TABLE 1
FORMER DINNER 14 B-1 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE

Sample ID	Date Sampled	Depth	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1, 2, 4-TMB (mg/kg)	1, 3, 5-TMB (mg/kg)	Naphthalene (mg/kg)	TPH[4] (mg/kg)
Residential SSL [1,2]			**1.2**	**490**	**5.8**	**58**	**30**	**27**	**2**	**500**
Protection of Groundwater SSL [1,2,3]			**0.0026**	**0.69**	**0.78**	**9.9**	**0.0081**	**0.0087**	**0.0038**	**500**
SS01 @ 10'	7/15/2021	10 ft. bgs	**0.078**	<0.0050	**4.6**	5.1	**59**	**9.3**	**0.092**	**5,210**
SS02 @ 20'	7/20/2021	20 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50

Notes:
1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with groundwater is present.
4. Value calculated by adding TVPH-GRO, TEPH-DRO, and TEPH-ORO concentrations.
COGCC = Colorado Oil and Gas Conservation Commission
(<) = Analytical result is less than the indicated laboratory reporting limit.
TVPH-GRO = Total volatile petroleum hydrocarbons - gasoline range organics
TEPH-DRO = Total extractable petroleum hydrocarbons - diesel range organics
TEPH-ORO = Total extactable petroleum hydrocarbons - oil range organics
mg/kg = Milligrams per kilogram
TMB = Trimethylbenzene
= Source material characterization sample
ft. = Feet
bgs = Below ground surface
BOLD = Analytical result is in exceedance of applicable standard.

TABLE 2
FORMER DINNER 14 B-1 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
INORGANIC COMPOUNDS

Sample ID	Date Sampled	Depth	pH (units)	EC (mmhos/cm)	SAR (units)	Boron (mg/L)
Soil Suitabilty for Reclamation Standard [(1)]			**6-8.3**	**<4**	**<6**	**2**
SS01 @ 10'	7/15/2021	10 ft. bgs	8.06	0.841	2.19	0.373

Notes:
1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
COGCC = Colorado Oil and Gas Conservation Commission
EC = Electrical conductivity
SAR = Sodium adsorption ratio
mmhos/cm = millimhos per centimeter
mg/L = millgram per liter
= Source material characterization sample
ft. = Feet
bgs = Below ground surface

TABLE 3
FORMER DINNER 14 B-1 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
ORGANIC COMPOUNDS - PAHs

Sample ID	Date Sampled	Depth	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a) (mg/kg)	Benzo(a) (mg/kg)	Benzo(b) (mg/kg)	Benzo(k) (mg/kg)	Chrysene (mg/kg)	A,H (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	Pyrene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL [1,2]			**360**	**1,800**	**1.1**	**0.11**	**1.1**	**11**	**110**	**0.11**	**240**	**240**	**1.1**	**180**	**18**	**24**
Protection of Groundwater SSL [1,2,3]			**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**
SS01 @ 10'	7/15/2021	10 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0818	<0.00500	0.00611	**0.485**	**0.885**

Notes:
1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with
COGCC = Colorado Oil and Gas Conservation Commission
(<) = Analytical result is less than the indicated laboratory reporting limit.
PAHs = Polycyclic aromatic hydrocarbons
Benz(a) = Benzanthracene
Benzo(a) = Benzopyrene
Benzo(b) = Benzofluoranthene
Benzo(k) = Benzofluoranthene
A,H = Dibenzoanthracene
1,2,3-CD = Indenopyrene
M = Methylnaphthalene
mg/kg = Milligrams per kilogram
= Source material characterization sample
ft. = Feet
bgs = Below ground surface
BOLD = Analytical result is in exceedance of applicable standard.

TABLE 4
FORMER DINNER 14 B-1 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
METALS

Sample ID	Date Sampled	Depth	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)
Residential SSL [1,2]			**0.68**	**15,000**	**71**	**0.3**	**3,100**	**400**	**1,500**	**390**	**390**	**23,000**
Protection of Groundwater SSL [1,2,3]			**0.29**	**82**	**0.38**	**0.00067**	**46**	**14**	**26**	**0.26**	**0.8**	**370**
SS01 @ 10'	7/15/2021	10 ft. bgs	**0.695**	22.2	<0.229	<0.30 [4]	0.478	3.17	1.67	<0.298	<0.0229	9.58
BKG01 @ 2.5'	7/15/2021	2.5 ft. bgs	**0.993**	44.3	<0.215	<0.30 [4]	2.46	4.32	4.22	**0.622**	0.0258	16.5

Notes:

1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with groundwater is present.
4. Compound falls within COGCC Table 915-1 Footnote 9.

COGCC = Colorado Oil and Gas Conservation Commission
(<) = Analytical result is less than the indicated laboratory reporting limit.
mg/kg = Milligrams per kilogram
= Source material characterization sample
ft. = Feet
bgs = Below ground surface
BOLD = Analytical result is in exceedance of applicable standard.
BOLD = Analytical result is in exceedance of applicable standard, but within 1.25x background concentration.

TABLE 5
FORMER DINNER 14 B-1 WELLHEAD
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE
ORGANIC COMPOUNDS

Sample ID	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4-TMB (µg/L)	1,3,5-TMB (µg/L)	Depth to Water [2] (ft.)	Groundwater Elevation (ft. AMSL)
COGCC Table 915-1 Groundwater Standard (µg/L) [1]		**5**	**560**	**700**	**1,400**	**140**	**67**	**67**	**-**	**-**
GW01	7/19/2021	**12**	<1.0	34	280	36	**420**	**150**	11	NA

Notes:

1. Groundwater standards referenced from 2 CCR 404-1, Table 915-1, January 15, 2021.
2. Depth to water measurements were measured from ground surface for excavation samples. Monitoring well measurements were collected from top of casing and adjusted using survey data to reflect depth of water from ground surface.

