

TABLE 1
FIELD DATA SUMMARY TABLE
PDC ENERGY INC - 69175
GEMINI G FEDERAL 06-33 WELLHEAD, WELD COUNTY, COLORADO
REM # 34866

Sample ID	Sample Date	Depth (ft.)	GPS Data		PDOP Value	VOC Concentration (ppm)
			Latitude	Longitude		
FL01R-W@4'	5/14/2024	4	40.337366	-104.716312	0.8	0.0
FL01-01@4'	5/13/2024	4	40.339408	-104.716215	1.0	0.2
FL01-02@5'	5/14/2024	5	40.339425	-104.715657	0.9	0.0
FL01-03@4'	5/14/2024	4	40.338937	-104.715667	1.0	0.0
FL01-04@4'	5/14/2024	4	40.338532	-104.715651	1.0	0.0
FL01-05@4'	5/14/2024	4	40.338121	-104.715637	1.0	0.0
FL01-06@4'	5/14/2024	4	40.337729	-104.715628	0.9	0.0
FL01-07@4'	5/14/2024	4	40.337305	-104.715633	0.8	0.0
FL01-08@4'	5/14/2024	4	40.337314	-104.716021	0.8	0.0
BKG01@4'	5/14/2024	4	40.337325	-104.716525	1.3	0.0
BKG01@5'	5/14/2024	5	40.337325	-104.716525	1.3	0.0

1. Global Positioning System (GPS) data is provided in decimal degrees using North American Datum (NAD) 83 UTMZone 13 North.

2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

PDOP = Position Dilution of Precision

ppm = Parts per million

ft. = Feet

TABLE 2
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
PDC ENERGY INC - 69175
GEMINI G FEDERAL 06-33 WELLHEAD, WELD COUNTY, COLORADO
REM # 34866

Sample ID	Sample Date	Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4-Trimethyl-Benzene (mg/kg)	1,3,5-Trimethyl-Benzene (mg/kg)	Naphthalene (mg/kg)	TPH (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500	500**		
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	500**		
FL01R-W@4'	5/14/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL01-01@4'	5/13/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL01-02@5'	5/14/2024	5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL01-07@4'	5/14/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL01-08@4'	5/14/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50

1. **Bold** values exceed the ECMC Table 915-1 limit(s)

2. Pink & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)

3. * Indicates laboratory minimum detection limit in excess of SSL

4. ** Summation of GRO+DRO+ORO must be less than 500 mg/kg

(<) = Analytical result is less than the indicated laboratory reporting limit

ft. = feet

mg/kg = milligrams per kilogram

TABLE 3
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
PDC ENERGY INC - 69175
GEMINI G FEDERAL 06-33 WELLHEAD, WELD COUNTY, COLORADO
REM # 34866

Sample ID	Sample Date	Depth (ft)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Benzo (b) Fluoranthene (mg/kg)	Benzo (k) Fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) Anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl- Naphthalene (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
FL01R-W@4'	5/14/2024	4	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-01@4'	5/13/2024	4	<0.00500	<0.00500	<0.00500	0.00798	<0.00500	<0.00500	<0.00500	<0.00500	0.00571	<0.00500	0.0122	0.00549	<0.00500	<0.00500
FL01-02@5'	5/14/2024	5	<0.00500	<0.00500	<0.00500	0.00603	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00658	<0.00500	<0.00500	<0.00500
FL01-07@4'	5/14/2024	4	0.100	0.332	0.756	0.496	0.637	0.353	0.866	0.0617	1.75	0.124	0.593	2.23	0.00782	0.0111
FL01-08@4'	5/14/2024	4	<0.00500	0.0140	0.0361	0.0253	0.0334	0.0104	0.0313	<0.00500	0.0716	0.0629	0.0370	0.0849	<0.00500	<0.00500

1. **Bold** values exceed the ECMC Table 915-1 limit(s)

2. Pink & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)

3. * Indicates laboratory minimum detection limit in excess of SSL

(<) = Analytical result is less than the indicated laboratory reporting limit

ft. = feet

mg/kg = milligrams per kilogram

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
PDC ENERGY INC - 69175
GEMINI G FEDERAL 06-33 WELLHEAD, WELD COUNTY, COLORADO
REM # 34866

Sample ID	Sample Date	Depth (ft)	pH (Standard Units)	EC (mmhos/cm)	SAR (Standard Units)	Boron (mg/L)
ECMC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
FL01R-W@4'	5/14/2024	4	8.62	0.197	0.0361	<2.00
FL01-01@4'	5/13/2024	4	8.63	0.295	0.830	<2.00
FL01-02@5'	5/14/2024	5	8.11	0.487	0.771	<2.00
FL01-07@4'	5/14/2024	4	8.38	0.212	0.340	<2.00
FL01-08@4'	5/14/2024	4	8.44	0.209	0.803	<2.00
BKG01@4'	5/14/2024	4	9.08	0.305	0.315	NA
BKG01@5'	5/14/2024	5	8.68	0.567	0.307	NA

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s)

2. Brown highlighted soil analytical values indicate a regulatory exceedance, but below background concentration.

(<) = Analytical result is less than the indicated laboratory reporting limit

NA - Not analyzed

ft. = feet

mg/L = milligrams per liter

EC = Electrical conductivity

SAR = Sodium absorption ratio

mmhos/cm = millimhos per centimeter

TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
PDC ENERGY INC - 69175
GEMINI G FEDERAL 06-33 WELLHEAD, WELD COUNTY, COLORADO
REM # 34866

Sample ID	Sample Date	Depth (ft)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			0.68	15000	71	0.3	3100	400	1500	390	390	23000
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
FL01R-W@4'	5/14/2024	4	2.50	753	0.230	<0.30	7.35	70.6	5.91	<0.260	0.0509	28.3
FL01-01@4'	5/13/2024	4	2.12	70.8	<0.200	<0.30	5.89	6.81	5.90	<0.260	0.0426	26.9
FL01-02@5'	5/14/2024	5	2.15	56.9	0.275	<0.30	8.38	11.2	5.23	<0.260	0.0953	36.3
FL01-07@4'	5/14/2024	4	3.02	195	0.349	<0.30	9.95	15.1	6.90	<0.260	0.101	39.8
FL01-08@4'	5/14/2024	4	1.96	58.1	<0.200	<0.30	5.69	5.91	5.42	<0.260	0.0539	24.7
BKG01@4'	5/14/2024	4	4.14	79.3	0.284	<0.30	6.75	7.39	8.27	<0.260	0.0554	32.2
BKG01@5'	5/14/2024	5	2.74	73.0	0.200	<0.30	5.27	5.97	6.04	<0.260	0.0623	26.3
Maximum Background Concentration			4.14	79.3								
Maximum Background Concentration X 1.25			5.175	99.1								

1. **Bold** values exceed the ECMC Table 915-1 limit(s)
2. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)

* Indicates laboratory minimum detection limit in excess of SSL

ft. = feet

mg/kg = milligrams per kilogram

Attachment A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 28, 2024

Karen Olson

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: PDC - Gemini G Federal 06-33 Wellhead

Work Order #2405197

Enclosed are the results of analyses for samples received by Summit Scientific on 05/13/24 17:56. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Natalie Tessier For Paul Shrewsbury

President



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

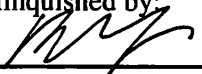
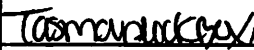

Reported:
05/28/24 11:29

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01-01@4'	2405197-01	Soil	05/13/24 10:49	05/13/24 17:56

