

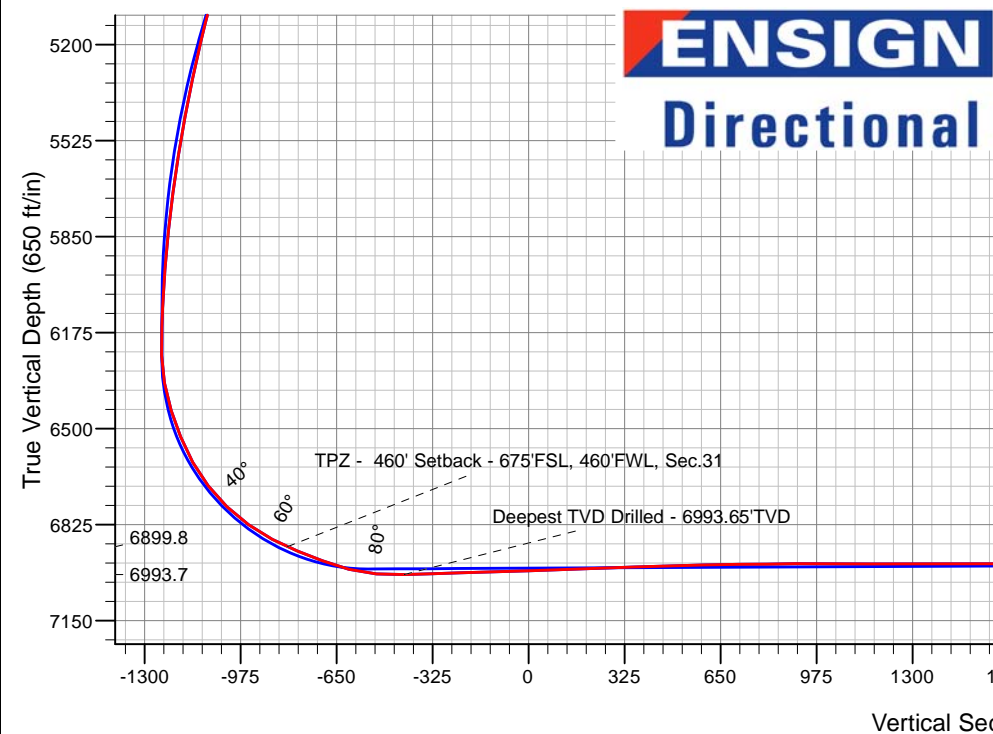
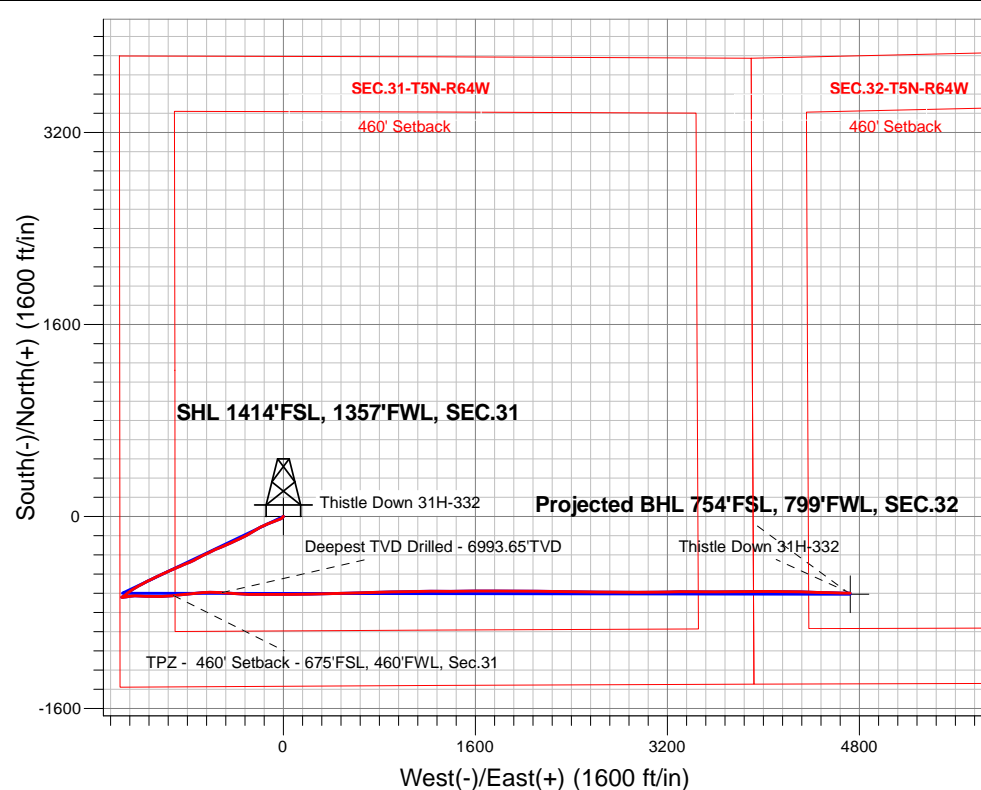
PDC Energy Inc. DJ Basin

