

TABLE 1
FORMER FOX 42-24 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 @ 5'	4/20/2021	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50

Notes:

- Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
- Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
- SSLs are applicable if a pathway for communication with groundwater is present.
- 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 FOX 42-24 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'	4/20/2021	2.5 ft. bgs	8.14	1.18	1.34	0.249

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

TABLE 3
FORMER FOX 42-24 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	4/20/2021	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	4 ft. bgs	NA

Notes:

- Groundwater standards referenced from 2 CCR 404-1, Table 915-1, January 15, 2021.
 - 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
NA = Not applicable

TABLE 4
FORMER FOX 42-24 WELLHEAD
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾ Latitude / Longitude		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
FLR01 @ 5'	4/20/2021	5 ft. bgs	40.125355	-104.942932	1.7	0.0
WH01 @ 2.5'	4/20/2021	2.5 ft. bgs	40.125364	-104.942943	1.3	0.0
WHS01-N @ 0-6"	4/20/2021	0-6 in. bgs	40.125392	-104.942921	1.0	0.2
WHS01-W @ 0-6"	4/20/2021	0-6 in. bgs	40.125374	-104.942946	1.0	0.0
WHS01-S @ 0-6"	4/20/2021	0-6 in. bgs	40.125370	-104.942891	1.1	0.0
WHS01-E @ 0-6"	4/20/2021	0-6 in. bgs	40.125347	-104.942923	1.0	0.0
BKG01 @ 2.5'	4/20/2021	2.5 ft. bgs	40.125542	-104.943020	1.2	0.0

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

in. = Inches

bgs = Below ground surface

Attachment A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 04, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

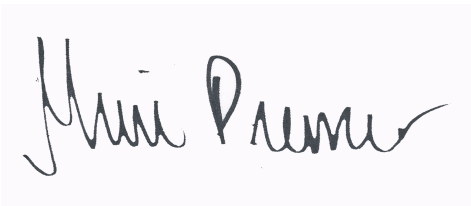
Denver, CO 80203

RE: Fox 42-24 Wellhead

Work Order #2104306

Enclosed are the results of analyses for samples received by Summit Scientific on 04/20/21 18:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Muri Premer", on a light blue background.

Muri Premer For Paul Shrewsbury
President



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

Project: Fox 42-24 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FLR01@5'	2104306-01	Soil	04/20/21 12:50	04/20/21 18:00
WH01@2.5'	2104306-02	Soil	04/20/21 12:51	04/20/21 18:00
GW01	2104306-04	Water	04/20/21 12:48	04/20/21 18:00

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.

2104306


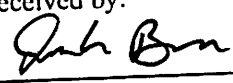
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4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: PDC / Tasman Project Manager: Mark Longhurst
Address: 6855 W 119th Ave E-Mail: mark.longhurst@PDCE.com
City/State/Zip: Broomfield/ CO/ 80020 Project Name: Fox 42-24 wellhead
Phone: 303-487-1228 Project Number: n/a
Sampler Name: J. Marcus

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	915 GBTEXN - 8260B	915 TPH - (C6 - C36)	915 pH, EC, SAR - 915	915 Boron - HWS-915	915 VOC - 915	915 PAH - 915	915 Metals - 915		
1	FLR01 @ 5'	4/21/20	1250	1			X			X				X	X						pH, EC, SAR by saturated paste, BTEX, naphthalene, and TMBs for lwol, BKG01 on hold
2	WHO1 @ 2.5'	↓	1251	2			X			X											
3	BKG01 @ 2.5'	↓	1419	2			X							X							
4	GW01	↓	1248	3	X				X												
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by: 	Date/Time: 4/20/21 1530	Received by: Tasman's Lock Box	Date/Time: 4/20/21 1530	Turn Around Time (Check) Same Day _____ 72 hours _____ 24 hours _____ Standard <input checked="" type="checkbox"/> 48 hours _____ Sample Integrity: _____ Temperature Upon Receipt: 5 Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No
Relinquished by: Tasman's Lock Box	Date/Time: 4/20/21 1800	Received by: 	Date/Time: 4/20/21 1800	
Relinquished by:	Date/Time:	Received by:	Date/Time:	

Notes:

Sample Receipt Checklist

S2 Work Order 2104306

Client: PDC / Tasman Client Project ID: Fox 42-24 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)	<u>5</u>
-----------	----------

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"/>	<u>on ice.</u>
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 type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>HCl</u>
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

Shah B...
Signature of Custodian

4/20/21 1845
Date/Time



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

Project: Fox 42-24 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

FLR01@5'
2104306-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/20/21 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BED0380	04/22/21	04/23/21	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: **04/20/21 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		108 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		115 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/20/21 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BED0369	04/21/21	05/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/20/21 12:50**

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

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1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Fox 42-24 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

WH01@2.5'
2104306-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/20/21 12:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.249	0.0100	mg/L	1	BED0385	04/22/21	04/22/21	EPA 6020B	

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

Date Sampled: **04/20/21 12:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	57.4	0.0593	mg/L dry	1	BED0439	04/26/21	04/27/21	EPA 6020B	
Magnesium	42.9	0.0593	"	"	"	"	"	"	
Sodium	55.0	0.0593	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/20/21 12:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.34	0.00100	units	1	BED0475	04/28/21	04/28/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/20/21 12:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.2		%	1	BED0388	04/22/21	04/23/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/20/21 12:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.18	0.0100	mmhos/cm	1	BED0465	04/27/21	04/27/21	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: Fox 42-24 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

WH01@2.5'
2104306-02 (Soil)

Summit Scientific

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

Date Sampled: **04/20/21 12:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.14			pH Units	1	BED0466	04/27/21	04/27/21	EPA 9045D	

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

Project: Fox 42-24 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

GW01
2104306-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/20/21 12:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BED0368	04/21/21	04/22/21	EPA 8260B	
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	"	"	"	"	"	"	

Date Sampled: **04/20/21 12:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		92.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		79.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.2 %	21-167		"	"	"	"	

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

Project: Fox 42-24 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

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 BED0368 - EPA 5030 Water MS

Blank (BED0368-BLK1)

Prepared: 04/21/21 Analyzed: 04/22/21

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	12.6		"	13.3		94.7	23-173			
Surrogate: Toluene-d8	10.1		"	13.3		75.5	20-170			
Surrogate: 4-Bromofluorobenzene	11.6		"	13.3		87.2	21-167			

LCS (BED0368-BS1)

Prepared: 04/21/21 Analyzed: 04/22/21

Benzene	28.7	1.0	ug/l	33.3		86.2	51-132			
Toluene	33.3	1.0	"	33.3		99.9	51-138			
Ethylbenzene	40.1	1.0	"	33.3		120	58-146			
m,p-Xylene	75.6	2.0	"	66.7		113	57-144			
o-Xylene	39.1	1.0	"	33.3		117	53-146			
Naphthalene	34.0	1.0	"	33.3		102	70-130			
1,2,4-Trimethylbenzene	29.8	1.0	"	33.3		89.6	70-130			
1,3,5-Trimethylbenzene	41.5	1.0	"	33.3		125	70-130			
Surrogate: 1,2-Dichloroethane-d4	11.3		"	13.3		84.5	23-173			
Surrogate: Toluene-d8	11.5		"	13.3		86.0	20-170			
Surrogate: 4-Bromofluorobenzene	11.6		"	13.3		87.2	21-167			

Matrix Spike (BED0368-MS1)

Source: 2104283-01

Prepared: 04/21/21 Analyzed: 04/22/21

Benzene	29.5	1.0	ug/l	33.3	ND	88.5	34-141			
Toluene	37.7	1.0	"	33.3	ND	113	27-151			
Ethylbenzene	39.7	1.0	"	33.3	ND	119	29-160			
m,p-Xylene	107	2.0	"	66.7	ND	161	20-166			
o-Xylene	38.7	1.0	"	33.3	ND	116	33-159			
Naphthalene	43.4	1.0	"	33.3	ND	130	70-130			
1,2,4-Trimethylbenzene	29.6	1.0	"	33.3	ND	88.8	70-130			
1,3,5-Trimethylbenzene	40.7	1.0	"	33.3	ND	122	70-130			
Surrogate: 1,2-Dichloroethane-d4	11.7		"	13.3		87.8	23-173			
Surrogate: Toluene-d8	13.1		"	13.3		98.3	20-170			
Surrogate: 4-Bromofluorobenzene	11.8		"	13.3		88.5	21-167			

