

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 05, 2023


Brian Humphrey
Industrial Gas Services
5862 McIntyre Ct.
Golden, CO 80403

RE: Behring 1

Work Order #2309469

Enclosed are the results of analyses for samples received by Summit Scientific on 09/26/23 14:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood". The signature is written in a cursive, flowing style.

Jacob Wood For Paul Shrewsbury
President



Industrial Gas Services
5862 McIntyre Ct.
Golden CO, 80403

Project: Behring 1

Project Number: [none]

Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NorthPit@1'	2309469-01	Soil	09/26/23 10:30	09/26/23 14:55

Summit Scientific

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4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID	Page <u>1</u> of <u>1</u>
2309469	

Client: <u>IGS, Inc</u>		Send Data To:		Send Invoice To:	
Address:		Project Manager: <u>Dennis Horner / Brian Humphrey</u>		Company: <u>IGS, Inc</u>	
City/State/Zip:		E-Mail: <u>IGSENC@att.net</u> <u>bhumphrey@IGRS.com</u>		Project Name/Location: <u>Behring 1</u>	
Phone:		Project Name: <u>Behring 1</u>		AFE#:	
Sampler Name: <u>Mitchell Bond / Brian Humphrey</u>		Project Number:		PO/Billing Codes:	
				Contact: <u>Dennis Horner / Brian Humphrey</u>	

					Preservative				Matrix				Analysis Requested								Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other _____	Water	Soil	Air-Canister #	Other _____										
1	North Pit @ 1'	9/26/23	1030	2			X			X			X	Full Table 9/15-1								
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						

Relinquished by: <u>Dennis Horner</u>	Date/Time: <u>9/26/23 14:54</u>	Received by: <u>John W-d</u>	Date/Time: <u>9/26/23 14:55</u>	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: <u>3.6</u>	Corrected Temperature	IR gun #: <u>2</u>	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2309469Client: IGS Client Project ID: Behring 1Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐
☒ ☐ ☐ ☐ ☐
Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 3.6 Thermometer # Z

	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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
If custody seals are present, are they intact? ⁽¹⁾	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Vah Wad
Custodian Printed Name

9/26/23 14:55
Date/Time



Industrial Gas Services
5862 McIntyre Ct.
Golden CO, 80403

Project: Behring 1
Project Number: [none]
Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

NorthPit@1'
2309469-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/26/23 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BGI0867	09/27/23	09/27/23	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: **09/26/23 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0325	81.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0393	98.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0382	95.5 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/26/23 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0870	09/27/23	09/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/26/23 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	6.82	54.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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NorthPit@1'
2309469-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/26/23 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BGI0832	09/27/23	09/27/23	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: **09/26/23 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0255	76.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0222	66.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/26/23 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.186	0.0100	mg/L	1	BGI0842	09/27/23	09/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/26/23 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							

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2309469-01 (Soil)

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Total Metals by EPA 6020B

Arsenic	1.79	0.200	mg/kg dry	1	BGI0958	09/29/23	10/01/23	EPA 6020B
Barium	31.2	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.67	0.400	"	"	"	"	"	"
Lead	5.12	0.200	"	"	"	"	"	"
Nickel	2.71	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	12.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/26/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGI0909	09/28/23	09/28/23	EPA 7196A	

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

Date Sampled: **09/26/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	38.3	0.0517	mg/L dry	1	BGI0957	09/29/23	10/02/23	EPA 6020B	
Magnesium	12.3	0.0517	"	"	"	"	"	"	
Sodium	1.35	0.0517	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/26/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0486	0.00100	units	1	BGI0067	10/03/23	10/03/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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2309469-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/26/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.8		%	1	BGI0938	09/29/23	09/29/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/26/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.423	0.0100	mmhos/cm	1	BGJ0011	10/02/23	10/02/23	EPA 120.1	

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

Date Sampled: **09/26/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.60		pH Units	1	BGJ0012	10/02/23	10/02/23	EPA 9045D	

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Industrial Gas Services
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Golden CO, 80403

Project: Behring 1
Project Number: [none]
Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGI0867 - EPA 5030 Soil MS

Blank (BGI0867-BLK1)

Prepared & Analyzed: 09/27/23

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	0.0387		"	0.0400		96.8	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		99.9	50-150			
Surrogate: 4-Bromofluorobenzene	0.0368		"	0.0400		92.0	50-150			

LCS (BGI0867-BS1)

