

TABLE 1
FORMER PHINNEY 43-10 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
FLR01 @ 3'	3/5/2021	3 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

ft. = Feet

bgs = Below ground surface

TABLE 2
FORMER PHINNEY 43-10 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
INORGANIC COMPOUNDS

Sample ID	Date Sampled	Depth	pH (units)	EC (mmhos/cm)	SAR (units)	Boron (mg/L)
Soil Suitability for Reclamation Standard ⁽¹⁾			6-8.3	<4	<6	2
WH01 @ 2.5'	3/5/2021	2.5 ft. bgs	8.32	0.410	0.407	0.119
BKG01 @ 2.5'	3/5/2021	2.5 ft. bgs	8.25	0.807	0.654	0.318

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 = milligram per liter

ft. = Feet

bgs = Below ground surface

BOLD = Analytical result is in exceedance of applicable standard.

TABLE 3
FORMER PHINNEY 43-10 WELLHEAD
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾ Latitude / Longitude		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
WH01 @ 2.5'	3/5/2021	2.5 ft. bgs	40.499370	-104.528534	1.4	0.1
FLR01 @ 3'	3/5/2021	3 ft. bgs	40.499362	-104.528531	1.1	0.3
WHS01-N @ 0-6"	3/5/2021	0-6 in. bgs	40.499378	-104.528554	1.1	0.7
WHS01-E @ 0-6"	3/5/2021	0-6 in. bgs	40.499374	-104.528499	1.1	0.8
WHS01-S @ 0-6"	3/5/2021	0-6 in. bgs	40.499328	-104.528502	1.1	0.1
WHS01-W @ 0-6"	3/5/2021	0-6 in. bgs	40.499336	-104.528592	1.2	0.2
BKG01 @ 2.5'	3/5/2021	2.5 ft. bgs	40.499514	-104.528638	1.1	0.2
FL01 @ 3'	3/5/2021	3 ft. bgs	40.497147	-104.528607	0.9	0.5

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

ft. = Feet

bgs = Below ground surface

in. = Inches

Attachment A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 26, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Phinney 43-10 Wellhead

Work Order #2103116

Enclosed are the results of analyses for samples received by Summit Scientific on 03/05/21 17:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury

President



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

Project: Phinney 43-10 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH01@2.5'	2103116-01	Soil	03/05/21 11:22	03/05/21 17:30
FLR01@3'	2103116-02	Soil	03/05/21 11:24	03/05/21 17:30
BKG01@2.5'	2103116-03	Soil	03/05/21 11:40	03/05/21 17:30

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.

S_2

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310

Page 1 of 1

Project Manager: Mark Longhurst

E-Mail: mark.longhurst@PDCE.com

Phone: 303-487-1228

Project Name: Phinney 43-10 Wellhead

Sampler Name: Kevin Fletcher

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions
					HCl	HNO ₃	None	Other _____	Water	Soil	Air-Canister #	Other _____	GBTEXN - 8260B <i>915</i>	TPH - (C6 - C36) <i>915</i>	pH, EC, SAR <i>915</i>	Boron - HWS <i>915</i>	VOC - 915	PAH - 915	Metals - 915 <i>TMB (1744.33) 915</i>		
1	WHOLE @ 2.5'	3/5/21	1122	2			X			X				X	X						pH, EC, SAR by saturated paste
2	FLR @ 3'	↓	1124	2			X			X			X	X					X		
3	BKG @ 2.5'	↓	1140	4			X			X										X	
4																					
5																					
6																					
7																					
8																					
9																					
10																					
Relinquished by:		Date/Time:	Received by:		Date/Time:		Turn Around Time		(Check)		Notes:										
Kevin Fletcher		3/5/21 1700	Tasman's Lock Box		3/5/21 1700		Same Day		72 hours												
Relinquished by:		Date/Time:	Received by:		Date/Time:		24 hours		Standard												
Tasman's Lock Box		03/05/2021 1730			03/05/2021 1730		48 hours														
Relinquished by:		Date/Time:	Received by:		Date/Time:		Sample Integrity:														
							Temperature Upon Receipt:		3.6												
							Samples Intact:		Yes No												