Client: PDC / Tasman		Project Manager: Karen Olson		Company: PDC Energy	
Address: 6855 W 119th Ave		E-Mail: karen.olson@chevron.com		Project Name/Location: Gemini 6 Federal 06-33 wellhead	
City/State/Zip: Broomfield / CO / 80020				AFE#: PA-900269	
Phone: 303-487-1228		Project Name: Gemini 6 Federal 06-33 wellhead		PO/Billing Codes:	
Sampler Name: Ryan Yawinsky		Project Number:		Contact: Karen Olson Delbert Pace	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	1,2,4 & 1,3,5-TMB	TDS, Cl, SO4	Full 915 suite	
1	FL01-01e 4'	5/13/24	1049	3			X			X					X		
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Relinquished by:  Date/Time: 5/13/24 1530	Received by: Tasman Lodebox Date/Time: 5/13/24 1530	TAT Business Days	Field DO	Notes:
		Same Day	Field EC	
Relinquished by:  Date/Time: 5/13/24 1750	Received by:  Date/Time: 5/13/24 1750	1 Day	Field ORP	
Relinquished by: _____ Date/Time: _____	Received by: _____ Date/Time: _____	2 Days	Field pH	
		3 Days	Field Temp.	
Standard	X	Field Turb.		
Temperature Upon Receipt: 7.7	Corrected Temperature: 8	IR gun #: 1	HNO3 lot #: _____	

S2

Sample Receipt Checklist

S2 Work Order# 2405197

Client: Proctasman

Client Project ID: Gemini G federal wellhead 06-33

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

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

Temp (°C) 7.7

Thermometer # 1

	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"/>	
If custody seals are present, are they intact? (1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>none</u>
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 checked="" type="checkbox"/>	<input 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 pff 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"/>	
<u>Additional Comments (if any):</u>				
(1) If NO, then contact the client before proceeding with analysis and note in case narrative.				

SN
Custodian Printed Name

5/13/24
Date/Time



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

FL01-01@4'
2405197-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/13/24 10:49**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BHE0431	05/14/24	05/15/24	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: **05/13/24 10:49**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0245	61.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0426	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	100 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/13/24 10:49**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BHE0432	05/14/24	05/16/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/13/24 10:49**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	7.76	62.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

FL01-01@4'
2405197-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/13/24 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHE0428	05/14/24	05/14/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.00798	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	0.00571	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.0122	0.00500	"	"	"	"	"	"	
Pyrene	0.00549	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **05/13/24 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0228	68.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0208	62.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/13/24 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0441	05/14/24	05/24/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/13/24 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

FL01-01@4'
2405197-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.12	0.200	mg/kg dry	1	BHE0478	05/15/24	05/17/24	EPA 6020B
Barium	70.8	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	5.89	0.400	"	"	"	"	"	"
Lead	6.81	0.200	"	"	"	"	"	"
Nickel	5.90	0.400	"	"	"	"	"	"
Silver	0.0426	0.0200	"	"	"	"	"	"
Zinc	26.9	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/13/24 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0444	05/14/24	05/15/24	EPA 7196A	

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

Date Sampled: **05/13/24 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	30.8	0.0500	mg/L dry	1	BHE0452	05/14/24	05/16/24	EPA 6020B	
Magnesium	6.18	0.0500	"	"	"	"	"	"	
Sodium	19.3	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/13/24 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.830	0.00100	units	1	BHE0549	05/17/24	05/17/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

FL01-01@4'
2405197-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/13/24 10:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	88.0			%	1	BHE0436	05/14/24	05/15/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/13/24 10:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.295	0.0100		mmhos/cm	1	BHE0453	05/14/24	05/15/24	EPA 120.1	

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

Date Sampled: **05/13/24 10:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.63			pH Units	1	BHE0454	05/14/24	05/15/24	EPA 9045D	

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHE0431 - EPA 5030 Soil MS

Blank (BHE0431-BLK1)

Prepared & Analyzed: 05/14/24

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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0328</i>		<i>"</i>	<i>0.0400</i>		<i>82.1</i>		<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0380</i>		<i>"</i>	<i>0.0400</i>		<i>94.9</i>		<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.5</i>		<i>50-150</i>			

LCS (BHE0431-BS1)

Prepared & Analyzed: 05/14/24

Benzene	0.0858	0.0020	mg/kg	0.100		85.8		70-130			
Toluene	0.104	0.0050	"	0.100		104		70-130			
Ethylbenzene	0.107	0.0050	"	0.100		107		70-130			
m,p-Xylene	0.209	0.010	"	0.200		105		70-130			
o-Xylene	0.102	0.0050	"	0.100		102		70-130			
1,2,4-Trimethylbenzene	0.0967	0.0050	"	0.100		96.7		70-130			
1,3,5-Trimethylbenzene	0.0988	0.0050	"	0.100		98.8		70-130			
Naphthalene	0.0833	0.0038	"	0.100		83.3		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0346</i>		<i>"</i>	<i>0.0400</i>		<i>86.6</i>		<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0415</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>		<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0403</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>		<i>50-150</i>			

Matrix Spike (BHE0431-MS1)

Source: 2405186-01

Prepared & Analyzed: 05/14/24

Benzene	0.0830	0.0020	mg/kg	0.100	ND	83.0		70-130			
Toluene	0.103	0.0050	"	0.100	ND	103		70-130			
Ethylbenzene	0.103	0.0050	"	0.100	ND	103		70-130			
m,p-Xylene	0.202	0.010	"	0.200	ND	101		70-130			
o-Xylene	0.0980	0.0050	"	0.100	ND	98.0		70-130			
1,2,4-Trimethylbenzene	0.0923	0.0050	"	0.100	ND	92.3		70-130			
1,3,5-Trimethylbenzene	0.0946	0.0050	"	0.100	ND	94.6		70-130			
Naphthalene	0.0837	0.0038	"	0.100	ND	83.7		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0322</i>		<i>"</i>	<i>0.0400</i>		<i>80.4</i>		<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0412</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>		<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0388</i>		<i>"</i>	<i>0.0400</i>		<i>96.9</i>		<i>50-150</i>			

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Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHE0431 - EPA 5030 Soil MS

Matrix Spike Dup (BHE0431-MSD1)	Source: 2405186-01			Prepared & Analyzed: 05/14/24						
Benzene	0.0947	0.0020	mg/kg	0.100	ND	94.7	70-130	13.1	30	
Toluene	0.114	0.0050	"	0.100	ND	114	70-130	10.5	30	
Ethylbenzene	0.120	0.0050	"	0.100	ND	120	70-130	15.2	30	
m,p-Xylene	0.232	0.010	"	0.200	ND	116	70-130	13.6	30	
o-Xylene	0.111	0.0050	"	0.100	ND	111	70-130	12.4	30	
1,2,4-Trimethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130	11.9	30	
1,3,5-Trimethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130	12.7	30	
Naphthalene	0.0908	0.0038	"	0.100	ND	90.8	70-130	8.22	30	
Surrogate: 1,2-Dichloroethane-d4	0.0317		"	0.0400		79.2	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		102	50-150			

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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

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 BHE0432 - EPA 3550A

Blank (BHE0432-BLK1)

Prepared: 05/14/24 Analyzed: 05/15/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	13.5		"	12.5		108		30-150			

LCS (BHE0432-BS1)

Prepared: 05/14/24 Analyzed: 05/15/24

C10-C28 (DRO)	484	50	mg/kg	500		96.8		70-130			
Surrogate: <i>o</i> -Terphenyl	13.5		"	12.5		108		30-150			

Matrix Spike (BHE0432-MS1)

Source: 2405186-01

Prepared: 05/14/24 Analyzed: 05/15/24

C10-C28 (DRO)	438	50	mg/kg	500	43.1	78.9		70-130			
Surrogate: <i>o</i> -Terphenyl	9.76		"	12.5		78.1		30-150			

Matrix Spike Dup (BHE0432-MSD1)

