TABLE 1
FORMER MILLER FEED LOT 1 TANK BATTERY
SOIL ANALYTICAL RESULTS SUMMARY TABLE

Sample ID	Date Sampled	Depth (ft. bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Naphthalene (mg/kg)	TPH [2] (mg/kg)	pH (units)	EC (mmhos/cm)
COGCC Table 910-1 Soil Standard (mg/kg) [1]			**0.17**	**85**	**100**	**175**	**23**	**500**	**6-9**	**<4**
SS01 @ 5'	10/21/2020	5	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50	8.37	1.52

Notes:
1. Standards for soil are taken from 2 CCR 404-1, Table 910-1, effective May 1, 2018.
2. TPH - Total volatile and extractable petroleum hydrocarbons. Value calculated by adding GRO and DRO concentrations.
COGCC = Colorado Oil and Gas Conservation Commission
(<) = Analytical result is less than the indicated laboratory reporting limit.
GRO = Total volatile petroleum hydrocarbons - gasoline range organics
DRO = Total extractable petroleum hydrocarbons - diesel range organics
mg/kg = Milligrams per kilogram
ft. = Feet
bgs = Below ground surface
EC = Electrical conductivity
mmhos/cm = millimhos per centimeter

TABLE 2
FORMER MILLER FEED LOT 1 TANK BATTERY
SAMPLE DETAIL SUMMARY TABLE

Sample ID	Date Sampled	Depth (ft. bgs)	GPS Data [1] Latitude / Longitude		VOC Concentration [2] (ppm)
SS01 @ 5'	10/21/2020	5	40.330557	-104.738267	0.0
SS02 @ 3'	10/21/2020	3	40.330575	-104.738269	0.0
SS03 @ 3'	10/21/2020	3	40.330555	-104.738294	0.1
SS04 @ 3'	10/21/2020	3	40.330539	-104.738269	0.0
SS05 @ 3'	10/21/2020	3	40.330554	-104.738246	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).

ft. = Feet
bgs = Below ground surface
ppm = Parts per million

ATTACHMENT A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 28, 2020

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

RE: Miller Feed Lot 1
Work Order #2010267

Enclosed are the results of analyses for samples received by Summit Scientific on 10/21/20 17:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Paul Shrewsbury
President

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Miller Feed Lot 1 Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 10/28/20 14:06

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@5'	2010267-01	Soil	10/21/20 09:22	10/21/20 17:30

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

2010267

S_2

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

Client:	PDC / Tasman	Project Manager:	Mark Longhurst
Address:	6855 W 119th Ave	E-Mail:	mark.longhurst@PDCE.com
City/State/Zip:	Broomfield/ CO/ 80020		
Phone:	303-487-1228	Project Name:	Miller Feed Lot 1
Sampler Name:	J. McGarver	Project Number:	

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other ___	Water	Soil	Air-Canister #	Other ___	~~8260 BTEX~~	8260B GBTEXN	8015 DRO	pH / EC		HOLD			
1	SS01@5'	10/21/20	0922	1			X			X				X	X	X					
2	SS02@3'	↓	0925	↓			↓			↓								X			
3	SS03@3'		0928															X			
4	SS04@3'		0931															X			
5	SS05@3'	↓	0934	↓			↓			↓								X			
6																					
7																					
8																					
9																					
10																					

Relinquished by:	Date/Time:	Received by:	Date/Time:	**Turn Around Time** (Check)
	10/21/20 1730	~~Tasman's Lock Box~~	10/21/2020 1730	Same Day ___ 72 hours ___
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours ___ Standard X
~~Tasman's Lock Box~~				48 hours ___
Relinquished by:	Date/Time:	Received by:	Date/Time:	**Sample Integrity:**
				Temperature Upon Receipt: 2.9
				Samples Intact: (Yes) No

Notes:

Sample Receipt Checklist

S2 Work Order 2010267

Client: ADC / TASMAN Client Project ID: Miller Feed Lot

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

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

Temp (°C)	2.9

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.	X			
Were all samples received intact (1)?	X			
Was adequate sample volume provided (1)?	X			
If custody seals are present, are they intact (1)?			X	
Are samples with holding times due within 48 hours sample due within 48 hours present?		X		
Is a chain-of-custody (COC) form present and filled out completely (1)?	X			
Does the COC agree with the number and type of sample bottles received (1)?	X			
Do the sample IDs on the bottle labels match the COC (1)?	X			
Is the COC properly relinquished by the client w/ date and time recorded (1)?	X			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**			X	
Are samples preserved that require preservation **(excluding cooling)** (1)? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			X	
If samples are acid preserved for metals, is the pH ≤ 2(1)? Record the pH in Comments.			X	
If dissolved metals are requested, were samples field filtered?			X	
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
[illegible]	[signature]	10/29/2020

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Miller Feed Lot 1 Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 10/28/20 14:06

SS01@5'

2010267-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/20 09:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BDJ0312	10/23/20	10/26/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/21/20 09:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*103 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*21-167*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/20 09:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0311	10/23/20	10/27/20	EPA 8015M	

Date Sampled: **10/21/20 09:22**

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

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/21/20 09:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**8.37**		pH Units	1	BDJ0307	10/23/20	10/23/20	EPA 9045D	

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.

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Miller Feed Lot 1 Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 10/28/20 14:06

SS01@5'

2010267-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Specific Conductance by EPA Method 120.1

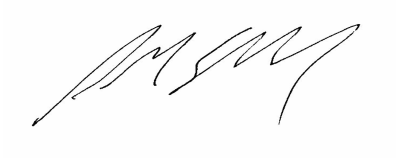
Date Sampled: **10/21/20 09:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**1.52**	0.0100	mmhos/cm	1	BDJ0308	10/23/20	10/23/20	EPA 120.1	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BDJ0312 - EPA 5030 Soil MS										
Blank (BDJ0312-BLK1)				Prepared: 10/23/20 Analyzed: 10/26/20						
Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*0.0359*		"	*0.0400*		*89.8*	*23-173*			
Surrogate: Toluene-d8	*0.0387*		"	*0.0400*		*96.7*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0402*		"	*0.0400*		*100*	*21-167*			
LCS (BDJ0312-BS1)				Prepared: 10/23/20 Analyzed: 10/26/20						
Benzene	0.0944	0.0020	mg/kg	0.100		94.4	70-130			
Toluene	0.0944	0.0050	"	0.100		94.4	70-130			
Ethylbenzene	0.0812	0.0050	"	0.100		81.2	70-130			
m,p-Xylene	0.151	0.010	"	0.200		75.4	70-130			
o-Xylene	0.0790	0.0050	"	0.100		79.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0299*		"	*0.0400*		*74.8*	*23-173*			
Surrogate: Toluene-d8	*0.0390*		"	*0.0400*		*97.5*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0376*		"	*0.0400*		*93.9*	*21-167*			
Matrix Spike (BDJ0312-MS1)	**Source: 2010265-01**			Prepared: 10/23/20 Analyzed: 10/26/20						
Benzene	0.0986	0.0020	mg/kg	0.100	ND	98.6	70-130			
Toluene	0.0982	0.0050	"	0.100	ND	98.2	70-130			
Ethylbenzene	0.0856	0.0050	"	0.100	ND	85.6	70-130			
m,p-Xylene	0.161	0.010	"	0.200	ND	80.4	70-130			
o-Xylene	0.0828	0.0050	"	0.100	ND	82.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0309*		"	*0.0400*		*77.2*	*23-173*			
Surrogate: Toluene-d8	*0.0388*		"	*0.0400*		*97.0*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0379*		"	*0.0400*		*94.7*	*21-167*			



PDC Energy	Project: Miller Feed Lot 1	
1775 Sherman St. STE. 3000	Project Number: [none]	**Reported:**
Denver CO, 80203	Project Manager: Mark Longhurst	10/28/20 14:06

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BDJ0312 - EPA 5030 Soil MS										
Matrix Spike Dup (BDJ0312-MSD1)		**Source: 2010265-01**		Prepared: 10/23/20 Analyzed: 10/26/20						
Benzene	0.0784	0.0020	mg/kg	0.100	ND	78.4	70-130	22.9	30	
Toluene	0.0726	0.0050	"	0.100	ND	72.6	70-130	30.0	30	
Ethylbenzene	0.0899	0.0050	"	0.100	ND	89.9	70-130	4.82	30	
m,p-Xylene	0.168	0.010	"	0.200	ND	83.9	70-130	4.29	30	
o-Xylene	0.0868	0.0050	"	0.100	ND	86.8	70-130	4.74	30	
Surrogate: 1,2-Dichloroethane-d4	*0.0311*		*"*	*0.0400*		*77.8*	*23-173*			
Surrogate: Toluene-d8	*0.0384*		*"*	*0.0400*		*96.1*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*0.0382*		*"*	*0.0400*		*95.6*	*21-167*			

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Miller Feed Lot 1 Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 10/28/20 14:06

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BDJ0311 - EPA 3550A										
Blank (BDJ0311-BLK1)				Prepared: 10/23/20 Analyzed: 10/27/20						
C10-C28 (DRO)	ND	50	mg/kg							
LCS (BDJ0311-BS1)				Prepared: 10/23/20 Analyzed: 10/27/20						
C10-C28 (DRO)	616	50	mg/kg	500		123	70-130			
Matrix Spike (BDJ0311-MS1)	**Source: 2010265-01**			Prepared: 10/23/20 Analyzed: 10/27/20						
C10-C28 (DRO)	630	50	mg/kg	500	34.3	119	70-130			
Matrix Spike Dup (BDJ0311-MSD1)	**Source: 2010265-01**			Prepared: 10/23/20 Analyzed: 10/27/20						
C10-C28 (DRO)	576	50	mg/kg	500	34.3	108	70-130	8.91	20	

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Miller Feed Lot 1 Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 10/28/20 14:06

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BDJ0307 - General Preparation										
LCS (BDJ0307-BS1)				Prepared & Analyzed: 10/23/20						
pH	9.51		pH Units	9.21		103	95-105			
Duplicate (BDJ0307-DUP1)		**Source: 2010267-01**		Prepared & Analyzed: 10/23/20						
pH	8.37		pH Units		8.37			0.00	20	

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Miller Feed Lot 1 Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 10/28/20 14:06

Specific Conductance by EPA Method 120.1 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BDJ0308 - General Preparation										
Blank (BDJ0308-BLK1)				Prepared & Analyzed: 10/23/20						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BDJ0308-BS1)				Prepared & Analyzed: 10/23/20						
Specific Conductance (EC)	0.801	0.0100	mmhos/cm	0.750		107	90-110			
Duplicate (BDJ0308-DUP1)		**Source: 2010267-01**		Prepared & Analyzed: 10/23/20						
Specific Conductance (EC)	1.52	0.0100	mmhos/cm		1.52			0.197	20	

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Miller Feed Lot 1 Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 10/28/20 14:06

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