TMB = Trimethylbenzene
COGCC = Colorado Oil and Gas Conservation Commission
µg/L = Micrograms per liter
(<) = Analytical result is less than the indicated laboratory reporting limit.
ft. = Feet
AMSL = Above Mean Sea Level
BOLD = Analytical result is in exceedance of applicable standard.
NA = Not applicable

TABLE 6
FORMER DINNER 14 B-1 WELLHEAD
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data [1] Latitude / Longitude		PDOP Value	VOC Concentration [2] (ppm)
SS01 @ 10'	7/15/2021	10 ft. bgs	NC	NC	NC	1,519
BKG01 @ 2.5'	7/15/2021	2.5 ft. bgs	40.306560	-104.747179	1.1	0.2
SS02 @ 20'	7/20/2021	20 ft. bgs	NC	NC	NC	10.7

Notes:

1. Global Positioning System (GPS) data is provided in decimal degrees using World Geodetic System (WGS) 84 UTM Zone 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

= Source material characterization sample

ft. = Feet

bgs = Below ground surface

NC = Data not collected

Attachment A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

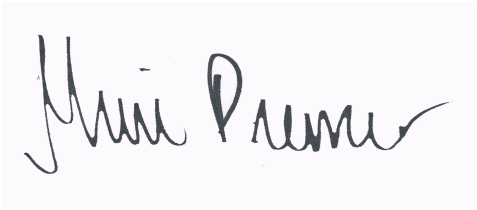
July 22, 2021

Mark Longhurst
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203

RE: Dinner 14 B-1 Wellhead
Work Order #2107203

Enclosed are the results of analyses for samples received by Summit Scientific on 07/15/21 18:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Muri Premer For Paul Shrewsbury
President

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@10'	2107203-01	Soil	07/15/21 11:27	07/15/21 18:20
BKG01@2.5'	2107203-02	Soil	07/15/21 09:48	07/15/21 18:20

Summit Scientific

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

2107203

Summit Scientific

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

Client:	PDC / Tasman	Project Manager:	Mark Longhurst
Address:	6855 W 119th Ave	E-Mail:	mark.longhurst@PDCE.com
City/State/Zip:	Broomfield/ CO/ 80020		
Phone:	303-487-1228	Project Name:	Dinner 14 B-1 Wellhead
Sampler Name:	J. Marcus	Project Number:	n/a

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other ___	Water	Soil	Air-Canister #	Other ___	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMB	Boron - HWS	pH, EC, SAR	VOC-9I5	PAH-9I5	Metals-9I5	pH, EC, SAR by saturated paste
1	SS01@10'	7/15/21	1127	3			x			x			x	x	x	x	x	x	x	x	
2	BKG01@2.5'	↓	0948	1			x			x										x	
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by:	Date/Time: 7/15/21 1330	Received by: Tasman's Lock Box	Date/Time: 7/15/21 1330	**Turn Around Time**	(Check)
Relinquished by: Tasman's Lock Box	Date/Time: 7/15/21 1815	Received by:	Date/Time: 7/15/21 1815	Same Day x	72 hours ___
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours ___	Standard ___
				48 hours ___	
				Sample Integrity:	
				Temperature Upon Receipt: 6	
				Samples Intact: (Yes) No	

Notes:

Sample Receipt Checklist

S2 Work Order 2107203

Client: PDC / Tasman Client Project ID: Dinner 14 B-1 Wellhead

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

Matrix (check all that apply): ☐ Air ☑ Soil/Solid ☐ Water ☐ Other: _____ (Describe)

Temp (°C)	6

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C [1]? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	✓			On ice.
Were all samples received intact [1]?	✓			
Was adequate sample volume provided [1]?	✓			
If custody seals are present, are they intact [1]?			✓	
Are samples with holding times due within 48 hours sample due within 48 hours present?	✓			Same day.
Is a chain-of-custody (COC) form present and filled out completely [1]?	✓			
Does the COC agree with the number and type of sample bottles received [1]?	✓			
Do the sample IDs on the bottle labels match the COC [1]?	✓			
Is the COC properly relinquished by the client w/ date and time recorded [1]?	✓			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**			✓	
Are samples preserved that require preservation **(excluding cooling)** [1]? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			✓	
If samples are acid preserved for metals, is the pH ≤ 2[1]? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

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

JB — Custodian Printed Name or Initials

Signature of Custodian

JB 7/15/21 — Date/Time

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

SS01@10'

2107203-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**0.078**	0.0020	mg/kg	1	BEG0273	07/15/21	07/15/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	**4.6**	0.50	"	100	"	"	"	"	
Xylenes (total)	**5.1**	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**59**	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**9.3**	0.50	"	"	"	"	"	"	
Naphthalene	**0.092**	0.0038	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	**4400**	50	"	100	"	"	"	"	

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*103 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*210 %*	*21-167*		"	"	"	"	*S-02*

Extractable Petroleum Hydrocarbons by 8015

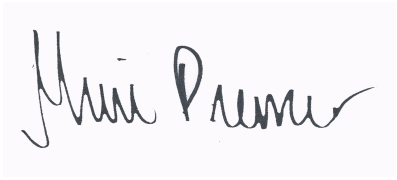
Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	**810**	50	mg/kg	1	BEG0274	07/15/21	07/15/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*97.2 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM



S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

SS01@10'

2107203-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0283	07/16/21	07/18/21	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	**0.0818**	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	**0.00611**	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	**0.485**	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	**0.885**	0.00500	"	"	"	"	"	"	

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		*68.2 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10		*64.9 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	**0.373**	0.0100	mg/L	1	BEG0288	07/16/21	07/19/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Summit Scientific

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

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

SS01@10'

2107203-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**0.695**	0.229	mg/kg dry	1	BEG0287	07/16/21	07/19/21	EPA 6020B	
Barium	**22.2**	0.458	"	"	"	"	"	"	
Cadmium	ND	0.229	"	"	"	"	"	"	
Copper	**0.478**	0.458	"	"	"	"	"	"	
Lead	**3.17**	0.229	"	"	"	"	"	"	
Nickel	**1.67**	0.458	"	"	"	"	"	"	
Selenium	ND	0.298	"	"	"	"	"	"	
Silver	ND	0.0229	"	"	"	"	"	"	
Zinc	**9.58**	0.458	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEG0295	07/16/21	07/16/21	EPA 7196A	

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

Date Sampled: **07/15/21 11:27**

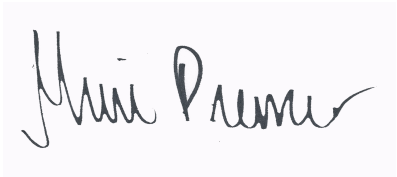
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**74.5**	0.0573	mg/L dry	1	BEG0289	07/16/21	07/19/21	EPA 6020B	
Magnesium	**19.1**	0.0573	"	"	"	"	"	"	
Sodium	**81.9**	0.0573	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**2.19**	0.00100	units	1	BEG0368	07/21/21	07/21/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods



S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

SS01@10'

2107203-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**87.3**		%	1	BEG0275	07/16/21	07/16/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.841**	0.0100	mmhos/cm	1	BEG0308	07/19/21	07/19/21	EPA 120.1	

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

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**8.06**		pH Units	1	BEG0307	07/19/21	07/19/21	EPA 9045D	

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

BKG01@2.5'

2107203-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **07/15/21 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**0.993**	0.215	mg/kg dry	1	BEG0287	07/16/21	07/19/21	EPA 6020B	
Barium	**44.3**	0.430	"	"	"	"	"	"	
Cadmium	ND	0.215	"	"	"	"	"	"	
Copper	**2.46**	0.430	"	"	"	"	"	"	
Lead	**4.32**	0.215	"	"	"	"	"	"	
Nickel	**4.22**	0.430	"	"	"	"	"	"	
Selenium	**0.622**	0.280	"	"	"	"	"	"	
Silver	**0.0258**	0.0215	"	"	"	"	"	"	
Zinc	**16.5**	0.430	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/15/21 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEG0295	07/16/21	07/16/21	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/15/21 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**92.9**		%	1	BEG0275	07/16/21	07/16/21	Calculation	

Summit Scientific

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

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0273 - EPA 5030 Soil MS										
Blank (BEG0273-BLK1)				Prepared & Analyzed: 07/15/21						
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	*0.0394*		*"*	*0.0400*		*98.5*	*23-173*			
Surrogate: Toluene-d8	*0.0445*		*"*	*0.0400*		*111*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0429*		*"*	*0.0400*		*107*	*21-167*			
LCS (BEG0273-BS1)				Prepared & Analyzed: 07/15/21						
Benzene	0.171	0.0020	mg/kg	0.150		114	70-130			
Toluene	0.160	0.0050	"	0.150		107	70-130			
Ethylbenzene	0.138	0.0050	"	0.150		91.9	70-130			
m,p-Xylene	0.275	0.010	"	0.300		91.5	70-130			
o-Xylene	0.139	0.0050	"	0.150		92.6	70-130			
1,2,4-Trimethylbenzene	0.125	0.0050	"	0.150		83.4	70-130			
1,3,5-Trimethylbenzene	0.124	0.0050	"	0.150		82.8	70-130			
Naphthalene	0.143	0.0038	"	0.150		95.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0389*		*"*	*0.0400*		*97.4*	*23-173*			
Surrogate: Toluene-d8	*0.0457*		*"*	*0.0400*		*114*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0430*		*"*	*0.0400*		*108*	*21-167*			
Matrix Spike (BEG0273-MS1)		**Source: 2107202-01**		Prepared & Analyzed: 07/15/21						
Benzene	0.159	0.0020	mg/kg	0.150	ND	106	70-130			
Toluene	0.149	0.0050	"	0.150	ND	99.0	70-130			
Ethylbenzene	0.130	0.0050	"	0.150	ND	86.9	70-130			
m,p-Xylene	0.257	0.010	"	0.300	ND	85.7	70-130			
o-Xylene	0.130	0.0050	"	0.150	ND	86.8	70-130			
1,2,4-Trimethylbenzene	0.117	0.0050	"	0.150	ND	78.3	70-130			
1,3,5-Trimethylbenzene	0.118	0.0050	"	0.150	ND	78.5	70-130			
Naphthalene	0.145	0.0038	"	0.150	ND	96.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0406*		*"*	*0.0400*		*102*	*23-173*			
Surrogate: Toluene-d8	*0.0451*		*"*	*0.0400*		*113*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0440*		*"*	*0.0400*		*110*	*21-167*			

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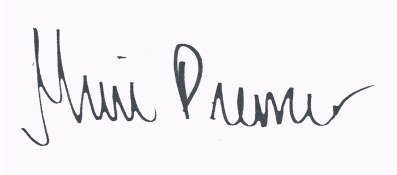
S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0273 - EPA 5030 Soil MS										
Matrix Spike Dup (BEG0273-MSD1)		**Source: 2107202-01**		Prepared & Analyzed: 07/15/21						
Benzene	0.150	0.0020	mg/kg	0.150	ND	100	70-130	5.79	30	
Toluene	0.142	0.0050	"	0.150	ND	94.5	70-130	4.67	30	
Ethylbenzene	0.122	0.0050	"	0.150	ND	81.2	70-130	6.76	30	
m,p-Xylene	0.240	0.010	"	0.300	ND	80.1	70-130	6.82	30	
o-Xylene	0.121	0.0050	"	0.150	ND	81.0	70-130	6.98	30	
1,2,4-Trimethylbenzene	0.110	0.0050	"	0.150	ND	73.4	70-130	6.46	30	
1,3,5-Trimethylbenzene	0.110	0.0050	"	0.150	ND	73.3	70-130	6.90	30	
Naphthalene	0.144	0.0038	"	0.150	ND	96.0	70-130	0.520	30	
Surrogate: 1,2-Dichloroethane-d4	*0.0405*		"	*0.0400*		*101*	*23-173*			
Surrogate: Toluene-d8	*0.0459*		"	*0.0400*		*115*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0430*		"	*0.0400*		*107*	*21-167*			



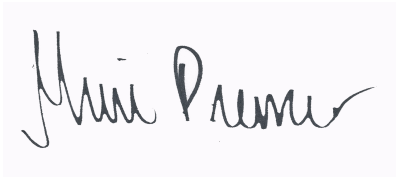
S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0274 - EPA 3550A										
Blank (BEG0274-BLK1)				Prepared: 07/15/21 Analyzed: 07/16/21						
C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
LCS (BEG0274-BS1)				Prepared: 07/15/21 Analyzed: 07/16/21						
C10-C28 (DRO)	491	50	mg/kg	500		98.2	70-130			
Matrix Spike (BEG0274-MS1)	**Source: 2107202-01**			Prepared: 07/15/21 Analyzed: 07/16/21						
C10-C28 (DRO)	494	50	mg/kg	500	22.1	94.5	70-130			
Matrix Spike Dup (BEG0274-MSD1)	**Source: 2107202-01**			Prepared: 07/15/21 Analyzed: 07/16/21						
C10-C28 (DRO)	518	50	mg/kg	500	22.1	99.1	70-130	4.59	20	



S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0283 - EPA 5030 Soil MS										
Blank (BEG0283-BLK1)				Prepared: 07/16/21 Analyzed: 07/18/21						
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	*0.0174*		*"*	*0.0333*		*52.3*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0229*		*"*	*0.0333*		*68.8*	*40-150*			
LCS (BEG0283-BS1)				Prepared: 07/16/21 Analyzed: 07/18/21						
Acenaphthene	0.0228	0.00500	mg/kg	0.0333		68.5	31-137			
Anthracene	0.0226	0.00500	"	0.0333		67.7	30-120			
Benzo (a) anthracene	0.0234	0.00500	"	0.0333		70.1	30-120			
Benzo (a) pyrene	0.0231	0.00500	"	0.0333		69.4	30-120			
Benzo (b) fluoranthene	0.0268	0.00500	"	0.0333		80.4	30-120			
Benzo (k) fluoranthene	0.0291	0.00500	"	0.0333		87.4	30-120			
Chrysene	0.0233	0.00500	"	0.0333		69.9	30-120			
Dibenz (a,h) anthracene	0.0225	0.00500	"	0.0333		67.5	30-120			
Fluoranthene	0.0245	0.00500	"	0.0333		73.4	30-120			
Fluorene	0.0237	0.00500	"	0.0333		71.2	30-120			
Indeno (1,2,3-cd) pyrene	0.0204	0.00500	"	0.0333		61.2	30-120			
Pyrene	0.0244	0.00500	"	0.0333		73.3	35-142			
1-Methylnaphthalene	0.0227	0.00500	"	0.0333		68.1	35-142			
2-Methylnaphthalene	0.0215	0.00500	"	0.0333		64.5	35-142			
Surrogate: 2-Methylnaphthalene-d10	*0.0226*		*"*	*0.0333*		*67.8*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0244*		*"*	*0.0333*		*73.1*	*40-150*			

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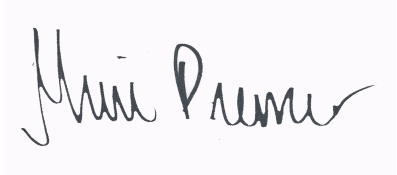
S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0283 - EPA 5030 Soil MS										
Matrix Spike (BEG0283-MS1)	**Source: 2107192-01**			Prepared: 07/16/21 Analyzed: 07/18/21						
Acenaphthene	0.0216	0.00500	mg/kg	0.0333	ND	64.7	31-137			
Anthracene	0.0211	0.00500	"	0.0333	ND	63.4	30-120			
Benzo (a) anthracene	0.0209	0.00500	"	0.0333	ND	62.8	30-120			
Benzo (a) pyrene	0.0208	0.00500	"	0.0333	ND	62.5	30-120			
Benzo (b) fluoranthene	0.0241	0.00500	"	0.0333	ND	72.3	30-120			
Benzo (k) fluoranthene	0.0270	0.00500	"	0.0333	ND	81.0	30-120			
Chrysene	0.0214	0.00500	"	0.0333	ND	64.2	30-120			
Dibenz (a,h) anthracene	0.0220	0.00500	"	0.0333	ND	65.9	30-120			
Fluoranthene	0.0239	0.00500	"	0.0333	ND	71.6	30-120			
Fluorene	0.0224	0.00500	"	0.0333	ND	67.2	30-120			
Indeno (1,2,3-cd) pyrene	0.0157	0.00500	"	0.0333	ND	47.2	30-120			
Pyrene	0.0233	0.00500	"	0.0333	ND	69.8	35-142			
1-Methylnaphthalene	0.0203	0.00500	"	0.0333	ND	61.0	15-130			
2-Methylnaphthalene	0.0208	0.00500	"	0.0333	ND	62.3	15-130			
Surrogate: 2-Methylnaphthalene-d10	*0.0202*		*"*	*0.0333*		*60.7*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0231*		*"*	*0.0333*		*69.4*	*40-150*			
Matrix Spike Dup (BEG0283-MSD1)	**Source: 2107192-01**			Prepared: 07/16/21 Analyzed: 07/18/21						
Acenaphthene	0.0232	0.00500	mg/kg	0.0333	ND	69.6	31-137	7.27	30	
Anthracene	0.0225	0.00500	"	0.0333	ND	67.6	30-120	6.38	30	
Benzo (a) anthracene	0.0223	0.00500	"	0.0333	ND	67.0	30-120	6.57	30	
Benzo (a) pyrene	0.0221	0.00500	"	0.0333	ND	66.4	30-120	6.05	30	
Benzo (b) fluoranthene	0.0252	0.00500	"	0.0333	ND	75.6	30-120	4.55	30	
Benzo (k) fluoranthene	0.0276	0.00500	"	0.0333	ND	82.7	30-120	2.09	30	
Chrysene	0.0224	0.00500	"	0.0333	ND	67.1	30-120	4.35	30	
Dibenz (a,h) anthracene	0.0192	0.00500	"	0.0333	ND	57.7	30-120	13.3	30	
Fluoranthene	0.0244	0.00500	"	0.0333	ND	73.1	30-120	2.10	30	
Fluorene	0.0238	0.00500	"	0.0333	ND	71.5	30-120	6.15	30	
Indeno (1,2,3-cd) pyrene	0.0185	0.00500	"	0.0333	ND	55.5	30-120	16.1	30	
Pyrene	0.0240	0.00500	"	0.0333	ND	72.1	35-142	3.34	30	
1-Methylnaphthalene	0.0232	0.00500	"	0.0333	ND	69.7	15-130	13.4	50	
2-Methylnaphthalene	0.0225	0.00500	"	0.0333	ND	67.5	15-130	8.01	50	
Surrogate: 2-Methylnaphthalene-d10	*0.0224*		*"*	*0.0333*		*67.3*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0236*		*"*	*0.0333*		*70.8*	*40-150*			



S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0288 - EPA 3050B										
Blank (BEG0288-BLK1)				Prepared: 07/16/21 Analyzed: 07/19/21						
Boron	ND	0.0100	mg/L							
LCS (BEG0288-BS1)				Prepared: 07/16/21 Analyzed: 07/19/21						
Boron	5.40	0.0100	mg/L	5.00		108	80-120			
Duplicate (BEG0288-DUP1)		**Source: 2107203-01**		Prepared: 07/16/21 Analyzed: 07/19/21						
Boron	0.323	0.0100	mg/L		0.373			14.6	20	
Matrix Spike (BEG0288-MS1)		**Source: 2107203-01**		Prepared: 07/16/21 Analyzed: 07/19/21						
Boron	5.41	0.0100	mg/L	5.00	0.373	101	75-125			
Matrix Spike Dup (BEG0288-MSD1)		**Source: 2107203-01**		Prepared: 07/16/21 Analyzed: 07/19/21						
Boron	5.33	0.0100	mg/L	5.00	0.373	99.2	75-125	1.49	25	

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0287 - EPA 3050B										
Blank (BEG0287-BLK1)				Prepared: 07/16/21 Analyzed: 07/18/21						
Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Selenium	ND	0.260	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
LCS (BEG0287-BS1)				Prepared: 07/16/21 Analyzed: 07/18/21						
Arsenic	42.6	0.200	mg/kg wet	40.0		107	80-120			
Barium	34.8	0.400	"	40.0		87.1	80-120			
Cadmium	1.82	0.200	"	2.00		91.0	80-120			
Copper	39.1	0.400	"	40.0		97.7	80-120			
Lead	17.3	0.200	"	20.0		86.3	80-120			
Nickel	39.8	0.400	"	40.0		99.6	80-120			
Selenium	4.50	0.260	"	4.00		113	80-120			
Silver	1.80	0.0200	"	2.00		89.9	80-120			
Zinc	41.8	0.400	"	40.0		104	80-120			
Duplicate (BEG0287-DUP1)	**Source: 2106379-01**			Prepared: 07/16/21 Analyzed: 07/18/21						
Arsenic	2.03	0.228	mg/kg dry		1.97			3.02	20	
Barium	75.6	0.456	"		87.2			14.3	20	
Cadmium	0.122	0.228	"		0.136			10.6	20	
Copper	4.19	0.456	"		4.05			3.26	20	
Lead	4.84	0.228	"		4.92			1.59	20	
Nickel	6.61	0.456	"		6.53			1.20	20	
Selenium	0.694	0.296	"		0.437			45.4	20	QR-04
Silver	0.0673	0.0228	"		0.0283			81.4	20	QR-04
Zinc	19.9	0.456	"		20.0			0.605	20	