Well Name: **Thistle Down 31H-332**

Surface Location: Thistle Down 5N64W31H Pad Sec.31-T5N-R64W
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
 Ground Elevation: 4803.0
 +N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1372468.083251620.04 40.352310 -104.597170
 Original Well Elev WELL @ 4826.0ft (Original Well Elev)

FINAL SURVEY

Projected Bottom Hole Location
12,949'MD 6949'TVD 639'S & 4724'E of SHL
90.31 degree Incl @ 90.95 degree AZM



Thistle Down 5N64W31H Pad Sec.31-T5N-R64W
 Thistle Down 31H-332
 Thistle Down 31H-332 Wellbore #1
 10:40, December 10 2018

ANNOTATIONS

TVD	MD	Annotation
6899.8	7292.2	TPZ - 460' Setback - 675'FSL, 460'FWL, Sec.31
6993.7	7711.0	Deepest TVD Drilled - 6993.65'TVD

LEGEND

- Thistle Down 31H-332, Thistle Down 31H-332 Wellbore #1, Plan #3 (12-05-18) V0
- Thistle Down 31H-332 Wellbore #1
- Survey #1

Projected BHL 754'FSL, 799'FWL, SEC.32

Thistle Down 31H-332



PDC Energy Inc. DJ Basin

SEC.31-T5N-R64W

Thistle Down 5N64W31H Pad Sec.31-T5N-R64W

Thistle Down 31H-332

Thistle Down 31H-332 Wellbore #1

Survey: Survey #1

Standard Survey Report

10 December, 2018

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Thistle Down 31H-332
Project:	SEC.31-T5N-R64W	TVD Reference:	WELL @ 4826.0ft (Original Well Elev)
Site:	Thistle Down 5N64W31H Pad Sec.31-T5N-R64W	MD Reference:	WELL @ 4826.0ft (Original Well Elev)
Well:	Thistle Down 31H-332	North Reference:	True
Wellbore:	Thistle Down 31H-332 Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Thistle Down 31H-332 Wellbore #1	Database:	US_EDM

Project	SEC.31-T5N-R64W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Thistle Down 5N64W31H Pad Sec.31-T5N-R64W				
Site Position:		Northing:	1,372,559.16 usft	Latitude:	40.352560
From:	Lat/Long	Easting:	3,251,619.12 usft	Longitude:	-104.597170
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.58 °

Well	Thistle Down 31H-332					
Well Position	+N/-S	0.0 ft	Northing:	1,372,468.08 usft	Latitude:	40.352310
	+E/-W	0.0 ft	Easting:	3,251,620.04 usft	Longitude:	-104.597170
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,803.0 ft

