

**TABLE 1
FORMER ANDERSON 31, 32, 42-10 TANK BATTERY
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
AST01 @ 0-6"	5/26/2021	0-6 in. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SEP01-FL @ 4'	5/26/2021	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SEP01-DL @ 4'	5/26/2021	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
PWV01-B @ 5'	5/26/2021	5 ft. bgs	<0.0020	<0.0050	0.0056	<0.010	<0.0050	<0.0050	<0.0038	<50
PWV01-W @ 2.5'	5/26/2021	2.5 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

in. = Inches

bgs = Below ground surface

TABLE 2
FORMER ANDERSON 31, 32, 42-10 TANK BATTERY
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
PWV01-B @ 5'	5/26/2021	5 ft. bgs	7.22	0.440	0.654	0.524
PWV01-W @ 2.5'	5/26/2021	2.5 ft. bgs	7.02	0.0678	0.577	0.216

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 ANDERSON 31, 32, 42-10 TANK BATTERY
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
			Latitude	Longitude		
PWV01-B @ 5'	5/26/2021	5 ft. bgs	40.503097	-104.758993	1.3	0.4
PWV01-N @ 2.5'	5/26/2021	2.5 ft. bgs	40.503116	-104.759011	1.7	0.5
PWV01-W @ 2.5'	5/26/2021	2.5 ft. bgs	40.503094	-104.759037	1.3	0.6
PWV01-S @ 2.5'	5/26/2021	2.5 ft. bgs	40.503076	-104.759001	1.4	0.4
PWV01-E @ 2.5'	5/26/2021	2.5 ft. bgs	40.503100	-104.758983	1.3	0.3
WDL01 @ 4'	5/26/2021	4 ft. bgs	40.503084	-104.759005	1.3	0.7
SEP01-DL @ 4'	5/26/2021	4 ft. bgs	40.503078	-104.759293	1.3	0.3
SEP01-FL @ 4'	5/26/2021	4 ft. bgs	40.503054	-104.759352	1.1	1.7
AST01 @ 0-6"	5/26/2021	0-6 in. bgs	40.503113	-104.758948	1.2	2.0
ECD01 @ 0-6"	5/26/2021	0-6 in. bgs	40.503098	-104.759401	1.1	0.4
MH01 @ 0-6"	5/26/2021	0-6 in. bgs	40.503047	-104.759203	1.1	0.0
CP01 @ 0-6"	5/26/2021	0-6 in. bgs	40.503098	-104.759401	1.1	0.0
BKG01 @ 2.5'	5/26/2021	2.5 ft. bgs	40.503212	-104.759063	1.2	0.6

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

NC = Data not collected

Attachment A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 18, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Anderson 31,32,42-10 Tank Battery

Work Order #2105450

Enclosed are the results of analyses for samples received by Summit Scientific on 05/27/21 17:15. 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, stylized initial 'M'.

Muri Premer For Paul Shrewsbury
President



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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
06/18/21 16:24

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PWV01-B@5'	2105450-01	Soil	05/26/21 13:36	05/27/21 17:15
PWV01-W@2.5'	2105450-03	Soil	05/26/21 13:40	05/27/21 17:15
AST01@0-6"	2105450-06	Soil	05/26/21 13:52	05/27/21 17:15
SEP01-FL@4'	2105450-07	Soil	05/26/21 13:50	05/27/21 17:15
SEP01-DL@4'	2105450-08	Soil	05/26/21 13:48	05/27/21 17:15

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

S₂

2105450

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
Phone: 303-487-1228 Project Name: Anderson 31,32,42-10 Tank Battery
Sampler Name: Max Dahlgren Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	915 - VOC	TPH - (C6 - C36)	pH, EC, SAR	Boron - HWS	As Hold		
1	PW01-B @ 5'	5/26/21	1336	3			X			X			X	X	X	X			
2	PW01-N @ 2.5'		1338	3													X		
3	PW01-W @ 2.5'		1340	3									X	X	X	X			
4	PW01-S @ 2.5'		1342	3													X		
5	PW01-E @ 2.5'		1344	3													X		
6	AST01 @ 0-6"		1352	2									X	X					
7	SEP01-FL @ 4'		1350	2									X	X					
8	SEP01-DL @ 4'		1348	2									X	X					
9	BKG01 @ 2.5'		1450	1													X		
10																			

