

**TABLE 1**  
**FORMER SCHWAB 26-6F 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 <sup>(2)</sup> (mg/kg)
<b>COGCC Table 910-1 Soil Standard (mg/kg) <sup>(1)</sup></b>			<b>0.17</b>	<b>85</b>	<b>100</b>	<b>175</b>	<b>23</b>	<b>500</b>
SS03 @ 6'	2/21/2020	6	<b>1.5</b>	2.9	3.4	37	0.61	<b>1,590</b>
S01 @ 8'	2/24/2020	8	0.11	0.22	0.12	14	0.017	40
SS11 @ 6'	2/26/2020	6	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS12 @ 7.5'	2/26/2020	7.5	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS13 @ 8'	2/26/2020	8	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS14 @ 6'	2/26/2020	6	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS15 @ 7.5'	2/26/2020	7.5	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS16 @ 6'	2/27/2020	6	<0.0020	<0.0050	<0.0050	<0.010	<0.010	4.4
SS17 @ 7.5'	2/27/2020	7.5	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS18 @ 6'	2/27/2020	6	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS19 @ 7.5'	2/27/2020	7.5	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS20 @ 8'	2/27/2020	8	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS21 @ 6'	2/27/2020	6	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS22 @ 7.5'	2/27/2020	7.5	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS23 @ 8'	2/27/2020	8	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS24 @ 6'	2/27/2020	6	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS25 @ 7.5'	2/27/2020	7.5	<0.0020	<0.0050	<0.0050	<0.010	<0.010	1.4
SS26 @ 6'	2/27/2020	6	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS27 @ 7.5'	2/27/2020	7.5	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS28 @ 6'	2/27/2020	6	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50
SS29 @ 7.5'	2/27/2020	7.5	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<50

**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 bgs = Feet below ground surface

**BOLD** = Analytical result is in exceedance of COGCC soil standards.

**TABLE 2**  
**FORMER SCHWAB 26-6F TANK BATTERY**  
**SOIL ANALYTICAL RESULTS SUMMARY TABLE**  
**INORGANIC COMPOUNDS**

Sample ID	Date Sampled	Depth (ft bgs)	pH (units)	EC (mmhos/cm)
<b>COGCC Table 910-1 Soil Standard (mg/kg) <sup>(1)</sup></b>			<b>6-9</b>	<b>&lt;4</b>
SS02 @ 3'	2/21/2020	3	7.91	0.220

**Notes:**

1. Standards for soil are taken from 2 CCR 404-1, Table 910-1, effective May 1, 2018.

COGCC = Colorado Oil and Gas Conservation Commission

ft bgs = Feet below ground surface

EC = Electrical conductivity

mmhos/cm = millimhos per centimeter

**TABLE 3**  
**FORMER SCHWAB 26-6F TANK BATTERY**  
**GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**

Sample ID	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth to Water (ft bgs) <sup>(2)</sup>
<b>COGCC Table 910-1 Groundwater Standard (µg/L) <sup>(1)</sup></b>		<b>5</b>	<b>560</b>	<b>700</b>	<b>1,400</b>	
GW01	2/21/2020	<b>35</b>	66	24	390	~ 7
GW02	3/2/2020	<b>120</b>	170	15	430	~ 7

**Notes:**

1. Groundwater standards referenced from 2 CCR 404-1, Table 910-1, effective May 1, 2018.

2. Depth to groundwater measured from ground surface.

COGCC = Colorado Oil and Gas Conservation Commission

µg/L= Micrograms per liter

ft bgs = Feet Below ground surface

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

**BOLD** = Analytical result is in exceedance of COGCC groundwater standards.

## **ATTACHMENT A**

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 04, 2020

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

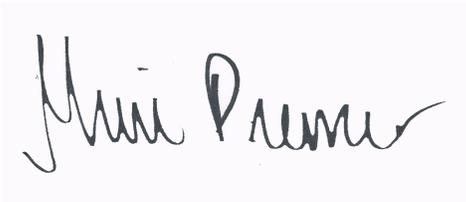
RE: Schwab 26-6F

Work Order #2002208

Enclosed are the results of analyses for samples received by Summit Scientific on 02/21/20 15:00-03/02/20 18:15.

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 initial "M" and a long, sweeping underline.

Muri Premer For Paul Shrewsbury  
President



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

Project: Schwab 26-6F

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
 03/04/20 10:06

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW01	2002208-01	Water	02/21/20 11:42	02/21/20 15:00
SS02@3'	2002208-03	Soil	02/21/20 11:48	02/21/20 15:00
SS03@6'	2002208-04	Soil	02/21/20 11:51	02/21/20 15:00
S01@8'	2002226-01	Soil	02/24/20 13:18	02/24/20 17:26
SS11@6'	2002262-01	Soil	02/26/20 12:15	02/26/20 17:30
SS12@7.5'	2002262-02	Soil	02/26/20 12:20	02/26/20 17:30
SS13@8'	2002262-03	Soil	02/26/20 12:30	02/26/20 17:30
SS14@6'	2002262-04	Soil	02/26/20 13:50	02/26/20 17:30
SS15@7.5'	2002262-05	Soil	02/26/20 13:55	02/26/20 17:30
SS16@6'	2002281-01	Soil	02/27/20 09:40	02/27/20 18:00
SS17@7.5'	2002281-02	Soil	02/27/20 09:45	02/27/20 18:00
SS18@6'	2002281-03	Soil	02/27/20 10:10	02/27/20 18:00
SS19@7.5'	2002281-04	Soil	02/27/20 10:15	02/27/20 18:00
SS20@8'	2002281-05	Soil	02/27/20 10:50	02/27/20 18:00
SS21@6'	2002281-06	Soil	02/27/20 11:45	02/27/20 18:00
SS22@7.5'	2002281-07	Soil	02/27/20 11:50	02/27/20 18:00
SS23@8'	2002281-08	Soil	02/27/20 12:00	02/27/20 18:00
SS24@6'	2002281-09	Soil	02/27/20 12:40	02/27/20 18:00
SS25@7.5'	2002281-10	Soil	02/27/20 12:45	02/27/20 18:00
SS26@6'	2002281-11	Soil	02/27/20 13:15	02/27/20 18:00
SS27@7.5'	2002281-12	Soil	02/27/20 13:20	02/27/20 18:00
SS28@6'	2002281-13	Soil	02/27/20 13:45	02/27/20 18:00
SS29@7.5'	2002281-14	Soil	02/27/20 13:50	02/27/20 18:00
GW02	2003003-01	Water	03/02/20 09:29	03/02/20 18:15

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.*



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

Project: Schwab 26-6F  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

---

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

S<sub>2</sub>

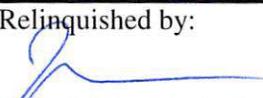
202208

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: Schwab 26-6F  
Sampler Name: Jake McLaren 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	8260 BTEX	8260B GBTEXN	8015 DRO	pH / EC	HOLD		
1	GW01	2/21/20	1142	3	X				X				X						
2	SS01 @ 7'		1145	1			X			X								X	
3	SS02 @ 3'		1148																
4	SS03 @ 6'		1151										X	X					
5	SS04 @ 3'		1154															X	
6	SS05 @ 6'		1157															X	
7	SS06 @ 3'		1200															X	
8	SS07 @ 6'		1203															X	
9	SS08 @ 3'		1206															X	
10	SS09 @ 6'		1209															X	

Relinquished by: 	Date/Time: 2/21/20 2:08	Received by: Tasman's Lock Box	Date/Time: 02-21-2020 14:08	<b>Turn Around Time</b> (Check) Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___ <b>Sample Integrity:</b> Temperature Upon Receipt: 3.3 Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	<b>Notes:</b>
Relinquished by: Tasman's Lock Box	Date/Time: 02-21-2020 17:00	Received by: 	Date/Time: 02-21-2020 17:00		
Relinquished by:	Date/Time:	Received by:	Date/Time:		



# Summit Scientific

S<sub>2</sub>

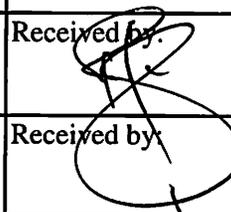
2002262

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: Schwab 26-GF  
 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	8260 BTEX	8260B GBTEXN	8015 DRO		pH / EC
1	SS11 @ 6'	2/26/20	1215	1			X						X	X			
2	SS12 @ 7.5'		1220	1													
3	SS13 @ 8'		1230	1													
4	SS14 @ 6'		1350	1													
5	SS15 @ 7.5'		1355	1													
6																	
7																	
8																	
9																	
10																	

Relinquished by: 	Date/Time: 2/26/20	Received by: Tasman's Lock Box	Date/Time:	Turn Around Time (Check)	Notes:
				Same Day <input checked="" type="checkbox"/> 72 hours <input type="checkbox"/>	
				24 hours <input type="checkbox"/> Standard <input type="checkbox"/>	
Relinquished by: Tasman's Lock Box	Date/Time: 02/26/2020 1730	Received by: 	Date/Time: 02/26/2020 1730	48 hours <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:	
				Temperature Upon Receipt: 43	
				Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

# Summit Scientific

S<sub>2</sub>

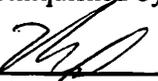
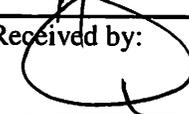
2002281.1

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

Page 1 of 2

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: Schwab 26-6F  
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	8260 BTEX	8260B GBTEXN	8015 DRO	pH / EC	
1	SS 16 @ 6'	2/27/20	940	1			X			X			X	X			
2	SS 17 @ 7.5'		945														
3	SS 18 @ 6'		1010														
4	SS 19 @ 7.5'		1015														
5	SS 20 @ 8'		1050														
6	SS 21 @ 6'		1145														
7	SS 22 @ 7.5'		1150														
8	SS 23 @ 8'		1200														
9	SS 24 @ 6'		1240														
10	SS 25 @ 7.5'		1245														

Relinquished by: 	Date/Time: 2/27/20 1615	Received by: Tasman's Lock Box	Date/Time:	<b>Turn Around Time (Check)</b> Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___ <b>Sample Integrity:</b> Temperature Upon Receipt: 5.9 Samples Intact: <input checked="" type="checkbox"/> Yes No	<b>Notes:</b>
Relinquished by: Tasman's Lock Box	Date/Time: 02/27/2020 1800	Received by: 	Date/Time: 02/27/2020 1800		
Relinquished by:	Date/Time:	Received by: 	Date/Time:		

# Summit Scientific

S<sub>2</sub>

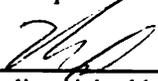
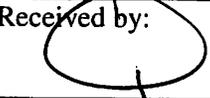
2002281.2

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

Page 2 of 2

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: Schwab 26-6F  
Sampler Name: Max Dahlyden 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	8260 BTEX	8260B GBTEXN	8015 DRO	pH / EC		
1	SS26 @ 6'	2/27/20	1315	1			X			X				X	X			
2	SS27 @ 7.5'		1320	1														
3	SS28 @ 6'		1345	1														
4	SS29 @ 7.5'		1350	1														
5																		
6																		
7																		
8																		
9																		
10																		

Relinquished by: 	Date/Time: 2/27/20 1615	Received by: Tasman's Lock Box	Date/Time:	<b>Turn Around Time (Check)</b> Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___ <b>Sample Integrity:</b> Temperature Upon Receipt: 5.9 Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Notes:
Relinquished by: Tasman's Lock Box	Date/Time: 02/27/2020 1800	Received by: 	Date/Time: 02/27/2020 1800		
Relinquished by:	Date/Time:	Received by: 	Date/Time:		



**Sample Receipt Checklist**

S2 Work Order 2002208

Client: PDC Client Project ID: SCHWAB 26-6F

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

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

Temp (°C)	3.3
-----------	-----

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? 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 <sup>(1)</sup> ?	x			
Was adequate sample volume provided <sup>(1)</sup> ?	x			
If custody seals are present, are they intact <sup>(1)</sup> ?			x	
Are samples with holding times due within 48 hours sample due within 48 hours present?	x			Same Day TAT
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	x			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	x			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	x			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	x			
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>		x		
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	x			HCl
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? Record the pH in Comments.			x	
If dissolved metals are requested, were samples field filtered?			x	
Additional Comments (if any):				

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

MWP  
Custodian Printed Name or Initials

[Signature]  
Signature of Custodian

02-21-2020  
Date/Time

2002226

PDC/TASMAN

Sample Receipt Checklist

82 Work Order: \_\_\_\_\_ Client Project ID: SCHWAB 26-6F

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

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

Temp (°C)	1.6
-----------	-----

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ?				
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 <sup>(1)</sup> ?	X			
Was adequate sample volume provided <sup>(1)</sup> ?	X			
If custody seals are present, are they intact <sup>(1)</sup> ?			X	
Are samples with holding times due within 48 hours sample due within 48 hours present?	X			SAMEDAY FAT
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	X			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	X			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	X			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	X			
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>			X	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?				
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 <sup>(1)</sup> ?			X	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			X	

Additional Comments (if any):  
 \_\_\_\_\_  
 \_\_\_\_\_

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

Mur P.  
 Custodian Printed Name or Initials

[Signature]  
 Signature of Custodian

02-24-2020  
 Date/Time

**Sample Receipt Checklist**

S2 Work Order 2002262

Client: PDC / TASMAN Client Project ID: SCHWAB 26 - 6F

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

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

Temp (°C)	4.3
-----------	-----

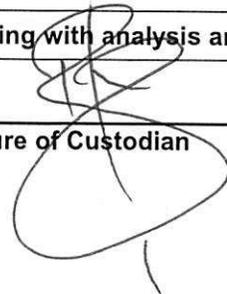
Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? 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"/>	
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact <sup>(1)</sup> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? 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):

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

RZ  
Custodian Printed Name or Initials

  
Signature of Custodian

2/26/20  
Date/Time

### Sample Receipt Checklist

S2 Work Order 2002281

Client: PDC / TASMAN Client Project ID: SCHWAB 26 - 6F

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

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

Temp (°C)	5.9
-----------	-----

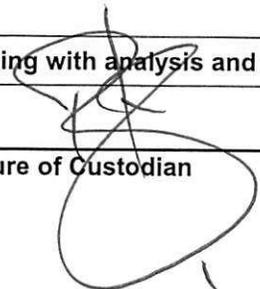
Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? 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"/>	
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact <sup>(1)</sup> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? 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):

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

RZ  
Custodian Printed Name or Initials

  
Signature of Custodian

2/27/20  
Date/Time

**Sample Receipt Checklist**

S2 Work Order 2003003

Client: PDC Client Project ID: SchwAB 26-6F

Shipped Via: H.D. (P.U.) /FedEx/UPS/USPS/Other \_\_\_\_\_ Airbill #: \_\_\_\_\_

Matrix (check all that apply): \_\_\_\_\_ Air \_\_\_\_\_ Soil/Solid X Water \_\_\_\_\_ Other: \_\_\_\_\_  
(Describe)

Temp (°C)	<u>3.4</u>
-----------	------------

Thermometer ID: 61857155-K

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

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

PS  
Custodian Printed Name or Initials

[Signature]  
Signature of Custodian

03/02/2020  
Date/Time 1815



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

Project: Schwab 26-6F

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
 03/04/20 10:06

**GW01**  
**2002208-01 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/21/20 11:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>35</b>	1.0	ug/l	1	2002227	02/21/20	02/22/20	EPA 8260B	
<b>Toluene</b>	<b>66</b>	1.0	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>24</b>	1.0	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>390</b>	2.0	"	"	"	"	"	"	

Date Sampled: **02/21/20 11:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		118 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		113 %	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: Schwab 26-6F

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
 03/04/20 10:06

**SS02@3'**  
**2002208-03 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/21/20 11:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>7.91</b>			pH Units	1	2002225	02/21/20	02/24/20	EPA 9045D	

**Specific Conductance by EPA Method 120.1**

Date Sampled: **02/21/20 11:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Specific Conductance (EC)</b>	<b>0.220</b>	0.0100		mmhos/cm	1	2002226	02/21/20	02/24/20	EPA 120.1	

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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS03@6'**  
**2002208-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/21/20 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	1.5	0.020	mg/kg	10	2002223	02/21/20	02/21/20	EPA 8260B	
Toluene	2.9	0.050	"	"	"	"	"	"	
Ethylbenzene	3.4	0.050	"	"	"	"	"	"	
Xylenes (total)	37	0.10	"	"	"	"	"	"	E
Naphthalene	0.61	0.10	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1400	5.0	"	"	"	"	"	"	E

Date Sampled: **02/21/20 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		148 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		265 %	21-167		"	"	"	"	S-02

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/21/20 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	190	50	mg/kg	1	2002224	02/21/20	02/21/20	EPA 8015M	

Date Sampled: **02/21/20 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		95.8 %	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: Schwab 26-6F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 03/04/20 10:06

**S01@8'**  
**2002226-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/24/20 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.11	0.0020	mg/kg	1	2002248	02/24/20	02/24/20	EPA 8260B	
Toluene	0.22	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.12	0.0050	"	"	"	"	"	"	
Xylenes (total)	14	0.10	"	10	"	"	"	"	
Naphthalene	0.017	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	40	0.50	"	"	"	"	"	"	

Date Sampled: **02/24/20 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		152 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/24/20 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2002247	02/24/20	02/24/20	EPA 8015M	

Date Sampled: **02/24/20 13:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		109 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS11@6'**  
**2002262-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/26/20 12:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2002276	02/26/20	02/26/20	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: **02/26/20 12:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/26/20 12:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2002277	"	02/26/20	EPA 8015M	

Date Sampled: **02/26/20 12:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		113 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS12@7.5'**  
**2002262-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/26/20 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2002276	02/26/20	02/26/20	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: **02/26/20 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/26/20 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2002277	"	02/26/20	EPA 8015M	

Date Sampled: **02/26/20 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		110 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS13@8'**  
**2002262-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/26/20 12:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2002276	02/26/20	02/26/20	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: **02/26/20 12:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/26/20 12:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2002277	"	02/26/20	EPA 8015M	

Date Sampled: **02/26/20 12:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		112 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS14@6'**  
**2002262-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/26/20 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2002276	02/26/20	02/26/20	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: **02/26/20 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/26/20 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2002277	"	02/26/20	EPA 8015M	

Date Sampled: **02/26/20 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		107 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS15@7.5'**  
**2002262-05 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/26/20 13:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2002276	02/26/20	02/26/20	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: **02/26/20 13:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		99.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/26/20 13:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2002277	"	02/26/20	EPA 8015M	

Date Sampled: **02/26/20 13:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		109 %	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: Schwab 26-6F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 03/04/20 10:06

**SS16@6'**  
**2002281-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 09:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/27/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>4.4</b>	<b>0.50</b>	"	"	"	"	"	"	

Date Sampled: **02/27/20 09:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.7 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.1 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		101 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 09:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/27/20	EPA 8015M	

Date Sampled: **02/27/20 09:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: o-Terphenyl</i>		103 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS17@7.5'**  
**2002281-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 09:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/27/20	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: **02/27/20 09:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		96.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.0 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 09:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/27/20	EPA 8015M	

Date Sampled: **02/27/20 09:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		100 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS18@6'**  
**2002281-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 10:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/27/20	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: **02/27/20 10:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		98.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 10:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/27/20	EPA 8015M	

Date Sampled: **02/27/20 10:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		103 %	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: Schwab 26-6F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 03/04/20 10:06

**SS19@7.5'**  
**2002281-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/27/20	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: **02/27/20 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/27/20	EPA 8015M	

Date Sampled: **02/27/20 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		98.2 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS20@8'**  
**2002281-05 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/27/20	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: **02/27/20 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/27/20	EPA 8015M	

Date Sampled: **02/27/20 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.4 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS21@6'**  
**2002281-06 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/28/20	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: **02/27/20 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		94.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/27/20	EPA 8015M	

Date Sampled: **02/27/20 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		87.4 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS22@7.5'**  
**2002281-07 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/28/20	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: **02/27/20 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/27/20	EPA 8015M	

Date Sampled: **02/27/20 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.1 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS23@8'**  
**2002281-08 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 12:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/28/20	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: **02/27/20 12:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		98.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.7 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 12:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/27/20	EPA 8015M	

Date Sampled: **02/27/20 12:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		107 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS24@6'**  
**2002281-09 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 12:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/28/20	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: **02/27/20 12:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		95.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.0 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 12:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/27/20	EPA 8015M	

Date Sampled: **02/27/20 12:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		111 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS25@7.5'**  
**2002281-10 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/27/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>1.4</b>	<b>0.50</b>	"	"	"	"	"	"	

Date Sampled: **02/27/20 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/27/20	EPA 8015M	

Date Sampled: **02/27/20 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		101 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS26@6'**  
**2002281-11 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/27/20	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: **02/27/20 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/28/20	EPA 8015M	

Date Sampled: **02/27/20 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		106 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS27@7.5'**  
**2002281-12 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 13:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/27/20	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: **02/27/20 13:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 13:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/28/20	EPA 8015M	

Date Sampled: **02/27/20 13:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		102 %	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: Schwab 26-6F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 03/04/20 10:06

**SS28@6'**  
**2002281-13 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/27/20	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: **02/27/20 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/28/20	EPA 8015M	

Date Sampled: **02/27/20 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		101 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**SS29@7.5'**  
**2002281-14 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/27/20 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2002300	02/27/20	02/27/20	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: **02/27/20 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/27/20 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2002299	02/27/20	02/28/20	EPA 8015M	

Date Sampled: **02/27/20 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		112 %	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: Schwab 26-6F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 03/04/20 10:06

**GW02**  
**2003003-01 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/02/20 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>120</b>	1.0	ug/l	1	2003024	03/02/20	03/02/20	EPA 8260B	
<b>Toluene</b>	<b>170</b>	1.0	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>15</b>	1.0	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>430</b>	2.0	"	"	"	"	"	"	

Date Sampled: **03/02/20 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

### 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 2002223 - EPA 5030 Soil MS

##### Blank (2002223-BLK1)

Prepared & Analyzed: 02/21/20

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	0.0407		"	0.0400		102	23-173			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0419		"	0.0400		105	21-167			

##### LCS (2002223-BS1)

Prepared & Analyzed: 02/21/20

Benzene	0.0907	0.0020	mg/kg	0.100		90.7	70-130			
Toluene	0.0992	0.0050	"	0.100		99.2	70-130			
Ethylbenzene	0.0961	0.0050	"	0.100		96.1	70-130			
m,p-Xylene	0.228	0.010	"	0.200		114	70-130			
o-Xylene	0.0866	0.0050	"	0.100		86.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0419		"	0.0400		105	23-173			
Surrogate: Toluene-d8	0.0419		"	0.0400		105	20-170			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		100	21-167			

##### Matrix Spike (2002223-MS1)

Source: 2002207-01

Prepared & Analyzed: 02/21/20

Benzene	0.104	0.0020	mg/kg	0.100	0.00591	97.9	70-130			
Toluene	0.112	0.0050	"	0.100	0.00339	108	70-130			
Ethylbenzene	0.0915	0.0050	"	0.100	0.00423	87.3	70-130			
m,p-Xylene	0.220	0.010	"	0.200	0.0176	101	70-130			
o-Xylene	0.0780	0.0050	"	0.100	0.00354	74.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0415		"	0.0400		104	23-173			
Surrogate: Toluene-d8	0.0408		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**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 2002223 - EPA 5030 Soil MS**

**Matrix Spike Dup (2002223-MSD1)**

Source: 2002207-01

Prepared & Analyzed: 02/21/20

Benzene	0.0935	0.0020	mg/kg	0.100	0.00591	87.6	70-130	10.5	30	
Toluene	0.100	0.0050	"	0.100	0.00339	96.6	70-130	10.9	30	
Ethylbenzene	0.108	0.0050	"	0.100	0.00423	103	70-130	16.3	30	
m,p-Xylene	0.221	0.010	"	0.200	0.0176	102	70-130	0.531	30	
o-Xylene	0.0955	0.0050	"	0.100	0.00354	92.0	70-130	20.2	30	
Surrogate: 1,2-Dichloroethane-d4	0.0425		"	0.0400		106	23-173			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.6	21-167			

**Batch 2002227 - EPA 5030 Water MS**

**Blank (2002227-BLK1)**

Prepared: 02/21/20 Analyzed: 02/22/20

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	15.7		"	13.3		118	23-173			
Surrogate: Toluene-d8	13.8		"	13.3		103	20-170			
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3		103	21-167			

**LCS (2002227-BS1)**

Prepared: 02/21/20 Analyzed: 02/22/20

Benzene	33.9	1.0	ug/l	33.3		102	51-132			
Toluene	37.9	1.0	"	33.3		114	51-138			
Ethylbenzene	32.9	1.0	"	33.3		98.7	58-146			
m,p-Xylene	70.6	2.0	"	66.7		106	57-144			
o-Xylene	28.9	1.0	"	33.3		86.8	53-146			
Surrogate: 1,2-Dichloroethane-d4	15.3		"	13.3		115	23-173			
Surrogate: Toluene-d8	14.1		"	13.3		106	20-170			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**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 2002227 - EPA 5030 Water MS**

<b>Matrix Spike (2002227-MS1)</b>	<b>Source: 2002208-01</b>			Prepared: 02/21/20		Analyzed: 02/22/20				
Benzene	63.0	1.0	ug/l	33.3	34.9	84.3	34-141			
Toluene	92.0	1.0	"	33.3	65.8	78.8	27-151			
Ethylbenzene	56.7	1.0	"	33.3	23.7	98.9	29-160			
m,p-Xylene	407	2.0	"	66.7	337	105	20-166			
o-Xylene	87.9	1.0	"	33.3	53.5	103	33-159			
Surrogate: 1,2-Dichloroethane-d4	15.0		"	13.3		112	23-173			
Surrogate: Toluene-d8	13.7		"	13.3		102	20-170			
Surrogate: 4-Bromofluorobenzene	14.6		"	13.3		110	21-167			

<b>Matrix Spike Dup (2002227-MSD1)</b>	<b>Source: 2002208-01</b>			Prepared: 02/21/20		Analyzed: 02/22/20				
Benzene	62.1	1.0	ug/l	33.3	34.9	81.6	34-141	1.47	30	
Toluene	92.6	1.0	"	33.3	65.8	80.3	27-151	0.553	30	
Ethylbenzene	53.1	1.0	"	33.3	23.7	88.1	29-160	6.61	30	
m,p-Xylene	402	2.0	"	66.7	337	98.3	20-166	1.10	30	
o-Xylene	88.7	1.0	"	33.3	53.5	106	33-159	0.929	30	
Surrogate: 1,2-Dichloroethane-d4	15.3		"	13.3		115	23-173			
Surrogate: Toluene-d8	13.3		"	13.3		99.5	20-170			
Surrogate: 4-Bromofluorobenzene	15.0		"	13.3		113	21-167			

**Batch 2002248 - EPA 5030 Soil MS**

<b>Blank (2002248-BLK1)</b>				Prepared: 02/24/20		Analyzed: 02/25/20				
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	0.0390		"	0.0400		97.4	23-173			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.1	21-167			

Summit Scientific

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



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

Project: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**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 2002248 - EPA 5030 Soil MS**

**LCS (2002248-BS1)**

Prepared: 02/24/20 Analyzed: 02/25/20

Benzene	0.0973	0.0020	mg/kg	0.100		97.3	70-130			
Toluene	0.105	0.0050	"	0.100		105	70-130			
Ethylbenzene	0.107	0.0050	"	0.100		107	70-130			
m,p-Xylene	0.191	0.010	"	0.200		95.3	70-130			
o-Xylene	0.101	0.0050	"	0.100		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0392		"	0.0400		98.0	23-173			
Surrogate: Toluene-d8	0.0446		"	0.0400		111	20-170			
Surrogate: 4-Bromofluorobenzene	0.0378		"	0.0400		94.6	21-167			

**Matrix Spike (2002248-MS1)**

Source: 2002224-01

Prepared: 02/24/20 Analyzed: 02/25/20

Benzene	0.105	0.0020	mg/kg	0.100	ND	105	70-130			
Toluene	0.115	0.0050	"	0.100	ND	115	70-130			
Ethylbenzene	0.116	0.0050	"	0.100	ND	116	70-130			
m,p-Xylene	0.209	0.010	"	0.200	ND	105	70-130			
o-Xylene	0.110	0.0050	"	0.100	ND	110	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0425		"	0.0400		106	23-173			
Surrogate: Toluene-d8	0.0430		"	0.0400		107	20-170			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.8	21-167			

**Matrix Spike Dup (2002248-MSD1)**

Source: 2002224-01

Prepared: 02/24/20 Analyzed: 02/25/20

Benzene	0.103	0.0020	mg/kg	0.100	ND	103	70-130	2.54	30	
Toluene	0.111	0.0050	"	0.100	ND	111	70-130	2.87	30	
Ethylbenzene	0.112	0.0050	"	0.100	ND	112	70-130	4.00	30	
m,p-Xylene	0.210	0.010	"	0.200	ND	105	70-130	0.315	30	
o-Xylene	0.106	0.0050	"	0.100	ND	106	70-130	3.58	30	
Surrogate: 1,2-Dichloroethane-d4	0.0427		"	0.0400		107	23-173			
Surrogate: Toluene-d8	0.0426		"	0.0400		106	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.1	21-167			

Summit Scientific

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



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

Project: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**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 2002276 - EPA 5030 Soil MS**

**Blank (2002276-BLK1)**

Prepared: 02/26/20 Analyzed: 02/27/20

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	0.0411		"	0.0400		103	23-173			
Surrogate: Toluene-d8	0.0411		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0399		"	0.0400		99.7	21-167			

**LCS (2002276-BS1)**

Prepared: 02/26/20 Analyzed: 02/27/20

Benzene	0.0988	0.0020	mg/kg	0.100		98.8	70-130			
Toluene	0.108	0.0050	"	0.100		108	70-130			
Ethylbenzene	0.111	0.0050	"	0.100		111	70-130			
m,p-Xylene	0.201	0.010	"	0.200		100	70-130			
o-Xylene	0.104	0.0050	"	0.100		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0364		"	0.0400		90.9	23-173			
Surrogate: Toluene-d8	0.0414		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.0	21-167			

**Matrix Spike (2002276-MS1)**

Source: 2002259-01

Prepared: 02/26/20 Analyzed: 02/27/20

Benzene	0.106	0.0020	mg/kg	0.100	ND	106	70-130			
Toluene	0.111	0.0050	"	0.100	ND	111	70-130			
Ethylbenzene	0.117	0.0050	"	0.100	ND	117	70-130			
m,p-Xylene	0.210	0.010	"	0.200	ND	105	70-130			
o-Xylene	0.110	0.0050	"	0.100	ND	110	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0394		"	0.0400		98.6	23-173			
Surrogate: Toluene-d8	0.0408		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.7	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**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 2002276 - EPA 5030 Soil MS**

**Matrix Spike Dup (2002276-MSD1)**

Source: 2002259-01

Prepared: 02/26/20 Analyzed: 02/27/20

Benzene	0.117	0.0020	mg/kg	0.100	ND	117	70-130	9.65	30	
Toluene	0.117	0.0050	"	0.100	ND	117	70-130	5.81	30	
Ethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130	11.9	30	
m,p-Xylene	0.246	0.010	"	0.200	ND	123	70-130	15.5	30	
o-Xylene	0.128	0.0050	"	0.100	ND	128	70-130	15.0	30	
Surrogate: 1,2-Dichloroethane-d4	0.0433		"	0.0400		108	23-173			
Surrogate: Toluene-d8	0.0388		"	0.0400		97.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0353		"	0.0400		88.4	21-167			

**Batch 2002300 - EPA 5030 Soil MS**

**Blank (2002300-BLK1)**

Prepared: 02/27/20 Analyzed: 02/28/20

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	0.0461		"	0.0400		115	23-173			
Surrogate: Toluene-d8	0.0391		"	0.0400		97.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0400		102	21-167			

**LCS (2002300-BS1)**

Prepared: 02/27/20 Analyzed: 02/28/20

Benzene	0.112	0.0020	mg/kg	0.100		112	70-130			
Toluene	0.119	0.0050	"	0.100		119	70-130			
Ethylbenzene	0.119	0.0050	"	0.100		119	70-130			
m,p-Xylene	0.211	0.010	"	0.200		105	70-130			
o-Xylene	0.111	0.0050	"	0.100		111	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0487		"	0.0400		122	23-173			
Surrogate: Toluene-d8	0.0421		"	0.0400		105	20-170			
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.5	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**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 2002300 - EPA 5030 Soil MS**

<b>Matrix Spike (2002300-MS1)</b>		<b>Source: 2002279-01</b>			Prepared: 02/27/20		Analyzed: 02/28/20	
Benzene	0.0939	0.0020	mg/kg	0.100	ND	93.9	70-130	
Toluene	0.103	0.0050	"	0.100	ND	103	70-130	
Ethylbenzene	0.114	0.0050	"	0.100	ND	114	70-130	
m,p-Xylene	0.234	0.010	"	0.200	ND	117	70-130	
o-Xylene	0.0956	0.0050	"	0.100	ND	95.6	70-130	
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0400		99.6	23-173	
Surrogate: Toluene-d8	0.0419		"	0.0400		105	20-170	
Surrogate: 4-Bromofluorobenzene	0.0374		"	0.0400		93.6	21-167	

<b>Matrix Spike Dup (2002300-MSD1)</b>		<b>Source: 2002279-01</b>			Prepared: 02/27/20		Analyzed: 02/28/20	
Benzene	0.0960	0.0020	mg/kg	0.100	ND	96.0	70-130	2.24 30
Toluene	0.101	0.0050	"	0.100	ND	101	70-130	2.06 30
Ethylbenzene	0.114	0.0050	"	0.100	ND	114	70-130	0.580 30
m,p-Xylene	0.233	0.010	"	0.200	ND	116	70-130	0.553 30
o-Xylene	0.0945	0.0050	"	0.100	ND	94.5	70-130	1.07 30
Surrogate: 1,2-Dichloroethane-d4	0.0402		"	0.0400		100	23-173	
Surrogate: Toluene-d8	0.0379		"	0.0400		94.6	20-170	
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	21-167	

**Batch 2003024 - EPA 5030 Water MS**

<b>Blank (2003024-BLK1)</b>					Prepared & Analyzed: 03/02/20	
Benzene	ND	1.0	ug/l			
Toluene	ND	1.0	"			
Ethylbenzene	ND	1.0	"			
Xylenes (total)	ND	2.0	"			
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.3		105 23-173
Surrogate: Toluene-d8	13.1		"	13.3		98.3 20-170
Surrogate: 4-Bromofluorobenzene	13.7		"	13.3		103 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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**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 2003024 - EPA 5030 Water MS**

**LCS (2003024-BS1)**

Prepared: 03/02/20 Analyzed: 03/03/20

Benzene	33.5	1.0	ug/l	33.3		101	51-132			
Toluene	37.7	1.0	"	33.3		113	51-138			
Ethylbenzene	31.4	1.0	"	33.3		94.3	58-146			
m,p-Xylene	57.3	2.0	"	66.7		86.0	57-144			
o-Xylene	30.1	1.0	"	33.3		90.4	53-146			
Surrogate: 1,2-Dichloroethane-d4	12.7		"	13.3		95.4	23-173			
Surrogate: Toluene-d8	16.7		"	13.3		125	20-170			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	21-167			

**Matrix Spike (2003024-MS1)**

Source: 2003003-01

Prepared: 03/02/20 Analyzed: 03/03/20

Benzene	135	1.0	ug/l	33.3	125	31.0	34-141			QM-07
Toluene	176	1.0	"	33.3	167	28.2	27-151			
Ethylbenzene	49.3	1.0	"	33.3	14.7	104	29-160			
m,p-Xylene	343	2.0	"	66.7	360	NR	20-166			QM-07
o-Xylene	88.4	1.0	"	33.3	66.2	66.9	33-159			
Surrogate: 1,2-Dichloroethane-d4	12.4		"	13.3		92.6	23-173			
Surrogate: Toluene-d8	14.5		"	13.3		109	20-170			
Surrogate: 4-Bromofluorobenzene	14.0		"	13.3		105	21-167			

**Matrix Spike Dup (2003024-MSD1)**

Source: 2003003-01

Prepared: 03/02/20 Analyzed: 03/03/20

Benzene	143	1.0	ug/l	33.3	125	54.3	34-141	5.57	30	
Toluene	183	1.0	"	33.3	167	50.3	27-151	4.09	30	
Ethylbenzene	57.0	1.0	"	33.3	14.7	127	29-160	14.4	30	
m,p-Xylene	381	2.0	"	66.7	360	31.1	20-166	10.3	30	
o-Xylene	99.2	1.0	"	33.3	66.2	99.0	33-159	11.4	30	
Surrogate: 1,2-Dichloroethane-d4	13.5		"	13.3		101	23-173			
Surrogate: Toluene-d8	13.9		"	13.3		104	20-170			
Surrogate: 4-Bromofluorobenzene	13.3		"	13.3		100	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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**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 2002224 - EPA 3550A**

<b>Blank (2002224-BLK1)</b>				Prepared & Analyzed: 02/21/20							
C10-C28 (DRO)	ND	50	mg/kg								
<b>LCS (2002224-BS1)</b>				Prepared & Analyzed: 02/21/20							
C10-C28 (DRO)	460	50	mg/kg	500	92.0	70-130					
<b>Matrix Spike (2002224-MS1)</b>				<b>Source: 2002207-01</b>		Prepared & Analyzed: 02/21/20					
C10-C28 (DRO)	402	50	mg/kg	500	33.3	73.6	70-130				
<b>Matrix Spike Dup (2002224-MSD1)</b>				<b>Source: 2002207-01</b>		Prepared & Analyzed: 02/21/20					
C10-C28 (DRO)	412	50	mg/kg	500	33.3	75.7	70-130	2.50	20		

**Batch 2002247 - EPA 3550A**

<b>Blank (2002247-BLK1)</b>				Prepared & Analyzed: 02/24/20							
C10-C28 (DRO)	ND	50	mg/kg								
<b>LCS (2002247-BS1)</b>				Prepared & Analyzed: 02/24/20							
C10-C28 (DRO)	564	50	mg/kg	500	113	70-130					
<b>Matrix Spike (2002247-MS1)</b>				<b>Source: 2002224-01</b>		Prepared & Analyzed: 02/24/20					
C10-C28 (DRO)	517	50	mg/kg	500	10.7	101	70-130				
<b>Matrix Spike Dup (2002247-MSD1)</b>				<b>Source: 2002224-01</b>		Prepared & Analyzed: 02/24/20					
C10-C28 (DRO)	520	50	mg/kg	500	10.7	102	70-130	0.623	20		

**Batch 2002277 - EPA 3550A**

<b>Blank (2002277-BLK1)</b>				Prepared & Analyzed: 02/26/20							
C10-C28 (DRO)	ND	50	mg/kg								

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: Schwab 26-6F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

**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 2002277 - EPA 3550A**

<b>LCS (2002277-BS1)</b>											
											Prepared & Analyzed: 02/26/20
C10-C28 (DRO)	551	50	mg/kg	500		110	70-130				
<b>Matrix Spike (2002277-MS1)</b>											
											Source: 2002259-01
											Prepared: 02/26/20 Analyzed: 02/27/20
C10-C28 (DRO)	557	50	mg/kg	500	18.1	108	70-130				
<b>Matrix Spike Dup (2002277-MSD1)</b>											
											Source: 2002259-01
											Prepared: 02/26/20 Analyzed: 02/27/20
C10-C28 (DRO)	581	50	mg/kg	500	18.1	113	70-130	4.21	20		

**Batch 2002299 - EPA 3550A**

<b>Blank (2002299-BLK1)</b>											
											Prepared: 02/27/20 Analyzed: 02/28/20
C10-C28 (DRO)	ND	50	mg/kg								
<b>LCS (2002299-BS1)</b>											
											Prepared: 02/27/20 Analyzed: 02/28/20
C10-C28 (DRO)	506	50	mg/kg	501		101	70-130				
<b>Matrix Spike (2002299-MS1)</b>											
											Source: 2002279-01
											Prepared: 02/27/20 Analyzed: 02/28/20
C10-C28 (DRO)	481	50	mg/kg	501	18.8	92.3	70-130				
<b>Matrix Spike Dup (2002299-MSD1)</b>											
											Source: 2002279-01
											Prepared: 02/27/20 Analyzed: 02/28/20
C10-C28 (DRO)	499	50	mg/kg	501	18.8	95.9	70-130	3.65	20		

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: Schwab 26-6F

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
 03/04/20 10:06

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

**Summit Scientific**

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

**Batch 2002225 - General Preparation**

**LCS (2002225-BS1)**

Prepared: 02/21/20 Analyzed: 02/24/20

pH	9.30		pH Units	9.18		101	95-105			
----	------	--	----------	------	--	-----	--------	--	--	--

**Duplicate (2002225-DUP1)**

Source: 2002208-03

Prepared: 02/21/20 Analyzed: 02/24/20

pH	7.79		pH Units	7.91				1.53	20	
----	------	--	----------	------	--	--	--	------	----	--

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: Schwab 26-6F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 03/04/20 10:06

**Specific Conductance by EPA Method 120.1 - Quality Control**  
**Summit Scientific**

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

**Batch 2002226 - General Preparation**

**Blank (2002226-BLK1)**

Prepared: 02/21/20 Analyzed: 02/24/20

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (2002226-BS1)**

Prepared: 02/21/20 Analyzed: 02/24/20

Specific Conductance (EC) 0.741 0.0100 mmhos/cm 0.750 98.8 90-110

**Duplicate (2002226-DUP1)**

**Source: 2002208-03**

Prepared: 02/21/20 Analyzed: 02/24/20

Specific Conductance (EC) 0.238 0.0100 mmhos/cm 0.220 7.89 20

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: Schwab 26-6F

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
03/04/20 10:06

### Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- 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