

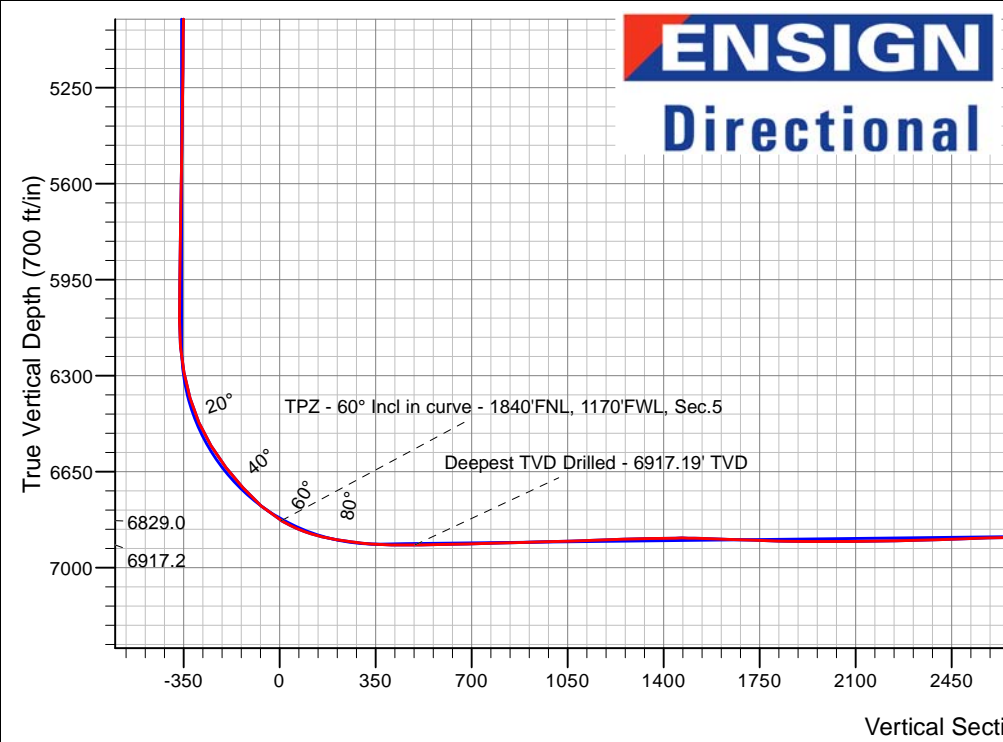
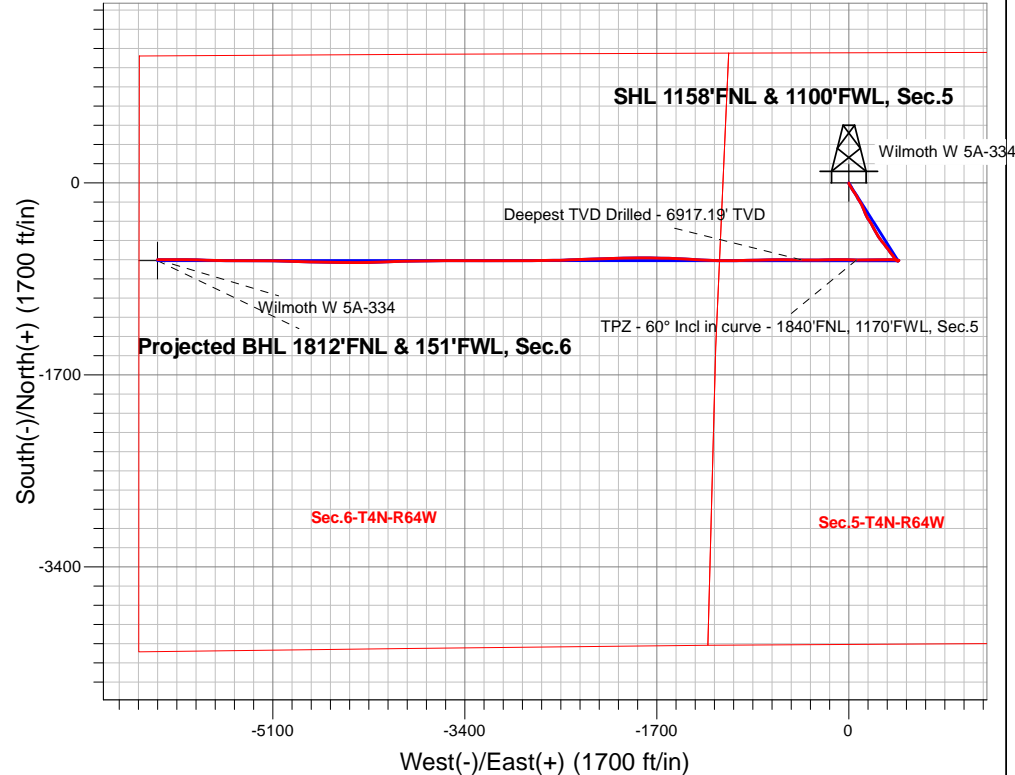
# PDC Energy Inc. DJ Basin

Well Name: **Wilmoth W 5A-334**

Surface Location: Wilmoth 5N64W5J Pad Sec.5-T4N-R64W  
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone  
 Ground Elevation: 4739.0  
 +N/-S+E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1369968.688256559.84 40.345310 -104.579540  
 RKB - 23' WELL @ 4762.0ft (RKB - 23')

## FINAL SURVEY

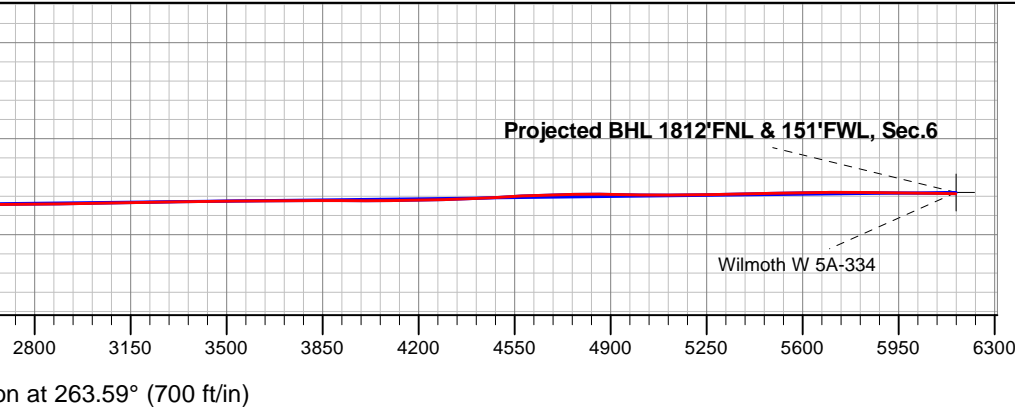
**Projected Bottom Hole Location**  
**13,238'MD 6850'TVD 680'S & 6120'W of SHL**  
**89.1 degree Incl @ 269.60 degree AZM**



Wilmoth 5N64W5J Pad Sec.5-T4N-R64W  
 Wilmoth W 5A-334  
 Wilmoth W 5A-334 Wellbore #1  
 7:12, September 19 2018

ANNOTATIONS		
TVD	MD	Annotation
6829.0	7031.0	TPZ - 60° Incl in curve - 1840'FNL, 1170'FWL, Sec.5
6917.2	7534.0	Deepest TVD Drilled - 6917.19' TVD

LEGEND	
	Wilmoth W 5A-334, Wilmoth W 5A-334 Wellbore #1, Plan #1 (9-6-18) V0
	Wilmoth W 5A-334 Wellbore #1
	Survey #1



Vertical Section at 263.59° (700 ft/in)



## **PDC Energy Inc. DJ Basin**

**SEC.5-T4N-R64W**

**Wilmoth 5N64W5J Pad Sec.5-T4N-R64W**

**Wilmoth W 5A-334**

**Wilmoth W 5A-334 Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**19 September, 2018**



<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Wilmoth W 5A-334
<b>Project:</b>	SEC.5-T4N-R64W	<b>TVD Reference:</b>	WELL @ 4762.0ft (RKB - 23')
<b>Site:</b>	Wilmoth 5N64W5J Pad Sec.5-T4N-R64W	<b>MD Reference:</b>	WELL @ 4762.0ft (RKB - 23')
<b>Well:</b>	Wilmoth W 5A-334	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wilmoth W 5A-334 Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wilmoth W 5A-334 Wellbore #1	<b>Database:</b>	US_EDM

<b>Project</b>	SEC.5-T4N-R64W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

<b>Site</b>	Wilmoth 5N64W5J Pad Sec.5-T4N-R64W				
<b>Site Position:</b>		<b>Northing:</b>	1,370,132.67 usft	<b>Latitude:</b>	40.345760
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,256,563.72 usft	<b>Longitude:</b>	-104.579520
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.59 °

<b>Well</b>	Wilmoth W 5A-334					
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,369,968.68 usft	<b>Latitude:</b>	40.345310
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	3,256,559.85 usft	<b>Longitude:</b>	-104.579540
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	0.0 ft	<b>Ground Level:</b>	4,739.0 ft

<b>Wellbore</b>	Wilmoth W 5A-334 Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	9/6/2018	8.20	66.85	52,220

<b>Design</b>	Wilmoth W 5A-334 Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	263.59	

<b>Survey Program</b>	<b>Date</b>	9/19/2018			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
158.0	13,238.0	Survey #1 (Wilmoth W 5A-334 Wellbore #	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
1.0	0.00	211.10	1.0	0.0	0.0	0.0	0.25	0.25	0.00	
<b>SHL 1158'FNL &amp; 1100'FWL, Sec.5</b>										
158.0	0.40	211.10	158.0	-0.5	-0.3	0.3	0.25	0.25	0.00	
253.0	1.80	167.80	253.0	-2.2	-0.1	0.4	1.61	1.47	-45.58	
349.0	2.90	152.50	348.9	-5.8	1.3	-0.6	1.31	1.15	-15.94	
444.0	4.20	151.60	443.7	-11.0	4.1	-2.8	1.37	1.37	-0.95	
539.0	5.60	153.60	538.4	-18.2	7.8	-5.7	1.48	1.47	2.11	
635.0	7.60	146.00	633.7	-27.7	13.4	-10.2	2.27	2.08	-7.92	
730.0	9.50	148.80	727.7	-39.6	21.0	-16.4	2.05	2.00	2.95	
826.0	12.00	147.90	822.0	-54.9	30.4	-24.1	2.61	2.60	-0.94	