Source: 2405186-01

Prepared: 05/14/24 Analyzed: 05/15/24

C10-C28 (DRO)	444	50	mg/kg	500	43.1	80.2		70-130	1.42	20	
Surrogate: <i>o</i> -Terphenyl	9.65		"	12.5		77.2		30-150			

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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

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 BHE0428 - EPA 5030 Soil MS

Blank (BHE0428-BLK1)

Prepared & Analyzed: 05/14/24

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>0.0324</i>		"	<i>0.0333</i>		<i>97.3</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0371</i>		"	<i>0.0333</i>		<i>111</i>	<i>40-150</i>			

LCS (BHE0428-BS1)

Prepared & Analyzed: 05/14/24

Acenaphthene	0.0334	0.00500	mg/kg	0.0333	100	31-137
Anthracene	0.0319	0.00500	"	0.0333	95.7	30-120
Benzo (a) anthracene	0.0306	0.00500	"	0.0333	91.9	30-120
Benzo (a) pyrene	0.0263	0.00500	"	0.0333	79.0	30-120
Benzo (b) fluoranthene	0.0262	0.00500	"	0.0333	78.5	30-120
Benzo (k) fluoranthene	0.0327	0.00500	"	0.0333	98.0	30-120
Chrysene	0.0348	0.00500	"	0.0333	104	30-120
Dibenz (a,h) anthracene	0.0238	0.00500	"	0.0333	71.4	30-120
Fluoranthene	0.0333	0.00500	"	0.0333	100	30-120
Fluorene	0.0330	0.00500	"	0.0333	98.9	30-120
Indeno (1,2,3-cd) pyrene	0.0239	0.00500	"	0.0333	71.7	30-120
Pyrene	0.0357	0.00500	"	0.0333	107	35-142
1-Methylnaphthalene	0.0324	0.00500	"	0.0333	97.2	35-142
2-Methylnaphthalene	0.0328	0.00500	"	0.0333	98.5	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0367</i>		"	<i>0.0333</i>	<i>110</i>	<i>40-150</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0369</i>		"	<i>0.0333</i>	<i>111</i>	<i>40-150</i>

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Tasman Geosciences
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Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

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 BHE0428 - EPA 5030 Soil MS

Matrix Spike (BHE0428-MS1)	Source: 2405186-01			Prepared & Analyzed: 05/14/24						
Acenaphthene	0.0205	0.00500	mg/kg	0.0333	ND	61.4	31-137			
Anthracene	0.0207	0.00500	"	0.0333	ND	62.1	30-120			
Benzo (a) anthracene	0.0213	0.00500	"	0.0333	ND	63.8	30-120			
Benzo (a) pyrene	0.0206	0.00500	"	0.0333	ND	61.9	30-120			
Benzo (b) fluoranthene	0.0165	0.00500	"	0.0333	ND	49.4	30-120			
Benzo (k) fluoranthene	0.0201	0.00500	"	0.0333	ND	60.2	30-120			
Chrysene	0.0216	0.00500	"	0.0333	ND	64.7	30-120			
Dibenz (a,h) anthracene	0.0243	0.00500	"	0.0333	ND	72.8	30-120			
Fluoranthene	0.0209	0.00500	"	0.0333	ND	62.6	30-120			
Fluorene	0.0208	0.00500	"	0.0333	ND	62.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0193	0.00500	"	0.0333	ND	57.8	30-120			
Pyrene	0.0231	0.00500	"	0.0333	ND	69.3	35-142			
1-Methylnaphthalene	0.0214	0.00500	"	0.0333	ND	64.1	15-130			
2-Methylnaphthalene	0.0225	0.00500	"	0.0333	ND	67.5	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0254</i>		<i>"</i>	<i>0.0333</i>		<i>76.1</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0240</i>		<i>"</i>	<i>0.0333</i>		<i>72.0</i>	<i>40-150</i>			

Matrix Spike Dup (BHE0428-MSD1)	Source: 2405186-01			Prepared & Analyzed: 05/14/24						
Acenaphthene	0.0211	0.00500	mg/kg	0.0333	ND	63.2	31-137	2.84	30	
Anthracene	0.0216	0.00500	"	0.0333	ND	64.8	30-120	4.26	30	
Benzo (a) anthracene	0.0227	0.00500	"	0.0333	ND	68.1	30-120	6.51	30	
Benzo (a) pyrene	0.0220	0.00500	"	0.0333	ND	66.1	30-120	6.63	30	
Benzo (b) fluoranthene	0.0181	0.00500	"	0.0333	ND	54.3	30-120	9.34	30	
Benzo (k) fluoranthene	0.0202	0.00500	"	0.0333	ND	60.5	30-120	0.474	30	
Chrysene	0.0222	0.00500	"	0.0333	ND	66.6	30-120	2.83	30	
Dibenz (a,h) anthracene	0.0263	0.00500	"	0.0333	ND	78.8	30-120	7.92	30	
Fluoranthene	0.0210	0.00500	"	0.0333	ND	63.1	30-120	0.699	30	
Fluorene	0.0233	0.00500	"	0.0333	ND	70.0	30-120	11.7	30	
Indeno (1,2,3-cd) pyrene	0.0203	0.00500	"	0.0333	ND	60.9	30-120	5.25	30	
Pyrene	0.0241	0.00500	"	0.0333	ND	72.4	35-142	4.45	30	
1-Methylnaphthalene	0.0174	0.00500	"	0.0333	ND	52.3	15-130	20.2	50	
2-Methylnaphthalene	0.0196	0.00500	"	0.0333	ND	58.8	15-130	13.7	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0226</i>		<i>"</i>	<i>0.0333</i>		<i>67.8</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0239</i>		<i>"</i>	<i>0.0333</i>		<i>71.7</i>	<i>40-150</i>			

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

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 BHE0441 - EPA 3050B

Blank (BHE0441-BLK1)

Prepared: 05/14/24 Analyzed: 05/24/24

Boron ND 2.00 mg/L

LCS (BHE0441-BS1)

Prepared: 05/14/24 Analyzed: 05/24/24

Boron 5.06 2.00 mg/L 5.00 101 80-120

Duplicate (BHE0441-DUP1)

Source: 2405196-01

Prepared: 05/14/24 Analyzed: 05/24/24

Boron 0.290 2.00 mg/L 0.290 0.192 20

Matrix Spike (BHE0441-MS1)

Source: 2405196-01

Prepared: 05/14/24 Analyzed: 05/24/24

Boron 5.39 2.00 mg/L 4.97 0.290 103 75-125

Matrix Spike Dup (BHE0441-MSD1)

Source: 2405196-01

Prepared: 05/14/24 Analyzed: 05/24/24

Boron 5.45 2.00 mg/L 4.97 0.290 104 75-125 1.11 25

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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHE0478 - EPA 3050B

Blank (BHE0478-BLK1)

Prepared: 05/15/24 Analyzed: 05/17/24

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 (BHE0478-BS1)

Prepared: 05/15/24 Analyzed: 05/17/24

Arsenic	37.8	0.200	mg/kg wet	40.0	94.6	80-120
Barium	38.9	0.400	"	40.0	97.3	80-120
Cadmium	1.89	0.200	"	2.00	94.5	80-120
Copper	38.8	0.400	"	40.0	97.1	80-120
Lead	19.4	0.200	"	20.0	96.8	80-120
Nickel	38.3	0.400	"	40.0	95.7	80-120
Silver	1.91	0.0200	"	2.00	95.5	80-120
Zinc	37.7	0.400	"	40.0	94.3	80-120
Selenium	3.98	0.260	"	4.00	99.6	80-120

Duplicate (BHE0478-DUP1)