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

Project: Fox 42-24 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

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 BED0368 - EPA 5030 Water MS

Matrix Spike Dup (BED0368-MSD1)	Source: 2104283-01			Prepared: 04/21/21 Analyzed: 04/22/21						
Benzene	31.9	1.0	ug/l	33.3	ND	95.8	34-141	7.85	30	
Toluene	33.4	1.0	"	33.3	ND	100	27-151	12.3	30	
Ethylbenzene	41.0	1.0	"	33.3	ND	123	29-160	3.24	30	
m,p-Xylene	86.7	2.0	"	66.7	ND	130	20-166	21.1	30	
o-Xylene	40.6	1.0	"	33.3	ND	122	33-159	4.89	30	
Naphthalene	40.3	1.0	"	33.3	ND	121	70-130	7.41	30	
1,2,4-Trimethylbenzene	30.4	1.0	"	33.3	ND	91.2	70-130	2.67	30	
1,3,5-Trimethylbenzene	42.1	1.0	"	33.3	ND	126	70-130	3.33	30	
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3		98.5	23-173			
Surrogate: Toluene-d8	11.5		"	13.3		86.3	20-170			
Surrogate: 4-Bromofluorobenzene	11.5		"	13.3		86.2	21-167			

Batch BED0380 - EPA 5030 Soil MS

Blank (BED0380-BLK1)	Prepared & Analyzed: 04/22/21									
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	0.0400		"	0.0400		100	23-173			
Surrogate: Toluene-d8	0.0382		"	0.0400		95.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0413		"	0.0400		103	21-167			

Summit Scientific

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

Project: Fox 42-24 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

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

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

Batch BED0380 - EPA 5030 Soil MS

LCS (BED0380-BS1)

Prepared & Analyzed: 04/22/21

Benzene	0.119	0.0020	mg/kg	0.125		95.3	70-130			
Toluene	0.118	0.0050	"	0.125		94.5	70-130			
Ethylbenzene	0.123	0.0050	"	0.125		98.0	70-130			
m,p-Xylene	0.236	0.010	"	0.250		94.3	70-130			
o-Xylene	0.125	0.0050	"	0.125		99.8	70-130			
1,2,4-Trimethylbenzene	0.125	0.0050	"	0.125		99.9	70-130			
1,3,5-Trimethylbenzene	0.122	0.0050	"	0.125		97.8	70-130			
Naphthalene	0.131	0.0038	"	0.125		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0372		"	0.0400		93.1	23-173			
Surrogate: Toluene-d8	0.0408		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0430		"	0.0400		108	21-167			

Matrix Spike (BED0380-MS1)

Source: 2104299-01

Prepared & Analyzed: 04/22/21

Benzene	0.127	0.0020	mg/kg	0.125	0.00306	99.5	70-130			
Toluene	0.130	0.0050	"	0.125	ND	104	70-130			
Ethylbenzene	0.135	0.0050	"	0.125	ND	108	70-130			
m,p-Xylene	0.266	0.010	"	0.250	0.00372	105	70-130			
o-Xylene	0.140	0.0050	"	0.125	ND	112	70-130			
1,2,4-Trimethylbenzene	0.142	0.0050	"	0.125	ND	114	70-130			
1,3,5-Trimethylbenzene	0.137	0.0050	"	0.125	ND	110	70-130			
Naphthalene	0.134	0.0038	"	0.125	ND	107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0390		"	0.0400		97.6	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0421		"	0.0400		105	21-167			

Matrix Spike Dup (BED0380-MSD1)

Source: 2104299-01

Prepared & Analyzed: 04/22/21

Benzene	0.127	0.0020	mg/kg	0.125	0.00306	99.5	70-130	0.0236	30	
Toluene	0.127	0.0050	"	0.125	ND	101	70-130	2.53	30	
Ethylbenzene	0.134	0.0050	"	0.125	ND	108	70-130	0.223	30	
m,p-Xylene	0.268	0.010	"	0.250	0.00372	106	70-130	0.517	30	
o-Xylene	0.137	0.0050	"	0.125	ND	110	70-130	2.23	30	
1,2,4-Trimethylbenzene	0.134	0.0050	"	0.125	ND	107	70-130	6.02	30	
1,3,5-Trimethylbenzene	0.132	0.0050	"	0.125	ND	105	70-130	3.86	30	
Naphthalene	0.154	0.0038	"	0.125	ND	123	70-130	13.8	30	
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0400		99.6	23-173			
Surrogate: Toluene-d8	0.0394		"	0.0400		98.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0428		"	0.0400		107	21-167			