Prepared & Analyzed: 09/27/23

Benzene	0.0990	0.0020	mg/kg	0.100		99.0	70-130			
Toluene	0.0982	0.0050	"	0.100		98.2	70-130			
Ethylbenzene	0.0968	0.0050	"	0.100		96.8	70-130			
m,p-Xylene	0.190	0.010	"	0.200		94.8	70-130			
o-Xylene	0.0917	0.0050	"	0.100		91.7	70-130			
1,2,4-Trimethylbenzene	0.0877	0.0050	"	0.100		87.7	70-130			
1,3,5-Trimethylbenzene	0.0908	0.0050	"	0.100		90.8	70-130			
Naphthalene	0.0784	0.0038	"	0.100		78.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0348		"	0.0400		87.1	50-150			
Surrogate: Toluene-d8	0.0401		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0383		"	0.0400		95.7	50-150			

Matrix Spike (BGI0867-MS1)

Source: 2309461-01

Prepared & Analyzed: 09/27/23

Benzene	0.0851	0.0020	mg/kg	0.100	ND	85.1	70-130			
Toluene	0.0845	0.0050	"	0.100	ND	84.5	70-130			
Ethylbenzene	0.0802	0.0050	"	0.100	ND	80.2	70-130			
m,p-Xylene	0.156	0.010	"	0.200	ND	78.2	70-130			
o-Xylene	0.0769	0.0050	"	0.100	ND	76.9	70-130			
1,2,4-Trimethylbenzene	0.0716	0.0050	"	0.100	ND	71.6	70-130			
1,3,5-Trimethylbenzene	0.0734	0.0050	"	0.100	ND	73.4	70-130			
Naphthalene	0.0651	0.0038	"	0.100	ND	65.1	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0379		"	0.0400		94.8	50-150			
Surrogate: Toluene-d8	0.0410		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		99.9	50-150			

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Project: Behring 1
Project Number: [none]
Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch BGI0867 - EPA 5030 Soil MS

Matrix Spike Dup (BGI0867-MSD1)		Source: 2309461-01			Prepared: 09/27/23 Analyzed: 09/28/23					
Benzene	0.0807	0.0020	mg/kg	0.100	ND	80.7	70-130	5.28	30	
Toluene	0.0788	0.0050	"	0.100	ND	78.8	70-130	6.94	30	
Ethylbenzene	0.0706	0.0050	"	0.100	ND	70.6	70-130	12.8	30	
m,p-Xylene	0.136	0.010	"	0.200	ND	68.1	70-130	13.8	30	QM-07
o-Xylene	0.0695	0.0050	"	0.100	ND	69.5	70-130	10.1	30	QM-07
1,2,4-Trimethylbenzene	0.0640	0.0050	"	0.100	ND	64.0	70-130	11.1	30	QM-07
1,3,5-Trimethylbenzene	0.0631	0.0050	"	0.100	ND	63.1	70-130	15.1	30	QM-07
Naphthalene	0.0687	0.0038	"	0.100	ND	68.7	70-130	5.43	30	QM-07
Surrogate: 1,2-Dichloroethane-d4		0.0374	"	0.0400		93.4	50-150			
Surrogate: Toluene-d8		0.0425	"	0.0400		106	50-150			
Surrogate: 4-Bromofluorobenzene		0.0405	"	0.0400		101	50-150			

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Industrial Gas Services
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Project: Behring 1
Project Number: [none]
Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGI0870 - EPA 3550A

Blank (BGI0870-BLK1)

Prepared & Analyzed: 09/27/23

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

Surrogate: o-Terphenyl	12.9	"	12.5	103	30-150
------------------------	------	---	------	-----	--------

LCS (BGI0870-BS1)

Prepared & Analyzed: 09/27/23

C10-C28 (DRO)	435	50	mg/kg	500	87.0	70-130
Surrogate: o-Terphenyl	13.5	"	12.5	108	30-150	

Matrix Spike (BGI0870-MS1)

Source: 2309461-01

Prepared & Analyzed: 09/27/23

C10-C28 (DRO)	455	50	mg/kg	500	28.6	85.4	70-130
Surrogate: o-Terphenyl	12.5	"	12.5	100	30-150		

Matrix Spike Dup (BGI0870-MSD1)

Source: 2309461-01

Prepared & Analyzed: 09/27/23

C10-C28 (DRO)	370	50	mg/kg	500	28.6	68.3	70-130	20.7	20	QM-07
Surrogate: o-Terphenyl	11.6	"	12.5	92.8	30-150					

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Project: Behring 1
Project Number: [none]
Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGI0832 - EPA 5030 Soil MS

Blank (BGI0832-BLK1)

Prepared & Analyzed: 09/27/23

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	"								
Surrogate: 2-Methylnaphthalene-d10	0.0173		"	0.0333		51.8		40-150			
Surrogate: Fluoranthene-d10	0.0262		"	0.0333		78.5		40-150			