<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Wilmoth W 5A-334
<b>Project:</b>	SEC.5-T4N-R64W	<b>TVD Reference:</b>	WELL @ 4762.0ft (RKB - 23')
<b>Site:</b>	Wilmoth 5N64W5J Pad Sec.5-T4N-R64W	<b>MD Reference:</b>	WELL @ 4762.0ft (RKB - 23')
<b>Well:</b>	Wilmoth W 5A-334	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wilmoth W 5A-334 Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wilmoth W 5A-334 Wellbore #1	<b>Database:</b>	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)
922.0	12.60	146.30	915.8	-72.0	41.5	-33.2	0.72	0.63	-1.67
1,018.0	12.50	148.10	1,009.5	-89.6	52.8	-42.5	0.42	-0.10	1.88
1,114.0	11.40	148.50	1,103.4	-106.5	63.3	-51.0	1.15	-1.15	0.42
1,209.0	11.40	150.80	1,196.5	-122.7	72.7	-58.6	0.48	0.00	2.42
1,305.0	11.90	148.80	1,290.5	-139.4	82.5	-66.4	0.67	0.52	-2.08
1,401.0	10.90	149.50	1,384.6	-155.7	92.2	-74.3	1.05	-1.04	0.73
1,497.0	10.20	150.60	1,479.0	-170.9	101.0	-81.3	0.76	-0.73	1.15
1,592.0	9.40	153.90	1,572.6	-185.2	108.6	-87.2	1.03	-0.84	3.47
1,634.0	8.60	150.90	1,614.1	-191.0	111.6	-89.6	2.21	-1.90	-7.14
1,780.0	10.50	151.80	1,758.1	-212.3	123.2	-98.7	1.31	1.30	0.62
1,876.0	9.40	162.50	1,852.7	-227.5	129.7	-103.5	2.24	-1.15	11.15
1,971.0	10.20	160.80	1,946.3	-242.8	134.8	-106.8	0.90	0.84	-1.79
2,067.0	11.30	156.70	2,040.6	-259.5	141.3	-111.4	1.39	1.15	-4.27
2,162.0	12.00	155.90	2,133.6	-277.1	149.0	-117.1	0.76	0.74	-0.84
2,257.0	10.80	154.30	2,226.7	-294.1	156.9	-123.1	1.31	-1.26	-1.68
2,353.0	11.30	148.30	2,321.0	-310.2	165.7	-130.1	1.31	0.52	-6.25
2,448.0	10.60	147.20	2,414.2	-325.5	175.4	-137.9	0.77	-0.74	-1.16
2,543.0	9.50	143.90	2,507.8	-339.2	184.7	-145.7	1.31	-1.16	-3.47
2,638.0	10.80	148.10	2,601.3	-353.0	194.0	-153.4	1.57	1.37	4.42
2,734.0	12.90	152.50	2,695.2	-370.2	203.7	-161.1	2.38	2.19	4.58
2,829.0	13.70	152.00	2,787.7	-389.5	213.9	-169.1	0.85	0.84	-0.53
2,925.0	13.10	151.10	2,881.1	-409.1	224.5	-177.4	0.66	-0.63	-0.94
3,021.0	12.50	151.30	2,974.7	-427.7	234.8	-185.5	0.63	-0.63	0.21
3,116.0	11.30	150.90	3,067.7	-444.9	244.2	-193.0	1.27	-1.26	-0.42
3,211.0	9.50	150.80	3,161.1	-459.9	252.6	-199.7	1.89	-1.89	-0.11
3,307.0	9.40	145.80	3,255.8	-473.3	260.9	-206.4	0.86	-0.10	-5.21
3,403.0	11.60	144.60	3,350.2	-487.6	270.9	-214.7	2.30	2.29	-1.25
3,499.0	10.60	141.60	3,444.4	-502.4	281.9	-224.1	1.20	-1.04	-3.13
3,595.0	11.10	141.80	3,538.7	-516.6	293.1	-233.6	0.52	0.52	0.21
3,691.0	10.40	141.80	3,633.0	-530.7	304.2	-243.0	0.73	-0.73	0.00
3,786.0	10.50	142.70	3,726.4	-544.3	314.8	-252.0	0.20	0.11	0.95
3,881.0	10.70	142.10	3,819.8	-558.1	325.4	-261.1	0.24	0.21	-0.63
3,977.0	10.60	142.50	3,914.1	-572.2	336.3	-270.3	0.13	-0.10	0.42
4,072.0	10.00	141.40	4,007.6	-585.5	346.7	-279.2	0.66	-0.63	-1.16
4,167.0	10.70	143.40	4,101.1	-599.1	357.1	-288.0	0.83	0.74	2.11
4,262.0	12.00	145.10	4,194.2	-614.2	368.0	-297.2	1.41	1.37	1.79
4,358.0	11.00	144.40	4,288.3	-629.9	379.1	-306.4	1.05	-1.04	-0.73
4,453.0	9.80	143.20	4,381.7	-643.7	389.2	-314.9	1.28	-1.26	-1.26
4,549.0	8.80	143.70	4,476.4	-656.2	398.4	-322.7	1.05	-1.04	0.52
4,645.0	8.40	144.60	4,571.4	-667.8	406.9	-329.7	0.44	-0.42	0.94
4,741.0	5.20	134.80	4,666.7	-676.6	414.0	-335.9	3.53	-3.33	-10.21
4,836.0	4.60	126.70	4,761.3	-681.9	420.1	-341.3	0.96	-0.63	-8.53
4,932.0	3.50	122.80	4,857.1	-685.8	425.7	-346.4	1.18	-1.15	-4.06

