

TABLE 1
FORMER VON FELDT 13-12 TANK BATTERY
SOIL ANALYTICAL RESULTS SUMMARY TABLE
CONTAMINANTS OF CONCERN

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
SEP01-FL @ 3'	9/2/2021	3 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SEP01-DL @ 3'	9/2/2021	3 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
PWV01-B @ 3'	9/2/2021	3 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
PWV01-N @ 2.5'	9/2/2021	2.5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
AST01 @ 0-6"	9/2/2021	0-6 in. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50

Notes:

1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with groundwater is present.
4. Value calculated by adding TVPH-GRO, TEPH-DRO, and TEPH-ORO concentrations.

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit.

TVPH-GRO = Total volatile petroleum hydrocarbons - gasoline range organics

TEPH-DRO = Total extractable petroleum hydrocarbons - diesel range organics

TEPH-ORO = Total extactable petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

TMB = Trimethylbenzene

ft. = Feet

in. = Inches

bgs = Below ground surface

TABLE 2
FORMER VON FELDT 13-12 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 @ 3'	9/2/2021	3 ft. bgs	8.42	0.252	0.0378	0.0553
PWV01-N @ 2.5'	9/2/2021	2.5 ft. bgs	8.96	0.128	0.0313	0.0752
BKG01 @ 5'	9/2/2021	5 ft. bgs	9.15	0.603	0.121	NA
BKG01 @ 6'	9/2/2021	6 ft. bgs	9.06	0.632	0.104	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.

BOLD = Analytical result is in exceedance of applicable standard, but below background concentration.

NA = Constituent not analyzed

TABLE 3
FORMER VON FELDT 13-12 TANK BATTERY
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'	9/2/2021	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	4 ft. bgs	NA
GW02 @ 4'	9/2/2021	<1.0	<1.0	<1.0	29	<1.0	2.6	2.5	4 ft. bgs	NA
GW03 @ 3'	9/2/2021	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	3 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 VON FELDT 13-12 TANK BATTERY
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾ Latitude / Longitude		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
SEP01-FL @ 3'	9/2/2021	3 ft. bgs	40.49527053	-104.6181943	1	0.1
SEP01-DL @ 3'	9/2/2021	3 ft. bgs	40.49530045	-104.6181689	1	0.6
PWV01-B @ 3'	9/2/2021	3 ft. bgs	40.49513899	-104.618067	1.1	0.0
PWV01-N @ 2.5'	9/2/2021	2.5 ft. bgs	40.49515197	-104.6180629	1.1	0.1
PWV01-W @ 2.5'	9/2/2021	2.5 ft. bgs	40.49514373	-104.6180863	1.1	0.1
PWV01-S @ 2.5'	9/2/2021	2.5 ft. bgs	40.49513168	-104.6180743	1.1	0.0
PWV01-E @ 2.5'	9/2/2021	2.5 ft. bgs	40.49513849	-104.6180542	1.1	0.0
AST01 @ 0-6"	9/2/2021	3 ft. bgs	40.49511414	-104.6181131	1.1	1.6
BKG01	9/2/2021	5-6 ft. bgs	40.49549568	-104.618052	1.1	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

**TANK BATTERY
ATTACHMENT A**

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 10, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

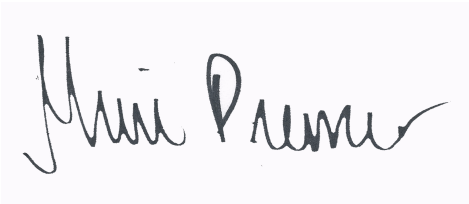
Denver, CO 80203

RE: Von Foldt 13-12 Tank Battery

Work Order #2109037

Enclosed are the results of analyses for samples received by Summit Scientific on 09/02/21 16:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Muri Premer", is displayed on a light purple rectangular background.

Muri Premer For Paul Shrewsbury
President



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

Project: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SEP01-DL@3'	2109037-01	Soil	09/02/21 10:05	09/02/21 16:45
SEP01-FL@3'	2109037-02	Soil	09/02/21 10:08	09/02/21 16:45
PWV01-B@3'	2109037-03	Soil	09/02/21 10:45	09/02/21 16:45
PWV01-N@2.5'	2109037-04	Soil	09/02/21 10:58	09/02/21 16:45
AST01@0-6"	2109037-10	Soil	09/02/21 10:25	09/02/21 16:45

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.

2109037

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310

Page 1 of 2 9-2-21

Client: PDC / Tasman Project Manager: Mark Longhurst
 Address: 6855 W 119th Ave E-Mail: mark.longhurst@PDCI.com
 City/State/Zip: Broomfield/ CO/ 80020
 Phone: 303-487-1228 Project Name: Van Fold 13-12 TB
 Sampler Name: David Vigil 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	GBIENN - 8260B 9/5	TPH - (C6 - C36) 9/5	pH, EC, SAR	Boron - HWS	VOC - 915	PAH - 915	Metals - 915	TruBz (1,2,3,4,5)	
1	SEP01-DL @ 3'	9/2/21	1005	3			X			X				X	X					X	pH, EC, SAR by saturated paste Hold
2	SEP01-FL @ 3'		1008	3			X			X				X	X				X		
3	PWV01-B @ 3'		1045	3			X			X				X	X				X		
4	PWV01-N @ 2.5'		1058	3			X			X				X	X				X		
5	PWV01-E @ 2.5'		1111	3			X			X									X		
6	PWV01-S @ 2.5'		1108	3			X			X									X		
7	PWV01-W @ 2.5'		1104	3			X			X									X		
8	BK601 @ 2.5'		1200	1			X			X									X		
9	BK601 @ 3'		1202	1			X			X									X		
10	BK601 or AST01 @ 0-6"		1025	2									X	X					X		

Relinquished by: David Vigil	Date/Time: 9/2/21 1500	Received by: Tasman's Lock Box	Date/Time: 9/2/21 1645	Turn Around Time (Check) Same Day _____ 72 hours 24 hours _____ Standard <input checked="" type="checkbox"/> 48 hours _____	Notes:
Relinquished by: Tasman's Lock Box	Date/Time:	Received by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: 3.6 Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order

2109037

Client: **PDC/TASMAN**

Client Project ID:

Von Foldt 13-12 TB

Shipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other

Airbill #:

Matrix (check all that apply):

☐ Air

☒ Soil/Solid

☐ Water

☐ Other:

(Describe)

Temp (°C)

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
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⁾ ?	<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 type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
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.

Custodian Printed Name or Initials

Signature of Custodian

Date/Time



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

Project: Von Foldt 13-12 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

SEP01-DL@3'
2109037-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/02/21 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0089	09/03/21	09/03/21	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: **09/02/21 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/02/21 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0090	09/03/21	09/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/02/21 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		89.3 %	30-150		"	"	"	"	

Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

SEP01-FL@3'
2109037-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/02/21 10:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0089	09/03/21	09/03/21	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: **09/02/21 10:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/02/21 10:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0090	09/03/21	09/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/02/21 10:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		86.6 %	30-150		"	"	"	"	

Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

PWV01-B@3'
2109037-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/02/21 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEI0089	09/03/21	09/04/21	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: **09/02/21 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		109 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/02/21 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0090	09/03/21	09/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/02/21 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.0 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

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

Project: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

PWV01-B@3'
2109037-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/02/21 10:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.0553	0.0100	mg/L	1	BEI0141	09/08/21	09/10/21	EPA 6020B	

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

Date Sampled: **09/02/21 10:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	18.5	0.0617	mg/L dry	1	BEI0186	09/09/21	09/09/21	EPA 6020B	
Magnesium	4.62	0.0617	"	"	"	"	"	"	
Sodium	0.702	0.0617	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/02/21 10:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Sodium Adsorption Ratio	0.0378	0.00100	units	1	BEI0210	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/02/21 10:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
% Solids	81.0		%	1	BEI0147	09/08/21	09/08/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/02/21 10:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Specific Conductance (EC)	0.252	0.0100	mmhos/cm	1	BEI0187	09/09/21	09/10/21	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: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