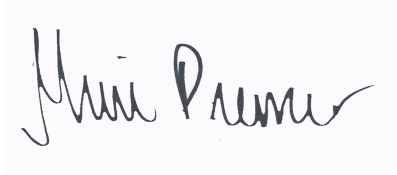
S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0287 - EPA 3050B										
Matrix Spike (BEG0287-MS1)	**Source: 2106379-01**			Prepared: 07/16/21 Analyzed: 07/18/21						
Arsenic	45.7	0.228	mg/kg dry	45.6	1.97	95.9	75-125			
Barium	122	0.456	"	45.6	87.2	76.3	75-125			
Cadmium	2.20	0.228	"	2.28	0.136	90.6	75-125			
Copper	48.4	0.456	"	45.6	4.05	97.4	75-125			
Lead	24.2	0.228	"	22.8	4.92	84.8	75-125			
Nickel	50.1	0.456	"	45.6	6.53	95.5	75-125			
Selenium	4.16	0.296	"	4.56	0.437	81.6	75-125			
Silver	2.06	0.0228	"	2.28	0.0283	89.0	75-125			
Zinc	68.0	0.456	"	45.6	20.0	105	75-125			
Matrix Spike Dup (BEG0287-MSD1)	**Source: 2106379-01**			Prepared: 07/16/21 Analyzed: 07/18/21						
Arsenic	43.9	0.228	mg/kg dry	45.6	1.97	91.9	75-125	4.15	25	
Barium	123	0.456	"	45.6	87.2	79.3	75-125	1.10	25	
Cadmium	2.05	0.228	"	2.28	0.136	84.2	75-125	6.85	25	
Copper	46.2	0.456	"	45.6	4.05	92.4	75-125	4.79	25	
Lead	22.9	0.228	"	22.8	4.92	79.0	75-125	5.53	25	
Nickel	47.8	0.456	"	45.6	6.53	90.6	75-125	4.58	25	
Selenium	4.24	0.296	"	4.56	0.437	83.4	75-125	1.95	25	
Silver	1.87	0.0228	"	2.28	0.0283	80.6	75-125	9.74	25	
Zinc	63.5	0.456	"	45.6	20.0	95.3	75-125	6.89	25	



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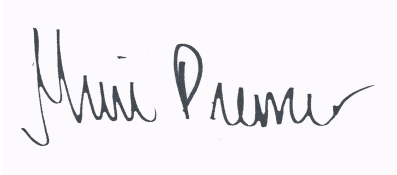
PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

Hexavalent Chromium by EPA Method 7196 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0295 - 3060A_Mod										
Blank (BEG0295-BLK1)				Prepared & Analyzed: 07/16/21						
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BEG0295-BS1)				Prepared & Analyzed: 07/16/21						
Chromium, Hexavalent	24.2	0.30	mg/kg wet	25.0		97.0	80-120			
Duplicate (BEG0295-DUP1)		**Source: 2106379-01**		Prepared & Analyzed: 07/16/21						
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BEG0295-MS1)		**Source: 2106379-01**		Prepared & Analyzed: 07/16/21						
Chromium, Hexavalent	24.2	0.30	mg/kg dry	28.5	ND	85.0	75-125			
Matrix Spike Dup (BEG0295-MSD1)		**Source: 2106379-01**		Prepared & Analyzed: 07/16/21						
Chromium, Hexavalent	24.0	0.30	mg/kg dry	28.5	ND	84.2	75-125	0.946	20	



S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0289 - General Preparation										
Blank (BEG0289-BLK1)				Prepared: 07/16/21 Analyzed: 07/19/21						
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (BEG0289-BS1)				Prepared: 07/16/21 Analyzed: 07/19/21						
Calcium	5.42	0.0500	mg/L wet	5.00		108	70-130			
Magnesium	5.79	0.0500	"	5.00		116	70-130			
Sodium	4.97	0.0500	"	5.00		99.3	70-130			

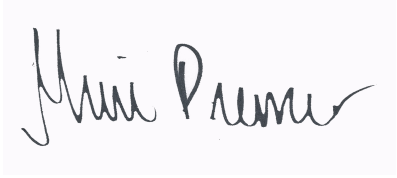
S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0275 - General Preparation										
Duplicate (BEG0275-DUP1)		**Source: 2106379-01**		Prepared & Analyzed: 07/16/21						
% Solids	88.1		%		87.7			0.454	20	



S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0308 - General Preparation										
Blank (BEG0308-BLK1)				Prepared & Analyzed: 07/19/21						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BEG0308-BS1)				Prepared & Analyzed: 07/19/21						
Specific Conductance (EC)	0.144	0.0100	mmhos/cm	0.150		96.0	90-110			
Duplicate (BEG0308-DUP1)		**Source: 2107203-01**		Prepared & Analyzed: 07/19/21						
Specific Conductance (EC)	0.842	0.0100	mmhos/cm		0.841			0.0475	20	