Wellbore	Thistle Down 31H-332 Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	12/5/2018	8.17	66.83	52,186

Design	Thistle Down 31H-332 Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	97.81	

Survey Program	Date	12/10/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
156.0	12,949.0	Survey #1 (Thistle Down 31H-332 Wellbor	MWD	MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
1.0	0.00	18.40	1.0	0.0	0.0	0.0	0.26	0.26	0.00	
SHL 1414'FSL, 1357'FWL, SEC.31										
156.0	0.40	18.40	156.0	0.5	0.2	0.1	0.26	0.26	0.00	
251.0	0.40	7.20	251.0	1.2	0.3	0.2	0.08	0.00	-11.79	
346.0	0.50	0.50	346.0	1.9	0.4	0.1	0.12	0.11	-7.05	
440.0	1.30	218.00	440.0	1.5	-0.3	-0.5	1.83	0.85	-151.60	
536.0	1.60	206.40	536.0	-0.6	-1.6	-1.5	0.44	0.31	-12.08	
631.0	1.60	214.30	630.9	-2.9	-2.9	-2.5	0.23	0.00	8.32	
727.0	4.00	217.20	726.8	-6.6	-5.7	-4.7	2.50	2.50	3.02	

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Site:	Thistle Down 5N64W31H Pad Sec.31-T5N-R64W	MD Reference:	WELL @ 4826.0ft (Original Well Elev)
Well:	Thistle Down 31H-332	North Reference:	True
Wellbore:	Thistle Down 31H-332 Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Thistle Down 31H-332 Wellbore #1	Database:	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
822.0	6.00	228.90	821.4	-12.5	-11.4	-9.6	2.35	2.11	12.32
918.0	8.60	242.90	916.7	-19.1	-21.6	-18.8	3.26	2.71	14.58
1,013.0	10.80	248.50	1,010.3	-25.6	-36.2	-32.4	2.52	2.32	5.89
1,109.0	11.50	249.90	1,104.5	-32.2	-53.6	-48.7	0.78	0.73	1.46
1,204.0	11.00	247.30	1,197.7	-39.0	-70.8	-64.9	0.75	-0.53	-2.74
1,395.0	14.40	249.20	1,384.0	-54.4	-109.8	-101.4	1.79	1.78	0.99
1,490.0	15.00	246.80	1,475.8	-63.5	-132.2	-122.3	0.90	0.63	-2.53
1,585.0	15.40	246.80	1,567.5	-73.3	-155.1	-143.7	0.42	0.42	0.00
1,630.0	15.20	245.40	1,610.9	-78.1	-165.9	-153.8	0.93	-0.44	-3.11
1,682.0	14.63	245.40	1,661.2	-83.7	-178.1	-165.1	1.10	-1.10	0.00
1,777.0	13.62	240.28	1,753.3	-94.2	-198.7	-184.1	1.69	-1.06	-5.39
1,873.0	15.26	239.48	1,846.3	-106.2	-219.4	-203.0	1.72	1.71	-0.83