Source: 2405192-01

Prepared: 05/15/24 Analyzed: 05/17/24

Arsenic	4.49	0.200	mg/kg dry	4.64	3.35	20
Barium	110	0.400	"	109	0.733	20
Cadmium	0.189	0.200	"	0.189	0.0763	20
Copper	8.30	0.400	"	8.05	3.09	20
Lead	7.65	0.200	"	7.59	0.836	20
Nickel	9.44	0.400	"	9.36	0.927	20
Silver	0.0364	0.0200	"	0.0360	0.987	20
Zinc	31.0	0.400	"	31.2	0.436	20
Selenium	ND	0.260	"	ND		20

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

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 BHE0478 - EPA 3050B

Matrix Spike (BHE0478-MS1)

Source: 2405192-01

Prepared: 05/15/24 Analyzed: 05/17/24

Arsenic	42.7	0.200	mg/kg dry	42.1	4.64	90.5	75-125				
Barium	134	0.400	"	42.1	109	59.9	75-125				QM-07
Cadmium	2.25	0.200	"	2.10	0.189	98.1	75-125				
Copper	46.0	0.400	"	42.1	8.05	90.2	75-125				
Lead	27.4	0.200	"	21.0	7.59	94.4	75-125				
Nickel	47.3	0.400	"	42.1	9.36	90.1	75-125				
Silver	2.06	0.0200	"	2.10	0.0360	96.2	75-125				
Zinc	66.9	0.400	"	42.1	31.2	85.1	75-125				
Selenium	3.27	0.260	"	4.21	ND	77.7	75-125				

Matrix Spike Dup (BHE0478-MSD1)

Source: 2405192-01

Prepared: 05/15/24 Analyzed: 05/17/24

Arsenic	41.9	0.200	mg/kg dry	42.1	4.64	88.6	75-125	1.92	25		
Barium	128	0.400	"	42.1	109	45.7	75-125	4.56	25		QM-07
Cadmium	2.16	0.200	"	2.10	0.189	93.5	75-125	4.39	25		
Copper	45.4	0.400	"	42.1	8.05	88.9	75-125	1.23	25		
Lead	26.4	0.200	"	21.0	7.59	89.4	75-125	3.88	25		
Nickel	46.6	0.400	"	42.1	9.36	88.5	75-125	1.43	25		
Silver	1.98	0.0200	"	2.10	0.0360	92.4	75-125	4.00	25		
Zinc	66.2	0.400	"	42.1	31.2	83.2	75-125	1.14	25		
Selenium	3.27	0.260	"	4.21	ND	77.7	75-125	0.0257	25		

Post Spike (BHE0478-PS1)

Source: 2405192-01

Prepared: 05/15/24 Analyzed: 05/17/24

Arsenic	126		ug/l	100	10.3	116	75-125				
Barium	361		"	100	242	119	75-125				
Cadmium	5.51		"	5.00	0.420	102	75-125				
Copper	123		"	100	17.9	106	75-125				
Lead	65.5		"	50.0	16.8	97.3	75-125				
Nickel	129		"	100	20.8	108	75-125				
Silver	5.17		"	5.00	0.0800	102	75-125				
Zinc	186		"	100	69.1	117	75-125				
Selenium	9.79		"	10.0	0.237	95.5	75-125				

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

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 BHE0444 - 3060A Mod

Blank (BHE0444-BLK1)

Prepared: 05/14/24 Analyzed: 05/15/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHE0444-BS1)

Prepared: 05/14/24 Analyzed: 05/15/24

Chromium, Hexavalent 25.6 0.30 mg/kg wet 25.0 103 80-120

Duplicate (BHE0444-DUP1)

Source: 2405196-01

Prepared: 05/14/24 Analyzed: 05/15/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHE0444-MS1)

Source: 2405196-01

Prepared: 05/14/24 Analyzed: 05/15/24

Chromium, Hexavalent 26.0 0.30 mg/kg dry 27.3 ND 95.0 75-125

Matrix Spike Dup (BHE0444-MSD1)

Source: 2405196-01

Prepared: 05/14/24 Analyzed: 05/15/24

Chromium, Hexavalent 26.0 0.30 mg/kg dry 27.3 ND 95.0 75-125 0.00 20

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

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

Summit Scientific

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

Batch BHE0452 - General Preparation

Blank (BHE0452-BLK1)

Prepared: 05/14/24 Analyzed: 05/16/24

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

LCS (BHE0452-BS1)

Prepared: 05/14/24 Analyzed: 05/16/24

Calcium	5.12	0.0500	mg/L wet	5.00	102	70-130
Magnesium	4.79	0.0500	"	5.00	95.8	70-130
Sodium	4.77	0.0500	"	5.00	95.5	70-130

Summit Scientific

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Tasman Geosciences
 6855 W. 119th Ave.
 Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
 Project Manager: Karen Olson

Reported:
 05/28/24 11:29

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

Summit Scientific

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

Batch BHE0436 - General Preparation

Duplicate (BHE0436-DUP1)	Source: 2405185-01		Prepared: 05/14/24 Analyzed: 05/15/24	
% Solids	93.3	%	95.4	2.21 20

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

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

Summit Scientific

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

Batch BHE0453 - General Preparation

Blank (BHE0453-BLK1)

Prepared: 05/14/24 Analyzed: 05/15/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHE0453-BS1)

Prepared: 05/14/24 Analyzed: 05/15/24

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 103 95-105

Duplicate (BHE0453-DUP1)

Source: 2405190-01

Prepared: 05/14/24 Analyzed: 05/15/24

Specific Conductance (EC) 0.180 0.0100 mmhos/cm 0.178 0.783 20

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

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 BHE0454 - General Preparation

LCS (BHE0454-BS1)

Prepared: 05/14/24 Analyzed: 05/15/24

pH	9.17	pH Units	9.18	99.9	95-105
----	------	----------	------	------	--------

Duplicate (BHE0454-DUP1)

Source: 2405190-01

Prepared: 05/14/24 Analyzed: 05/15/24

pH	8.69	pH Units	8.67	0.230	20
----	------	----------	------	-------	----

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
05/28/24 11:29

Notes and Definitions

- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 13, 2024

Karen Olson

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: PDC - Gemini G Federal 06-33 Wellhead

Work Order #2405215

Enclosed are the results of analyses for samples received by Summit Scientific on 05/14/24 18:06. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Natalie Tessier For Paul Shrewsbury

President



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

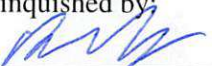

Reported:
06/13/24 11:24

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BKG01@4'	2405215-01	Soil	05/14/24 14:18	05/14/24 18:06
BKG01@5'	2405215-02	Soil	05/14/24 14:20	05/14/24 18:06
FL01-02@5'	2405215-03	Soil	05/14/24 08:54	05/14/24 18:06
FL01-07@4'	2405215-04	Soil	05/14/24 11:43	05/14/24 18:06
FL01-08@4'	2405215-05	Soil	05/14/24 12:30	05/14/24 18:06
FL01R-W@4'	2405215-06	Soil	05/14/24 12:38	05/14/24 18:06

Client: PDC / Tasman		Send Data To: Project Manager: Karen Olson		Send Invoice To: Company: PDC Energy	
Address: 6855 W 119th Ave		E-Mail: karen.olson@chevron.com		Project Name/Location: Gemini 6 Federal 06-33 wellhead	
City/State/Zip: Broomfield / CO / 80020				AFE#: PX-900269	
Phone: 303-487-1228		Project Name: Gemini 6 Federal 06-33 wellhead		PO/Billing Codes:	
Sampler Name: Ryan Yavinsky		Project Number:		Contact: M Karen Olson Deldert Pace	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	1,2,4 & 1,3,5-TMB	TDS, Cl, SO4	Full 915 suite		915-Metals
1	BK601@4'	5/14/24	1418	3			X			X						X	X	
2	BK601@5'		1420													X	X	
3	FL01-02@5'		0854												X			
4	FL01-07@4'		1143												X			
5	FL01-08@4'		1230												X			
6	FL01R-W@4'		1238												X			
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		

Relinquished by: 	Date/Time: 5/14/24 1625	Received by: Tasman Lockbox	Date/Time: 5/14/24 1625	TAT Business Days	Field DO	Notes:
Relinquished by: Tasman Lockbox	Date/Time: 5/14/24 1800	Received by: 	Date/Time: 5/14/24 1800	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: 7.1	Corrected Temperature: 0	IR gun #: 1	HNO3 lot #:	Standard	X	Field Turb.