Summit Scientific

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

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0307 - General Preparation										
LCS (BEG0307-BS1)				Prepared & Analyzed: 07/19/21						
pH	9.34		pH Units	9.21		101	95-105			
Duplicate (BEG0307-DUP1)		**Source: 2107203-01**		Prepared & Analyzed: 07/19/21						
pH	8.08		pH Units		8.06			0.248	20	

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/22/21 17:23

Notes and Definitions

S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
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.
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

July 20, 2021

Mark Longhurst
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203

RE: Dinner 14 B-1 Wellhead
Work Order #2107260

Enclosed are the results of analyses for samples received by Summit Scientific on 07/19/21 18:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Paul Shrewsbury
President

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/20/21 05:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW01	2107260-01	Water	07/19/21 10:17	07/19/21 18:05

Summit Scientific

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

2107260

Summit Scientific

S_2

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

Client: PDC / Tasman
Address: 6855 W 119th Ave
City/State/Zip: Broomfield/ CO/ 80020
Phone: 303-487-1228
Sampler Name: J. Marus

Project Manager: Mark Longhurst
E-Mail: mark.longhurst@PDCE.com
Project Name: Dimer 14 B-1 Wellhead
Project Number: N/a

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other ___	Water	Soil	Air-Canister #	Other ___	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMB	Boron - HWS	pH, EC, SAR				pH, EC, SAR by saturated paste
1	GW01	7/19/21	1017	3			X		X				X		X						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by:	Date/Time:	Received by:	Date/Time:
	7/19/21 1645	Tasman's Lock Box	7/19/21 1645
Relinquished by: Tasman's Lock Box	7/19/21 1805	Received by:	7/19/21 1805
Relinquished by:	Date/Time:	Received by:	Date/Time:

Turn Around Time (Check)
Same Day X
24 hours ___
48 hours ___
72 hours ___
Standard ___

Sample Integrity:
Temperature Upon Receipt: 3
Samples Intact: (Yes) No

Notes:

Sample Receipt Checklist

S2 Work Order 2107260

Client: PDC / Tasman Client Project ID: Dinner 14 B-1 Wellhead

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

Matrix (check all that apply): ☐ Air ☐ Soil/Solid ☑ Water ☐ Other: _____ (Describe)

Temp (°C)	3

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C (1)? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	✓			On ice.
Were all samples received intact (1)?	✓			
Was adequate sample volume provided (1)?	✓			
If custody seals are present, are they intact (1)?			✓	
Are samples with holding times due within 48 hours sample due within 48 hours present?	✓			Same day.
Is a chain-of-custody (COC) form present and filled out completely (1)?	✓			
Does the COC agree with the number and type of sample bottles received (1)?	✓			
Do the sample IDs on the bottle labels match the COC (1)?	✓			
Is the COC properly relinquished by the client w/ date and time recorded (1)?	✓			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**		✓		
Are samples preserved that require preservation **(excluding cooling)** (1)? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			✓	
If samples are acid preserved for metals, is the pH ≤ 2(1)? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				
(1) If NO, then contact the client before proceeding with analysis and note in case narrative.				

JB — **Custodian Printed Name or Initials**

Signature of Custodian

7/19/21 — **Date/Time**

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/20/21 05:55

GW01

2107260-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/19/21 10:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**12**	1.0	ug/l	1	BEG0326	07/19/21	07/19/21	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	**34**	1.0	"	"	"	"	"	"	
Xylenes (total)	**280**	2.0	"	"	"	"	"	"	
Naphthalene	**36**	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**420**	100	"	100	"	"	"	"	
1,3,5-Trimethylbenzene	**150**	1.0	"	1	"	"	"	"	

Date Sampled: **07/19/21 10:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*89.2 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*98.3 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*110 %*	*21-167*		"	"	"	"	

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/20/21 05:55

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0326 - EPA 5030 Water MS										
Blank (BEG0326-BLK1)				Prepared & Analyzed: 07/19/21						
Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Naphthalene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	*11.3*		*"*	*13.3*		*85.0*	*23-173*			
Surrogate: Toluene-d8	*13.1*		*"*	*13.3*		*98.0*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*12.6*		*"*	*13.3*		*94.7*	*21-167*			
LCS (BEG0326-BS1)				Prepared & Analyzed: 07/19/21						
Benzene	40.8	1.0	ug/l	41.7		97.8	51-132			
Toluene	40.3	1.0	"	41.7		96.7	51-138			
Ethylbenzene	41.6	1.0	"	41.7		99.8	58-146			
m,p-Xylene	83.4	2.0	"	83.3		100	57-144			
o-Xylene	41.7	1.0	"	41.7		100	53-146			
Naphthalene	37.2	1.0	"	41.7		89.4	70-130			
1,2,4-Trimethylbenzene	35.7	1.0	"	41.7		85.7	70-130			
1,3,5-Trimethylbenzene	44.1	1.0	"	41.7		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	*11.8*		*"*	*13.3*		*88.9*	*23-173*			
Surrogate: Toluene-d8	*13.1*		*"*	*13.3*		*98.5*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*13.2*		*"*	*13.3*		*98.7*	*21-167*			
Matrix Spike (BEG0326-MS1)	**Source: 2107257-01**			Prepared & Analyzed: 07/19/21						
Benzene	40.5	1.0	ug/l	41.7	ND	97.3	34-141			
Toluene	41.8	1.0	"	41.7	ND	100	27-151			
Ethylbenzene	40.9	1.0	"	41.7	ND	98.2	29-160			
m,p-Xylene	83.0	2.0	"	83.3	ND	99.6	20-166			
o-Xylene	40.6	1.0	"	41.7	ND	97.5	33-159			
Naphthalene	46.3	1.0	"	41.7	ND	111	70-130			
1,2,4-Trimethylbenzene	35.3	1.0	"	41.7	ND	84.8	70-130			
1,3,5-Trimethylbenzene	43.3	1.0	"	41.7	ND	104	70-130			
Surrogate: 1,2-Dichloroethane-d4	*11.9*		*"*	*13.3*		*89.2*	*23-173*			
Surrogate: Toluene-d8	*13.4*		*"*	*13.3*		*101*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*13.1*		*"*	*13.3*		*98.1*	*21-167*			