Relinquished by: <i>[Signature]</i>	Date/Time: 5/26/21 1742	Received by: Fasman's Lock Box <i>[Signature]</i>	Date/Time: 5/27/21 1715	Turn Around Time (Check) Same Day _____ 72 hours _____ 24 hours _____ Standard <input checked="" type="checkbox"/> 48 hours _____ Sample Integrity: Temperature Upon Receipt: <u>5</u> Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Notes:
Relinquished by: Tasman's Lock Box	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

2105450

S2 Work Order _____

Client: PDCI Tasman Client Project ID: Anderson 31, 32, 42-10 Tank Battery

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

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

Temp (°C)	5
-----------	---

Thermometer ID: 61857155-K

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

JB
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

5/27/21
Date/Time



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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
06/18/21 16:24

PWV01-B@5'
2105450-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/26/21 13:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BEF0100	06/03/21	06/04/21	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.0056	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: **05/26/21 13:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		108 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.8 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/26/21 13:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BEF0099	06/03/21	06/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/26/21 13:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		85.9 %		30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Summit Scientific

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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
06/18/21 16:24

PWV01-B@5'
2105450-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/26/21 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.524	0.0100	mg/L	1	BEF0110	06/04/21	06/07/21	EPA 6020B	

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

Date Sampled: **05/26/21 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	46.7	0.0603	mg/L dry	1	BEF0093	06/03/21	06/08/21	EPA 6020B	
Magnesium	17.7	0.0603	"	"	"	"	"	"	
Sodium	20.7	0.0603	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/26/21 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.654	0.00100	units	1	BEF0177	06/08/21	06/08/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/26/21 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	82.9		%	1	BEF0082	06/03/21	06/04/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/26/21 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.440	0.0100	mmhos/cm	1	BEF0120	06/04/21	06/04/21	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: Anderson 31,32,42-10 Tank Battery

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 06/18/21 16:24

PWV01-B@5'
2105450-01 (Soil)

Summit Scientific

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

Date Sampled: **05/26/21 13:36**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	7.22		pH Units	1	BEF0119	06/04/21	06/04/21	EPA 9045D	

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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
06/18/21 16:24

PWV01-W@2.5'
2105450-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/26/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEF0100	06/03/21	06/04/21	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: **05/26/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/26/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0099	06/03/21	06/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/26/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		79.9 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Summit Scientific

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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
06/18/21 16:24

PWV01-W@2.5'
2105450-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/26/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.216	0.0100	mg/L	1	BEF0110	06/04/21	06/07/21	EPA 6020B	

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

Date Sampled: **05/26/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	7.19	0.0584	mg/L dry	1	BEF0093	06/03/21	06/08/21	EPA 6020B	
Magnesium	2.04	0.0584	"	"	"	"	"	"	
Sodium	6.81	0.0584	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/26/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.577	0.00100	units	1	BEF0177	06/08/21	06/08/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/26/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.6		%	1	BEF0082	06/03/21	06/04/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/26/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0678	0.0100	mmhos/cm	1	BEF0120	06/04/21	06/04/21	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: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 06/18/21 16:24

PWV01-W@2.5'
2105450-03 (Soil)

Summit Scientific

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

Date Sampled: **05/26/21 13:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	7.02		pH Units	1	BEF0119	06/04/21	06/04/21	EPA 9045D	

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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
06/18/21 16:24

AST01@0-6"
2105450-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/26/21 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEF0100	06/03/21	06/04/21	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: **05/26/21 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		119 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/26/21 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0099	06/03/21	06/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/26/21 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.0 %	30-150		"	"	"	"	

Summit Scientific

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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
06/18/21 16:24

SEP01-FL@4'
2105450-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/26/21 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEF0100	06/03/21	06/04/21	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: **05/26/21 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/26/21 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0099	06/03/21	06/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/26/21 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		79.5 %	30-150		"	"	"	"	