LCS (BGI0832-BS1)

Prepared & Analyzed: 09/27/23

Acenaphthene	0.0349	0.00500	mg/kg	0.0333		105		31-137			
Anthracene	0.0342	0.00500	"	0.0333		103		30-120			
Benzo (a) anthracene	0.0272	0.00500	"	0.0333		81.6		30-120			
Benzo (a) pyrene	0.0344	0.00500	"	0.0333		103		30-120			
Benzo (b) fluoranthene	0.0316	0.00500	"	0.0333		94.7		30-120			
Benzo (k) fluoranthene	0.0343	0.00500	"	0.0333		103		30-120			
Chrysene	0.0346	0.00500	"	0.0333		104		30-120			
Dibenz (a,h) anthracene	0.0372	0.00500	"	0.0333		112		30-120			
Fluoranthene	0.0344	0.00500	"	0.0333		103		30-120			
Fluorene	0.0338	0.00500	"	0.0333		101		30-120			
Indeno (1,2,3-cd) pyrene	0.0369	0.00500	"	0.0333		111		30-120			
Pyrene	0.0375	0.00500	"	0.0333		113		35-142			
1-Methylnaphthalene	0.0340	0.00500	"	0.0333		102		35-142			
2-Methylnaphthalene	0.0395	0.00500	"	0.0333		118		35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0233		"	0.0333		69.8		40-150			
Surrogate: Fluoranthene-d10	0.0349		"	0.0333		105		40-150			

Summit Scientific

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Industrial Gas Services
5862 McIntyre Ct.
Golden CO, 80403

Project: Behring 1
Project Number: [none]
Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGI0832 - EPA 5030 Soil MS

Matrix Spike (BGI0832-MS1)

Source: 2309468-01

Prepared & Analyzed: 09/27/23

Acenaphthene	0.0169	0.00500	mg/kg	0.0333	ND	50.8	31-137		
Anthracene	0.0179	0.00500	"	0.0333	ND	53.8	30-120		
Benzo (a) anthracene	0.0178	0.00500	"	0.0333	ND	53.3	30-120		
Benzo (a) pyrene	0.0198	0.00500	"	0.0333	ND	59.5	30-120		
Benzo (b) fluoranthene	0.0166	0.00500	"	0.0333	ND	49.9	30-120		
Benzo (k) fluoranthene	0.0160	0.00500	"	0.0333	ND	48.0	30-120		
Chrysene	0.0170	0.00500	"	0.0333	ND	51.1	30-120		
Dibenz (a,h) anthracene	0.0229	0.00500	"	0.0333	ND	68.7	30-120		
Fluoranthene	0.0167	0.00500	"	0.0333	ND	50.1	30-120		
Fluorene	0.0188	0.00500	"	0.0333	ND	56.4	30-120		
Indeno (1,2,3-cd) pyrene	0.0269	0.00500	"	0.0333	ND	80.6	30-120		
Pyrene	0.0238	0.00500	"	0.0333	ND	71.4	35-142		
1-Methylnaphthalene	0.0171	0.00500	"	0.0333	ND	51.3	15-130		
2-Methylnaphthalene	0.0154	0.00500	"	0.0333	ND	46.2	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0162		"	0.0333		48.7	40-150		
Surrogate: Fluoranthene-d10	0.0171		"	0.0333		51.4	40-150		

Matrix Spike Dup (BGI0832-MSD1)

Source: 2309468-01

Prepared & Analyzed: 09/27/23

Acenaphthene	0.0202	0.00500	mg/kg	0.0333	ND	60.7	31-137	17.8	30
Anthracene	0.0215	0.00500	"	0.0333	ND	64.4	30-120	18.0	30
Benzo (a) anthracene	0.0210	0.00500	"	0.0333	ND	62.9	30-120	16.5	30
Benzo (a) pyrene	0.0250	0.00500	"	0.0333	ND	74.9	30-120	22.8	30
Benzo (b) fluoranthene	0.0153	0.00500	"	0.0333	ND	46.0	30-120	8.15	30
Benzo (k) fluoranthene	0.0184	0.00500	"	0.0333	ND	55.3	30-120	14.1	30
Chrysene	0.0229	0.00500	"	0.0333	ND	68.8	30-120	29.5	30
Dibenz (a,h) anthracene	0.0299	0.00500	"	0.0333	ND	89.6	30-120	26.4	30
Fluoranthene	0.0201	0.00500	"	0.0333	ND	60.4	30-120	18.6	30
Fluorene	0.0222	0.00500	"	0.0333	ND	66.7	30-120	16.7	30
Indeno (1,2,3-cd) pyrene	0.0301	0.00500	"	0.0333	ND	90.2	30-120	11.2	30
Pyrene	0.0297	0.00500	"	0.0333	ND	89.1	35-142	22.0	30
1-Methylnaphthalene	0.0235	0.00500	"	0.0333	ND	70.5	15-130	31.4	50
2-Methylnaphthalene	0.0207	0.00500	"	0.0333	ND	62.2	15-130	29.6	50
Surrogate: 2-Methylnaphthalene-d10	0.0222		"	0.0333		66.6	40-150		
Surrogate: Fluoranthene-d10	0.0205		"	0.0333		61.6	40-150		