1,968.0	15.60	238.75	1,937.8	-119.2	-241.1	-222.7	0.41	0.36	-0.77
2,063.0	16.65	239.08	2,029.1	-132.8	-263.7	-243.2	1.11	1.11	0.35
2,158.0	16.40	239.72	2,120.2	-146.6	-287.0	-264.4	0.33	-0.26	0.67
2,253.0	16.56	241.17	2,211.3	-159.9	-310.4	-285.8	0.46	0.17	1.53
2,348.0	16.27	244.23	2,302.4	-172.2	-334.3	-307.8	0.96	-0.31	3.22
2,466.0	17.55	245.26	2,415.3	-186.8	-365.3	-336.5	1.11	1.08	0.87
2,560.0	18.75	245.90	2,504.6	-198.9	-392.0	-361.3	1.29	1.28	0.68
2,655.0	18.25	244.42	2,594.7	-211.6	-419.3	-386.7	0.72	-0.53	-1.56
2,750.0	18.37	243.35	2,684.9	-224.7	-446.1	-411.4	0.38	0.13	-1.13
2,845.0	20.57	248.31	2,774.5	-237.6	-475.0	-438.3	2.89	2.32	5.22
2,940.0	20.43	247.87	2,863.5	-250.0	-505.9	-467.2	0.22	-0.15	-0.46
3,035.0	20.20	246.76	2,952.6	-262.7	-536.3	-495.6	0.47	-0.24	-1.17
3,130.0	19.66	245.20	3,041.9	-275.9	-565.9	-523.1	0.80	-0.57	-1.64
3,225.0	19.30	244.87	3,131.4	-289.3	-594.6	-549.8	0.40	-0.38	-0.35
3,321.0	18.88	245.32	3,222.1	-302.5	-623.1	-576.2	0.46	-0.44	0.47
3,416.0	18.12	244.08	3,312.2	-315.4	-650.3	-601.4	0.90	-0.80	-1.31
3,511.0	17.27	242.38	3,402.7	-328.4	-676.1	-625.2	1.05	-0.89	-1.79
3,607.0	16.43	241.86	3,494.6	-341.4	-700.7	-647.8	0.89	-0.88	-0.54
3,702.0	16.61	242.56	3,585.7	-354.0	-724.6	-669.8	0.28	0.19	0.74
3,798.0	15.91	241.92	3,677.9	-366.5	-748.4	-691.7	0.75	-0.73	-0.67
3,893.0	17.08	246.22	3,768.9	-378.2	-772.7	-714.1	1.78	1.23	4.53
3,989.0	17.93	247.77	3,860.5	-389.5	-799.2	-738.9	1.01	0.89	1.61
4,084.0	17.81	247.67	3,950.9	-400.6	-826.2	-764.1	0.13	-0.13	-0.11
4,180.0	17.25	247.41	4,042.5	-411.6	-852.9	-789.1	0.59	-0.58	-0.27
4,276.0	18.43	245.12	4,133.8	-423.5	-879.8	-814.1	1.43	1.23	-2.39
4,371.0	19.33	246.78	4,223.7	-436.0	-907.9	-840.2	1.10	0.95	1.75
4,466.0	18.32	246.15	4,313.7	-448.2	-936.0	-866.4	1.08	-1.06	-0.66
4,562.0	17.90	245.77	4,404.9	-460.4	-963.3	-891.8	0.45	-0.44	-0.40
4,657.0	19.49	245.49	4,494.9	-472.9	-991.0	-917.5	1.68	1.67	-0.29
4,753.0	20.09	245.62	4,585.2	-486.4	-1,020.6	-945.0	0.63	0.63	0.14