Sample Receipt Checklist

S2 Work Order 2103116

Client: PDC / TASMAN

Client Project ID: Phinney 43-10 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)	3.6
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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.	<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"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<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"/>	
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"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽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, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

RZ

Custodian Printed Name or Initials

Signature of Custodian

3/5/21

Date/Time



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

Project: Phinney 43-10 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

WH01@2.5'
2103116-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/05/21 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.119	0.0100	mg/L	1	BEC0231	03/11/21	03/13/21	EPA 6020B	

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

Date Sampled: **03/05/21 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	94.1	0.0549	mg/L dry	1	BEC0232	03/11/21	03/16/21	EPA 6020B	
Magnesium	19.5	0.0549	"	"	"	"	"	"	
Sodium	16.6	0.0549	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/05/21 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.407	0.100	units	1	BEC0285	03/16/21	03/17/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/05/21 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.0		%	1	BEC0165	03/09/21	03/10/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/05/21 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.410	0.0100	mmhos/cm	1	BEC0263	03/12/21	03/12/21	EPA 120.1	

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

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1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Phinney 43-10 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

WH01@2.5'
2103116-01 (Soil)

Summit Scientific

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

Date Sampled: **03/05/21 11:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.32			pH Units	1	BEC0264	03/12/21	03/12/21	EPA 9045D	

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1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Phinney 43-10 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

FLR01@3'
2103116-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/21 11:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEC0225	03/11/21	03/12/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/05/21 11:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		113 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/21 11:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEC0159	03/08/21	03/10/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/05/21 11:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		87.4 %	30-150		"	"	"	"	

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1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Phinney 43-10 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

BKG01@2.5'
2103116-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/05/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.318	0.0100	mg/L	1	BEC0407	03/24/21	03/25/21	EPA 6020B	

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

Date Sampled: **03/05/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	92.4	0.0529	mg/L dry	1	BEC0344	03/19/21	03/23/21	EPA 6020B	
Magnesium	27.1	0.0529	"	"	"	"	"	"	
Sodium	27.8	0.0529	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/05/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.654	0.100	units	1	BEC0396	03/23/21	03/23/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/05/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.6		%	1	BEC0357	03/22/21	03/23/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/05/21 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.807	0.0100	mmhos/cm	1	BEC0374	03/22/21	03/22/21	EPA 120.1	

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

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

Project: Phinney 43-10 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

BKG01@2.5'
2103116-03 (Soil)

Summit Scientific

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

Date Sampled: **03/05/21 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.25			pH Units	1	BEC0375	03/22/21	03/22/21	EPA 9045D	

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

Project: Phinney 43-10 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BEC0225 - EPA 5030 Soil MS

Blank (BEC0225-BLK1)

Prepared & Analyzed: 03/11/21

Benzene	ND	0.0020	mg/kg
Toluene	ND	0.0050	"
Ethylbenzene	ND	0.0050	"
Xylenes (total)	ND	0.010	"
1,3,5-Trimethylbenzene	ND	0.0050	"
1,2,4-Trimethylbenzene	ND	0.0050	"
Naphthalene	ND	0.0038	"
Gasoline Range Hydrocarbons	ND	0.50	"

Surrogate: 1,2-Dichloroethane-d4	0.0311	"	0.0400	77.7	23-173
Surrogate: Toluene-d8	0.0529	"	0.0400	132	20-170
Surrogate: 4-Bromofluorobenzene	0.0436	"	0.0400	109	21-167

LCS (BEC0225-BS1)

Prepared & Analyzed: 03/11/21

Benzene	0.0628	0.0020	mg/kg	0.0750	83.8	70-130
Toluene	0.0932	0.0050	"	0.0750	124	70-130
Ethylbenzene	0.0962	0.0050	"	0.0750	128	70-130
m,p-Xylene	0.187	0.010	"	0.150	125	70-130
o-Xylene	0.0919	0.0050	"	0.0750	123	70-130

