25
Lead	35.3	0.215	"	21.5	12.3	107	75-125	4.88	25
Nickel	48.9	0.429	"	42.9	5.31	102	75-125	2.65	25
Selenium	4.19	0.279	"	4.29	0.568	84.4	75-125	6.94	25
Silver	2.50	0.0215	"	2.15	0.0738	113	75-125	5.44	25
Zinc	174	0.429	"	42.9	127	109	75-125	0.972	25

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BFG0503 - 3060A Mod

Blank (BFG0503-BLK1)

Prepared: 07/28/22 Analyzed: 07/29/22

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BFG0503-BS1)

Prepared: 07/28/22 Analyzed: 07/29/22

Chromium, Hexavalent 24.4 0.30 mg/kg wet 25.0 97.8 80-120

Duplicate (BFG0503-DUP1)

Source: 2206301-04

Prepared: 07/28/22 Analyzed: 07/29/22

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BFG0503-MS1)

Source: 2206301-04

Prepared: 07/28/22 Analyzed: 07/29/22

Chromium, Hexavalent 21.4 0.30 mg/kg dry 25.1 ND 85.2 75-125

Matrix Spike Dup (BFG0503-MSD1)

Source: 2206301-04

Prepared: 07/28/22 Analyzed: 07/29/22

Chromium, Hexavalent 24.2 0.30 mg/kg dry 25.1 ND 96.4 75-125 12.3 20

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K.P. Kauffman
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 Denver CO, 80202

Project: George Norden

Project Number: [none]
 Project Manager: Levi Kirk

Reported:
 08/09/22 10:12

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

Batch BFG0492 - General Preparation

Blank (BFG0492-BLK1)

Prepared: 07/27/22 Analyzed: 07/29/22

Calcium	ND	0.0500	mg/L wet						
Magnesium	ND	0.0500	"						
Sodium	ND	0.0500	"						

LCS (BFG0492-BS1)

Prepared: 07/27/22 Analyzed: 07/29/22

Calcium	5.01	0.0500	mg/L wet	5.00	100	70-130
Magnesium	5.19	0.0500	"	5.00	104	70-130
Sodium	4.92	0.0500	"	5.00	98.5	70-130

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K.P. Kauffman
 1675 Broadway
 Denver CO, 80202

Project: George Norden

Project Number: [none]
 Project Manager: Levi Kirk

Reported:
 08/09/22 10:12

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BFG0525 - General Preparation

Duplicate (BFG0525-DUP1)		Source: 2207364-01			Prepared & Analyzed: 07/28/22			
% Solids	92.1		%		93.2		1.17	20

Batch BFG0528 - General Preparation

Duplicate (BFG0528-DUP1)		Source: 2206301-04			Prepared & Analyzed: 07/28/22			
% Solids	99.9		%		99.5		0.401	20

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K.P. Kauffman
1675 Broadway
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Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BFG0547 - General Preparation

Blank (BFG0547-BLK1)

Prepared & Analyzed: 07/29/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BFG0547-BS1)

Prepared & Analyzed: 07/29/22

Specific Conductance (EC) 0.148 0.0100 mmhos/cm 0.150 98.5 95-105

Duplicate (BFG0547-DUP1)

Source: 2207308-01

Prepared & Analyzed: 07/29/22

Specific Conductance (EC) 1.23 0.0100 mmhos/cm 1.27 3.12 20

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K.P. Kauffman
 1675 Broadway
 Denver CO, 80202

Project: George Norden

Project Number: [none]
 Project Manager: Levi Kirk

Reported:
 08/09/22 10:12

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike	Source	%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BFG0548 - General Preparation

LCS (BFG0548-BS1)

Prepared & Analyzed: 07/29/22

pH	9.20	pH Units	9.18	100	95-105
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Duplicate (BFG0548-DUP1)

Source: 2207308-01

Prepared & Analyzed: 07/29/22

pH	7.72	pH Units	7.74	0.259	20
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George Norden

Project Number: [none]
Project Manager: Levi Kirk

Reported:
08/09/22 10:12

Notes and Definitions

- 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.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference