

**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
BH01 @ 6'	5/14/2021	6 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 extractable 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
BH01 @ 2.5'	5/14/2021	2.5 ft. bgs	8.20	0.998	0.376	NA

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.

NA = Constituent not analyzed

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

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
			Latitude	Longitude		
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
BH01 @ 2.5'	5/14/2021	2.5 ft. bgs	40.499370	-104.528532	NA	0.3
BH01 @ 6'	5/14/2021	6 ft. bgs	40.499370	-104.528532	NA	0.3
BH01 @ 10'	5/14/2021	10 ft. bgs	40.499370	-104.528532	NA	0.0
BH02 @ 2.5'	5/14/2021	2.5 ft. bgs	40.499407	-104.528531	NA	0.1
BH02 @ 6'	5/14/2021	6 ft. bgs	40.499407	-104.528531	NA	0.0
BH02 @ 10'	5/14/2021	10 ft. bgs	40.499407	-104.528531	NA	0.0
BH03 @ 2.5'	5/14/2021	2.5 ft. bgs	40.499369	-104.528584	NA	0.4
BH03 @ 6'	5/14/2021	6 ft. bgs	40.499369	-104.528584	NA	0.6
BH03 @ 10;	5/14/2021	10 ft. bgs	40.499369	-104.528584	NA	0.4
BH04 @ 2.5'	5/14/2021	2.5 ft. bgs	40.499329	-104.528531	NA	0.6
BH04 @ 6'	5/14/2021	6 ft. bgs	40.499329	-104.528531	NA	0.7
BH04 @ 10'	5/14/2021	10 ft. bgs	40.499329	-104.528531	NA	1.0
BH05 @ 2.5'	5/14/2021	2.5 ft. bgs	40.499369	-104.528477	NA	1.2
BH05 @ 6'	5/14/2021	6 ft. bgs	40.499369	-104.528477	NA	0.8
BH05 @ 10'	5/14/2021	10 ft. bgs	40.499369	-104.528477	NA	0.6
BKG02 @ 2.5'	5/14/2021	2.5 ft. bgs	40.499417	-104.528605	NA	0.7
BKG02 @ 6'	5/14/2021	6 ft. bgs	40.499417	-104.528605	NA	0.6
BKG02 @ 10'	5/14/2021	10 ft. bgs	40.499417	-104.528605	NA	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

NA = Data not collected

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', written in a cursive style.

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.

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.	✓			
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?		✓		
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.

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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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

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

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

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

FLR01@3'
2103116-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

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

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

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

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		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
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	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

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				

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

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		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

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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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 Level	Source Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

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

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

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 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 Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

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 Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

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

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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

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

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

Batch 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	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD		

Batch BEC0264 - General Preparation

LCS (BEC0264-BS1)										
					Prepared & Analyzed: 03/12/21					
pH	9.18		pH Units	9.21	99.7	95-105				
Duplicate (BEC0264-DUP1)										
					Source: 2103097-01					
					Prepared & Analyzed: 03/12/21					
pH	8.46		pH Units	8.47	0.118	20				

Batch BEC0375 - General Preparation

LCS (BEC0375-BS1)										
					Prepared & Analyzed: 03/22/21					
pH	9.30		pH Units	9.21	101	95-105				
Duplicate (BEC0375-DUP1)										
					Source: 2103180-04					
					Prepared & Analyzed: 03/22/21					
pH	8.09		pH Units	8.10	0.124	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

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

May 21, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Phinney 43-10 Wellhead

Work Order #2105210

Enclosed are the results of analyses for samples received by Summit Scientific on 05/14/21 18:12. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large initial "M" and a long, sweeping underline.

Muri Premer For 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:
05/21/21 11:22

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01@2.5'	2105210-01	Soil	05/14/21 10:10	05/14/21 18:12
BH01@6'	2105210-07	Soil	05/14/21 11:46	05/14/21 18:12

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.