Surrogate: 1,2-Dichloroethane-d4	0.0230	"	0.0400	57.4	23-173
Surrogate: Toluene-d8	0.0443	"	0.0400	111	20-170
Surrogate: 4-Bromofluorobenzene	0.0400	"	0.0400	100	21-167

Matrix Spike (BEC0225-MS1)

Source: 2103112-01

Prepared & Analyzed: 03/11/21

Benzene	0.0657	0.0020	mg/kg	0.0750	ND	87.6	70-130
Toluene	0.0932	0.0050	"	0.0750	ND	124	70-130
Ethylbenzene	0.0940	0.0050	"	0.0750	ND	125	70-130
m,p-Xylene	0.185	0.010	"	0.150	ND	123	70-130
o-Xylene	0.0923	0.0050	"	0.0750	ND	123	70-130

Surrogate: 1,2-Dichloroethane-d4	0.0268	"	0.0400	67.0	23-173
Surrogate: Toluene-d8	0.0448	"	0.0400	112	20-170
Surrogate: 4-Bromofluorobenzene	0.0404	"	0.0400	101	21-167

Summit Scientific

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

Project: Phinney 43-10 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

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

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

Batch BEC0225 - EPA 5030 Soil MS

Matrix Spike Dup (BEC0225-MSD1)	Source: 2103112-01			Prepared & Analyzed: 03/11/21						
Benzene	0.0701	0.0020	mg/kg	0.0750	ND	93.5	70-130	6.54	30	
Toluene	0.0900	0.0050	"	0.0750	ND	120	70-130	3.47	30	
Ethylbenzene	0.0968	0.0050	"	0.0750	ND	129	70-130	2.89	30	
m,p-Xylene	0.184	0.010	"	0.150	ND	123	70-130	0.504	30	
o-Xylene	0.0917	0.0050	"	0.0750	ND	122	70-130	0.652	30	
Surrogate: 1,2-Dichloroethane-d4	0.0273		"	0.0400		68.3	23-173			
Surrogate: Toluene-d8	0.0415		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.8	21-167			

Summit Scientific

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

Project: Phinney 43-10 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEC0159 - EPA 3550A

Blank (BEC0159-BLK1)

Prepared: 03/08/21 Analyzed: 03/10/21

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

LCS (BEC0159-BS1)

Prepared: 03/08/21 Analyzed: 03/10/21

C10-C28 (DRO)	504	50	mg/kg	500	101	70-130
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Matrix Spike (BEC0159-MS1)

Source: 2103112-01

Prepared: 03/08/21 Analyzed: 03/10/21

C10-C28 (DRO)	508	50	mg/kg	500	ND	102	70-130
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Matrix Spike Dup (BEC0159-MSD1)

Source: 2103112-01

Prepared: 03/08/21 Analyzed: 03/10/21

C10-C28 (DRO)	537	50	mg/kg	500	ND	107	70-130	5.49	20
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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Phinney 43-10 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

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

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

Batch BEC0231 - EPA 3050B

Blank (BEC0231-BLK1)

Prepared: 03/11/21 Analyzed: 03/13/21

Boron ND 0.0100 mg/L

LCS (BEC0231-BS1)

Prepared: 03/11/21 Analyzed: 03/13/21

Boron 5.34 0.0100 mg/L 5.00 107 80-120

Duplicate (BEC0231-DUP1)

Source: 2103112-02

Prepared: 03/11/21 Analyzed: 03/13/21

Boron 0.199 0.0100 mg/L 0.205 2.73 20

Matrix Spike (BEC0231-MS1)

Source: 2103112-02

Prepared: 03/11/21 Analyzed: 03/13/21

Boron 5.37 0.0100 mg/L 5.00 0.205 103 75-125

Matrix Spike Dup (BEC0231-MSD1)

Source: 2103112-02

Prepared: 03/11/21 Analyzed: 03/13/21

Boron 5.74 0.0100 mg/L 5.00 0.205 111 75-125 6.64 25

Batch BEC0407 - EPA 3050B

Blank (BEC0407-BLK1)