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Well:	Thistle Down 31H-332	North Reference:	True
Wellbore:	Thistle Down 31H-332 Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Thistle Down 31H-332 Wellbore #1	Database:	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,848.0	19.56	244.58	4,674.6	-499.9	-1,049.8	-972.1	0.67	-0.56	-1.09
4,943.0	18.80	243.65	4,764.3	-513.6	-1,077.9	-998.1	0.86	-0.80	-0.98
5,039.0	18.16	243.96	4,855.4	-527.0	-1,105.2	-1,023.3	0.67	-0.67	0.32
5,134.0	18.21	242.42	4,945.6	-540.4	-1,131.7	-1,047.7	0.51	0.05	-1.62
5,230.0	17.49	242.55	5,037.0	-554.0	-1,157.8	-1,071.7	0.75	-0.75	0.14
5,325.0	16.95	241.62	5,127.7	-567.1	-1,182.6	-1,094.6	0.64	-0.57	-0.98
5,421.0	16.02	240.98	5,219.8	-580.2	-1,206.5	-1,116.5	0.99	-0.97	-0.67
5,516.0	15.09	240.28	5,311.3	-592.7	-1,228.7	-1,136.8	1.00	-0.98	-0.74
5,611.0	13.83	238.22	5,403.3	-604.8	-1,249.1	-1,155.3	1.43	-1.33	-2.17
5,707.0	13.21	236.90	5,496.6	-616.8	-1,268.0	-1,172.5	0.72	-0.65	-1.38
5,802.0	12.04	233.77	5,589.3	-628.6	-1,285.1	-1,187.8	1.43	-1.23	-3.29
5,897.0	11.14	230.82	5,682.4	-640.3	-1,300.2	-1,201.2	1.13	-0.95	-3.11
5,993.0	9.94	229.58	5,776.8	-651.5	-1,313.7	-1,213.0	1.27	-1.25	-1.29
6,088.0	8.40	230.80	5,870.6	-661.2	-1,325.4	-1,223.2	1.63	-1.62	1.28
6,183.0	5.28	242.98	5,964.9	-667.6	-1,334.6	-1,231.5	3.60	-3.28	12.82
6,279.0	3.07	258.43	6,060.6	-670.1	-1,341.1	-1,237.6	2.56	-2.30	16.09
6,374.0	2.95	236.09	6,155.5	-672.0	-1,345.6	-1,241.8	1.23	-0.13	-23.52
6,470.0	1.55	112.48	6,251.4	-673.9	-1,346.5	-1,242.4	4.19	-1.46	-128.76
6,565.0	10.59	87.07	6,345.8	-673.9	-1,336.5	-1,232.6	9.70	9.52	-26.75
6,661.0	18.00	81.64	6,438.8	-671.3	-1,313.0	-1,209.6	7.84	7.72	-5.66
6,756.0	23.22	78.95	6,527.7	-665.6	-1,280.1	-1,177.8	5.58	5.49	-2.83
6,852.0	28.77	87.94	6,614.0	-661.1	-1,238.4	-1,137.1	7.08	5.78	9.36
6,947.0	37.74	95.44	6,693.4	-663.0	-1,186.5	-1,085.4	10.37	9.44	7.89
7,043.0	46.42	93.03	6,764.6	-667.7	-1,122.4	-1,021.2	9.20	9.04	-2.51
7,138.0	54.62	88.17	6,824.9	-668.3	-1,049.1	-948.6	9.49	8.63	-5.12
7,234.0	62.90	85.54	6,874.7	-663.7	-967.3	-868.1	8.94	8.63	-2.74
7,292.2	66.05	84.46	6,899.8	-659.1	-915.0	-816.9	5.66	5.41	-1.85
TPZ - 460' Setback - 675'FSL, 460'FWL, Sec.31									
7,330.0	68.10	83.79	6,914.5	-655.5	-880.3	-783.1	5.66	5.42	-1.78
7,424.0	70.85	83.83	6,947.4	-646.0	-792.8	-697.7	2.93	2.93	0.04
7,520.0	74.27	84.13	6,976.2	-636.4	-701.7	-608.8	3.57	3.56	0.31
7,598.3	84.44	89.04	6,990.7	-631.9	-625.0	-533.4	14.36	12.98	6.27
LPL 712'FSL, 734'FWL, SEC.31									
7,616.0	86.74	90.11	6,992.0	-631.8	-607.4	-515.9	14.36	13.03	6.07
7,711.0	91.29	94.04	6,993.7	-635.2	-512.5	-421.5	6.33	4.79	4.14
Deepest TVD Drilled - 6993.65'TVD									
7,806.0	91.81	94.26	6,991.1	-642.1	-417.8	-326.7	0.59	0.55	0.23
7,902.0	91.84	92.75	6,988.0	-648.0	-322.0	-231.0	1.57	0.03	-1.57
7,997.0	91.72	90.18	6,985.1	-650.4	-227.1	-136.6	2.71	-0.13	-2.71
8,093.0	91.82	89.95	6,982.1	-650.5	-131.2	-41.6	0.26	0.10	-0.24
8,189.0	91.86	90.09	6,979.0	-650.5	-35.2	53.5	0.15	0.04	0.15
8,284.0	91.83	89.43	6,976.0	-650.1	59.7	147.5	0.70	-0.03	-0.69
8,380.0	91.98	89.19	6,972.8	-649.0	155.7	242.4	0.29	0.16	-0.25

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Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,475.0	92.06	89.32	6,969.4	-647.7	250.6	336.3	0.16	0.08	0.14
8,571.0	92.17	88.37	6,965.9	-645.8	346.5	431.1	1.00	0.11	-0.99
8,666.0	91.26	88.11	6,963.0	-642.9	441.4	524.7	1.00	-0.96	-0.27
8,762.0	91.47	87.93	6,960.8	-639.6	537.3	619.3	0.29	0.22	-0.19
8,858.0	90.23	87.67	6,959.3	-635.9	633.3	713.8	1.32	-1.29	-0.27
8,953.0	90.87	87.73	6,958.4	-632.1	728.2	807.3	0.68	0.67	0.06
9,049.0	90.25	88.70	6,957.5	-629.1	824.1	902.0	1.20	-0.65	1.01
9,144.0	89.84	89.70	6,957.4	-627.8	919.1	995.9	1.14	-0.43	1.05
9,239.0	89.84	89.90	6,957.7	-627.4	1,014.1	1,090.0	0.21	0.00	0.21
9,335.0	89.92	89.41	6,957.9	-626.9	1,110.1	1,185.0	0.52	0.08	-0.51
9,431.0	90.01	89.33	6,957.9	-625.8	1,206.1	1,280.0	0.13	0.09	-0.08
9,526.0	89.99	89.62	6,957.9	-624.9	1,301.1	1,373.9	0.31	-0.02	0.31
9,621.0	90.08	89.24	6,957.9	-624.0	1,396.1	1,467.9	0.41	0.09	-0.40
9,717.0	89.99	89.25	6,957.8	-622.7	1,492.1	1,562.9	0.09	-0.09	0.01
9,813.0	90.42	89.29	6,957.5	-621.5	1,588.1	1,657.8	0.45	0.45	0.04
9,908.0	90.92	89.84	6,956.4	-620.8	1,683.1	1,751.8	0.78	0.53	0.58
10,003.0	90.59	90.20	6,955.1	-620.8	1,778.1	1,845.9	0.51	-0.35	0.38
10,098.0	90.12	90.47	6,954.5	-621.4	1,873.1	1,940.1	0.57	-0.49	0.28
10,194.0	90.40	90.27	6,954.1	-622.0	1,969.0	2,035.3	0.36	0.29	-0.21
10,290.0	90.53	90.48	6,953.3	-622.6	2,065.0	2,130.5	0.26	0.14	0.22
10,385.0	90.89	90.60	6,952.1	-623.5	2,160.0	2,224.7	0.40	0.38	0.13
10,481.0	90.08	91.22	6,951.3	-625.0	2,256.0	2,320.0	1.06	-0.84	0.65
10,577.0	89.94	91.08	6,951.3	-627.0	2,352.0	2,415.4	0.21	-0.15	-0.15
10,672.0	89.97	90.70	6,951.4	-628.4	2,447.0	2,509.7	0.40	0.03	-0.40
10,768.0	89.69	90.52	6,951.7	-629.5	2,543.0	2,604.9	0.35	-0.29	-0.19
10,863.0	89.72	90.59	6,952.1	-630.4	2,638.0	2,699.2	0.08	0.03	0.07
10,959.0	89.55	90.08	6,952.8	-630.9	2,734.0	2,794.3	0.56	-0.18	-0.53
11,054.0	89.59	89.85	6,953.5	-630.9	2,829.0	2,888.5	0.25	0.04	-0.24
11,150.0	89.48	90.21	6,954.2	-630.9	2,925.0	2,983.6	0.39	-0.11	0.38
11,245.0	89.53	89.73	6,955.1	-630.9	3,020.0	3,077.7	0.51	0.05	-0.51
11,341.0	89.83	89.35	6,955.6	-630.1	3,116.0	3,172.7	0.50	0.31	-0.40
11,437.0	89.78	89.35	6,955.9	-629.0	3,211.9	3,267.6	0.05	-0.05	0.00
11,532.0	89.77	89.65	6,956.3	-628.2	3,306.9	3,361.6	0.32	-0.01	0.32
11,628.0	90.76	90.78	6,955.9	-628.5	3,402.9	3,456.8	1.56	1.03	1.18
11,723.0	91.02	89.89	6,954.4	-629.1	3,497.9	3,551.0	0.98	0.27	-0.94
11,819.0	91.54	89.90	6,952.2	-628.9	3,593.9	3,646.0	0.54	0.54	0.01
11,914.0	91.47	88.78	6,949.7	-627.8	3,688.9	3,740.0	1.18	-0.07	-1.18
12,010.0	91.61	88.56	6,947.2	-625.6	3,784.8	3,834.7	0.27	0.15	-0.23
12,106.0	89.39	90.33	6,946.3	-624.7	3,880.8	3,929.7	2.96	-2.31	1.84
12,202.0	89.41	90.00	6,947.3	-625.0	3,976.8	4,024.8	0.34	0.02	-0.34
12,295.0	89.58	90.27	6,948.2	-625.2	4,069.8	4,117.0	0.34	0.18	0.29
12,390.0	89.48	91.84	6,948.9	-626.9	4,164.7	4,211.3	1.66	-0.11	1.65
12,489.0	89.71	91.69	6,949.6	-630.0	4,263.7	4,309.8	0.28	0.23	-0.15

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Thistle Down 31H-332
Project:	SEC.31-T5N-R64W	TVD Reference:	WELL @ 4826.0ft (Original Well Elev)
Site:	Thistle Down 5N64W31H Pad Sec.31-T5N-R64W	MD Reference:	WELL @ 4826.0ft (Original Well Elev)
Well:	Thistle Down 31H-332	North Reference:	True
Wellbore:	Thistle Down 31H-332 Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Thistle Down 31H-332 Wellbore #1	Database:	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,585.0	89.74	91.25	6,950.1	-632.4	4,359.7	4,405.2	0.46	0.03	-0.46
12,680.0	90.06	91.18	6,950.3	-634.4	4,454.6	4,499.5	0.34	0.34	-0.07
12,776.0	90.26	91.07	6,950.0	-636.3	4,550.6	4,594.9	0.24	0.21	-0.11
12,892.0	90.31	90.95	6,949.4	-638.4	4,666.6	4,710.1	0.11	0.04	-0.10
12,949.0	90.31	90.95	6,949.1	-639.3	4,723.6	4,766.7	0.00	0.00	0.00
Projected BHL 754'FSL, 799'FWL, SEC.32									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
SHL 1414'FSL, 1357'FW	0.00	0.00	1.0	0.0	0.0	1,372,468.09	3,251,620.04	40.352310	-104.597170
- survey hits target center									
- Point									
Projected BHL 754'FSL,	0.00	0.00	6,950.0	-648.0	4,724.4	1,371,868.23	3,256,350.59	40.350530	-104.580220
- survey misses target center by 8.8ft at 12949.0ft MD (6949.1 TVD, -639.3 N, 4723.6 E)									
- Point									

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,292.2	6,899.8	-659.1	-915.0	TPZ - 460' Setback - 675'FSL, 460'FWL, Sec.31
7,711.0	6,993.7	-635.2	-512.5	Deepest TVD Drilled - 6993.65'TVD

Checked By: _____	Approved By: _____	Date: _____
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