PWV01-B@3'
2109037-03 (Soil)

Summit Scientific

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

Date Sampled: **09/02/21 10:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.42			pH Units	1	BEI0188	09/09/21	09/10/21	EPA 9045D	

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

Project: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

PWV01-N@2.5'
2109037-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/02/21 10:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0089	09/03/21	09/04/21	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: **09/02/21 10:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		107 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/02/21 10:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0090	09/03/21	09/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/02/21 10:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		90.9 %	30-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

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: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

PWV01-N@2.5'
2109037-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/02/21 10:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.0752	0.0100	mg/L	1	BEI0141	09/08/21	09/10/21	EPA 6020B	

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

Date Sampled: **09/02/21 10:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	7.92	0.0532	mg/L dry	1	BEI0186	09/09/21	09/09/21	EPA 6020B	
Magnesium	2.58	0.0532	"	"	"	"	"	"	
Sodium	0.396	0.0532	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/02/21 10:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Sodium Adsorption Ratio	0.0313	0.00100	units	1	BEI0210	09/10/21	09/10/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/02/21 10:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
% Solids	94.0		%	1	BEI0147	09/08/21	09/08/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/02/21 10:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Specific Conductance (EC)	0.128	0.0100	mmhos/cm	1	BEI0187	09/09/21	09/10/21	EPA 120.1	

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

Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

PWV01-N@2.5'
2109037-04 (Soil)

Summit Scientific

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

Date Sampled: **09/02/21 10:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.96		pH Units	1	BEI0188	09/09/21	09/10/21	EPA 9045D	

Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

AST01@0-6"
2109037-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/02/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0089	09/03/21	09/04/21	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: **09/02/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		107 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/02/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0090	09/03/21	09/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/02/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		90.1 %	30-150		"	"	"	"	

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: Von Foldt 13-12 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

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 BEI0089 - EPA 5030 Soil MS

Blank (BEI0089-BLK1)

Prepared & Analyzed: 09/03/21

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0402		"	0.0400		100	23-173			
Surrogate: Toluene-d8	0.0430		"	0.0400		108	20-170			
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	21-167			

LCS (BEI0089-BS1)

Prepared & Analyzed: 09/03/21

Benzene	0.0639	0.0020	mg/kg	0.0750		85.2	70-130			
Toluene	0.0759	0.0050	"	0.0750		101	70-130			
Ethylbenzene	0.0787	0.0050	"	0.0750		105	70-130			
m,p-Xylene	0.156	0.010	"	0.150		104	70-130			
o-Xylene	0.0837	0.0050	"	0.0750		112	70-130			
1,2,4-Trimethylbenzene	0.0854	0.0050	"	0.0750		114	70-130			
1,3,5-Trimethylbenzene	0.0795	0.0050	"	0.0750		106	70-130			
Naphthalene	0.0882	0.0038	"	0.0750		118	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0328		"	0.0400		82.1	23-173			
Surrogate: Toluene-d8	0.0388		"	0.0400		97.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0408		"	0.0400		102	21-167			

Matrix Spike (BEI0089-MS1)

Source: 2109010-01

Prepared & Analyzed: 09/03/21

Benzene	0.0626	0.0020	mg/kg	0.0750	ND	83.5	70-130			
Toluene	0.0784	0.0050	"	0.0750	ND	105	70-130			
Ethylbenzene	0.0793	0.0050	"	0.0750	ND	106	70-130			
m,p-Xylene	0.157	0.010	"	0.150	ND	105	70-130			
o-Xylene	0.0842	0.0050	"	0.0750	ND	112	70-130			
1,2,4-Trimethylbenzene	0.0850	0.0050	"	0.0750	ND	113	70-130			
1,3,5-Trimethylbenzene	0.0796	0.0050	"	0.0750	ND	106	70-130			
Naphthalene	0.0902	0.0038	"	0.0750	ND	120	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0332		"	0.0400		82.9	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.4	21-167			

Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

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 BEI0089 - EPA 5030 Soil MS

Matrix Spike Dup (BEI0089-MSD1)	Source: 2109010-01			Prepared & Analyzed: 09/03/21						
Benzene	0.0587	0.0020	mg/kg	0.0750	ND	78.3	70-130	6.48	30	
Toluene	0.0721	0.0050	"	0.0750	ND	96.1	70-130	8.45	30	
Ethylbenzene	0.0694	0.0050	"	0.0750	ND	92.6	70-130	13.3	30	
m,p-Xylene	0.139	0.010	"	0.150	ND	92.4	70-130	12.4	30	
o-Xylene	0.0740	0.0050	"	0.0750	ND	98.7	70-130	12.9	30	
1,2,4-Trimethylbenzene	0.0759	0.0050	"	0.0750	ND	101	70-130	11.4	30	
1,3,5-Trimethylbenzene	0.0710	0.0050	"	0.0750	ND	94.6	70-130	11.4	30	
Naphthalene	0.0877	0.0038	"	0.0750	ND	117	70-130	2.80	30	
Surrogate: 1,2-Dichloroethane-d4	0.0343		"	0.0400		85.8	23-173			
Surrogate: Toluene-d8	0.0409		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.7	21-167			

Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

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 BEI0090 - EPA 3550A

LCS (BEI0090-BS1)

Prepared & Analyzed: 09/03/21

C10-C28 (DRO)	476	50	mg/kg	500	95.1	70-130
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Matrix Spike (BEI0090-MS1)

Source: 2109010-01

Prepared & Analyzed: 09/03/21

C10-C28 (DRO)	516	50	mg/kg	500	16.3	100	70-130
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Matrix Spike Dup (BEI0090-MSD1)

Source: 2109010-01

Prepared & Analyzed: 09/03/21

C10-C28 (DRO)	513	50	mg/kg	500	16.3	99.4	70-130	0.533	20
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Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

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 BEI0141 - EPA 3050B

Blank (BEI0141-BLK1)

Prepared: 09/08/21 Analyzed: 09/09/21

Boron ND 0.0100 mg/L

LCS (BEI0141-BS1)

Prepared: 09/08/21 Analyzed: 09/09/21

Boron 5.17 0.0100 mg/L 5.00 103 80-120

Duplicate (BEI0141-DUP1)

Source: 2109014-03

Prepared: 09/08/21 Analyzed: 09/09/21

Boron 0.0893 0.0100 mg/L 0.0982 9.42 20

Matrix Spike (BEI0141-MS1)

Source: 2109014-03

Prepared: 09/08/21 Analyzed: 09/09/21

Boron 5.13 0.0100 mg/L 5.00 0.0982 101 75-125

Matrix Spike Dup (BEI0141-MSD1)

Source: 2109014-03

Prepared: 09/08/21 Analyzed: 09/09/21

Boron 5.12 0.0100 mg/L 5.00 0.0982 100 75-125 0.139 25

Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

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 BEI0186 - General Preparation

Blank (BEI0186-BLK1)

Prepared & Analyzed: 09/09/21

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

LCS (BEI0186-BS1)

Prepared & Analyzed: 09/09/21

Calcium	5.31	0.0500	mg/L wet	5.00	106	70-130
Magnesium	5.01	0.0500	"	5.00	100	70-130
Sodium	4.89	0.0500	"	5.00	97.9	70-130

Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

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

Summit Scientific

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

Batch BEI0147 - General Preparation

Duplicate (BEI0147-DUP1)

Source: 2109014-01

Prepared & Analyzed: 09/08/21

% Solids	97.0	%	97.7	0.721	20
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Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

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

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

Batch BEI0187 - General Preparation

Blank (BEI0187-BLK1)

Prepared: 09/09/21 Analyzed: 09/10/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEI0187-BS1)