S₂

Sample Receipt Checklist

S2 Work Order# 2405215

Client: Pectasman

Client Project ID: Gemini G Federal ac-33 wellhead

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

Airbill #: _____

Grid for shipping method selection

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

Temp (°C) 7.1

Thermometer # 1

Checklist table with columns: Question, Yes, No, N/A, Comments (if any). Rows include: If samples require cooling, is the temperature < 6°C? (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?, Is a chain-of-custody (COC) form present and filled out completely? (1), Were all samples received intact? (1), Was adequate sample volume provided? (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), 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, H2SO4, NaOH, HNO3, etc., If samples are acid preserved for metals, is the pH <= 2? (1) Record the pff in Comments., If dissolved metals are requested, were samples field filtered? Additional Comments (if any):

AS Custodian Printed Name

5/14/24 Date/Time

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



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

BKG01@4'
2405215-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **05/14/24 14:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.14	0.200	mg/kg dry	1	BHE0533	05/16/24	05/17/24	EPA 6020B	
Barium	79.3	0.400	"	"	"	"	"	"	
Cadmium	0.284	0.200	"	"	"	"	"	"	
Copper	6.75	0.400	"	"	"	"	"	"	
Lead	7.39	0.200	"	"	"	"	"	"	
Nickel	8.27	0.400	"	"	"	"	"	"	
Silver	0.0554	0.0200	"	"	"	"	"	"	
Zinc	32.2	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/14/24 14:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0480	05/15/24	05/15/24	EPA 7196A	

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

Date Sampled: **05/14/24 14:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	1170	0.0500	mg/L dry	1	BHE0471	05/15/24	06/13/24	EPA 6020B	
Magnesium	36.3	0.0500	"	"	"	"	"	"	
Sodium	40.1	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/14/24 14:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.315	0.00100	units	1	BHF0378	06/13/24	06/13/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

BKG01@4'
2405215-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/14/24 14:18**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	96.7			%	1	BHE0467	05/15/24	05/15/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/14/24 14:18**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.305	0.0100		mmhos/cm	1	BHE0473	05/15/24	05/16/24	EPA 120.1	

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

Date Sampled: **05/14/24 14:18**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	9.08			pH Units	1	BHE0472	05/15/24	05/16/24	EPA 9045D	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

BKG01@5'
2405215-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **05/14/24 14:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.74	0.200	mg/kg dry	1	BHE0533	05/16/24	05/17/24	EPA 6020B	
Barium	73.0	0.400	"	"	"	"	"	"	
Cadmium	0.200	0.200	"	"	"	"	"	"	
Copper	5.27	0.400	"	"	"	"	"	"	
Lead	5.97	0.200	"	"	"	"	"	"	
Nickel	6.04	0.400	"	"	"	"	"	"	
Silver	0.0623	0.0200	"	"	"	"	"	"	
Zinc	26.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/14/24 14:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0480	05/15/24	05/15/24	EPA 7196A	

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

Date Sampled: **05/14/24 14:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	6800	0.0500	mg/L dry	1	BHE0471	05/15/24	06/13/24	EPA 6020B	
Magnesium	171	0.0500	"	"	"	"	"	"	
Sodium	93.7	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/14/24 14:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.307	0.00100	units	1	BHF0378	06/13/24	06/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

BKG01@5'
2405215-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/14/24 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	97.5			%	1	BHE0467	05/15/24	05/15/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/14/24 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.567	0.0100		mmhos/cm	1	BHE0473	05/15/24	05/16/24	EPA 120.1	

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

Date Sampled: **05/14/24 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.68			pH Units	1	BHE0472	05/15/24	05/16/24	EPA 9045D	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01-02@5'
2405215-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHE0485	05/15/24	05/16/24	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: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0365	91.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0382	95.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0352	88.1 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHE0487	05/15/24	05/16/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	6.28	50.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01-02@5'
2405215-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHE0466	05/15/24	05/15/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.00603	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	0.00658	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0266	79.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0166	49.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0469	05/15/24	06/07/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01-02@5'
2405215-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.15	0.200	mg/kg dry	1	BHE0533	05/16/24	05/17/24	EPA 6020B
Barium	56.9	0.400	"	"	"	"	"	"
Cadmium	0.275	0.200	"	"	"	"	"	"
Copper	8.38	0.400	"	"	"	"	"	"
Lead	11.2	0.200	"	"	"	"	"	"
Nickel	5.23	0.400	"	"	"	"	"	"
Silver	0.0953	0.0200	"	"	"	"	"	"
Zinc	36.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0480	05/15/24	05/15/24	EPA 7196A	

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

Date Sampled: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	33.9	0.0500	mg/L dry	1	BHE0471	05/15/24	06/13/24	EPA 6020B	
Magnesium	8.23	0.0500	"	"	"	"	"	"	
Sodium	19.3	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.771	0.00100	units	1	BHF0378	06/13/24	06/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01-02@5'
2405215-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	95.2	%	1	BHE0467	05/15/24	05/15/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.487	0.0100	mmhos/cm	1	BHE0473	05/15/24	05/16/24	EPA 120.1	

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

Date Sampled: **05/14/24 08:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.11		pH Units	1	BHE0472	05/15/24	05/16/24	EPA 9045D	

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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01-07@4'
2405215-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHE0485	05/15/24	05/16/24	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: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0371	92.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0385	96.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0362	90.4 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHE0487	05/15/24	05/16/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.24	65.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01-07@4'
2405215-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.100	0.00500	mg/kg	1	BHE0466	05/15/24	05/15/24	EPA 8270D SIM	
Anthracene	0.332	0.0500	"	10	"	"	05/16/24	"	
Benzo (a) anthracene	0.756	0.0500	"	"	"	"	"	"	
Benzo (a) pyrene	0.496	0.0500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.637	0.0500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.353	0.0500	"	"	"	"	"	"	
Chrysene	0.866	0.0500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	0.0617	0.00500	"	1	"	"	05/15/24	"	
Fluoranthene	1.75	0.0500	"	10	"	"	05/16/24	"	
Fluorene	0.124	0.00500	"	1	"	"	05/15/24	"	
Indeno (1,2,3-cd) pyrene	0.593	0.0500	"	10	"	"	05/16/24	"	
Pyrene	2.23	0.0500	"	"	"	"	"	"	E
1-Methylnaphthalene	0.00782	0.00500	"	1	"	"	05/15/24	"	
2-Methylnaphthalene	0.0111	0.00500	"	"	"	"	"	"	

Date Sampled: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0241	72.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0233	70.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0469	05/15/24	06/07/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.02	0.200	mg/kg dry	1	BHE0533	05/16/24	05/17/24	EPA 6020B	

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Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01-07@4'
2405215-04 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Barium	195	0.400	mg/kg dry	1	BHE0533	05/16/24	05/17/24	EPA 6020B	
Cadmium	0.349	0.200	"	"	"	"	"	"	
Copper	9.95	0.400	"	"	"	"	"	"	
Lead	15.1	0.200	"	"	"	"	"	"	
Nickel	6.90	0.400	"	"	"	"	"	"	
Silver	0.101	0.0200	"	"	"	"	"	"	
Zinc	39.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0480	05/15/24	05/15/24	EPA 7196A	