Summit Scientific

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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
06/18/21 16:24

SEP01-DL@4'
2105450-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/26/21 13:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEF0100	06/03/21	06/04/21	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: **05/26/21 13:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		118 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/26/21 13:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0099	06/03/21	06/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/26/21 13:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		79.5 %	30-150		"	"	"	"	

Summit Scientific

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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
06/18/21 16:24

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BEF0100 - EPA 5030 Soil MS

Blank (BEF0100-BLK1)

Prepared & Analyzed: 06/03/21

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>	<i>0.0386</i>		<i>"</i>	<i>0.0400</i>		<i>96.4</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0431</i>		<i>"</i>	<i>0.0400</i>		<i>108</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0406</i>		<i>"</i>	<i>0.0400</i>		<i>102</i>	<i>21-167</i>			

LCS (BEF0100-BS1)

Prepared & Analyzed: 06/03/21

Benzene	0.0888	0.0020	mg/kg	0.100		88.8	70-130			
Toluene	0.0844	0.0050	"	0.100		84.4	70-130			
Ethylbenzene	0.0958	0.0050	"	0.100		95.8	70-130			
m,p-Xylene	0.185	0.010	"	0.200		92.4	70-130			
o-Xylene	0.0857	0.0050	"	0.100		85.7	70-130			
1,2,4-Trimethylbenzene	0.0901	0.0050	"	0.100		90.1	70-130			
1,3,5-Trimethylbenzene	0.0913	0.0050	"	0.100		91.3	70-130			
Naphthalene	0.0969	0.0038	"	0.100		96.9	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0268</i>		<i>"</i>	<i>0.0400</i>		<i>67.0</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0411</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0386</i>		<i>"</i>	<i>0.0400</i>		<i>96.5</i>	<i>21-167</i>			

Matrix Spike (BEF0100-MS1)

Source: 2105450-06

Prepared & Analyzed: 06/03/21

Benzene	0.0851	0.0020	mg/kg	0.100	ND	85.1	70-130			
Toluene	0.0821	0.0050	"	0.100	ND	82.1	70-130			
Ethylbenzene	0.0962	0.0050	"	0.100	ND	96.2	70-130			
m,p-Xylene	0.186	0.010	"	0.200	ND	92.8	70-130			
o-Xylene	0.0871	0.0050	"	0.100	ND	87.1	70-130			
1,2,4-Trimethylbenzene	0.0922	0.0050	"	0.100	ND	92.2	70-130			
1,3,5-Trimethylbenzene	0.0924	0.0050	"	0.100	ND	92.4	70-130			
Naphthalene	0.0789	0.0038	"	0.100	ND	78.9	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0226</i>		<i>"</i>	<i>0.0400</i>		<i>56.5</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0418</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0371</i>		<i>"</i>	<i>0.0400</i>		<i>92.8</i>	<i>21-167</i>			

Summit Scientific

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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 06/18/21 16:24

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BEF0100 - EPA 5030 Soil MS

Matrix Spike Dup (BEF0100-MSD1)	Source: 2105450-06			Prepared & Analyzed: 06/03/21						
Benzene	0.0852	0.0020	mg/kg	0.100	ND	85.2	70-130	0.106	30	
Toluene	0.0812	0.0050	"	0.100	ND	81.2	70-130	1.10	30	
Ethylbenzene	0.0943	0.0050	"	0.100	ND	94.3	70-130	2.02	30	
m,p-Xylene	0.181	0.010	"	0.200	ND	90.4	70-130	2.59	30	
o-Xylene	0.0852	0.0050	"	0.100	ND	85.2	70-130	2.16	30	
1,2,4-Trimethylbenzene	0.0903	0.0050	"	0.100	ND	90.3	70-130	2.04	30	
1,3,5-Trimethylbenzene	0.0898	0.0050	"	0.100	ND	89.8	70-130	2.83	30	
Naphthalene	0.0789	0.0038	"	0.100	ND	78.9	70-130	0.0760	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0232</i>		<i>"</i>	<i>0.0400</i>		<i>57.9</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0422</i>		<i>"</i>	<i>0.0400</i>		<i>106</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0363</i>		<i>"</i>	<i>0.0400</i>		<i>90.8</i>	<i>21-167</i>			