Prepared: 03/24/21 Analyzed: 03/25/21

Boron ND 0.0100 mg/L

LCS (BEC0407-BS1)

Prepared: 03/24/21 Analyzed: 03/25/21

Boron 5.71 0.0100 mg/L 5.00 114 80-120

Duplicate (BEC0407-DUP1)

Source: 2103114-03

Prepared: 03/24/21 Analyzed: 03/25/21

Boron 0.237 0.0100 mg/L 0.271 13.6 20

Matrix Spike (BEC0407-MS1)

Source: 2103114-03

Prepared: 03/24/21 Analyzed: 03/25/21

Boron 5.42 0.0100 mg/L 5.00 0.271 103 75-125

Summit Scientific

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

Project: Phinney 43-10 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

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

Summit Scientific

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

Batch BEC0407 - EPA 3050B

Matrix Spike Dup (BEC0407-MSD1)

Source: 2103114-03

Prepared: 03/24/21 Analyzed: 03/25/21

Boron	5.57	0.0100	mg/L	5.00	0.271	106	75-125	2.58	25
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Summit Scientific

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

Project: Phinney 43-10 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

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

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

Batch BEC0232 - General Preparation

Blank (BEC0232-BLK1)

Prepared: 03/11/21 Analyzed: 03/16/21

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

LCS (BEC0232-BS1)

Prepared: 03/11/21 Analyzed: 03/16/21

Calcium	5.75	0.0500	mg/L wet	5.00	115	70-130
Magnesium	6.12	0.0500	"	5.00	122	70-130
Sodium	6.14	0.0500	"	5.00	123	70-130

Summit Scientific

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

Project: Phinney 43-10 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

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

Summit Scientific

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

Batch BEC0165 - General Preparation

Duplicate (BEC0165-DUP1)		Source: 2103112-02			Prepared: 03/09/21 Analyzed: 03/10/21						
% Solids	83.8		%		83.9			0.0251		20	

Batch BEC0357 - General Preparation

Duplicate (BEC0357-DUP1)		Source: 2103114-03			Prepared: 03/22/21 Analyzed: 03/23/21						
% Solids	90.0		%		90.2			0.217		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.



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

Project: Phinney 43-10 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

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

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

Batch BEC0263 - General Preparation

Blank (BEC0263-BLK1)

Prepared & Analyzed: 03/12/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEC0263-BS1)

Prepared & Analyzed: 03/12/21

Specific Conductance (EC) 0.151 0.0100 mmhos/cm 0.150 101 90-110

Duplicate (BEC0263-DUP1)

Source: 2103097-01

Prepared & Analyzed: 03/12/21

Specific Conductance (EC) 0.809 0.0100 mmhos/cm 0.837 3.43 20

Batch BEC0374 - General Preparation

Blank (BEC0374-BLK1)

Prepared & Analyzed: 03/22/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEC0374-BS1)

Prepared & Analyzed: 03/22/21

Specific Conductance (EC) 0.150 0.0100 mmhos/cm 0.150 100 90-110

Duplicate (BEC0374-DUP1)

Source: 2103180-04

Prepared & Analyzed: 03/22/21

Specific Conductance (EC) 0.466 0.0100 mmhos/cm 0.460 1.34 20

Summit Scientific

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

Project: Phinney 43-10 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

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

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

Batch BEC0264 - General Preparation

LCS (BEC0264-BS1)

Prepared & Analyzed: 03/12/21

pH	9.18		pH Units	9.21		99.7	95-105		
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Duplicate (BEC0264-DUP1)

Source: 2103097-01

Prepared & Analyzed: 03/12/21

pH	8.46		pH Units		8.47			0.118	20
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Batch BEC0375 - General Preparation

LCS (BEC0375-BS1)

Prepared & Analyzed: 03/22/21

pH	9.30		pH Units	9.21		101	95-105		
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Duplicate (BEC0375-DUP1)

Source: 2103180-04

Prepared & Analyzed: 03/22/21

pH	8.09		pH Units		8.10			0.124	20
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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: Phinney 43-10 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/26/21 09:53

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