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@PDCI.com
 City/State/Zip: Broomfield/ CO/ 80020 Project Name: Phinney 43-10 Wellhead
 Phone: 303-487-1228 Project Number:
 Sampler Name: Lody Miller

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Analysis Requested								Special Instructions					
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	GBTEXN - 8260B ⁹¹⁵	TPH - (C6 - C36) ⁹¹⁵	pH, EC, SAR ⁹¹⁵	Boron - HWS ⁹¹⁵	VOC - 915	PAH - 915		Metals - 915	TMBS (2,4,6,0,3,5) ⁹¹⁵			
1	BH05 @ 6'	5/14/21	1213	1			X			X												pH, EC, SAR by saturated paste <u>Hold</u>		
2	BK602 @ 6'		1220	1			X			X														
3	BH01 @ 10'		1343	2			X			X														
4	BH02 @ 10'		1350	1			X			X														
5	BH03 @ 10'		1355	1			X			X														
6	BH04 @ 10'		1400	1			X			X														
7	BH05 @ 10'		1406	1			X			X														
8	BK602 @ 10'		1412	1			X			X														

Relinquished by: <u>Lody Miller</u> Date/Time: <u>5/14/21 1630</u>	Received by: <u>Tasman's Lock Box</u> Date/Time: <u>5/14/21 11630</u>	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___	Notes:
Relinquished by: <u>Tasman's Lock Box</u> Date/Time: <u>5/14/21 1745</u>	Received by: <u>[Signature]</u> Date/Time: <u>5/14/21 1745</u>	Sample Integrity: <u>8</u> Temperature Upon Receipt: ___ Samples Intact: Yes No	
Relinquished by: _____ Date/Time: _____	Received by: _____ Date/Time: _____		

Sample Receipt Checklist

S2 Work Order 2105210

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)	8
-----------	---

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"/>	<i>On ice.</i>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Same day.</i>
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.

JB
Custodian Printed Name or Initials

Grah Bar
Signature of Custodian

5/14/21
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:
05/21/21 11:22

BH01@2.5'
2105210-01 (Soil)

Summit Scientific

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

Date Sampled: **05/14/21 10:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	80.8	0.0538	mg/L dry	1	BEE0292	05/17/21	05/19/21	EPA 6020B	
Magnesium	20.5	0.0538	"	"	"	"	"	"	
Sodium	14.6	0.0538	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/14/21 10:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.376	0.00100	units	1	BEE0337	05/19/21	05/19/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/14/21 10:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	92.9		%	1	BEE0300	05/18/21	05/18/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/14/21 10:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	0.998	0.0100	mmhos/cm	1	BEE0307	05/18/21	05/18/21	EPA 120.1	

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

Date Sampled: **05/14/21 10:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.20		pH Units	1	BEE0304	05/18/21	05/18/21	EPA 9045D	

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:
05/21/21 11:22

BH01@6'
2105210-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/14/21 11:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEE0265	05/14/21	05/14/21	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: **05/14/21 11:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		82.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/14/21 11:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEE0266	05/14/21	05/15/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/14/21 11:46**

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

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:
05/21/21 11:22

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 BEE0265 - EPA 5030 Soil MS

Blank (BEE0265-BLK1)

Prepared & Analyzed: 05/14/21

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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0324		"	0.0400		81.0		23-173			
<i>Surrogate: Toluene-d8</i>	0.0388		"	0.0400		97.1		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0330		"	0.0400		82.6		21-167			

LCS (BEE0265-BS1)

Prepared & Analyzed: 05/14/21

Benzene	0.0873	0.0020	mg/kg	0.100		87.3		70-130			
Toluene	0.0895	0.0050	"	0.100		89.5		70-130			
Ethylbenzene	0.113	0.0050	"	0.100		113		70-130			
m,p-Xylene	0.237	0.010	"	0.200		118		70-130			
o-Xylene	0.112	0.0050	"	0.100		112		70-130			
1,2,4-Trimethylbenzene	0.110	0.0050	"	0.100		110		70-130			
1,3,5-Trimethylbenzene	0.111	0.0050	"	0.100		111		70-130			
Naphthalene	0.108	0.0038	"	0.100		108		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0328		"	0.0400		82.0		23-173			
<i>Surrogate: Toluene-d8</i>	0.0389		"	0.0400		97.3		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0324		"	0.0400		80.9		21-167			

Matrix Spike (BEE0265-MS1)