Summit Scientific

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Industrial Gas Services
5862 McIntyre Ct.
Golden CO, 80403

Project: Behring 1

Project Number: [none]

Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

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

Summit Scientific

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

Batch BGI0842 - EPA 3050B

Blank (BGI0842-BLK1)

Prepared: 09/27/23 Analyzed: 09/29/23

Boron ND 0.0100 mg/L

LCS (BGI0842-BS1)

Prepared: 09/27/23 Analyzed: 09/29/23

Boron 5.83 0.0100 mg/L 5.00 117 80-120

Duplicate (BGI0842-DUP1)

Source: 2309468-01

Prepared: 09/27/23 Analyzed: 09/29/23

Boron 0.179 0.0100 mg/L 0.264 38.5 20 QR-04

Matrix Spike (BGI0842-MS1)

Source: 2309468-01

Prepared: 09/27/23 Analyzed: 09/29/23

Boron 5.60 0.0100 mg/L 5.00 0.264 107 75-125

Matrix Spike Dup (BGI0842-MSD1)

Source: 2309468-01

Prepared: 09/27/23 Analyzed: 09/29/23

Boron 5.32 0.0100 mg/L 5.00 0.264 101 75-125 5.12 25

Summit Scientific

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Industrial Gas Services
5862 McIntyre Ct.
Golden CO, 80403

Project: Behring 1
Project Number: [none]
Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGI0958 - EPA 3050B

Blank (BGI0958-BLK1)

Prepared: 09/29/23 Analyzed: 10/01/23

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	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"
Selenium	ND	0.260	"

LCS (BGI0958-BS1)

Prepared: 09/29/23 Analyzed: 10/01/23

Arsenic	38.2	0.200	mg/kg wet	40.0	95.6	80-120
Barium	40.5	0.400	"	40.0	101	80-120
Cadmium	1.99	0.200	"	2.00	99.3	80-120
Copper	39.2	0.400	"	40.0	98.1	80-120
Lead	19.9	0.200	"	20.0	99.4	80-120
Nickel	39.1	0.400	"	40.0	97.7	80-120
Silver	1.97	0.0200	"	2.00	98.4	80-120
Zinc	39.8	0.400	"	40.0	99.5	80-120

Duplicate (BGI0958-DUP1)

Source: 2309017-06

Prepared: 09/29/23 Analyzed: 10/01/23

Arsenic	0.534	0.200	mg/kg dry	0.711	28.5	20	QR-01
Barium	10.2	0.400	"	11.7	13.4	20	
Cadmium	0.0390	0.200	"	0.0452	14.7	20	
Copper	2.15	0.400	"	1.67	25.1	20	QR-01
Lead	2.01	0.200	"	1.81	10.7	20	
Nickel	2.39	0.400	"	1.88	24.0	20	QR-01
Silver	0.00620	0.0200	"	0.00576	7.41	20	
Zinc	8.58	0.400	"	7.13	18.5	20	
Selenium	0.184	0.260	"	ND	200	200	

Summit Scientific

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Industrial Gas Services
5862 McIntyre Ct.
Golden CO, 80403

Project: Behring 1
Project Number: [none]
Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGI0958 - EPA 3050B

Matrix Spike (BGI0958-MS1)

Source: 2309017-06

Prepared: 09/29/23 Analyzed: 10/01/23

Arsenic	50.8	0.200	mg/kg dry	44.3	0.711	113	75-125
Barium	63.7	0.400	"	44.3	11.7	117	75-125
Cadmium	2.71	0.200	"	2.21	0.0452	120	75-125
Copper	43.9	0.400	"	44.3	1.67	95.3	75-125
Lead	28.0	0.200	"	22.1	1.81	118	75-125
Nickel	43.9	0.400	"	44.3	1.88	94.9	75-125
Silver	2.46	0.0200	"	2.21	0.00576	111	75-125
Zinc	51.7	0.400	"	44.3	7.13	101	75-125