Summit Scientific

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

Project: Fox 42-24 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

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 BED0369 - EPA 3550A

Blank (BED0369-BLK1)

Prepared: 04/21/21 Analyzed: 05/02/21

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

LCS (BED0369-BS1)

Prepared: 04/21/21 Analyzed: 05/02/21

C10-C28 (DRO)	497	50	mg/kg	500	99.4	70-130
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Matrix Spike (BED0369-MS1)

Source: 2104288-01

Prepared: 04/21/21 Analyzed: 05/02/21

C10-C28 (DRO)	420	50	mg/kg	500	13.3	81.3	70-130
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Matrix Spike Dup (BED0369-MSD1)

Source: 2104288-01

Prepared: 04/21/21 Analyzed: 05/02/21

C10-C28 (DRO)	464	50	mg/kg	500	13.3	90.2	70-130	10.0	20
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Summit Scientific

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

Project: Fox 42-24 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

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 BED0385 - EPA 3050B

Blank (BED0385-BLK1)

Prepared & Analyzed: 04/22/21

Boron ND 0.0100 mg/L

LCS (BED0385-BS1)

Prepared & Analyzed: 04/22/21

Boron 5.60 0.0100 mg/L 5.00 112 80-120

Duplicate (BED0385-DUP1)

Source: 2104288-01

Prepared & Analyzed: 04/22/21

Boron 0.131 0.0100 mg/L 0.154 15.9 20

Matrix Spike (BED0385-MS1)

Source: 2104288-01

Prepared & Analyzed: 04/22/21

Boron 5.35 0.0100 mg/L 5.00 0.154 104 75-125

Matrix Spike Dup (BED0385-MSD1)

Source: 2104288-01

Prepared & Analyzed: 04/22/21

Boron 5.39 0.0100 mg/L 5.00 0.154 105 75-125 0.636 25

Summit Scientific

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

Project: Fox 42-24 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

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 BED0439 - General Preparation

Blank (BED0439-BLK1)

Prepared: 04/26/21 Analyzed: 04/27/21

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

LCS (BED0439-BS1)

Prepared: 04/26/21 Analyzed: 04/27/21

Calcium	4.96	0.0500	mg/L wet	5.00	99.2	70-130
Magnesium	5.51	0.0500	"	5.00	110	70-130
Sodium	5.46	0.0500	"	5.00	109	70-130

Summit Scientific

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

Project: Fox 42-24 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

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

Summit Scientific

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

Batch BED0388 - General Preparation

Duplicate (BED0388-DUP1)		Source: 2104127-03		Prepared: 04/22/21 Analyzed: 04/23/21	
% Solids	91.0		%	90.8	0.217 20

Summit Scientific

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

Project: Fox 42-24 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

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

Summit Scientific

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

Batch BED0465 - General Preparation

Blank (BED0465-BLK1)

Prepared & Analyzed: 04/27/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BED0465-BS1)

Prepared & Analyzed: 04/27/21

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 103 90-110

Duplicate (BED0465-DUP1)

Source: 2104085-08

Prepared & Analyzed: 04/27/21

Specific Conductance (EC) 9.72 0.0100 mmhos/cm 9.69 0.350 20

Summit Scientific

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

Project: Fox 42-24 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:

05/04/21 16:13

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

Summit Scientific

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

Batch BED0466 - General Preparation

LCS (BED0466-BS1)

Prepared & Analyzed: 04/27/21

pH	9.26	pH Units	9.21	101	95-105
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Duplicate (BED0466-DUP1)

Source: 2104085-08

Prepared & Analyzed: 04/27/21

pH	8.12	pH Units	8.10	0.247	20
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Summit Scientific

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

Project: Fox 42-24 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/04/21 16:13

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