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

Date Sampled: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	254	0.0500	mg/L dry	1	BHE0471	05/15/24	06/13/24	EPA 6020B	
Magnesium	26.7	0.0500	"	"	"	"	"	"	
Sodium	21.3	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.340	0.00100	units	1	BHF0378	06/13/24	06/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.9		%	1	BHE0467	05/15/24	05/15/24	Calculation	

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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01-07@4'
2405215-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.212	0.0100	mmhos/cm	1	BHE0473	05/15/24	05/16/24	EPA 120.1	

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

Date Sampled: **05/14/24 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.38		pH Units	1	BHE0472	05/15/24	05/16/24	EPA 9045D	

Summit Scientific

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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01-08@4'
2405215-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/14/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHE0485	05/15/24	05/16/24	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: **05/14/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0366	91.5 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0388	97.0 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0365	91.4 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/14/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHE0487	05/15/24	05/16/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/14/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	6.72	53.8 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01-08@4'
2405215-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/14/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHE0466	05/15/24	05/15/24	EPA 8270D SIM	
Anthracene	0.0140	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0361	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0253	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0334	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.0104	0.00500	"	"	"	"	"	"	
Chrysene	0.0313	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0716	0.00500	"	"	"	"	"	"	
Fluorene	0.00629	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.0370	0.00500	"	"	"	"	"	"	
Pyrene	0.0849	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **05/14/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0224	67.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0233	69.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/14/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0469	05/15/24	06/07/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/14/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01-08@4'
2405215-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.96	0.200	mg/kg dry	1	BHE0533	05/16/24	05/17/24	EPA 6020B
Barium	58.1	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	5.69	0.400	"	"	"	"	"	"
Lead	5.91	0.200	"	"	"	"	"	"
Nickel	5.42	0.400	"	"	"	"	"	"
Silver	0.0539	0.0200	"	"	"	"	"	"
Zinc	24.7	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/14/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0480	05/15/24	05/15/24	EPA 7196A	

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

Date Sampled: **05/14/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	38.4	0.0500	mg/L dry	1	BHE0471	05/15/24	06/13/24	EPA 6020B	
Magnesium	11.9	0.0500	"	"	"	"	"	"	
Sodium	22.2	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/14/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.803	0.00100	units	1	BHF0378	06/13/24	06/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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6855 W. 119th Ave.
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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01-08@4'
2405215-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/14/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	89.8			%	1	BHE0467	05/15/24	05/15/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/14/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.209	0.0100		mmhos/cm	1	BHE0473	05/15/24	05/16/24	EPA 120.1	

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

Date Sampled: **05/14/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.44			pH Units	1	BHE0472	05/15/24	05/16/24	EPA 9045D	

Summit Scientific

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Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01R-W@4'
2405215-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHE0485	05/15/24	05/16/24	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: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0373	93.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0377	94.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0358	89.4 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHE0487	05/15/24	05/16/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	5.40	43.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01R-W@4'
2405215-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHE0466	05/15/24	05/15/24	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: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0238	71.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0226	67.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0469	05/15/24	06/07/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01R-W@4'
2405215-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.50	0.200	mg/kg dry	1	BHE0533	05/16/24	05/17/24	EPA 6020B	
Barium	753	0.400	"	"	"	"	"	"	
Cadmium	0.230	0.200	"	"	"	"	"	"	
Copper	7.35	0.400	"	"	"	"	"	"	
Lead	70.6	0.200	"	"	"	"	"	"	
Nickel	5.91	0.400	"	"	"	"	"	"	
Silver	0.0509	0.0200	"	"	"	"	"	"	
Zinc	28.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0480	05/15/24	05/15/24	EPA 7196A	

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

Date Sampled: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	177	0.0500	mg/L dry	1	BHE0471	05/15/24	06/13/24	EPA 6020B	
Magnesium	6.91	0.0500	"	"	"	"	"	"	
Sodium	1.80	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0361	0.00100	units	1	BHF0378	06/13/24	06/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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6855 W. 119th Ave.
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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

FL01R-W@4'
2405215-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	93.4	%	1	BHE0467	05/15/24	05/15/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.197	0.0100	mmhos/cm	1	BHE0473	05/15/24	05/16/24	EPA 120.1	

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

Date Sampled: **05/14/24 12:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.62		pH Units	1	BHE0472	05/15/24	05/16/24	EPA 9045D	

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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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 BHE0485 - EPA 5030 Soil MS

Blank (BHE0485-BLK1)

Prepared: 05/15/24 Analyzed: 05/16/24

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	0.0342		"	0.0400		85.4	50-150				
Surrogate: Toluene-d8	0.0381		"	0.0400		95.3	50-150				
Surrogate: 4-Bromofluorobenzene	0.0351		"	0.0400		87.8	50-150				

LCS (BHE0485-BS1)

Prepared: 05/15/24 Analyzed: 05/16/24

Benzene	0.0989	0.0020	mg/kg	0.100		98.9	70-130				
Toluene	0.0975	0.0050	"	0.100		97.5	70-130				
Ethylbenzene	0.105	0.0050	"	0.100		105	70-130				
m,p-Xylene	0.218	0.010	"	0.200		109	70-130				
o-Xylene	0.110	0.0050	"	0.100		110	70-130				
1,2,4-Trimethylbenzene	0.100	0.0050	"	0.100		100	70-130				
1,3,5-Trimethylbenzene	0.101	0.0050	"	0.100		101	70-130				
Naphthalene	0.0877	0.0038	"	0.100		87.7	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0343		"	0.0400		85.7	50-150				
Surrogate: Toluene-d8	0.0382		"	0.0400		95.6	50-150				
Surrogate: 4-Bromofluorobenzene	0.0360		"	0.0400		90.1	50-150				

Matrix Spike (BHE0485-MS1)

Source: 2405211-01

Prepared: 05/15/24 Analyzed: 05/16/24

Benzene	0.0197	0.0020	mg/kg	0.100	ND	19.7	70-130				QM-05
Toluene	0.0153	0.0050	"	0.100	ND	15.3	70-130				QM-05
Ethylbenzene	0.0133	0.0050	"	0.100	ND	13.3	70-130				QM-05
m,p-Xylene	0.0718	0.010	"	0.200	ND	35.9	70-130				QM-05
o-Xylene	0.0333	0.0050	"	0.100	ND	33.3	70-130				QM-05
1,2,4-Trimethylbenzene	0.00984	0.0050	"	0.100	ND	9.84	70-130				QM-05
1,3,5-Trimethylbenzene	0.0704	0.0050	"	0.100	ND	70.4	70-130				
Naphthalene	0.0513	0.0038	"	0.100	ND	51.3	70-130				QM-05
Surrogate: 1,2-Dichloroethane-d4	0.0346		"	0.0400		86.5	50-150				
Surrogate: Toluene-d8	0.0364		"	0.0400		91.0	50-150				
Surrogate: 4-Bromofluorobenzene	0.0358		"	0.0400		89.5	50-150				

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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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		

Batch BHE0485 - EPA 5030 Soil MS

Matrix Spike Dup (BHE0485-MSD1)	Source: 2405211-01			Prepared: 05/15/24 Analyzed: 05/16/24						
Benzene	0.0123	0.0020	mg/kg	0.100	ND	12.3	70-130	46.7	30	QM-05
Toluene	0.00978	0.0050	"	0.100	ND	9.78	70-130	44.0	30	QM-05
Ethylbenzene	0.00975	0.0050	"	0.100	ND	9.75	70-130	30.5	30	QM-05
m,p-Xylene	0.0516	0.010	"	0.200	ND	25.8	70-130	32.7	30	QM-05
o-Xylene	0.0188	0.0050	"	0.100	ND	18.8	70-130	55.4	30	QM-05
1,2,4-Trimethylbenzene	0.00618	0.0050	"	0.100	ND	6.18	70-130	45.7	30	QM-05
1,3,5-Trimethylbenzene	0.0709	0.0050	"	0.100	ND	70.9	70-130	0.594	30	
Naphthalene	0.0416	0.0038	"	0.100	ND	41.6	70-130	20.9	30	QM-05
Surrogate: 1,2-Dichloroethane-d4	0.0346		"	0.0400		86.6	50-150			
Surrogate: Toluene-d8	0.0353		"	0.0400		88.3	50-150			
Surrogate: 4-Bromofluorobenzene	0.0373		"	0.0400		93.2	50-150			

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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 BHE0487 - EPA 3550A

Blank (BHE0487-BLK1)

Prepared: 05/15/24 Analyzed: 05/16/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	10.8		"	12.5		86.8	30-150				

LCS (BHE0487-BS1)

Prepared: 05/15/24 Analyzed: 05/16/24

C10-C28 (DRO)	440	50	mg/kg	500		88.0	70-130				
Surrogate: <i>o</i> -Terphenyl	10.1		"	12.5		80.8	30-150				

Matrix Spike (BHE0487-MS1)

Source: 2405204-21

Prepared: 05/15/24 Analyzed: 05/16/24

C10-C28 (DRO)	469	50	mg/kg	500	ND	93.7	70-130				
Surrogate: <i>o</i> -Terphenyl	6.64		"	12.5		53.1	30-150				

Matrix Spike Dup (BHE0487-MSD1)

Source: 2405204-21

Prepared: 05/15/24 Analyzed: 05/16/24

C10-C28 (DRO)	406	50	mg/kg	500	ND	81.1	70-130	14.4	20		
Surrogate: <i>o</i> -Terphenyl	6.34		"	12.5		50.7	30-150				

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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 BHE0466 - EPA 5030 Soil MS

Blank (BHE0466-BLK1)

Prepared & Analyzed: 05/15/24

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	0.0324		"	0.0333	97.1	40-150				
Surrogate: Fluoranthene-d10	0.0280		"	0.0333	83.9	40-150				

LCS (BHE0466-BS1)

Prepared & Analyzed: 05/15/24

Acenaphthene	0.0351	0.00500	mg/kg	0.0333	105	31-137				
Anthracene	0.0361	0.00500	"	0.0333	108	30-120				
Benzo (a) anthracene	0.0317	0.00500	"	0.0333	95.0	30-120				
Benzo (a) pyrene	0.0295	0.00500	"	0.0333	88.5	30-120				
Benzo (b) fluoranthene	0.0264	0.00500	"	0.0333	79.3	30-120				
Benzo (k) fluoranthene	0.0307	0.00500	"	0.0333	92.0	30-120				
Chrysene	0.0359	0.00500	"	0.0333	108	30-120				
Dibenz (a,h) anthracene	0.0273	0.00500	"	0.0333	81.8	30-120				
Fluoranthene	0.0353	0.00500	"	0.0333	106	30-120				
Fluorene	0.0345	0.00500	"	0.0333	104	30-120				
Indeno (1,2,3-cd) pyrene	0.0164	0.00500	"	0.0333	49.3	30-120				
Pyrene	0.0384	0.00500	"	0.0333	115	35-142				
1-Methylnaphthalene	0.0345	0.00500	"	0.0333	104	35-142				
2-Methylnaphthalene	0.0351	0.00500	"	0.0333	105	35-142				
Surrogate: 2-Methylnaphthalene-d10	0.0384		"	0.0333	115	40-150				
Surrogate: Fluoranthene-d10	0.0394		"	0.0333	118	40-150				

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Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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 BHE0466 - EPA 5030 Soil MS

Matrix Spike (BHE0466-MS1)	Source: 2405211-01			Prepared & Analyzed: 05/15/24								
Acenaphthene	0.0140	0.00500	mg/kg	0.0333	ND	41.9	31-137					
Anthracene	0.0151	0.00500	"	0.0333	ND	45.2	30-120					
Benzo (a) anthracene	0.0155	0.00500	"	0.0333	ND	46.5	30-120					
Benzo (a) pyrene	0.0169	0.00500	"	0.0333	ND	50.8	30-120					
Benzo (b) fluoranthene	0.0135	0.00500	"	0.0333	ND	40.5	30-120					
Benzo (k) fluoranthene	0.0153	0.00500	"	0.0333	ND	45.9	30-120					
Chrysene	0.0152	0.00500	"	0.0333	ND	45.5	30-120					
Dibenz (a,h) anthracene	0.0143	0.00500	"	0.0333	ND	43.0	30-120					
Fluoranthene	0.0154	0.00500	"	0.0333	ND	46.1	30-120					
Fluorene	0.0144	0.00500	"	0.0333	ND	43.1	30-120					
Indeno (1,2,3-cd) pyrene	0.0141	0.00500	"	0.0333	ND	42.2	30-120					
Pyrene	0.0172	0.00500	"	0.0333	ND	51.5	35-142					
1-Methylnaphthalene	0.0148	0.00500	"	0.0333	ND	44.4	15-130					
2-Methylnaphthalene	0.0143	0.00500	"	0.0333	ND	42.9	15-130					
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0145</i>		<i>"</i>	<i>0.0333</i>		<i>43.4</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0152</i>		<i>"</i>	<i>0.0333</i>		<i>45.5</i>	<i>40-150</i>					

Matrix Spike Dup (BHE0466-MSD1)	Source: 2405211-01			Prepared & Analyzed: 05/15/24								
Acenaphthene	0.0154	0.00500	mg/kg	0.0333	ND	46.1	31-137	9.60	30			
Anthracene	0.0172	0.00500	"	0.0333	ND	51.6	30-120	13.4	30			
Benzo (a) anthracene	0.0165	0.00500	"	0.0333	ND	49.5	30-120	6.20	30			
Benzo (a) pyrene	0.0164	0.00500	"	0.0333	ND	49.3	30-120	2.81	30			
Benzo (b) fluoranthene	0.0146	0.00500	"	0.0333	ND	43.8	30-120	7.83	30			
Benzo (k) fluoranthene	0.0135	0.00500	"	0.0333	ND	40.5	30-120	12.5	30			
Chrysene	0.0156	0.00500	"	0.0333	ND	46.7	30-120	2.67	30			
Dibenz (a,h) anthracene	0.0221	0.00500	"	0.0333	ND	66.3	30-120	42.6	30			QR-02
Fluoranthene	0.0164	0.00500	"	0.0333	ND	49.3	30-120	6.74	30			
Fluorene	0.0163	0.00500	"	0.0333	ND	48.8	30-120	12.4	30			
Indeno (1,2,3-cd) pyrene	0.0154	0.00500	"	0.0333	ND	46.3	30-120	9.29	30			
Pyrene	0.0180	0.00500	"	0.0333	ND	54.0	35-142	4.70	30			
1-Methylnaphthalene	0.0182	0.00500	"	0.0333	ND	54.5	15-130	20.3	50			
2-Methylnaphthalene	0.0171	0.00500	"	0.0333	ND	51.2	15-130	17.7	50			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0179</i>		<i>"</i>	<i>0.0333</i>		<i>53.7</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0168</i>		<i>"</i>	<i>0.0333</i>		<i>50.5</i>	<i>40-150</i>					

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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

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

Batch BHE0469 - EPA 3050B

Blank (BHE0469-BLK1)