Matrix Spike Dup (BGI0958-MSD1)

Source: 2309017-06

Prepared: 09/29/23 Analyzed: 10/01/23

Arsenic	46.5	0.200	mg/kg dry	44.3	0.711	103	75-125	8.73	25
Barium	56.8	0.400	"	44.3	11.7	102	75-125	11.3	25
Cadmium	2.48	0.200	"	2.21	0.0452	110	75-125	8.79	25
Copper	42.8	0.400	"	44.3	1.67	92.9	75-125	2.49	25
Lead	26.4	0.200	"	22.1	1.81	111	75-125	5.79	25
Nickel	43.0	0.400	"	44.3	1.88	92.8	75-125	2.12	25
Silver	2.28	0.0200	"	2.21	0.00576	103	75-125	7.54	25
Zinc	50.1	0.400	"	44.3	7.13	97.1	75-125	3.01	25

Summit Scientific

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Industrial Gas Services
5862 McIntyre Ct.
Golden CO, 80403

Project: Behring 1
Project Number: [none]
Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BGI0909 - 3060A Mod

Blank (BGI0909-BLK1)

Prepared & Analyzed: 09/28/23

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BGI0909-BS1)

Prepared & Analyzed: 09/28/23

Chromium, Hexavalent 23.2 0.30 mg/kg wet 25.0 93.0 80-120

Duplicate (BGI0909-DUP1)

Source: 2309456-01

Prepared & Analyzed: 09/28/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BGI0909-MS1)

Source: 2309456-01

Prepared & Analyzed: 09/28/23

Chromium, Hexavalent 26.1 0.30 mg/kg dry 28.8 ND 90.6 75-125

Matrix Spike Dup (BGI0909-MSD1)

Source: 2309456-01

Prepared & Analyzed: 09/28/23

Chromium, Hexavalent 26.4 0.30 mg/kg dry 28.8 ND 91.6 75-125 1.10 20

Summit Scientific

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Industrial Gas Services
5862 McIntyre Ct.
Golden CO, 80403

Project: Behring 1

Project Number: [none]

Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

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

Summit Scientific

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

Batch BGI0957 - General Preparation

Blank (BGI0957-BLK1)

Prepared: 09/29/23 Analyzed: 10/02/23

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

LCS (BGI0957-BS1)

Prepared: 09/29/23 Analyzed: 10/02/23

Calcium	5.21	0.0500	mg/L wet	5.00	104	70-130
Magnesium	5.44	0.0500	"	5.00	109	70-130
Sodium	5.38	0.0500	"	5.00	108	70-130

Summit Scientific

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Industrial Gas Services
5862 McIntyre Ct.
Golden CO, 80403

Project: Behring 1

Project Number: [none]

Project Manager: Brian Humphrey

Reported:

10/05/23 15:46

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

Summit Scientific

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

Batch BGI0938 - General Preparation

Duplicate (BGI0938-DUP1)		Source: 2309468-01			Prepared & Analyzed: 09/29/23					
% Solids	91.9		%		92.3			0.370	20	

Summit Scientific

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Industrial Gas Services
5862 McIntyre Ct.
Golden CO, 80403

Project: Behring 1
Project Number: [none]
Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

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

Summit Scientific

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

Batch BGJ0011 - General Preparation

Blank (BGJ0011-BLK1)

Prepared & Analyzed: 10/02/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGJ0011-BS1)

Prepared & Analyzed: 10/02/23

Specific Conductance (EC) 0.150 0.0100 mmhos/cm 0.150 99.7 95-105

Duplicate (BGJ0011-DUP1)

Source: 2309469-01

Prepared & Analyzed: 10/02/23

Specific Conductance (EC) 0.423 0.0100 mmhos/cm 0.423 0.118 20

Summit Scientific

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Industrial Gas Services
5862 McIntyre Ct.
Golden CO, 80403

Project: Behring 1

Project Number: [none]

Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

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

Summit Scientific

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

Batch BGJ0012 - General Preparation

LCS (BGJ0012-BS1)

Prepared & Analyzed: 10/02/23

pH	9.10	pH Units	9.18	99.1	95-105
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Duplicate (BGJ0012-DUP1)

Source: 2309469-01

Prepared & Analyzed: 10/02/23

pH	6.69	pH Units	6.60	1.35	20
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Summit Scientific

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Industrial Gas Services
5862 McIntyre Ct.
Golden CO, 80403

Project: Behring 1

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
10/05/23 15:46

Notes and Definitions

QR-04	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
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