Source: 2105210-07

Prepared & Analyzed: 05/14/21

Benzene	0.0927	0.0020	mg/kg	0.100	ND	92.7		70-130			
Toluene	0.0981	0.0050	"	0.100	ND	98.1		70-130			
Ethylbenzene	0.113	0.0050	"	0.100	ND	113		70-130			
m,p-Xylene	0.245	0.010	"	0.200	0.00429	120		70-130			
o-Xylene	0.110	0.0050	"	0.100	ND	110		70-130			
1,2,4-Trimethylbenzene	0.112	0.0050	"	0.100	ND	112		70-130			
1,3,5-Trimethylbenzene	0.113	0.0050	"	0.100	ND	113		70-130			
Naphthalene	0.122	0.0038	"	0.100	ND	122		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0357		"	0.0400		89.2		23-173			
<i>Surrogate: Toluene-d8</i>	0.0393		"	0.0400		98.2		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0337		"	0.0400		84.2		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: Phinney 43-10 Wellhead

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 05/21/21 11:22

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BEE0265 - EPA 5030 Soil MS

Matrix Spike Dup (BEE0265-MSD1)	Source: 2105210-07			Prepared & Analyzed: 05/14/21						
Benzene	0.0895	0.0020	mg/kg	0.100	ND	89.5	70-130	3.46	30	
Toluene	0.0969	0.0050	"	0.100	ND	96.9	70-130	1.26	30	
Ethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130	8.73	30	
m,p-Xylene	0.225	0.010	"	0.200	0.00429	111	70-130	8.15	30	
o-Xylene	0.111	0.0050	"	0.100	ND	111	70-130	0.597	30	
1,2,4-Trimethylbenzene	0.110	0.0050	"	0.100	ND	110	70-130	1.78	30	
1,3,5-Trimethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130	4.19	30	
Naphthalene	0.125	0.0038	"	0.100	ND	125	70-130	2.72	30	
Surrogate: 1,2-Dichloroethane-d4	0.0353		"	0.0400		88.4	23-173			
Surrogate: Toluene-d8	0.0374		"	0.0400		93.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0336		"	0.0400		84.1	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: Phinney 43-10 Wellhead

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 05/21/21 11:22

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 BEE0266 - EPA 3550A

Blank (BEE0266-BLK1)

Prepared: 05/14/21 Analyzed: 05/15/21

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

LCS (BEE0266-BS1)

Prepared: 05/14/21 Analyzed: 05/15/21

C10-C28 (DRO)	442	50	mg/kg	500	88.4	70-130				
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Matrix Spike (BEE0266-MS1)

Source: 2105210-07

Prepared: 05/14/21 Analyzed: 05/15/21

C10-C28 (DRO)	492	50	mg/kg	500	13.3	95.7	70-130			
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Matrix Spike Dup (BEE0266-MSD1)

Source: 2105210-07

Prepared: 05/14/21 Analyzed: 05/15/21

C10-C28 (DRO)	417	50	mg/kg	500	13.3	80.8	70-130	16.4	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:
 05/21/21 11:22

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 BEE0292 - General Preparation

Blank (BEE0292-BLK1)

Prepared: 05/17/21 Analyzed: 05/19/21

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

LCS (BEE0292-BS1)

Prepared: 05/17/21 Analyzed: 05/19/21

Calcium	5.00	0.0500	mg/L wet	5.00	99.9	70-130				
Magnesium	5.31	0.0500	"	5.00	106	70-130				
Sodium	4.99	0.0500	"	5.00	99.8	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:
 05/21/21 11:22

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

Summit Scientific

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

Batch BEE0300 - General Preparation

Duplicate (BEE0300-DUP1)

Source: 2105200-01

Prepared & Analyzed: 05/18/21

% Solids	92.9		%		94.2			1.42		20	
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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:
 05/21/21 11:22

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

Summit Scientific

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

Batch BEE0307 - General Preparation

Blank (BEE0307-BLK1)

Prepared & Analyzed: 05/18/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEE0307-BS1)

Prepared & Analyzed: 05/18/21

Specific Conductance (EC) 0.164 0.0100 mmhos/cm 0.150 109 90-110

Duplicate (BEE0307-DUP1)

Source: 2105208-01

Prepared & Analyzed: 05/18/21

Specific Conductance (EC) 0.921 0.0100 mmhos/cm 0.920 0.174 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:
 05/21/21 11:22

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 BEE0304 - General Preparation

LCS (BEE0304-BS1)

Prepared & Analyzed: 05/18/21

pH	9.26	pH Units	9.21	101	95-105
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Duplicate (BEE0304-DUP1)

Source: 2105208-01

Prepared & Analyzed: 05/18/21

pH	8.81	pH Units	8.82	0.113	20
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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:
05/21/21 11:22

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