Prepared: 05/15/24 Analyzed: 06/07/24

Boron ND 2.00 mg/L

LCS (BHE0469-BS1)

Prepared: 05/15/24 Analyzed: 06/07/24

Boron 4.97 2.00 mg/L 5.00 99.4 80-120

Duplicate (BHE0469-DUP1)

Source: 2405215-03

Prepared: 05/15/24 Analyzed: 06/07/24

Boron 0.195 2.00 mg/L 0.185 5.51 20

Matrix Spike (BHE0469-MS1)

Source: 2405215-03

Prepared: 05/15/24 Analyzed: 06/07/24

Boron 4.92 2.00 mg/L 4.99 0.185 95.0 75-125

Matrix Spike Dup (BHE0469-MSD1)

Source: 2405215-03

Prepared: 05/15/24 Analyzed: 06/07/24

Boron 5.14 2.00 mg/L 4.99 0.185 99.5 75-125 4.46 25

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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 BHE0533 - EPA 3050B

Blank (BHE0533-BLK1)

Prepared: 05/16/24 Analyzed: 05/17/24

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 (BHE0533-BS1)

Prepared: 05/16/24 Analyzed: 05/17/24

Arsenic	43.9	0.200	mg/kg wet	40.0		110	80-120			
Barium	43.4	0.400	"	40.0		109	80-120			
Cadmium	2.04	0.200	"	2.00		102	80-120			
Copper	42.9	0.400	"	40.0		107	80-120			
Lead	20.7	0.200	"	20.0		103	80-120			
Nickel	42.3	0.400	"	40.0		106	80-120			
Silver	2.05	0.0200	"	2.00		102	80-120			
Zinc	43.1	0.400	"	40.0		108	80-120			
Selenium	4.45	0.260	"	4.00		111	80-120			

Duplicate (BHE0533-DUP1)

Source: 2405204-21

Prepared: 05/16/24 Analyzed: 05/17/24

Arsenic	2.62	0.200	mg/kg dry		2.95			11.8	20	
Barium	88.3	0.400	"		92.7			4.82	20	
Cadmium	0.307	0.200	"		0.288			6.48	20	
Copper	39.5	0.400	"		40.7			3.18	20	
Lead	14.1	0.200	"		13.9			2.03	20	
Nickel	21.6	0.400	"		21.0			2.74	20	
Silver	0.0933	0.0200	"		0.0921			1.34	20	
Zinc	72.2	0.400	"		69.4			3.87	20	
Selenium	ND	0.260	"		ND				20	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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 BHE0533 - EPA 3050B

Matrix Spike (BHE0533-MS1)

Source: 2405204-21

Prepared: 05/16/24 Analyzed: 05/17/24

Arsenic	60.3	0.200	mg/kg dry	62.2	2.95	92.2	75-125			
Barium	130	0.400	"	62.2	92.7	59.5	75-125			QM-07
Cadmium	2.99	0.200	"	3.11	0.288	86.9	75-125			
Copper	86.7	0.400	"	62.2	40.7	73.9	75-125			QM-07
Lead	38.9	0.200	"	31.1	13.9	80.5	75-125			
Nickel	72.0	0.400	"	62.2	21.0	81.9	75-125			
Silver	2.73	0.0200	"	3.11	0.0921	84.8	75-125			
Zinc	114	0.400	"	62.2	69.4	71.9	75-125			QM-07
Selenium	5.03	0.260	"	6.22	ND	80.8	75-125			

Matrix Spike Dup (BHE0533-MSD1)

Source: 2405204-21

Prepared: 05/16/24 Analyzed: 05/17/24

Arsenic	70.7	0.200	mg/kg dry	62.2	2.95	109	75-125	15.9	25	
Barium	149	0.400	"	62.2	92.7	89.9	75-125	13.6	25	
Cadmium	3.48	0.200	"	3.11	0.288	103	75-125	15.3	25	
Copper	102	0.400	"	62.2	40.7	98.2	75-125	16.1	25	
Lead	45.6	0.200	"	31.1	13.9	102	75-125	15.9	25	
Nickel	84.4	0.400	"	62.2	21.0	102	75-125	15.9	25	
Silver	3.25	0.0200	"	3.11	0.0921	101	75-125	17.3	25	
Zinc	134	0.400	"	62.2	69.4	103	75-125	15.7	25	
Selenium	5.76	0.260	"	6.22	ND	92.7	75-125	13.7	25	

Post Spike (BHE0533-PS1)

Source: 2405204-21

Prepared: 05/16/24 Analyzed: 05/17/24

Arsenic	111		ug/l	100	4.74	107	75-125			
Barium	237		"	100	149	87.8	75-125			
Cadmium	5.51		"	5.00	0.463	101	75-125			
Copper	163		"	100	65.5	97.5	75-125			
Lead	71.2		"	50.0	22.3	97.8	75-125			
Nickel	132		"	100	33.8	98.1	75-125			
Silver	5.06		"	5.00	0.148	98.2	75-125			
Zinc	211		"	100	112	99.4	75-125			
Selenium	9.00		"	10.0	0.111	88.9	75-125			

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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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 BHE0480 - 3060A Mod

Blank (BHE0480-BLK1)

Prepared & Analyzed: 05/15/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHE0480-BS1)

Prepared & Analyzed: 05/15/24

Chromium, Hexavalent 26.2 0.30 mg/kg wet 25.0 105 80-120

Duplicate (BHE0480-DUP1)

Source: 2405215-01

Prepared & Analyzed: 05/15/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHE0480-MS1)

Source: 2405215-01

Prepared & Analyzed: 05/15/24

Chromium, Hexavalent 25.4 0.30 mg/kg dry 25.8 ND 98.4 75-125

Matrix Spike Dup (BHE0480-MSD1)

Source: 2405215-01

Prepared & Analyzed: 05/15/24

Chromium, Hexavalent 25.5 0.30 mg/kg dry 25.8 ND 98.6 75-125 0.203 20

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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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 BHE0471 - General Preparation

Blank (BHE0471-BLK1)

Prepared: 05/15/24 Analyzed: 06/13/24

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

LCS (BHE0471-BS1)

Prepared: 05/15/24 Analyzed: 06/13/24

Calcium	5.40	0.0500	mg/L wet	5.00	108	70-130				
Magnesium	5.10	0.0500	"	5.00	102	70-130				
Sodium	4.93	0.0500	"	5.00	98.5	70-130				

Summit Scientific

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Tasman Geosciences
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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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

Summit Scientific

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

Batch BHE0467 - General Preparation

Duplicate (BHE0467-DUP1)		Source: 2405205-01			Prepared & Analyzed: 05/15/24			
% Solids	88.7		%		89.4		0.751	20

Summit Scientific

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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

Summit Scientific

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

Batch BHE0473 - General Preparation

Blank (BHE0473-BLK1)

Prepared: 05/15/24 Analyzed: 05/16/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHE0473-BS1)

Prepared: 05/15/24 Analyzed: 05/16/24

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BHE0473-DUP1)

Source: 2405210-01

Prepared: 05/15/24 Analyzed: 05/16/24

Specific Conductance (EC) 0.0453 0.0100 mmhos/cm 0.0453 0.00 20

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Broomfield CO, 80020

Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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 BHE0472 - General Preparation

LCS (BHE0472-BS1)

Prepared: 05/15/24 Analyzed: 05/16/24

pH 9.17 pH Units 9.18 99.9 95-105

Duplicate (BHE0472-DUP1)

Source: 2405210-01

Prepared: 05/15/24 Analyzed: 05/16/24

pH 7.54 pH Units 7.66 1.58 20

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6855 W. 119th Ave.
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Project: PDC - Gemini G Federal 06-33 Wellhead

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/13/24 11:24

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.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- 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