Summit Scientific

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

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/20/21 05:55

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BEG0326 - EPA 5030 Water MS										
Matrix Spike Dup (BEG0326-MSD1)	**Source: 2107257-01**			Prepared: 07/19/21 Analyzed: 07/20/21						
Benzene	40.2	1.0	ug/l	41.7	ND	96.4	34-141	0.942	30	
Toluene	40.4	1.0	"	41.7	ND	97.0	27-151	3.48	30	
Ethylbenzene	40.1	1.0	"	41.7	ND	96.3	29-160	2.00	30	
m,p-Xylene	81.0	2.0	"	83.3	ND	97.2	20-166	2.40	30	
o-Xylene	40.0	1.0	"	41.7	ND	95.9	33-159	1.66	30	
Naphthalene	49.0	1.0	"	41.7	ND	118	70-130	5.56	30	
1,2,4-Trimethylbenzene	34.6	1.0	"	41.7	ND	83.1	70-130	2.09	30	
1,3,5-Trimethylbenzene	42.0	1.0	"	41.7	ND	101	70-130	3.02	30	
Surrogate: 1,2-Dichloroethane-d4	*12.5*		*"*	*13.3*		*94.1*	*23-173*			
Surrogate: Toluene-d8	*13.2*		*"*	*13.3*		*98.6*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*13.1*		*"*	*13.3*		*98.2*	*21-167*			

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/20/21 05:55

Notes and Definitions

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

July 21, 2021

Mark Longhurst
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203

RE: Dinner 14 B-1 Wellhead
Work Order #2107276

Enclosed are the results of analyses for samples received by Summit Scientific on 07/20/21 18:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

DRAFT REPORT
DATA SUBJECT TO CHANGE

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/21/21 06:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS02@20'	2107276-01	Soil	07/20/21 11:43	07/20/21 18:15

DRAFT REPORT

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

2107276

Summit Scientific

S_2

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

Client: PDC / Tasman
Address: 6855 W 119th Ave
City/State/Zip: Broomfield/ CO/ 80020
Phone: 303-487-1228
Sampler Name: J. Marcus

Project Manager: Mark Longhurst
E-Mail: mark.longhurst@PDCE.com
Project Name: Dionne 14 B-1 Wellhead
Project Number: N/A

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other ___	Water	Soil	Air-Canister #	Other ___	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMB	Boron - HWS	pH, EC, SAR				pH, EC, SAR by saturated paste
1	SS02@20'	7/20/21	1143	3			X			X			X	X	X						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by:	Date/Time:	Received by:	Date/Time:
	7/20/21 1600	Tasman's Lock Box	7/20/21 1600
Relinquished by: Tasman's Lock Box	7/20/21 1815	Received by:	7/20/21 1815
Relinquished by:	Date/Time:	Received by:	Date/Time:

Turn Around Time (Check)
Same Day X
24 hours ___
48 hours ___
72 hours ___
Standard ___

Sample Integrity:
Temperature Upon Receipt: 4
Samples Intact: (Yes) No

Notes:

Sample Receipt Checklist

S2 Work Order 2107276

Client: PDL / Tasman Client Project ID: Dinner 14 B-1 Wellhead

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

Matrix (check all that apply): ☐ Air ☑ Soil/Solid ☐ Water ☐ Other: _____ (Describe)

Temp (°C)	4

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C (1)? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	✓			On ice.
Were all samples received intact (1)?	✓			
Was adequate sample volume provided (1)?	✓			
If custody seals are present, are they intact (1)?			✓	
Are samples with holding times due within 48 hours sample due within 48 hours present?	✓			Same day.
Is a chain-of-custody (COC) form present and filled out completely (1)?	✓			
Does the COC agree with the number and type of sample bottles received (1)?	✓			
Do the sample IDs on the bottle labels match the COC (1)?	✓			
Is the COC properly relinquished by the client w/ date and time recorded (1)?	✓			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**			✓	
Are samples preserved that require preservation **(excluding cooling)** (1)? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			✓	
If samples are acid preserved for metals, is the pH ≤ 2(1)? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

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

JB
Custodian Printed Name or Initials

Signature of Custodian

7/20/21
Date/Time

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/21/21 06:15

SS02@20'

2107276-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/20/21 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEG0350	07/20/21	07/20/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/20/21 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*77.6 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*126 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*21-167*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/20/21 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0351	07/20/21	07/20/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/20/21 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*98.4 %*	*30-150*		"	"	"	"	

DRAFT REPORT

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

S2

PDC Energy	Project: Dinner 14 B-1 Wellhead	
1775 Sherman St. STE. 3000	Project Number: [none]	**Reported:**
Denver CO, 80203	Project Manager: Mark Longhurst	07/21/21 06:15

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

DRAFT REPORT

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

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Dinner 14 B-1 Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 07/21/21 06:15

Notes and Definitions

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