Prepared: 09/09/21 Analyzed: 09/10/21

Specific Conductance (EC) 0.137 0.0100 mmhos/cm 0.150 91.5 90-110

Duplicate (BEI0187-DUP1)

Source: 2109036-01

Prepared: 09/09/21 Analyzed: 09/10/21

Specific Conductance (EC) 0.742 0.0100 mmhos/cm 0.735 0.947 20

Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

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

Summit Scientific

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

Batch BEI0188 - General Preparation

LCS (BEI0188-BS1)

Prepared: 09/09/21 Analyzed: 09/10/21

pH	9.33	pH Units	9.21	101	95-105
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Duplicate (BEI0188-DUP1)

Source: 2109036-01

Prepared: 09/09/21 Analyzed: 09/10/21

pH	8.55	pH Units	8.75	2.31	20
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Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
09/10/21 12:48

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

September 03, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Von Foldt 13-12 Tank Battery

Work Order #2109030

Enclosed are the results of analyses for samples received by Summit Scientific on 09/02/21 16:44. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Paul Shrewsbury

President



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

Project: Von Foldt 13-12 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/03/21 06:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW01@4'	2109030-01	Water	09/02/21 09:58	09/02/21 16:44
GW02@4'	2109030-02	Water	09/02/21 10:00	09/02/21 16:44
GW03@3'	2109030-03	Water	09/02/21 10:40	09/02/21 16:44

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.

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

Page ~~2~~ of ~~2~~

Project Manager:	Mark Longhurst
E-Mail:	mark.longhurst@PDCFE.com

Project Number:

Sampler Name: David Vigil					Project Number:					Analysis Requested												Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	AsBESTENN - 8260B	TPH - (C6 - C36)	pH, EC, SAR	Boron - HWS	VOC - 915	PAH - 915	Metals - 915	TM03 (1,2,4) (1,3,5)	BTEXN #	pH, EC, SAR by saturated paste	
1	GW 01 @ 4'	9/2/21	0958	3	X				X				X								X	X	
2	GW 02 @ 4'	↓	1000	3	X				X				X								X	X	
3	GW 03 @ 3'	↓	1040	3	X				X				X								X	X	
4																							
5																							
6																							
7																							
8																							
9																							
10																							
Relinquished by: David Vigil		Date/Time: 9/2/21 1500		Received by: Tasman's Lock Box		Date/Time: Will John 9/2/21 1644		Turn Around Time (Check)												Notes:			
								Same Day X 72 hours															
								24 hours Standard															
Relinquished by: Tasman's Lock Box		Date/Time:		Received by:		Date/Time:		48 hours															
								Sample Integrity:															
								Temperature Upon Receipt: 16															
Relinquished by:		Date/Time:		Received by:		Date/Time:		Samples Intact: Yes No															

Sample Receipt Checklist

S2 Work Order 2109020

Client: PDL/TASMAN

Client Project ID: Von Foldt 13-12 TB

Shipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other ☒ Air ☐ Soil/Solid ☐ Water ☐ Other: _____

Airbill #: _____

Matrix (check all that apply):

☐ Air

☒ Soil/Solid

☐ Water

☐ Other: _____

(Describe)

Temp (°C)

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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⁾ ?	<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"/>	Same day
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⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
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.

NG
Custodian Printed Name or Initials

W. G. Gali
Signature of Custodian

9/2/21
Date/Time



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

Project: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/03/21 06:15

GW01@4'
2109030-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/02/21 09:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BEI0069	09/02/21	09/02/21	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: **09/02/21 09:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		87.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.3 %	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: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/03/21 06:15

GW02@4'
2109030-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/02/21 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BEI0069	09/02/21	09/02/21	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	29	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	2.6	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	2.5	1.0	"	"	"	"	"	"	

Date Sampled: **09/02/21 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		84.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.0 %	21-167		"	"	"	"	

Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/03/21 06:15

GW03@3'
2109030-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/02/21 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BEI0069	09/02/21	09/02/21	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: **09/02/21 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		88.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		91.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.1 %	21-167		"	"	"	"	

Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/03/21 06:15

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 BEI0069 - EPA 5030 Water MS

Blank (BEI0069-BLK1)

Prepared: 09/02/21 Analyzed: 09/03/21

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Naphthalene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	11.0		"	13.3		82.3	23-173			
Surrogate: Toluene-d8	12.2		"	13.3		91.7	20-170			
Surrogate: 4-Bromofluorobenzene	11.5		"	13.3		86.4	21-167			

LCS (BEI0069-BS1)

Prepared: 09/02/21 Analyzed: 09/03/21

Benzene	27.1	1.0	ug/l	33.3		81.2	51-132			
Toluene	33.0	1.0	"	33.3		99.1	51-138			
Ethylbenzene	34.3	1.0	"	33.3		103	58-146			
m,p-Xylene	67.1	2.0	"	66.7		101	57-144			
o-Xylene	34.0	1.0	"	33.3		102	53-146			
Naphthalene	30.4	1.0	"	33.3		91.1	70-130			
1,2,4-Trimethylbenzene	28.1	1.0	"	33.3		84.2	70-130			
1,3,5-Trimethylbenzene	34.0	1.0	"	33.3		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	11.3		"	13.3		84.6	23-173			
Surrogate: Toluene-d8	13.3		"	13.3		100	20-170			
Surrogate: 4-Bromofluorobenzene	11.6		"	13.3		87.2	21-167			

Matrix Spike (BEI0069-MS1)

Source: 2109029-03

Prepared: 09/02/21 Analyzed: 09/03/21

Benzene	27.2	1.0	ug/l	33.3	ND	81.5	34-141			
Toluene	31.1	1.0	"	33.3	ND	93.3	27-151			
Ethylbenzene	34.6	1.0	"	33.3	ND	104	29-160			
m,p-Xylene	68.2	2.0	"	66.7	ND	102	20-166			
o-Xylene	34.2	1.0	"	33.3	ND	103	33-159			
Naphthalene	38.9	1.0	"	33.3	ND	117	70-130			
1,2,4-Trimethylbenzene	28.4	1.0	"	33.3	ND	85.4	70-130			
1,3,5-Trimethylbenzene	34.2	1.0	"	33.3	ND	103	70-130			
Surrogate: 1,2-Dichloroethane-d4	12.2		"	13.3		91.4	23-173			
Surrogate: Toluene-d8	12.3		"	13.3		92.2	20-170			
Surrogate: 4-Bromofluorobenzene	11.8		"	13.3		88.1	21-167			

Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/03/21 06:15

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 BEI0069 - EPA 5030 Water MS

Matrix Spike Dup (BEI0069-MSD1)		Source: 2109029-03			Prepared: 09/02/21 Analyzed: 09/03/21					
Benzene	26.8	1.0	ug/l	33.3	ND	80.4	34-141	1.26	30	
Toluene	32.6	1.0	"	33.3	ND	97.7	27-151	4.59	30	
Ethylbenzene	33.2	1.0	"	33.3	ND	99.6	29-160	4.07	30	
m,p-Xylene	66.1	2.0	"	66.7	ND	99.1	20-166	3.11	30	
o-Xylene	33.4	1.0	"	33.3	ND	100	33-159	2.31	30	
Naphthalene	39.2	1.0	"	33.3	ND	118	70-130	0.717	30	
1,2,4-Trimethylbenzene	27.6	1.0	"	33.3	ND	82.8	70-130	3.03	30	
1,3,5-Trimethylbenzene	33.2	1.0	"	33.3	ND	99.5	70-130	3.09	30	
Surrogate: 1,2-Dichloroethane-d4	13.2		"	13.3		98.8	23-173			
Surrogate: Toluene-d8	13.2		"	13.3		99.0	20-170			
Surrogate: 4-Bromofluorobenzene	12.2		"	13.3		91.3	21-167			

Summit Scientific

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

Project: Von Foldt 13-12 Tank Battery

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/03/21 06:15

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference