

## **ATTACHMENT B**

# Borehole Logging Form

BOREHOLE ID: SBO1 SITE NAME: Driller 2, E. Unit 72 Tank Battery CLIENT NAME: PDC ENERGY

Date Completed: 7/19/21 Location: N

Drilling Company: Site Services Surface Completion: N/A DTW: 14' TD: 33

Type of Drill: CME 55 HSA Geologist: M. Dahlgren Project Manager: B. Nelson

Bit Size: 8-1/2 8" Logging Method: Hollow Stem Auger Continuous Split Spoon

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							cleared w/ hydro-vac to 6'
2							lithology not logged
3		N/A	N/A				
4							
5							
6							
7		HSA	80%	200			Tan/Brown s. lty. Snd, well sorted, fine grain, dry, no odor
8							
9							same as above
10			70%	145.3	145.3 <sup>nd</sup>		
11					SBO1@10-11'		Black s. lty. Snd moderately sorted, fine to medium grain, dry, no odor HC odor
12					1045		
13							same as above, no st
14							Gray/Black s. lty. Snd, poorly sorted, fine to coarse grain, no st, strong HC odor
15							same as above, saturated
16			20%	1573			
17					SBO1@16-17'		
18					1050		
19							same as above
20			45%	1110			
21							
22							
23							
24			70%				same as above
25							

# Borehole Logging Form

BOREHOLE ID: SB01 SITE NAME: Dinner CLIENT NAME: PDC ENERGY

Date Completed: 7/11/21 Location: N

Drilling Company: S.H. Services Surface Completion: N/A DTW: 14' TD: 33

Type of Drill: CME SS HSA Geologist: M. DeGlen Project Manager: B. Nelson

Bit Size 8" Logging Method: Continuous Split Spoon

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26 +		HSA	70%	988.8			Gray Tan Silty Clay, low plasticity, He older Saturated
27 +							↓
28 +				24.4	SB01D 27-28' 1100		Tan Silty Sand, Poorly Sorted, fine to coarse grain, Saturated, no older
29 +							Same as above
30 +			60 1/2	2012			↓
31 +							Tan Silty Sand, moderately sorted, fine to medium grain, Saturated, no older
32 +				6.5	SB01D 31-33' 1110		
33 +							
9	X						
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

# Borehole Logging Form

BOREHOLE ID: 5302 SITE NAME: D. mcr 2, E Unit 2 CLIENT NAME: PDC ENERGY  
 Date Completed: 7/17/21 Location: W POC  
 Drilling Company: Foster S. & Services Surface Completion: N/A DTW: 13 TD: 33  
 Type of Drill: CME 55 HSA Geologist: M. Dehlgren Project Manager: B Nelson  
 Bit Size 8" Logging Method: Hollow Stem Auger Continuous Split Spoon

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Cleared via hydro-wc to 6"
2							Lithology not logged
3		N/A	N/A				
4							
5							
6							
7		Split Spoon	40%	3.2			Fine S. lty Sand, moderately sorted, fine to medium grain, dry, no odor
8							
9							Fine S. lty Sand, well sorted, fine grain, dry, no odor
10							
11			40%				Gray S. lty clay, low plasticity, dry, slight odor
12				33.8			Gray S. lty Sand, moderately sorted, fine to medium grain, dry, slight odor
13							Same as above, moist
14							Black S. lty Sand, poorly sorted, fine to coarse grain, saturated, HC odor
15				90.8			
16			20%				
17							
18							
19							Same as above
20							
21			70%	100.6			
22							
23							
24							Same as above
25			80%	95.2			

# Borehole Logging Form

BOREHOLE ID: <u>5802</u>	SITE NAME: <u>Dinner 2, E. un. 7 2</u>	CLIENT NAME: <u>PDC ENERGY</u>
Date Completed: <u>7/19/21</u>	Location: <u>F. Strip out</u>	
Drilling Company: <u>S. to Services</u>	Surface Completion: <u>N/A</u>	DTW: <u>13</u> TD: <u>33</u>
Type of Drill: <u>CMF 55 HSA</u>	Geologist: <u>M. Dyllaga</u>	Project Manager: <u>E. Hamlin B. Nelson</u>
Bit Size <u>8"</u>	Logging Method: <u>Continuous Split Spoon</u>	

Well Const. Material: Diameter: <u>N/A</u>	Screen: <u>N/A</u>	Riser: <u>N/A</u>
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Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26 +		Split	40%	690			Gray Silty Clay low plasticity, saturated Slight odor
27 -		Spoon					
28 -				1203			Tan Silty Sand, Moderately Sorted, fine to medium grain, saturated, no odor
29 +				3.2	5802 028-29 1340		Same as above
30 -			70%				↓
31 -							Tan Silty Clay, medium plasticity DM no odor
32 -				3.3			↓
33 -							↓
9	x						
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

# Borehole Logging Form

BOREHOLE ID: SB03 SITE NAME: Dinner 2, E Unit 2 Turbidity CLIENT NAME: PDC ENERGY  
 Date Completed: 7/19/21 Location: N 2nd Street - out  
 Drilling Company: S. to Services Surface Completion: N/A DTW: 13 TD: 28  
 Type of Drill: CME BS HSA Geologist: M. Dahlgren Project Manager: E. Hamlin B. Nelson  
 Bit Size 8" Logging Method: Continuous Split Screen

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Cleaned to 6" via hydro-vac Lithology not logged
2							
3							
4							
5							
6							
7		Split Screen	40%	0.5			tan Silty Sand, moderately sorted, fine to medium grain, dry, no odor
8							
9							Same as above
10							
11			70%	5.7			Black Silty Sand, well sorted, fine grain, dry slight odor
12							Grey silt, Silty clay, low plasticity dry slight odor
13				11.0			Black Silty Sand, moderately sorted, fine to medium grain, dry, 1H odor
14							Same as above, saturated
15							
16			20%	39.9			
17							
18							
19							Same as above
20							
21			15%	714.2			
22							
23							
24			80%	963.0	SB03023-25 1600		Same as above
25							

# Borehole Logging Form

BOREHOLE ID: <u>S803</u>	SITE NAME: <u>Dimer 2 E Unit 2 Tank Battery</u>	CLIENT NAME: <u>PDC ENERGY</u>
Date Completed: <u>7/19/21</u>	Location: <u>N 2nd Street</u>	
Drilling Company: <u>Site Services</u>	Surface Completion: <u>N/A</u>	DTW: <u>13'</u> TD: <u>28</u>
Type of Drill: <u>CME SS HSA</u>	Geologist: <u>M. Dahlgren</u>	Project Manager: <u>C. Hamlin B. Nelson</u>
Bit Size <u>8"</u>	Logging Method: <u>Continuous Split Spoon</u>	

Well Const. Material: Diameter: <u>N/A</u>	Screen: <u>N/A</u>	Riser: <u>N/A</u>
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Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26.7	X	Spl	98%	909.1			Sample 95 above
27.2		Spoon					Gray Silty Clay, low plasticity, saturated HC odor
28.8							
29.4							Ten Sand observed at bottom of boring, but could not be advanced due to flowing sands.
30.8							
31.8							
32.7							
33.8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

# Borehole Logging Form

BOREHOLE ID: SB04      SITE NAME: Dinner 2, Unit 2 Tax Battery      CLIENT NAME: PDC ENERGY  
 Date Completed: 7/20/21      Location: E step-out 2  
 Drilling Company: Site Services      Surface Completion: N/A      DTW: 13'      TD: 33  
 Type of Drill: CME SS HSA      Geologist: M. Dahlgren      Project Manager: C. Hamlin B. Nelson  
 Bit Size: 8"      Logging Method: Continuous Split Spear

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							CLAY to 6' v.g hydro-Vic
2							1. thology not logged
3		<u>N/A</u>					
4							
5							
6							
7		<u>Split Spear</u>	<u>50%</u>	<u>0.3</u>			Tan s. lty Sand, moderately sorted, fine to medium grain, dry, no odor
8							
9				<u>0.5</u>			Same as above
10			<u>70%</u>				Gray s. lty clay, low plasticity, dry, no odor
11				<u>5.6</u>			Tan sand w/ gray streaks, poorly moderately sorted, fine to medium grain, dry, no odor
12							
13				<u>9.5</u>			Tan-orange s. lty Sand, poorly sorted, fine to coarse grain, no odor
14							Same as above, saturated
15			<u>20%</u>				
16				<u>5.8</u>			
17							
18							
19							Black s. lty Sand, poorly sorted, fine to coarse grain, saturated, HC odor
20							
21			<u>20%</u>	<u>15.4</u>	<u>SB04020-11</u>		
22					<u>1010</u>		
23							
24			<u>40%</u>				Same as above
25				<u>247.7</u>			



# Borehole Logging Form

BOREHOLE ID: SB04 SITE NAME: Dinner 2, Eunt 2 TB CLIENT NAME: PDC ENERGY

Date Completed: 7/20/21 Location: E Step-out 2

Drilling Company: S.H. Services Surface Completion: N/A DTW: 13 TD: 33

Type of Drill: CME 55 HSA Geologist: M. Dahlgren Project Manager: C. Hamlin B. Nelson

Bit Size 8" Logging Method: Continuous Split Spoon

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26.1		SPLIT	40%				Same as above
27.2		Spoon		58.9	SB04027-28'		↓ Tan S. lt. Sand, well sorted, fine grain, Saturated, no odor
28.3					1020		
29.4							
30.5			60%				↓ lt. tan S. lt. Clay, low Plast. C'ty, Saturated, no odor
31.6							
32.7				4.9	SB04031-32'		↓ Tan S. lt. Sand, well sorted, fine grain, Saturated, No odor
33.8					1020		
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

# Borehole Logging Form

BOREHOLE ID: SB05 SITE NAME: Dinner 2, Event 2 TB CLIENT NAME: PDC ENERGY

Date Completed: 7/20/21 Location: S POC

Drilling Company: S.H. Services Surface Completion: N/A DTW: 13' TD: 28

Type of Drill: CME 55 HSA Geologist: M. Dahlgren Project Manager: E. Hamlin B. Nelson

Bit Size 8" Logging Method: Continuous Split Spoon

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Cleared to 6' via hydro-vac
2							Lithology not logged
3							
4							
5							
6							
7		SPLIT Spoon	80%	3.2			Tan Sand, moderately sorted, fine to medium grain, dry, no odor
8							
9							Same as above
10				0.5			
11			70%		SB05 10-11' 1200		Gray silty clay low plasticity, dry, no odor
12				0.4			Tan Sand, poorly sorted, fine to coarse grain, dry, no odor
13							
14							Same as above, Moist
15							Same as above, saturated, no odor
16			20%	1.8			
17					SB05 16-17' 1210		
18							
19							Same as above
20							
21			20%	0.9			
22					SB05 21-23' 1220		
23							
24			80%	1.7			Same as above
25							



## Borehole Logging Form

BOREHOLE ID: SB05 SITE NAME: Dinner 2, E unit 2 TB CLIENT NAME: PDC ENERGY

Date Completed: 7/26/21 Location: S poc

Drilling Company: Site Services Surface Completion: N/A DTW: 13 TD: 28'

Type of Drill: CME SS HSA Geologist: M. Dahlgren Project Manager: C. Hamlin B. Nelson

Bit Size 8" Logging Method: Continuous Split Spoon

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26 +		Split	80%	1.7			Same as above
27 -		Spoon					
28 -					SB05 07-28 1230		
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

# Borehole Logging Form

BOREHOLE ID: <b>5806</b>		SITE NAME: <b>Dinner 2 E unit 2 Tank Butte</b>		CLIENT NAME: <b>PDC ENERGY</b>	
Date Completed: <b>7/20/21</b>		Location: <b>W Step-out 1</b>			
Drilling Company: <b>Site Services</b>		Surface Completion: <b>N/A</b>		DTW: <b>13</b>	TD: <b>33</b>
Type of Drill: <b>CME 55 HSA</b>		Geologist: <b>M. Dahlgren</b>		Project Manager: <b>E. Hamlin B. Nelson</b>	
Bit Size <b>8"</b>		Logging Method: <b>Continuous SPLT Spoon</b>			
Well Const. Material: Diameter: <b>N/A</b>		Screen: <b>N/A</b>		Riser: <b>N/A</b>	

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Cleared via hydro-vac to 6'
2							Lithology not logged
3							
4							
5							
6							
7		SPLT Spoon	40%	1.4			Tan Silty Sand, moderately sorted, fine to medium grain, dry, no color
8							
9							Same as above
10							
11			30%	1.0			
12							
13							
14							Same as above, saturated
15							
16			20%	0.6			
17							
18							
19							Black Silty Sand, Poorly sorted, fine to coarse grain, saturated, H.C. color
20							
21			20%	495			
22							
23							
24			40%	904.2	SB06073-24 1440		Same as above
25							

# Borehole Logging Form

BOREHOLE ID: S306 SITE NAME: Dinner 2 CLIENT NAME: PDC ENERGY

Date Completed: 7/20/21 Location: W step-out

Drilling Company: Site Services Drilling Surface Completion: N/A DTW: 13' TD: 53

Type of Drill: CME 55 HSA Geologist: M. Dahlgren Project Manager: C. Hamlin

Bit Size 8" Logging Method: Continuous split spoon

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26 T		SPLT	40%				↓
27 T		Spoon					Gray silty clay, low plasticity, saturated Slight odor
28 T				29.2	S306 @ 27-28 1450		Tan silty sand, well sorted, fine grain Saturated, no odor
29 T				8.2			Same as above
30 T			80%				↓
31 T							Tan silty clay, low plasticity, saturated no odor
32 T				4.5	S306 @ 31-32 1500		↓
33 T							↓
9	X						
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

# Borehole Logging Form

BOREHOLE ID: <u>SB07</u>		SITE NAME: <u>Dimer 2, Unit 2 Tank B, Hm</u>		CLIENT NAME: <u>PDC ENERGY</u>			
Date Completed: <u>7/21/21</u>		Location: <u>N 1/2 Sec 3</u>					
Drilling Company: <u>S-42 SERVICES</u>		Surface Completion: <u>N/A</u>		DTW: <u>13'</u>		TD: <u>33</u>	
Type of Drill: <u>CME 55 HSA</u>		Geologist: <u>A. Dahlquist</u>		Project Manager: <u>E. Hamlin &amp; Nelson</u>			
Bit Size <u>8"</u>		Logging Method: <u>Continuous Split Spoon</u>					
Well Const. Material: <u>Diameter: N/A</u>		Screen: <u>N/A</u>		Riser: <u>N/A</u>			

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Cleared to 6" v. g. hydro-vac lithology not logged
2							
3							
4							
5							
6							
7		Split Spoon	40%	0.0			lt Tan Silty Sand, moderately sorted, fine to medium grain, dry, no odor
8							
9				0.0			Same as above
10			60%				
11							Gray Silty Clay, low plasticity, no odor, dry
12				0.0			Tan Silty Sand, moderately sorted, fine to medium grain, dry, no odor
13							Tan-gray Silty Sand, poorly sorted, fine to coarse grain, moist, no odor
14							Same as above, Saturated
15			15%	1.2			
16							
17							
18							
19							Same as above, slight odor
20				20.1			
21			20%				Black Silty Sand, poorly sorted, fine to coarse grain, Saturated slight odor
22				399.4			
23							
24			80%				Same as above
25							Gray Silty Clay low plasticity, Saturated, HC odor

# Borehole Logging Form

BOREHOLE ID: SB07 SITE NAME: Dinner 2, E out 2 Tank Bldg CLIENT NAME: PDC ENERGY  
 Date Completed: 7/21/21 Location: N Step out 3  
 Drilling Company: S-10 Services Surface Completion: N/A DTW: 13' TD: 33  
 Type of Drill: CME 55 HSA Geologist: M. Dahlgren Project Manager: G. Hamlin B. Nelson  
 Bit Size 8" Logging Method: Continuous Split Spoon

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26.1					SB07 025-26'		Same as above
27.2		Split	80%	1761	900		
28.8		Spoon		150.0	SB07 027-28'		Tan Silty Sand, Poorly Sorted, fine to coarse grain, Saturated, no odor
29.4			5%		915		Same as above
30.8							Material in Sample barrel fell out during removal and consequently, could not be accurately sampled.
31.8			<del>5%</del>				
32.7				MD	<del>SB07 031-32</del>		
33.8							
9	X						
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

# Borehole Logging Form

BOREHOLE ID: SB08 SITE NAME: Dimer 2, E Unit 2, TMR Bldg CLIENT NAME: PDC ENERGY  
 Date Completed: 7/21/21 Location: E Step out 3  
 Drilling Company: Site Services Surface Completion: N/A DTW: 12' TD: 28'  
 Type of Drill: CME 55 HSA Geologist: M. Dahlgren Project Manager: G. Hamlin B. Nelson  
 Bit Size 3" Logging Method: Continuous Split Spoon

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Cleared to 6' via hydro-vac Lithology not logged
2							
3		N/A	N/A				
4							
5							
6							
7		SPLIT SPOON	80%	1.6			Tan Silty Sand moderately sorted, fine to medium grain, dry, no odor
8							
9							Same as above
10			25%	2.9	SB080 10-11' 1040		Gray Silty clay, low plasticity, dry, no odor
11							
12				11.3			Tan Silty Sand, poorly sorted, fine to coarse grain, no odor, no odor
13							Same as above, saturated
14							Same as above
15			10%	19.9			
16					SB080 16-18' 1050		
17							
18							
19							Same as above
20			60%	10.0			
21					SB08 21-23' 1100		
22							
23							
24			70%	1.0			Same as above
25							



# Borehole Logging Form

BOREHOLE ID: SB08 SITE NAME: Diner 2, Evn 72, Tak Bitter CLIENT NAME: PDC ENERGY

Date Completed: 7/21/21 Location: E Skpout 3

Drilling Company: S. H. Services Surface Completion: N/A DTW: 12' TD: 28'

Type of Drill: CME 55 HSA Geologist: M. Daykin Project Manager: E. Hamlin B. Nelson

Bit Size: 8" Logging Method: Continuous Split Spoon

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26.1				1.0			Tan s. clay, low plasticity, saturated, no odor
27.2			70%				
28.8				1.7	SB08 027-28' 1110		Tan s. clay, moderately sorted, fine to medium grain, clay, no odor
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

# Borehole Logging Form

BOREHOLE ID: **SB09** SITE NAME: **Dinner 2 E Unit 2** CLIENT NAME: **PDC ENERGY**

Date Completed: **9/2/2021** Location:

Drilling Company: **Site Services, Inc** Surface Completion: **NA** DTW: **~10** TD: **33**

Type of Drill: **CME SS Hollow stem** Geologist: **B. Nelson** Project Manager: **B. Nelson**

Bit Size: **2 3/8" 8"** Logging Method: **Continuous Split Spoon**

Well Const. Material: Diameter: **NA** Screen: **NA** Riser: **NA**

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Hydrovac not logged
2							
3							
4							
5							
6							
7			100%	0.0		SP	Med br, sand, well sorted, fine gr
8				0.0		CH	dry, No odor
9							fin, clay, clay, high plastic, moist
10	▽	▽		37.7		SW	fin, sand, med sort, med-fine grain
11			70%		SB09@10-11 1007	SW	moist, No odor
12				59.1			Bl, sand, poorly sorted, lg-fine gr
13							subrounded, H.C. odor
14						SW	Same as above
15				8.9			
16			50%				
17				11.2	SB09@16-17 1014		
18							
19						SC	Gray, clay sand, poorly sorted, lg-fine gr
20				1264			subrounded, H.C. odor
21			75%				
22					SB09@21-23 1026		
23				1752			
24						SW	Gr, sand, fine-lg grain, poorly sorted,
25			30%	667			subrounded, H.C. odor

# Borehole Logging Form

BOREHOLE ID: SB09 SITE NAME: Dinner 2 E Unit 2 CLIENT NAME: PDC ENERGY

Date Completed: 9/2/2021 Location: Dinner 2 E Unit 2

Drilling Company: Site Services, Inc. Surface Completion: NA DTW: -10 TD: 33

Type of Drill: CME 55 HSA Geologist: B. Nelson Project Manager: B. Nelson

Bit Size: 8" Logging Method: Continuous Split Spoon

Well Const. Material: Diameter: NA Screen: NA Riser: NA

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26			↑			CH	Dk br, clay, high plast, subred No odor
27			30% ↓	2011	SB09@27-28 1054	SM	Dk br, silty sand, well sorted subred, No odor
28							↓
29			↑	169		SW	Dk gr, sand, poorly sorted, log - fine gr subred odor
30						CH	Med br, silty clay w/ some gravel high plast, no odor
31			60% ↓	22.5			↓
32				9.4	SB09@32-33 1105	SM	Med br, silty sand, well sorted, fine gr subred, No odor
33							
34	X						
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

# Borehole Logging Form

BOREHOLE ID: **SB10** SITE NAME: **Dinner 2 E Unit 2** CLIENT NAME: **PDC ENERGY**

Date Completed: **9/2/21** Location: **40.308352 -104.747574**

Drilling Company: **Site Services, Inc** Surface Completion: **NA** DTW: **~~1325~~ 1350** STD: **33**

Type of Drill: **CME (55) HSA** Geologist: **Sam Anderson** Project Manager: **B. Nelson**

Bit Size: **8"** Logging Method: **Continuous Split Spoon**

Well Const. Material: Diameter: **NA** Screen: **NA** Riser: **NA**

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1		↑					not logged
2							
3		Hydro Jac					
4		↓					
5							
6						SW	light brown, sand, moderately sorted, fine-medium grain, <del>unsaturated</del> , no odor.
7		HSA	90%	0.5			dry
8							
9				1.0		CH	Tan, sandy clay, high plasticity, fine grain, dry, no HC odor.
10					SB10 @ 10-11		
11		HSA	70%	1.1	1232	SC	light gray, clayey sand, well sorted, fine grain, moist, no odor.
12							
13							
14						SW	black, sand, poorly sorted, <sup>coarse</sup> fine grain, saturated, slight HC odor.
15							
16		HSA	20%	4.4	SB10 @ 16-18		
17					1246		
18							
19						SW	light brown, sand, poorly sorted, <sup>coarse</sup> fine grain, saturated, no odor.
20							
21			30%	1.0	SB10 @ 21-23		
22					1257		
23							
24						SW	same as above, moderately sorted, medium-fine grain.
25							

# Borehole Logging Form

BOREHOLE ID: <b>SB10</b>	SITE NAME: <b>Dinner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>9/2/21</b>	Location: <b>40.308352 -104.747574</b>	
Drilling Company: <b>Site Services, Inc.</b>	Surface Completion: <b>None</b>	DTW: <b>~12</b> TD: <b>33</b>
Type of Drill: <b>CME 55</b>	Geologist: <b>Sam Anderson</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8" (HSA)</b>	Logging Method: <b>Continuous Split Spoon</b>	

Well Const. Material: <b>Diameter: NA</b>	Screen: <b>NA</b>	Riser: <b>NA</b>
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Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26				1.4	SB10 @ 26-28	SW	Same as above
27		HSA	30%		1315	SP	↓ brown, sand, very well sorted, fine grain saturated, no HC odor.
28							↓
29						SP	Same as above, Flowing Sands,
30		HSA	0%				↓
31							↓
32							↓
33							↓ TD=33'
34	x						
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

# Borehole Logging Form

BOREHOLE ID: **SB11** SITE NAME: **Dinner 2 E Unit 2** CLIENT NAME: **PDC ENERGY**

Date Completed: **9/13/21** Location: **40.308352 -104.747574**

Drilling Company: **Site Services, Inc** Surface Completion: **None** DTW: **~100'** TD: **33**

Type of Drill: **CME (55)** Geologist: **Sam Anderson** Project Manager: **B. Nelson**

Bit Size: **8" (HSA)** Logging Method: **Continuous Split Spoon**

Well Const. Material: Diameter: **NA** Screen: **NA** Riser: **NA**

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							
2							
3							
4							
5							
6							
7		HSA	100%	0.4		SP	tan, Sand, well sorted, sm - medium grain, dry, no HC odor.
8							
9							
10				0.5	SB11 @10-11		
11		HSA			910		
12						SM	light gray, Silty Sand, very well sorted, saturated, no HC odor.
13							
14						SP	No recovery, Flowing sands.
15							
16		HSA	0%				
17							
18							
19						SM	Black, Silty Sand, well sorted, fine-sm grain, saturated, HC odor.
20							
21		HSA	10%		SB11 @ 21-23		
22				176.5	926		
23							
24				361.9			
25						SM	Same as above, moderately sorted, strong odor.

# Borehole Logging Form

BOREHOLE ID: **SB11** SITE NAME: **Dinner 2 E Unit 2** CLIENT NAME: **PDC ENERGY**

Date Completed: **9/3/21** Location: **40.308352 -104.747574**

Drilling Company: **Site Services, Inc.** Surface Completion: **None** DTW: **~17** TD: **33**

Type of Drill: **CME 55** Geologist: **Sam Anderson** Project Manager: **B. Nelson**

Bit Size: **8" HSA** Logging Method: **Continuous Split Spoon**

Well Const. Material: **Diameter: NA** Screen: **NA** Riser: **NA**

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26				1793	SB11 @ 26.28	SC	light gray, clayey sand, well sorted, saturated, HC odor.
27		HSA	40%		955		
28							
29						SM	light gray, silty sand, very well sorted, saturated, HC odor
30							
31		HSA	50%				
32				159.8		SM	Same as above, flowing sands.
33							TD = 33'
34	X						
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

# Borehole Logging Form

BOREHOLE ID: **SB12** SITE NAME: **Dinner 2 E Unit 2** CLIENT NAME: **PDC ENERGY**

Date Completed: **9/3/21** Location: **46.308352 -104.147574**

Drilling Company: **Site Services, Inc** Surface Completion: **none** DTW: **~17.5** TD: **37**

Type of Drill: **CME 55** Geologist: **Sam Anderson** Project Manager: **B. Nelson**

Bit Size: **8" HSA** Logging Method: **Continuous Split Spoon**

Well Const. Material: **Diameter: NA** Screen: **NA** Riser: **NA**

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							
2							
3							
4							
5							
6							
7		HSA	100%	2.1		SW	brown, Sand, moderately sorted fm-fine grain, no moisture, no HC odor.
8							
9				1.0		SW	Same as above, moist.
10							
11		HSA	50%	0.8	SB12P10-11 1141		
12						SW	light grey, Sand, moderately sorted, fm-medium grain, saturated, no HC odor.
13							
14							
15							
16		HSA	20%				
17				0.9	SB12P16-18 1147		
18							
19						SP	grey-black, Sand, well sorted, fine-sm grain, saturated, no HC odor.
20							
21		HSA	10%				
22				6.2	SB12P21-23 1154		
23							
24		HSA	50%	1804	SB12P23-25 1211	CL	grey clay, very stiff - low plasticity, saturated, HC odor.
25							



# Borehole Logging Form

BOREHOLE ID: <b>SB12</b>	SITE NAME: <b>Dinner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>9/13/01</b>	Location: <b>40.308352 -104.747574</b>	
Drilling Company: <b>Site Services, Inc.</b>	Surface Completion: <b>None</b>	DTW: <b>~12</b> TD: <b>33</b>
Type of Drill: <b>CME 55</b>	Geologist: <b>Sam Anderson</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8" HSA</b>	Logging Method: <b>Continuous Split Spoon</b>	

Well Const. Material: <b>Diameter: NA</b>	Screen: <b>NA</b>	Riser: <b>NA</b>
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Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							
27		HSA		19.1	SB12@26-28 1212	SC	↓ black, clayey sand, poor sorting, sm-ly grain, gravel, saturated, HC odor.
28							
29							
30							
31		HSA	30%	18.2	SB12@31-33 1239	SW	↓ brown, sand, poor sorting, sm-ly grain, some gravel, saturated, no odor.
32							
33							
34	X						
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

# Borehole Logging Form

BOREHOLE ID: **SB13** SITE NAME: **Dinner 2 E Unit 2** CLIENT NAME: **PDC ENERGY**

Date Completed: **9/7/21** Location: **40.309352 -104.747574**

Drilling Company: **Site Services, Inc** Surface Completion: **none** DTW: **~14** TD: **33**

Type of Drill: **CME 55** Geologist: **Sam Anderson** Project Manager: **B. Nelson**

Bit Size: **8" HSA** Logging Method: **Continuous Split Spoon**

Well Const. Material: **Diameter: NA Screen: NA** Riser: **NA**

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

Hydro  
vac

HSA

HSA

HSA

HSA

HSA

100%

50%

5%

5%

2.1

0.7

0.8

0.5

1.3

SB13@10-11  
950

SB13@16-18  
955

SB13@21-23  
1067

SW

SW

SW

SW

light brown, Sand, moderately sorted, fine-med grain, dry, no odor.

tan, Sand, poor sorting, fine-large grain, moist, no odor.

light tan, Sand, moderately sorted, sm-med, saturated, no HC odor.

black, Sand, moderately sorted, sm-med, saturated, no HC odor.

# Borehole Logging Form

BOREHOLE ID: <b>SB13</b>	SITE NAME: <b>Dinner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>9/7/21</b>	Location: <b>40.308352 -104.747574</b>	
Drilling Company: <b>Site Services, Inc.</b>	Surface Completion: <b>None</b>	DTW: <b>~13</b> TD: <b>33</b>
Type of Drill: <b>CME 55</b>	Geologist: <b>Sam Anderson</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8" HSA</b>	Logging Method: <b>Continuous Split Spoon</b>	

Well Const. Material: <b>Diameter: NA</b>	Screen: <b>NA</b>	Riser: <b>NA</b>
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Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							
27		HSA	20%	449	SB13@26-28 1019	SW	black, sand, poorly sorted, sm-lg grain, saturated, no HC odor.
28							
29							
30							
31			30%	391	SB13@31-33 1079	SW	grey, sand, very poor sorting, fine-lg with gravel, saturated, some HC odor.
32							
33							
34	X						
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

# Borehole Logging Form

BOREHOLE ID: <b>SB14</b>	SITE NAME: <b>Dinner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>9/7/21</b>	Location: <b>40.308352 -104.747574</b>	
Drilling Company: <b>Site Services, Inc</b>	Surface Completion: <b>None</b>	DTW: <b>~12.5</b> TD: <b>33</b>
Type of Drill: <b>CME 55</b>	Geologist: <b>Sam Anderson</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8" HSA</b>	Logging Method: <b>Continuous Split Spoon</b>	

Well Const. Material: <b>Diameter: NA</b>	Screen: <b>NA</b>	Riser: <b>NA</b>
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Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							
2							
3							
4							
5							
6							
7		HSA	100%	1.3		SP	light brown, sand, well sorted, sm-fine grain, dry, no HC odor.
8							
9							
10							
11		HSA	80%	0.6	SB14E10-11 1154	CL	tan, silty clay, fine grain, low plasticity moist, no odor.
12							
13						SP	tan, sand, fine grain, well sorted, saturated no HC odor.
14							
15						SP	Same as above, flowing sands.
16		HSA	81%				
17							
18							
19				1.7		SW	brown, sand, moderately sorted, sm-med grain, saturated, no HC odor.
20							
21		HSA	30%	24.7	SB14E21-23 1207	SC	black-gray, sandy clay, moderately sorted, sm-med grain, saturated, some HC odor.
22							
23							
24							
25							

# Borehole Logging Form

BOREHOLE ID: **SB 14** SITE NAME: **Dinner 2 E Unit 2** CLIENT NAME: **PDC ENERGY**

Date Completed: **9/7/21** Location: **40.308352 -104.747374**

Drilling Company: **Site Services, Inc.** Surface Completion: **none** DTW: **~12** TD: **33**

Type of Drill: **CME 55** Geologist: **Sam Anderson** Project Manager: **B. Nelson**

Bit Size: **8" HSA** Logging Method: **Continuous Split Spoon**

Well Const. Material: **Diameter: NA** Screen: **NA** Riser: **NA**

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							
27		HSA	50%	1401	SB14 @ 26-28 1219	SW	black, sands, moderately sorted, sm-med grain, saturated, no HC odor.
28							
29							
30							
31		HSA	10%	80.3	SB14 @ 31-33 1231		
32							
33							
34	X						
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

# Borehole Logging Form

BOREHOLE ID: **SB15** SITE NAME: **Dinner 2 E Unit 2** CLIENT NAME: **PDC ENERGY**

Date Completed: **9/7/21** Location: **40.308352 -104.747574**

Drilling Company: **Site Services, Inc** Surface Completion: **None** DTW: **~14.5** TD: **33**

Type of Drill: **CME 55** Geologist: **Sam Anderson** Project Manager: **B. Nelson**

Bit Size: **8" HSA** Logging Method: **Continuous Split Spoon**

Well Const. Material: **Diameter: NA** Screen: **NA** Riser: **NA**

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							
2							
3							
4							
5							
6							
7		HSA	100	3.2		SW	light brown, sand, moderately sorted, sm-med grain, dry, no HC odor
8							
9							
10				1.3	SB15 @10-11		
11		HSA	40		1345		
12						SP	tan, sand, very well sorted, fine-sm grain, saturated, NO HC odor.
13							
14						SP	Same as above, flowing sands.
15							
16			5%	0.3	SB15 @16-18		
17					1352		
18							
19						SP	Same as above, NO recovery due to flowing sands.
20							
21			0%				
22							
23				1.5		SW	tan, sand, moderate sorting sm-med grain, saturated, NO odor.
24							
25							

# Borehole Logging Form

BOREHOLE ID: <b>SB15</b>	SITE NAME: <b>Dinner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>9/7/21</b>	Location: <b>40.308 352 -104.747574</b>	
Drilling Company: <b>Site Services, Inc.</b>	Surface Completion: <b>none</b>	DTW: <b>112</b> TD: <b>33</b>
Type of Drill: <b>CME 55</b>	Geologist: <b>Sam Anderson</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8" HSA</b>	Logging Method: <b>Continuous Split Spoon</b>	

Well Const. Material: <b>Diameter: NA</b>	Screen: <b>NA</b>	Riser: <b>NA</b>
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Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							
27		HSA	30%	0.3	SB15 @ 26-28 1402	CL	tan, sandy clay, low plasticity, <sup>sm-fine</sup> grain, saturated, no HC odor.
28							
29				0.1		SM	tan, sand-silt, fine grain, saturated, no HC odor
30							
31		HSA	0%			SP	Flowing Sands, no recovery
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

# Borehole Logging Form

BOREHOLE ID: SB16 SITE NAME: Dinner 2 E Unit 2 CLIENT NAME: PDC ENERGY

Date Completed: 9/8/21 Location: 40.308352 -104.747574

Drilling Company: Site Services, Inc Surface Completion: None DTW: 112 TD: 33

Type of Drill: CME 55 Geologist: Sam Anderson Project Manager: B. Nelson

Bit Size: 8" HSA Logging Method: Continuous Split Spoon

Well Const. Material: Diameter: NA Screen: NA Riser: NA

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1		↑					
2							
3		Hydro Vac					
4		↓					
5							
6							
7		HSA	100%	0.9		SL	Brown, Clayey Sand, well sorted fine-sm grain, dry, no HC odor.
8			↓				
9			↑				
10				0.2	SB16@10-11" 920		
11		HSA	50%				
12			↓			SC	Same as above, Saturated.
13			↑				
14						SW	Tan, Sand, moderate sorting sm-med grain, Saturated, NO HC odor.
15			↓				
16		HSA	40%	0.2	SB16@16-18 929		
17			↓				
18			↑				
19							
20			↓				
21		HSA	10%	0.6	SB16@21-23 935		
22			↓				
23			↑				
24				0.4		CL	Light tan, Clay, moderate plasticity, silty, Saturated, no HC odor.
25							



# Borehole Logging Form

BOREHOLE ID: <b>SB16</b>	SITE NAME: <b>Dinner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>9/8/01</b>	Location: <b>40. 306353 -104.747574</b>	
Drilling Company: <b>Site Services, Inc.</b>	Surface Completion: <b>None</b>	DTW: <b>~12</b> TD: <b>33</b>
Type of Drill: <b>CME 55</b>	Geologist: <b>Sam Anderson</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8" HSA</b>	Logging Method: <b>Continuous Split Spoon</b>	

Well Const. Material: Diameter: NA		Screen: NA		Riser: NA			
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26				0.5	SB16 @ 2628 748		
27		HSA	36%				
28			↓	0.4		SP	↓ brown, sand, very well sorted, fine-sm grain, saturated, no odor.
29			↑				
30			0%				
31		HSA	↓			SP	↓ Flowing Sands
32							
33							
34	X						
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

# Borehole Logging Form

BOREHOLE ID: **SB17** SITE NAME: **Dinner 2 E Unit 2** CLIENT NAME: **PDC ENERGY**

Date Completed: **9/8/21** Location: **40.308352 -104.747574**

Drilling Company: **Site Services, Inc** Surface Completion: **None** DTW: **~10.5** TD: **33**

Type of Drill: **CME 55** Geologist: **Sam Anderson** Project Manager: **B. Nelson**

Bit Size: **8" HSA** Logging Method: **Continuous Split Spoon**

Well Const. Material: **Diameter: NA Screen: NA Riser: NA**

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

Hydro Vac

HSA

HSA

HSA

HSA

100%

20%

0%

30%

0.6

0.4

0.1

0.2

53.6

SB17@10-11  
1138

SB17@21-23  
1158

SP

SW

SP

SP

SW

SW

Tan sand, well sorted, fine-sm grain, dry, no HC odor.

Tan sand, poorly sorted, fine-large grain, saturated, no HC odor.

Tan sand, well sorted, sm-fine grain, saturated, no HC odor.

Flowing sands encountered

Tan-brown sand, very poor sorting sm-lg grain, saturated, no odor.

Same as above, HC odor.

# Borehole Logging Form

BOREHOLE ID: **SB17** SITE NAME: **Dinner 2 E Unit 2** CLIENT NAME: **PDC ENERGY**

Date Completed: **9/8/21** Location: **40.308352 - 104.747574**

Drilling Company: **Site Services, Inc.** Surface Completion: **None** DTW: **~12** TD: **73**

Type of Drill: **CME 55** Geologist: **Sam Anderson** Project Manager: **B. Nelson**

Bit Size: **8" HSA** Logging Method: **Continuous Split Spoon**

Well Const. Material: **Diameter: NA** Screen: **NA** Riser: **NA**

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							
27		HSA	↑ 20% ↓	27.6	SB17@26-28 1214	CL	gray-tan, clay, low plasticity, <del>silty fine</del> sand grains, saturated, HC odor.
28				22.7			
29			↑			SP	tan, sand, well sorted, fine grain, saturated, HC odor.
30							
31			0% ↓			SP	flowing sands encountered
32							
33							
34	X						
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

# Borehole Logging Form

BOREHOLE ID: SB 18

SITE NAME: Dinner 2 E Unit 2

CLIENT NAME: PDC ENERGY

Date Completed: 9/8/21

Location: 40.305352 -104.747574

Drilling Company: Site Services, Inc

Surface Completion: None

DTW: ~12

TD: 33

Type of Drill: CME 55

Geologist: Sam Anderson

Project Manager: B. Nelson

Bit Size: 8" HSA

Logging Method: Continuous Split Spoon

Well Const. Material: Diameter: NA Screen: NA

Riser: NA

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							
2							
3							
4							
5							
6							
7		HSA	100%	0.5		SC	gray-tan, clayey sand, moderately sorted, sm-med grain, moist, no odor.
8							
9							
10				0.4	SB 18 @ 10-11 1314	SW	tan-brown, sand, moderately sorted sm-med. grain, moist, no odor.
11		HSA	90%				
12				0.1			Saturated at 12 ft
13							
14				0.3		SW	tan, sand, poorly sorted, sm-lg grain, saturated, no HC odor.
15							
16		HSA	5%	0.1	SB 18 @ 16-18 1325		
17							
18				0.1		SW	Same as above, gravel, <sup>very</sup> poor sorting.
19							
20							
21		HSA	50%	0.3	SB 18 @ 21 1339		
22							
23				0.1		CL	brown-tan, silty clay, moderate plasticity sm-fine grain, saturated, no HC odor.
24							
25							

∇

## Borehole Logging Form



# Borehole Logging Form

BOREHOLE ID: <b>SB19</b>	SITE NAME: <b>Drill 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>10/4/21</b>	Location: <b>40.309006, -104.747486</b>	
Drilling Company: <b>Siter Services</b>	Surface Completion: <b>N/A</b>	DTW: <b>~13'</b> TD: <b>33'</b>
Type of Drill: <b>CME SS</b>	Geologist: <b>K. Shepherd</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8"</b>	Logging Method: <b>Continuous</b>	
Well Const. Material: <b>Diameter: N/A</b>	Screen: <b>N/A</b>	Riser: <b>N/A</b>

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Hydrovac, not logged
2							
3							
4							
5							
6							
7		HSA	100%	0.3			Brown, sand, fine to medium grain, poorly sorted, moist, no odor
8							
9							
10							
11		HSA	50%	0.1	SB19 @ 10-11' OF30		Gray to tan, clayey sand, fine to medium grain, moist, no odor
12							
13							Tan, sand, fine to coarse grain, well sorted, moist, no odor - saturated @ ~13'
14							
15							
16		HSA	20%				
17				1.2	SB19 @ 16-17' OF40		
18							
19				3.8			
20							
21		HSA	40%				
22				30.5	SB19 @ 21-23' OF50		Black to gray, sandy clay, fine grain sand, low plasticity, hydrocarbon odor, saturated
23							
24							Black to gray, sand, fine to coarse grain, well sorted, hydrocarbon odor, saturated
25		HSA	100%	320			



## Borehole Logging Form

BOREHOLE ID: <u>SBA</u>	SITE NAME: <u>Dimmer 2 E unit 2</u>	CLIENT NAME: <u>PDC ENERGY</u>
Date Completed: <u>10/4/21</u>	Location: <u>40.309006, -104.747486</u>	
Drilling Company: <u>Sik Services, Inc.</u>	Surface Completion: <u>N/A</u>	DTW: <u>13'</u> TD: <u>33'</u>
Type of Drill: <u>CME SS</u>	Geologist: <u>K. Shepherd</u>	Project Manager: <u>B. Nelson</u>
Bit Size: <u>8"</u>	Logging Method: <u>Continuous</u>	
Well Const. Material: Diameter: <u>N/A</u> Screen: <u>N/A</u> Riser: <u>N/A</u>		

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							Same lithology as above ↓
27		HSA	100%	338	SBA 27-28' 1000		
28							
29							Tan, same lithology as above, no odor ↓
30		HSA	20%				
31							
32				58	SBA 32-33' 1015		↓
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



# Borehole Logging Form

BOREHOLE ID: <b>SB20</b>	SITE NAME: <b>Dinner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>10/4/21</b>	Location: <b>40.30899, -104.747251</b>	
Drilling Company: <b>Site Services, Inc.</b>	Surface Completion: <b>N/A</b>	DTW: <b>13'</b> TD: <b>38'</b>
Type of Drill: <b>CME SS</b>	Geologist: <b>K. Shepherd</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8"</b>	Logging Method: <b>Continuous</b>	
Well Const. Material: Diameter: <b>N/A</b> Screen: <b>N/A</b> Riser: <b>N/A</b>		

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Hydrovac, not logged
2							
3							
4							
5							
6							
7		HSA	100%	0.7			Brown, sand, fine to medium grain, poorly sorted, moist, no odor
8							
9				0.9			
10		HSA	60%	1.4	SB20@ 10-11' 1120		Tan to grey, clayey sand, fine to medium grain, moist no odor
11							
12							
13							Tan, sand, fine to coarse grain, well sorted, saturated, no odor
14							
15		HSA	20%				
16				1.7	SB20@ 16-17' 1130		
17							
18							
19				8.0			Black to grey, same lithology as above, saturated, hydrocarbon odor
20		HSA	50%	149	SB20@ 21-23' 1140		
21							
22							
23							
24		HSA	50%	246			
25							





## Borehole Logging Form

BOREHOLE ID: <b>SB20</b>		SITE NAME: <b>Dimmel 2 E Unit 2</b>		CLIENT NAME: <b>PDC ENERGY</b>			
Date Completed: <b>10/4/24</b>		Location: <b>40.30899, -104.747251</b>					
Drilling Company: <b>Site Services, Inc.</b>		Surface Completion: <b>N/A</b>		DTW: <b>13'</b> TD: <b>38'</b>			
Type of Drill: <b>CME SS</b>		Geologist: <b>K. Shepherd</b>		Project Manager: <b>B. Nelson</b>			
Bit Size: <b>8"</b>		Logging Method: <b>Continuous</b>					
Well Const. Material: Diameter: <b>N/A</b> Screen: <b>N/A</b> Riser: <b>N/A</b>							
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							
27		HSA	50%	1099	SB20@ 27-28' 1150		Black to grey, sandy clay, fine grain, trace gravel, mod. plasticity, saturated, hydro- carbon odor
28							↓ No recovery 28'-33'
29							
30							
31		HSA	0%				
32							
33							
34							
35							Tan, sand, fine to coarse grain, well sorted, saturated no odor
36		HSA	20%				↓
37				17.3	SB20@ 36-38' 1250		
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



# Borehole Logging Form

BOREHOLE ID: <b>SB21</b>	SITE NAME: <b>Dimet 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>10/4/21</b>	Location: <b>40.308902, -104.747121</b>	
Drilling Company: <b>Site Services, Inc.</b>	Surface Completion: <b>N/A</b>	DTW: <b>13'</b> TD: <b>38'</b>
Type of Drill: <b>CME SS</b>	Geologist: <b>K. Shepherd</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8"</b>	Logging Method: <b>Continuous</b>	
Well Const. Material: <b>Diameter: N/A</b>	Screen: <b>N/A</b>	Riser: <b>N/A</b>

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Hydrovac, not logged
2							
3							
4							
5							
6							
7		HSA	100%	0.4			Brown, sand, fine to medium grain, poorly sorted, moist, no odor
8							
9				0.2			
10							
11		HSA	50%	0.6	SB21 @ 10-11' 1355		Tan to gray, sandy clay, fine to medium grain sand, moist, no odor
12							
13							
14							Tan, sand, fine to coarse grain, well sorted, saturated, no odor
15							
16		HSA	20%				
17				8.3	SB21 @ 16-17' 1405		
18							
19							
20							
21		HSA	20%				
22				36.7	SB21 @ 21-23' 1415		Gray to black, sandy clay, fine grain sand, mod. plasticity, saturated, hydrocarbon odor
23							
24		HSA	60%	410			Gray, sand, fine to coarse grain, well sorted, saturated, hydrocarbon odor
25							



## Borehole Logging Form

BOREHOLE ID: <u>SB21</u>		SITE NAME: <u>Dinner 2E Unit 2</u>		CLIENT NAME: <u>PDC ENERGY</u>			
Date Completed: <u>10/4/21</u>		Location: <u>40308902, -104.747121</u>					
Drilling Company: <u>Site Services, Inc.</u>		Surface Completion: <u>N/A</u>		DTW: <u>13'</u> TD: <u>38'</u>			
Type of Drill: <u>CME SS</u>		Geologist: <u>K. Shepherd</u>		Project Manager: <u>B. Nelson</u>			
Bit Size: <u>8"</u>		Logging Method: <u>Continuous</u>					
Well Const. Material: <u>Diameter:</u>		Screen:		Riser:			
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							Same lithology as above
27		HSA	60%	891	SB21@ 27-28' 1425		↓ Gray, sandy clay, fine grain, low plasticity, saturated, hydrocarbon, odor
28							— No Recovery 28'-33'
29							
30							
31		HSA	0%				
32							
33							
34							Tan, sand, fine to coarse grain, well sorted, saturated, no odor
35							↓
36		HSA	20%	26.3	SB21@ 36-38' 1450		
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



## Borehole Logging Form

BOREHOLE ID: <b>SB22</b>		SITE NAME: <b>Dimas 2E Unit 2</b>		CLIENT NAME: <b>PDC ENERGY</b>			
Date Completed: <b>10/5/21</b>		Location: <b>40.308749, -104.747125</b>					
Drilling Company: <b>Site Services, Inc.</b>		Surface Completion: <b>N/A</b>		DTW: <b>12'</b>		TD: <b>38'</b>	
Type of Drill: <b>CME SS</b>		Geologist: <b>K. Shepherd</b>		Project Manager: <b>B. Nelson</b>			
Bit Size: <b>8"</b>		Logging Method: <b>Continuous</b>					
Well Const. Material: <b>Diameter: N/A</b>		Screen: <b>N/A</b>		Riser: <b>N/A</b>			
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Hydrovac, not logged
2							
3							
4							
5							
6							
7		HSA	100%	0.0			Tan, sand, fine to medium grain, poorly sorted, moist, no odor
8							
9				0.0			
10							Gray to tan, clayey sand, fine to medium grain, moist, no odor
11		HSA	60%	0.1	SB22@ 10-11' 0910		
12							
13							Tan, sand, fine to coarse grain, well saturated, sorted, saturated, no odor
14							= No Recovery from 13'-18'
15							
16		HSA	0%				
17							
18							
19							Black to gray, sand, fine to coarse grain, well sorted, saturated, hydrocarbon odor
20				788			
21		HSA	100%				
22				883	SB22@ 21-23' 0935		
23							
24							
25		HSA	50%	1249	SB22@ 24-25' 0940		Gray, sandy clay, fine grain sand, mod. plasticity, saturated, hydrocarbon



## Borehole Logging Form

BOREHOLE ID: <b>SB22</b>	SITE NAME: <b>Dinner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>10/5/21</b>	Location: <b>40.308749, -104.747125</b>	
Drilling Company: <b>Sik Services, Inc</b>	Surface Completion: <b>N/A</b>	DTW: <b>12'</b> TD: <b>38'</b>
Type of Drill: <b>CME SS</b>	Geologist: <b>K. Shepherd</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8"</b>	Logging Method: <b>Continuous</b>	
Well Const. Material: Diameter: <b>N/A</b> Screen: <b>N/A</b> Riser: <b>N/A</b>		

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							odor
27		HSA	30%	546	SB22@ 27-28' 0945		↓
28							No Recovery from 28'-33'
29							↓
30		HSA	0%				
31							
32							
33							↓
34							Tan, sand, fine to coarse grain, well sorted, saturated, no odor
35							↓
36		HSA	15%	20.6	SB22@ 37-38' 1005		
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



# Borehole Logging Form

BOREHOLE ID: <b>SB23</b>	SITE NAME: <b>Dinner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>10/5/21</b>	Location: <b>40.308571, -104.747153</b>	
Drilling Company: <b>Site Services, Inc</b>	Surface Completion: <b>N/A</b>	DTW: <b>12'</b> TD: <b>33'</b>
Type of Drill: <b>CME SS</b>	Geologist: <b>K. Shepherd</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8"</b>	Logging Method: <b>Continuous</b>	
Well Const. Material: Diameter: <b>N/A</b>	Screen: <b>N/A</b>	Riser: <b>N/A</b>

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Hydrovac, not logged
2							
3							
4							
5							
6							
7		HSA	100%	0.4			Brown, sand, fine to medium grain, poorly sorted, moist, no odor
8							
9							
10		HSA	40%	1.1			
11					SB23@ 10-11'		Tan to gray, clayey sand, fine to medium grain, moist, Iron oxide staining, no odor
12				0.5	1120		
13							Tan, sand, fine to coarse grain, well sorted, saturated, no odor
14							
15							
16		HSA	10%				
17				1.0	SB23@ 16-17'		
18					1130		
19							Black to gray, same lithology as above, hydrocarbon odor,
20				714			
21		HSA	60%				
22				789	SB23@ 21-23'		
23					1140		
24							
25		HSA	80%	333			





## Borehole Logging Form

BOREHOLE ID: <b>SB23</b>	SITE NAME: <b>Dinner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>10/5/21</b>	Location: <b>40.308571, -104.747153</b>	
Drilling Company: <b>Site Services, Inc.</b>	Surface Completion: <b>DTW: 12' TD: 33'</b>	
Type of Drill: <b>CME SS</b>	Geologist: <b>K. Shepherd</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8"</b>	Logging Method: <b>Continuous</b>	
Well Const. Material: <b>Diameter: N/A</b>	Screen: <b>N/A</b>	Riser: <b>N/A</b>

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							Same lithology as above
27		HSA	80%	787	SB23@ 27-28' 11SD		↓ Gray to black, sandy clay, fine grain sand, med. plasticity, saturated, hydrocarbon odor
28							↓
29				75.4			↓
30							Gray to black, sand, fine to medium grain, poorly sorted, saturated, hydrocarbon odor
31		HSA	50%				↓
32				7.2	SB23@ 32-33' 12DS		↓
33							Tan, sand, fine grain, poorly sorted, saturated, no odor
34							↓
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



# Borehole Logging Form

BOREHOLE ID: SB24 SITE NAME: Dinner 2E Unit 2 CLIENT NAME: PDC ENERGY

Date Completed: 10/5/21 Location: 40.308509, -104.748065

Drilling Company: Site Services, Inc Surface Completion: N/A DTW: ~11.5' TD: 33'

Type of Drill: CME SS Geologist: K. Shepherd Project Manager: B. Nelson

Bit Size: 8" Logging Method: Continuous

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Hydrovac, not logged
2							
3							
4							
5							
6							
7		HSA	100%	1.2			Brown, sand, fine to medium grain, poorly sorted, moist, no odor
8							
9				0.3			
10		HSA	50%		SB24@ 10-11' 1315		
11							↓
12				1.1			—saturated at ~11.5'
13							↓
14				0.2			Tan, sandy clay, fine grain sand, low plasticity, saturated, no odor
15							↓
16		HSA	30%		SB24@ 16-17' 1325		Tan, sand, fine to medium grain, poorly sorted, saturated, no odor
17				0.3			↓
18							Tan, sand, fine to coarse grain, well sorted, saturated, no odor
19				0.4			
20							
21		HSA	60%		SB24@ 21-23' 1410		
22				1.2			
23							
24		HSA	60%	0.3			
25							↓





## Borehole Logging Form

BOREHOLE ID: <u>SB24</u>	SITE NAME: <u>Dinar 2 E Unit 2</u>	CLIENT NAME: <u>PDC ENERGY</u>
Date Completed: <u>10/5/21</u>	Location: <u>40.308569, -104.748065</u>	
Drilling Company: <u>Stk Services, Inc.</u>	Surface Completion: <u>N/A</u>	DTW: <u>~11.5'</u> TD: <u>33'</u>
Type of Drill: <u>CME SS</u>	Geologist: <u>K. Shepherd</u>	Project Manager: <u>B. Nelson</u>
Bit Size: <u>8"</u>	Logging Method: <u>Continuous</u>	
Well Const. Material: Diameter: <u>N/A</u> Screen: <u>N/A</u> Riser: <u>N/A</u>		

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							Same lithology as above ↓
27		HSA	60%	0.9	SB24@ 27-28' 1510		
28							
29							
30							
31		HSA	20%				
32				0.4	SB24@ 32-33' 1520		
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



## Borehole Logging Form

BOREHOLE ID: <b>SB25</b>	SITE NAME: <b>Dimel 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>10/6/21</b>	Location: <b>40.308383, -104.748069</b>	
Drilling Company: <b>Site Services, Inc.</b>	Surface Completion: <b>N/A</b>	DTW: <b>~12'</b> TD: <b>33'</b>
Type of Drill: <b>CME SS</b>	Geologist: <b>K. Shepherd</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8"</b>	Logging Method: <b>Continuous</b>	
Well Const. Material: Diameter: <b>N/A</b> Screen: <b>N/A</b> Riser: <b>N/A</b>		

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Hydrocar. not logged
2							
3							
4							
5							
6							
7		HSA	100%	0.1			Tan, sand, fine to medium grain, poorly sorted, moist, no odor
8							
9							
10							
11		HSA	10%	0.0	SB250 10-11' 0910		
12							
13							- Saturated at ~12'
14							
15							
16		HSA	20%	0.0	SB250 16-17' 0925		
17							
18							
19							
20							
21		HSA	20%				
22				0.0	SB250 21-23' 0940		
23							
24		HSA	20%				
25							



## Borehole Logging Form

BOREHOLE ID: <b>SB25</b>		SITE NAME: <b>Dinner 2 E Unit 2</b>		CLIENT NAME: <b>PDC ENERGY</b>			
Date Completed: <b>10/6/21</b>		Location: <b>40.308383, -104.748069</b>					
Drilling Company: <b>Sik Services, Inc.</b>		Surface Completion: <b>N/A</b>		DTW: <b>~12'</b>		TD: <b>33'</b>	
Type of Drill: <b>CME SS</b>		Geologist: <b>K. Shepherd</b>		Project Manager: <b>B. Nelson</b>			
Bit Size: <b>8"</b>		Logging Method: <b>Continuous</b>					
Well Const. Material: <b>Diameter: N/A</b>		Screen: <b>N/A</b>		Riser: <b>N/A</b>			
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							Same lithology as above
27		HSA	20%	0.3	SB25@ 21-28' 0950		Tan, sandy clay, fine grain sand low plasticity, saturated, no odor
28							
29				0.0			
30							
31		HSA	50%				
32				0.0	SB25@ 32-33' 1000		
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



# Borehole Logging Form

BOREHOLE ID: <b>SB2L</b>	SITE NAME: <b>Dinner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>10/6/21</b>	Location: <b>40.30913047, -104.7474887</b>	
Drilling Company: <b>Site Services, Inc.</b>	Surface Completion: <b>N/A</b>	DTW: <b>~13'</b> TD: <b>33'</b>
Type of Drill: <b>CME SS</b>	Geologist: <b>K. Shepherd</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8"</b>	Logging Method: <b>Continuous</b>	
Well Const. Material: Diameter: <b>N/A</b> Screen: <b>N/A</b>		Riser: <b>N/A</b>

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Hydrovac, not logged
2							
3							
4							
5							
6							↓
7		HSA	100%	0.0			Brown sand, fine to medium grain, poorly sorted, moist, no odor
8							↓
9				0.0			↓
10		HSA	60%		SB26@ 10-11'		Tan to gray, sandy clay, fine grain sand, low plasticity, moist, no odor
11				0.0	1105		↓
12							↓
13	✓						Tan, sand, fine to medium grain, poorly sorted, saturated, no odor
14							↓
15							↓
16		HSA	10%		SB26@ 16-17'		
17				0.0	1110		↓
18							↓
19				3.1			↓
20							Gray, same lithology as above, hydrocarbon odor
21		HSA	60%				↓
22				7.9	SB26@ 21-23'		Gray, sandy clay, fine grain sand low plasticity, saturated, no odor
23					1120		↓
24							↓
25		HSA	60%	503			Gray, sand, fine to coarse grain, well sorted, saturated, hydrocarbon odor



## Borehole Logging Form

BOREHOLE ID: <b>SB26</b>		SITE NAME: <b>Dimes 2 E Unit 2</b>		CLIENT NAME: <b>PDC ENERGY</b>			
Date Completed: <b>10/6/21</b>		Location: <b>40.30913047, -104.7474887</b>					
Drilling Company: <b>Site Services, Inc.</b>		Surface Completion:		DTW: <b>13'</b>		TD: <b>33'</b>	
Type of Drill: <b>CMESS</b>		Geologist: <b>K. Shepherd</b>		Project Manager: <b>B. Nelson</b>			
Bit Size: <b>8"</b>		Logging Method: <b>Continuous</b>					
Well Const. Material: Diameter: <b>N/A</b>		Screen: <b>N/A</b>		Riser: <b>N/A</b>			
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26		HSA	60%	1303	SB26@ 27-28' 1130		Same lithology as above ↓
27							
28						Gray to tan, sand, fine to coarse grain, well sorted, saturated, no odor ↓	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



## Borehole Logging Form

BOREHOLE ID: <b>SB27</b>		SITE NAME: <b>Dinner 2 E Unit 2</b>		CLIENT NAME: <b>PDC ENERGY</b>			
Date Completed: <b>10/6/21</b>		Location: <b>40.309093, -104.7471257</b>					
Drilling Company: <b>Site Services, Inc.</b>		Surface Completion: <b>N/A</b>		DTW: <b>12'</b>		TD: <b>33'</b>	
Type of Drill: <b>CME SS</b>		Geologist: <b>K. Shepherd</b>		Project Manager: <b>B. Nelson</b>			
Bit Size: <b>8"</b>		Logging Method: <b>Continuous</b>					
Well Const. Material: <b>Diameter: N/A</b>		Screen: <b>N/A</b>		Riser: <b>N/A</b>			

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Hydrovac, not logged
2							
3							
4							
5							
6							↓
7		HSA	100%	0.4			Brown, sand, fine to medium grain, poorly sorted, moist, no odor
8							
9				0.8			
10							
11		HSA	40%				
12				0.3	SB27@ 16-17' 12SD		↓
13							Tan, sand, fine to coarse grain, well sorted, saturated, no odor
14							
15		HSA	10%				
16							
17				1.0	SB27@ 16-17' 13SD		
18							
19				5.8			↓
20							Gray to black, same lithology as above, hydrocarbon odor
21		HSA	30%				↓
22				15.1	SB27@ 21-23' 13SD		↓
23							Gray, silty clay, low plasticity, <del>not</del> saturated, hydrocarbon odor
24							↓
25		HSA	50%	5.6			Gray, sand, fine to coarse grain, well sorted, saturated, no odor



## Borehole Logging Form

BOREHOLE ID: <b>SB27</b>	SITE NAME: <b>Dinner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>10/6/21</b>	Location: <b>40.309093, -104.7471257</b>	
Drilling Company: <b>Site Services, Inc.</b>	Surface Completion: <b>N/A</b>	DTW: <b>12'</b> TD: <b>33'</b>
Type of Drill: <b>CME SS</b>	Geologist: <b>K. Shepherd</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8"</b>	Logging Method:	
Well Const. Material: Diameter: <b>N/A</b> Screen: <b>N/A</b> Riser: <b>N/A</b>		

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							Same lithology as above
27		HSA	50%	4.4	SB27@ 27-28' 1320		↓ Gray to tan, sandy clay, fine grain sand, low plasticity, saturated, no odor
28							
29				1.1			↓
30		HSA	40%				Tan, sand, fine to coarse grain, well sorted, saturated, no odor
31							↓
32				1.2	SB27@ 32-33' 1335		
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



## Borehole Logging Form

BOREHOLE ID: <b>SB28</b>		SITE NAME: <b>Dinner 2 E unit 2</b>		CLIENT NAME: <b>PDC ENERGY</b>			
Date Completed: <b>10/7/21</b>		Location: <b>40.3089775, -104.746923</b>					
Drilling Company: <b>Site Services, Inc.</b>		Surface Completion: <b>N/A</b>		DTW: <b>~12'</b> TD: <b>33'</b>			
Type of Drill: <b>CMESS</b>		Geologist: <b>K. Shepherd</b>		Project Manager: <b>B. Nelson</b>			
Bit Size: <b>8"</b>		Logging Method: <b>Continuous</b>					
Well Const. Material: <b>Diameter: N/A</b>		Screen: <b>N/A</b>		Riser: <b>N/A</b>			
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Hydraulic, not logged
2							
3							
4							
5							
6							
7		HSA	100%	0.1			Brown, Sand, fine to med. grain, poorly sorted, no odor, moist
8							
9				0.0			
10							
11		HSA	50%	0.1	SB28@ 10-11' 0910		
12							
13							Saturated @ 12'
14							
15							Tan, Sand, fine to coarse grain, well sorted, no odor, saturated
16		HSA	20%				
17				0.0	SB28@ 16-17' 0920		
18							
19				54.8			Black to gray, same lithology as above, hydrocarbon odor, saturated
20							
21		HSA	25%				
22				330	SB28@ 21-23' 0930		
23							
24							
25		HSA	50	445			





## Borehole Logging Form

BOREHOLE ID: <b>SB28</b>	SITE NAME: <b>Diner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>10/7/21</b>	Location: <b>40.20897175, -104.7469923</b>	
Drilling Company: <b>Site Services, Inc.</b>	Surface Completion: <b>N/A</b>	DTW: <b>~12'</b> TD: <b>33'</b>
Type of Drill: <b>CME SS</b>	Geologist: <b>K. Shepherd</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8"</b>	Logging Method: <b>Continuous</b>	
Well Const. Material: <b>Diameter: N/A</b>	Screen: <b>N/A</b>	Riser: <b>N/A</b>

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							Same as above
27		HSA	50%	951	SB28@ 27-28' 0940		Gray to tan, sandy clay, fine grain sand, low plasticity, hydrocarbon odor, saturated
28							
29							
30							
31		HSA	20%				Brown to tan, sand, fine to coarse grain, well sorted, no odor, saturated
32				35.4	SB28@ 32-33' 1045		
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



# Borehole Logging Form

BOREHOLE ID: <b>SB29</b>	SITE NAME:	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>10/7/21</b>	Location: <b>40.3088012, -104.7469661</b>	
Drilling Company: <b>Sik Services, Inc</b>	Surface Completion: <b>N/A</b>	DTW: <b>~12'</b> TD:
Type of Drill: <b>CME SS</b>	Geologist: <b>K. Shepherd</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8"</b>	Logging Method: <b>Continuous</b>	
Well Const. Material: Diameter: <b>N/A</b> Screen: <b>N/A</b> Riser: <b>N/A</b>		

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1							Hydrocarbon, not logged
2							
3							
4							
5							
6							
7		HSA	100%	1.4			Brown, sand, fine to medium grain, poorly sorted, no odor, moist
8							
9				1.2			
10							
11		HSA	SD%	0.1	SB29 @ 10-11' 1125		Tan, sandy clay, fine to medium grain, low plasticity, moist, no odor
12							
13							Tan, sand, fine to coarse grain, well sorted, saturated, no odor
14							
15							- No Recovery 13-18'
16		HSA	0%	N/A			
17							
18							
19							Same as above
20				1.9			
21		HSA	60%				
22					SB29 @ 21-23' 1145		
23				78.6			
24		HSA	80%	121.7	SB29 @ 24-25' 1200		Gray, sand, fine to medium grain, poorly sorted, hydrocarbon odor, saturated
25							



## Borehole Logging Form

BOREHOLE ID: <b>SB29</b>		SITE NAME:		CLIENT NAME: <b>PDC ENERGY</b>			
Date Completed: <b>10/7/21</b>		Location: <b>40.3088012, -104.7469661</b>					
Drilling Company: <b>Site Services, Inc.</b>		Surface Completion: <b>N/A</b>		DTW:		TD:	
Type of Drill: <b>CME SS</b>		Geologist: <b>K. Shepherd</b>		Project Manager: <b>B. Nelson</b>			
Bit Size: <b>8"</b>		Logging Method: <b>Continuous</b>					
Well Const. Material: <b>Diameter: N/A</b>		Screen: <b>N/A</b>		Riser: <b>N/A</b>			
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26							Same as above
27		HSA	80%	703	SB29@ 27-28 1155		Gray, sandy clay, fine grain, low plasticity, hydrocarbon odor, saturated
28							
29				25.6			Tan, sand, fine to coarse grain, some fines, well sorted, saturated, no odor
30							
31		HSA	40%				
32				29.3	SB29@ 32-33 1210		
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



## Borehole Logging Form

BOREHOLE ID: <b>SB30</b>		SITE NAME: <b>Dimu 2 E Unit 2</b>		CLIENT NAME: <b>PDC ENERGY</b>	
Date Completed: <b>10/7/21</b>		Location: <b>40.30856557, -104.7469956</b>			
Drilling Company: <b>Sik Services, Inc.</b>		Surface Completion: <b>N/A</b>		DTW: <b>~12'</b> TD: <b>33'</b>	
Type of Drill: <b>CME SS</b>		Geologist: <b>K. Shepherd</b>		Project Manager: <b>B. Nelson</b>	
Bit Size: <b>8"</b>		Logging Method: <b>Continuous</b>			
Well Const. Material: <b>Diameter: N/A</b>		Screen: <b>N/A</b>		Riser: <b>N/A</b>	

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1				0.0			Brown, sand, fine to med. grain, poorly sorted, dry, no odor - moist e
2							
3		Hand Auger	100%	0.0			
4				0.1			
5							
6				0.0			
7		HSA	100%	0.8			
8							
9							
10							
11		HSA	20%	0.4	SB30@ 10-11' 1310		
12							
13							Saturated @ ~12'
14							Tan, sand, fine to coarse grain, well sorted, saturated, no odor
15							
16		HSA	10%	7.3	SB30@ 16-17' 1320		
17							
18							
19				23.1			
20							
21		HSA	70%	113			
22				747	SB30@ 21-23' 1330		
23							
24		HSA	80%	636			
25							



## Borehole Logging Form

BOREHOLE ID: <b>SB30</b>		SITE NAME:		CLIENT NAME: PDC ENERGY				
Date Completed: <b>10/7/21</b>		Location: <b>40.30856557, -104.7469956</b>						
Drilling Company: <b>Site Services, Inc</b>		Surface Completion: <b>N/A</b>		DTW: <b>~12'</b>		TD: <b>33'</b>		
Type of Drill: <b>CME SS</b>		Geologist: <b>K. Shepherd</b>		Project Manager: <b>B. Nelson</b>				
Bit Size: <b>8"</b>		Logging Method: <b>Continuous</b>						
Well Const. Material: <b>Diameter: N/A</b>		Screen: <b>N/A</b>		Riser: <b>N/A</b>				
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description	
26		HSA	80%	611	SB30C 27-28 1340		Same lithology as above	
27				488				↓
28								
29		HSA	40%	117	SB30C 32-33 1350		Tan, sandy clay, fine sand, moderate plasticity, saturated, no odor	
30								↓
31								
32				1.4				
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								





# Borehole Logging Form

BOREHOLE ID: **SB31** SITE NAME: Dinner ~~SOLE~~ Unit 2 CLIENT NAME: PDC ENERGY

Date Completed: **10/18/21** Location:

Drilling Company: **Site Services, Inc.** Surface Completion: N/A DTW: **~12'** TD: **33'**

Type of Drill: **CME 55** Geologist: **K. Shepherd** Project Manager: **B. Nelson**

Bit Size: **8"** Logging Method: **Continuous**

Well Const. Material: Diameter: N/A Screen: N/A Riser: N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1	None						Hydrovae, not logged
2							
3							
4							
5							
6							
7		HSA	100%	0.0			Brown, sand, fine to medium grain, poorly sorted, moist, no odor
8							
9							
10							
11		HSA	30%	0.0	SB31@ 10-11' (1050)		
12				0.0			
13							Tan, sand, fine to coarse grain, well sorted, saturated, no odor - No recovery 13' → 18'
14							
15							
16		HSA	0%				
17							
18							
19				0.2			Tan, sand, fine to coarse grain, well sorted, saturated, no odor
20							
21		HSA	75%	0.0	SB31@ 21-23' (1105)		
22				0.0			
23							
24		HSA	100%	0.0			
25							



## Borehole Logging Form

BOREHOLE ID: <b>SB31</b>		SITE NAME: Dinner <del>250</del> 2 E Unit 2		CLIENT NAME: PDC ENERGY			
Date Completed: <b>10/18/21</b>		Location:					
Drilling Company: <b>Site Services, Inc.</b>		Surface Completion: N/A		DTW: TD:			
Type of Drill: <b>CME 55</b>		Geologist: <b>K. Shepherd</b>		Project Manager: <b>B. Nelson</b>			
Bit Size: <b>8"</b>		Logging Method: <b>Continuous</b>					
Well Const. Material: Diameter: N/A Screen: N/A				Riser: N/A			
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26	<b>None</b>	<b>HSA</b>	<b>100%</b>	<b>0.0</b>	<b>SB31 @ 27-28' (1115)</b>		<b>Tan, sand, fine to coarse grain well sorted, saturated, no odor</b>
27				<b>0.0</b>			<b>↓</b>
28		<b>HSA</b>	<b>100%</b>	<b>0.0</b>	<b>↓</b>		
29				<b>0.0</b>	<b>Tan, sand, fine to coarse grain, well sorted, saturated, no odor</b>		
30				<b>0.0</b>	<b>↓</b>		
31							
32	<b>0.0</b>	<b>SB31 @ 32-33' (1135)</b>	<b>↓</b>				
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



## Borehole Logging Form

BOREHOLE ID: <u>SB32</u>		SITE NAME: <u>Dinner 2 E Unit 2</u>		CLIENT NAME: <u>PDC ENERGY</u>			
Date Completed: <u>11/22/21</u>		Location:					
Drilling Company: <u>Site Services</u>		Surface Completion: <u>None</u>		DTW: <u>~11'</u>		TD: <u>~33'</u>	
Type of Drill: <u>CME SS</u>		Geologist: <u>Kris Shepherd</u>		Project Manager: <u>B. Nelson</u>			
Bit Size: <u>8"</u>		Logging Method: <u>Continuous</u>					
Well Const. Material: Diameter: <u>N/A</u> Screen: <u>Sch 40 PVC Slotted 0.010</u> Riser: <u>Sch 40 PVC Blank</u>							
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1	<u>None</u>						Hydraulic, not logged
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
7		<u>HSA</u>	<u>100%</u>	<u>0.0</u>		<u>SW</u>	<u>Brown, sand, fine grain, poorly sorted, moist, no odor</u>
10		<u>HSA</u>	<u>40%</u>	<u>0.0</u>	<u>SB32-01011 (0140)</u>		
12				<u>0.0</u>		<u>SC</u>	<u>Brown to gray, clayey sand, fine to coarse grain, well sorted, Saturated, no odor</u>
13						<u>SP</u>	<u>Tan, sand, fine to coarse grain, well sorted, Saturated, no odor</u>
16		<u>HSA</u>	<u>10%</u>				
17				<u>0.1</u>	<u>SB32-01617 (0145)</u>		
21		<u>HSA</u>	<u>10%</u>				
22					<u>SB32-01121 (1000)</u>		
24		<u>HSA</u>	<u>40%</u>	<u>0.0</u>			





## Borehole Logging Form

BOREHOLE ID: <u>SB32</u>		SITE NAME: <u>Dimu 2 E Unit 2</u>		CLIENT NAME: <u>PDC ENERGY</u>			
Date Completed: <u>11/22/21</u>		Location:					
Drilling Company: <u>Site Services</u>		Surface Completion: <u>None</u>		DTW:	TD:		
Type of Drill: <u>CME SS</u>		Geologist: <u>K. Shepherd</u>		Project Manager: <u>B. Nelson</u>			
Bit Size: <u>8"</u>		Logging Method: <u>Continuous</u>					
Well Const. Material: <u>Diameter:</u>		Screen: <u>Sch 40 PVC Slotted 0.010</u>		Riser: <u>Sch 40 PVC Blank</u>			
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26	None	HSA	40%	0.0	SB32@27-28 (1015)	CL SP	Brown to tan, sandy clay, fine grain sand, trace coarse grain, low plasticity, saturated, no odor Tan, sand, fine to coarse grain, well sorted, saturated, no odor ↓
27							
28							
29							
30							
31	HSA	50%	0.0	0.0	SB32@32-33 (1025)		
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

## Borehole Logging Form

# Borehole Logging Form

BOREHOLE ID: <u>S333</u>	SITE NAME: <u>Dinner 2 E Unit 2</u>	CLIENT NAME: <u>PDC ENERGY</u>
Date Completed: <u>11/22/21</u>	Location:	
Drilling Company: <u>Site Services</u>	Surface Completion: <u>None</u>	DTW:      TD:
Type of Drill: <u>3" CME SS</u>	Geologist: <u>K. Shepherd</u>	Project Manager: <u>B. Nelson</u>
Bit Size: <u>8"</u>	Logging Method: <u>Continuous</u>	
Well Const. Material: Diameter:      Screen: Sch 40 PVC Slotted 0.010      Riser: Sch 40 PVC Blank		

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26	None			0.4		CL	Brown to tan, sandy clay, fine to medium grain sand, low plasticity, saturated, no odor - As above, trace gravel ↓
27		HSA	80%	0.3			
28				0.4	<del>S333</del> 27-28 (1200)		
29						SP	
30	None			0.1			Tan, sand, fine to coarse grain, saturated, well sorted, no odor ↓
31		HSA	40%				
32				0.1	<del>S333</del> 32-33 (1220)		
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



## Borehole Logging Form

BOREHOLE ID: <b>SB34</b>		SITE NAME: <b>Pinus 2 E unit 2</b>		CLIENT NAME: <b>PDC ENERGY</b>				
Date Completed: <b>11/22/21</b>		Location:						
Drilling Company: <b>Site Services</b>		Surface Completion: <b>None</b>		DTW: <b>~13'</b> TD: <b>~38'</b>				
Type of Drill: <b>CME 55</b>		Geologist: <b>Kris Shepherd</b>		Project Manager: <b>B. Nelson</b>				
Bit Size: <b>8"</b>		Logging Method: <b>Continuous</b>						
Well Const. Material: Diameter: <b>N/A</b> Screen: <b>Sch 40 PVC Slotted 0.010</b> Riser: <b>Sch 40 PVC Blank</b>								
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description	
1	<b>None</b>						Hydrate, not logged	
2								
3								
4								
5								
6								
7		HSA	100%	0.1			SW	Brown, sand, fine grain, poorly sorted, moist, no odor
8								
9								
10								
11		HSA	20%	0.0		SB34@10-11' (1345)		
12								
13							SP	Tan, sand, fine to coarse grains, saturated, no odor
14								
15								
16		HSA	10%					
17								
18					0.2	SB34@16-17' (1355)		
19								
20								
21		HSA	20%					
22								
23					8.0	SB34@21-22' (1405)	SP	-As above, gray, no odor
24								
25		HSA	50%	85				-As above, odor (hydrocarbon)



## Borehole Logging Form

BOREHOLE ID: <b>SB34</b>	SITE NAME: <b>Dinner 2 E Unit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>11/22/21</b>	Location:	
Drilling Company: <b>Site Services</b>	Surface Completion: <b>None</b>	DTW: <b>~13'</b> TD: <b>~38'</b>
Type of Drill: <b>CME SS</b>	Geologist: <b>K. Shepherd</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8"</b>	Logging Method: <b>Continuous</b>	
Well Const. Material: <b>Diameter:</b>	Screen: <b>Sch 40 PVC Slotted 0.010</b>	Riser: <b>Sch 40 PVC Blank</b>

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26	None					CL	Sandy clay, gray, fine grain sand, moderate plasticity, Saturated, hydrocarbon odor
27		HSA	50%				
28				372	SB34E21-B (1420)		
29						SPts	↓ - No recovery 28'-33', flowing sands
30							
31			0%				
32							
33							
34						SP	↓ Sand, brown to tan, fine grain to medium grain poorly sorted, Saturated, no recovery
35							
36		HSA	20%				
37							
38				0.7	SB34E 37-38' (1500)		↓
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

# Borehole Logging Form

BOREHOLE ID: <b>SB35R</b>		SITE NAME: <b>Dinner 2E Unit 2</b>		CLIENT NAME: <b>PDC ENERGY</b>	
Date Completed: <b>11/24/21</b>		Location: <b>None</b>			
Drilling Company: <b>Site Services</b>		Surface Completion: <b>None</b>		DTW: <b>18'</b>	TD: <b>33'</b>
Type of Drill: <b>CME 55</b>		Geologist: <b>Kris Shepherd</b>		Project Manager: <b>B. Nelson</b>	
Bit Size: <b>8"</b>		Logging Method: <b>Continuous</b>			
Well Const. Material: Diameter:		Screen: Sch 40 PVC Slotted 0.010		Riser: Sch 40 PVC Blank	

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1	<b>None</b>						Hand Auger, not logged
2							
3							
4							
5							
6							
7		<b>HSA</b>	<b>60%</b>	<b>0.0</b>			Brown, sand, fine grain, poorly sorted, Moist, no odor
8							
9							
10		<b>HSA</b>	<b>30%</b>	<b>0.1</b>	<b>SB35R @ 10-11' (1040)</b>		
11							
12				<b>0.0</b>			Brown to tan, sand, fine to coarse, well sorted, moist, no odor
13							
14							No Recovery 13-18'
15							
16		<b>HSA</b>	<b>0%</b>				
17							
18							
19							Tan, sand, fine to coarse, well sorted, saturated, no odor
20		<b>HSA</b>	<b>10%</b>				
21							
22					<b>SB35R @ 21-23' (1100)</b>		
23				<b>0.7</b>			
24		<b>HSA</b>	<b>40%</b>	<b>24</b>			As above, black, hydrogen odor
25							



## Borehole Logging Form

BOREHOLE ID: <u>SB35R</u>		SITE NAME: <u>Diner 2 E Unit 2</u>		CLIENT NAME: <u>PDC ENERGY</u>				
Date Completed: <u>11/24/21</u>		Location:						
Drilling Company: <u>Site Services</u>		Surface Completion: <u>None</u>		DTW: <u>~18'</u> TD: <u>33'</u>				
Type of Drill: <u>CME SS</u>		Geologist: <u>K. Shepherd</u>		Project Manager: <u>B. Nelson</u>				
Bit Size: <u>8"</u>		Logging Method: <u>Continuous</u>						
Well Const. Material: <u>Diameter:</u>		Screen: <u>Sch 40 PVC Slotted 0.010</u>		Riser: <u>Sch 40 PVC Blank</u>				
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description	
26	<u>None</u>	<u>HSA</u>	<u>40%</u>	<u>42.1</u>	<u>SB35R @ 25-26' (1105)</u>		<u>Black, sand, Fine to Coarse, well sorted, Saturated, hydrocarbon odor</u>	
27								
28					<u>31.9</u>	<u>SB35R @ 27-28' (1110)</u>		<u>Clay, medium Plasticity, Saturated, slight hydrocarbon odor</u>
29		<u>HSA</u>	<u>10%</u>				<u>Tan, sand, Fine to Coarse, well sorted, Saturated, no odor</u>	
30								
31								
32				<u>2.8</u>	<u>SB35R @ 32-33' (1125)</u>			
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								



# Borehole Logging Form

BOREHOLE ID: <b>SB36</b>		SITE NAME: <b>Dimer 2B Unit 2</b>		CLIENT NAME: <b>PDC ENERGY</b>				
Date Completed: <b>11/23/21</b>		Location:						
Drilling Company: <b>Site Services</b>		Surface Completion: <b>None</b>		DTW: <b>~13'</b>		TD:		
Type of Drill: <b>CME SS</b>		Geologist: <b>Kris Shepherd</b>		Project Manager: <b>B. Nelson</b>				
Bit Size: <b>8"</b>		Logging Method: <b>Continuous</b>						
Well Const. Material: <b>Diameter:</b>		Screen: <b>Sch 40 PVC Slotted 0.010</b>		Riser: <b>Sch 40 PVC Blank</b>				
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description	
1	<b>None</b>						Hydrates, not logged	
2								
3								
4								
5								
6								
7		HSA	80%	0.1			SW	Brown, Sand, fine grain, poorly sorted, moist, no odor
8								
9								
10					0.1			
11		HSA	30%	0.0		SB36@10-11' (1105)		
12								
13					0.0			
14								
15					0.0		SM	Brown to tan, silty sand, fine grain sand, saturated, no odor
16		HSA	50%					- As above, Iron oxide staining
17					0.0	SB36@16-17' (1110)		
18					0.1		SP	Tan, sand, fine to coarse grain, well sorted, saturated, no odor
19								- As above, gray, hydrocarbon odor
20								
21		HSA	30%		2.1			
22					3.4	SB36@21-22' (1120)		
23								
24		HSA	60%	0.3			CL	Tan, sandy clay, fine grain sand, moderate plasticity, saturated, no odor
25								





## Borehole Logging Form

BOREHOLE ID: <u>SB36</u>		SITE NAME: <u>Dinner 2 E Unit 2</u>		CLIENT NAME: <u>PDC ENERGY</u>			
Date Completed: <u>11/23/2021</u>		Location:					
Drilling Company: <u>Site Services</u>		Surface Completion: <u>None</u>		DTW: <u>~13'</u>	TD:		
Type of Drill: <u>CME SS</u>		Geologist: <u>K. Shepherd</u>		Project Manager: <u>B. Nelson</u>			
Bit Size: <u>8"</u>		Logging Method: <u>Continuous</u>					
Well Const. Material: Diameter:		Screen: Sch 40 PVC Slotted 0.010		Riser: Sch 40 PVC Blank			
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26	<u>None</u>			<u>0.2</u>		<u>CL</u>	<u>Tan, sandy clay, fine grain sand, moderate plasticity, Saturated, no odor</u>
27		<u>HSA</u>	<u>60%</u>	<u>0.2</u>	<u>SB36-021-B (1135)</u>		
28							<u>No Recovery 28'-33', flowing sands</u>
29							
30							
31		<u>HSA</u>	<u>0%</u>				
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



## Borehole Logging Form

BOREHOLE ID: <u>SB37</u>		SITE NAME: <u>Dimer 2E unit 2</u>		CLIENT NAME: <u>PDC ENERGY</u>				
Date Completed: <u>11/23/21</u>		Location:						
Drilling Company: <u>Site Services</u>		Surface Completion: <u>None</u>		DTW: <u>~13'</u>	TD:			
Type of Drill: <u>CME SS</u>		Geologist: <u>Kris Shepherd</u>		Project Manager: <u>B. Nelson</u>				
Bit Size: <u>8"</u>		Logging Method: <u>Continuous</u>						
Well Const. Material: Diameter:		Screen: <u>Sch 40 PVC Slotted 0.010</u>		Riser: <u>Sch 40 PVC Blank</u>				
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description	
1	None						Hydrants not logged	
2								
3								
4								
5								
6								
7		HSA	50%	0.1			SW	Brown, Sand, fine grain, poorly sorted, moist, no odor
8								
9					0.0			
10								
11		HSA	40%		0.0	SB37@10-11' (1255)		
12								
13								
14					0.0		SM	- As above Saturated, no odor Brown to tan, silty sand, fine grain sand, Saturated, no odor
15		HSA	40%					
16								
17					0.0	SB37@16-17' (1305)		
18							SW	Sand, brown to tan, fine to medium grain, poorly sorted, Saturated, no odor
19								- As above, gray, no odor
20								
21		HSA	10%					
22								
23					0.3	SB37@24-23' (1315)		
24								
25		HSA	50%	0.2			CL	Tan, sandy clay, fine grain sand, mod. plasticity, returned, no odor



## Borehole Logging Form

BOREHOLE ID: <u>SB37</u>		SITE NAME: <u>Dimer 2 &amp; unit 2</u>		CLIENT NAME: <u>PDC ENERGY</u>			
Date Completed: <u>11/23/21</u>		Location:					
Drilling Company: <u>Site Services</u>		Surface Completion: <u>None</u>		DTW:	TD:		
Type of Drill: <u>CME SS</u>		Geologist: <u>K. Shepherd</u>		Project Manager: <u>B. Nelson</u>			
Bit Size: <u>8"</u>		Logging Method: <u>Continuous</u>					
Well Const. Material: Diameter:		Screen: <u>Sch 40 PVC Slotted 0.010</u>		Riser: <u>Sch 40 PVC Blank</u>			
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26	<u>None</u>			<u>0.3</u>		<u>CL</u>	<u>Tan. sandy clay, mod. plasticity</u> <u>fine grain sand, saturated,</u> <u>no color</u> ↓
27		<u>HSA</u>	<u>50%</u>	<u>0.2</u>	<u>SB37-27-28</u> <u>(1325)</u>		
28							<u>- No Recovery 28'-33', Flowing</u> <u>sands</u> ↓
29							
30							
31		<u>HSA</u>	<u>0%</u>				
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							



# Borehole Logging Form

BOREHOLE ID: SB30 SITE NAME: Diner 2E Unit 2 CLIENT NAME: PDC ENERGY

Date Completed: 11/24/21 Location:

Drilling Company: Site Services Surface Completion: None DTW: ~13' TD:

Type of Drill: CME 55 Geologist: Kris Shepherd Project Manager: B. Nelson

Bit Size: 8" Logging Method: Continuous

Well Const. Material: Diameter: Screen: Sch 40 PVC Slotted 0.010 Riser: Sch 40 PVC Blank

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1	None						Hydrobc, not logged
2							
3							
4							
5							
6							
7		HSA	100%	0.0		SW	Brown sand, fine grain, poorly sorted, moist, no odor
8							
9							
10				0.1			
11		HSA	50%	0.1	SB30@10ft (0850)		
12							
13				0.1			
14						SM	- As above, Saturated, no odor Tan to gray, silty sand, fine grain sand, Saturated, no odor
15							
16		HSA	20%				
17				0.1	SB30@16ft (0900)		
18							
19						SP	Tan sand, fine to medium grain, poorly sorted, Saturated, no odor
20				0.0			
21		HSA	40%				
22						MH	Gray, silt, low plasticity, Saturated, no odor
23				0.3	SB30@21-23 (0910)		
24						SP	Tan, sand, fine to coarse, Saturated, no odor
25		HSA	40%	0.1			



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GEOSCIENCES

## Borehole Logging Form

BOREHOLE ID: <u>SB38</u>		SITE NAME: <u>Dinner 25 Unit 2</u>		CLIENT NAME: <u>PDC ENERGY</u>			
Date Completed: <u>11/24/24</u>		Location:					
Drilling Company: <u>Six Services</u>		Surface Completion: <u>None</u>		DTW:	TD:		
Type of Drill: <u>CME SS</u>		Geologist: <u>K. Shepherd</u>		Project Manager: <u>B. Nelson</u>			
Bit Size: <u>8"</u>		Logging Method: <u>Continuous</u>					
Well Const. Material: <u>Diameter:</u>		Screen: <u>Sch 40 PVC Slotted 0.010</u>		Riser: <u>Sch 40 PVC Blank</u>			
Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26	None	HSA	40%	0.2	SB38-01F10 (0915)	CL	tan, sandy clay, fine grain sand, trace medium grain, medium plasticity, saturated, no odor
27							
28							↓
29							- Flowing sand, No recovery 28-33
30							↓
31		HSA	0%				
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

# Borehole Logging Form

BOREHOLE ID: SB39 SITE NAME: Dinner 2 E Unit 2 CLIENT NAME: PDC ENERGY

Date Completed: 12/14/21 Location:

Drilling Company: Site Services Surface Completion: DTW: ~12' TD: 33'

Type of Drill: CME SS Geologist: Kris Shepherd Project Manager: B. Nelson

Bit Size: 8" Logging Method: Continuous

Well Const. Material: Diameter: N/A Screen: Sch 40 PVC Slotted 0.010 Riser: Sch 40 PVC Blank

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1	None						Hydrovac, not logged
2							
3							
4							
5							
6							
7		HSA	100%	0.0		SW	Brown, fine grained sand, fine grain, poorly sorted, moist no odor
8				0.6			
9				0.2			
10							
11		HSA	60%	0.2	SB39@10-11' (0125)	CL	Gray, sandy clay, low plasticity fine grain sand, moist, no odor
12				0.8		SP	Tan, sand, fine to coarse grain, well sorted, saturated, no odor
13							
14				0.0			
15							
16		HSA	40%				
17				1.4	SB39@16-17' (0130)		
18							
19				2.3			
20						ML	Tan to gray, silt, low plasticity, saturated, no odor
21		HSA	50%	2.5			
22				2.8	SB39@21-22' (0145)	SP	Tan, sand, fine to coarse grain, well sorted, saturated no odor
23							
24		HSA	80%	3.8		CL	Brown to tan, sandy clay, mod. plasticity, fine sand, saturated, no odor
25							

# Borehole Logging Form

BOREHOLE ID: SB39 SITE NAME: Dinner 2 E Unit 2 CLIENT NAME: PDC ENERGY

Date Completed: 12/14/21 Location: \_\_\_\_\_

Drilling Company: Site Services Surface Completion: \_\_\_\_\_ DTW: ~12' TD: 33'

Type of Drill: CME SS Geologist: K. Shepherd Project Manager: B. Nelson

Bit Size: 8" Logging Method: Continuous

Well Const. Material: Diameter: N/A Screen: Sch 40 PVC Slotted 0.010 Riser: Sch 40 PVC Blank

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26	None	HSA	80%	4.4	SB39(27-28) (10155)	CL	Brown to tan, sandy clay, moderate plasticity, fine sand, saturated, no odor
27				4.6			
28		HSA	40%	5.0		SP	Tan, sand, fine to coarse grain, well sorted, saturated, no odor
29							
30				4.4			
31						SW	Tan, sand, fine grain, poorly sorted, saturated, no odor
32				4.9	SB39(32-33) (1000)		
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

# Borehole Logging Form

BOREHOLE ID: SB 40 SITE NAME: Dinner E Unit 2 CLIENT NAME: PDC ENERGY

Date Completed: 12/14/21 Location:

Drilling Company: Site Services Surface Completion: DTW: 12' TD: 38'

Type of Drill: CME 55 Geologist: Kris Shepherd Project Manager: B. Nelson

Bit Size: 8" Logging Method: continuous

Well Const. Material: Diameter: N/A Screen: Sch 40 PVC Slotted 0.010 Riser: Sch 40 PVC Blank N/A

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
1	None						Hydrovac not logged
2							
3							
4							
5							
6							
7		HSA	50%	3.1		SW	Brown, sand, fine to medium grain, trace coarse sand and gravel, well sorted, moist, no odor
8							
9				4.7			
10		HSA	60%		SB40 @ 10-11' (1090)	CL	Tan, sandy clay, low plasticity, fine to medium grain, moist, no odor
11				2.8		SP	Brown, sand, well sorted, fine to coarse grain, saturated, no odor, iron oxide staining
12				5.1			
13							
14				3.0		SP	Brown to light brown, sand, poorly sorted, fine to coarse grain, saturated, no odor, iron oxide staining
15							
16		HSA	UC%	3.3	SB40 @ 16-17' (1100)		
17							
18							
19				4.2		ML	gray, silt, low plasticity, trace fine and medium grain sand, saturated, no odor
20		HSA	30%			SP	poor recovery due to flowing sands
21				4.5	SB40 @ 21-23' (1105)		
22							
23							
24		HSA	90%	5.4		SW	gray, sand, <sup>in</sup> poorly sorted, fine to medium grain, saturated, no odor
25							



# Borehole Logging Form

BOREHOLE ID: <b>SB40</b>	SITE NAME: <b>Dinner 2 mit 2</b>	CLIENT NAME: <b>PDC ENERGY</b>
Date Completed: <b>12/14/21</b>	Location:	
Drilling Company: <b>Site services</b>	Surface Completion:	DTW: <b>12'</b> TD: <b>38'</b>
Type of Drill: <b>CME 55</b>	Geologist: <b>K. Shepherd D.V.</b>	Project Manager: <b>B. Nelson</b>
Bit Size: <b>8"</b>	Logging Method: <b>continuous</b>	
Well Const. Material: Diameter: <b>NA</b> Screen: <b>Sch 40 PVC Slotted 0.010</b> Riser: <b>Sch 40 PVC Blank N/A</b>		

Depth (feet)	Well Completion	Sample Type	% Recovery	PID (ppm)	Laboratory Sample	USCS	Description
26	None			6.2		SW	gray, sand, poorly sorted, fine to medium grain, saturated, no odor
27		HSA	90%	4.4	SB400 27-28' (1115)	CL	gray, sandy clay, fine to medium grain, low plasticity, saturated, no odor
28				9.5		SP	No recovery due to flowing sands
29							
30							
31		HSA	2%				
32							
33							
34						SW	Brown, sand, well sorted, fine to medium grain, trace gravel, saturated, no odor
35				11.1			
36		HSA	40%				
37				7.9	SB400 37-38' (1130)		
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							