Summit Scientific

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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 06/18/21 16:24

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEF0099 - EPA 3550A

Blank (BEF0099-BLK1)

Prepared: 06/03/21 Analyzed: 06/04/21

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

LCS (BEF0099-BS1)

Prepared: 06/03/21 Analyzed: 06/04/21

C10-C28 (DRO)	513	50	mg/kg	500	103	70-130				
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Matrix Spike (BEF0099-MS1)

Source: 2105450-01

Prepared: 06/03/21 Analyzed: 06/04/21

C10-C28 (DRO)	447	50	mg/kg	500	13.8	86.6	70-130			
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Matrix Spike Dup (BEF0099-MSD1)

Source: 2105450-01

Prepared: 06/03/21 Analyzed: 06/04/21

C10-C28 (DRO)	467	50	mg/kg	500	13.8	90.7	70-130	4.45	20	
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PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 06/18/21 16:24

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 BEF0110 - EPA 3050B

Blank (BEF0110-BLK1)

Prepared: 06/04/21 Analyzed: 06/07/21

Boron ND 0.0100 mg/L

LCS (BEF0110-BS1)

Prepared: 06/04/21 Analyzed: 06/07/21

Boron 5.45 0.0100 mg/L 5.00 109 80-120

Duplicate (BEF0110-DUP1)

Source: 2105438-02

Prepared: 06/04/21 Analyzed: 06/07/21

Boron 1.23 0.0100 mg/L 1.13 8.51 20

Matrix Spike (BEF0110-MS1)

Source: 2105438-02

Prepared: 06/04/21 Analyzed: 06/07/21

Boron 6.44 0.0100 mg/L 5.00 1.13 106 75-125

Matrix Spike Dup (BEF0110-MSD1)

Source: 2105438-02

Prepared: 06/04/21 Analyzed: 06/07/21

Boron 5.22 0.0100 mg/L 5.00 1.13 81.8 75-125 21.0 25

Summit Scientific

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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 06/18/21 16:24

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

Summit Scientific

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

Batch BEF0093 - General Preparation

Blank (BEF0093-BLK1)

Prepared: 06/03/21 Analyzed: 06/08/21

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

LCS (BEF0093-BS1)

Prepared: 06/03/21 Analyzed: 06/08/21

Calcium	5.06	0.0500	mg/L wet	5.00		101	70-130			
Magnesium	5.14	0.0500	"	5.00		103	70-130			
Sodium	5.35	0.0500	"	5.00		107	70-130			

Summit Scientific

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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 06/18/21 16:24

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 BEF0082 - General Preparation

Duplicate (BEF0082-DUP1)	Source: 2105284-09		Prepared: 06/03/21 Analyzed: 06/04/21		
% Solids	95.3	%	95.1	0.183	20

Summit Scientific

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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 06/18/21 16:24

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 BEF0120 - General Preparation

Blank (BEF0120-BLK1)

Prepared & Analyzed: 06/04/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEF0120-BS1)

Prepared & Analyzed: 06/04/21

Specific Conductance (EC) 0.143 0.0100 mmhos/cm 0.150 95.2 90-110

Duplicate (BEF0120-DUP1)

Source: 2105431-04

Prepared & Analyzed: 06/04/21

Specific Conductance (EC) 0.192 0.0100 mmhos/cm 0.192 0.0520 20

Summit Scientific

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

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 06/18/21 16:24

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 BEF0119 - General Preparation

LCS (BEF0119-BS1)

Prepared & Analyzed: 06/04/21

pH	9.25	pH Units	9.21	100	95-105
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Duplicate (BEF0119-DUP1)

Source: 2105359-09

Prepared & Analyzed: 06/04/21

pH	7.48	pH Units	7.47	0.134	20
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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Anderson 31,32,42-10 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
06/18/21 16:24

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