<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Wilmoth W 5A-334
<b>Project:</b>	SEC.5-T4N-R64W	<b>TVD Reference:</b>	WELL @ 4762.0ft (RKB - 23')
<b>Site:</b>	Wilmoth 5N64W5J Pad Sec.5-T4N-R64W	<b>MD Reference:</b>	WELL @ 4762.0ft (RKB - 23')
<b>Well:</b>	Wilmoth W 5A-334	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wilmoth W 5A-334 Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wilmoth W 5A-334 Wellbore #1	<b>Database:</b>	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)	
5,027.0	1.70	126.90	4,952.0	-688.2	429.2	-349.7	1.90	-1.89	4.32	
5,122.0	1.40	127.20	5,046.9	-689.8	431.3	-351.6	0.32	-0.32	0.32	
5,217.0	0.60	119.10	5,141.9	-690.7	432.6	-352.8	0.85	-0.84	-8.53	
5,313.0	0.60	69.20	5,237.9	-690.8	433.5	-353.7	0.53	0.00	-51.98	
5,409.0	0.70	61.80	5,333.9	-690.3	434.5	-354.7	0.14	0.10	-7.71	
5,505.0	0.70	70.30	5,429.9	-689.8	435.6	-355.8	0.11	0.00	8.85	
5,601.0	1.10	91.90	5,525.9	-689.7	437.1	-357.3	0.54	0.42	22.50	
5,697.0	1.10	92.40	5,621.9	-689.7	438.9	-359.2	0.01	0.00	0.52	
5,792.0	1.10	74.30	5,716.9	-689.5	440.7	-361.0	0.36	0.00	-19.05	
5,888.0	0.90	54.60	5,812.9	-688.8	442.2	-362.5	0.41	-0.21	-20.52	
5,983.0	0.80	18.60	5,907.8	-687.8	443.0	-363.5	0.56	-0.11	-37.89	
6,079.0	0.80	32.80	6,003.8	-686.6	443.6	-364.2	0.21	0.00	14.79	
6,175.0	0.80	36.30	6,099.8	-685.5	444.4	-365.0	0.05	0.00	3.65	
6,270.0	4.80	281.00	6,194.7	-684.2	440.9	-361.7	5.47	4.21	-121.37	
6,365.0	10.60	274.50	6,288.8	-682.7	428.2	-349.3	6.16	6.11	-6.84	
6,461.0	16.70	272.00	6,382.1	-681.6	405.6	-327.0	6.38	6.35	-2.60	
6,556.0	23.70	273.30	6,471.2	-680.0	372.9	-294.6	7.38	7.37	1.37	
6,652.0	32.20	268.00	6,555.9	-679.8	328.0	-250.0	9.22	8.85	-5.52	
6,748.0	37.50	270.10	6,634.7	-680.6	273.1	-195.4	5.66	5.52	2.19	
6,844.0	42.10	269.60	6,708.4	-680.8	211.7	-134.4	4.80	4.79	-0.52	
6,939.0	48.40	268.20	6,775.3	-682.1	144.3	-67.2	6.71	6.63	-1.47	
7,031.0	59.99	271.86	6,829.0	-681.9	69.8	6.8	13.01	12.60	3.98	
<b>TPZ - 60° Incl in curve - 1840'FNL, 1170'FWL, Sec.5</b>										
7,035.0	60.50	272.00	6,831.0	-681.8	66.4	10.2	13.01	12.66	3.44	
7,131.0	70.80	271.30	6,870.5	-679.3	-21.0	96.7	10.75	10.73	-0.73	
7,227.0	79.80	268.70	6,894.8	-679.3	-113.7	188.9	9.73	9.38	-2.71	
7,322.0	83.30	268.20	6,908.8	-681.9	-207.6	282.5	3.72	3.68	-0.53	
7,402.6	87.09	270.13	6,915.6	-683.1	-287.9	362.4	5.27	4.70	2.40	
<b>LPL 1845'FNL &amp; 843'FWL, Sec.5</b>										
7,439.0	88.80	271.00	6,916.9	-682.7	-324.3	398.5	5.27	4.70	2.38	
7,534.0	90.80	270.50	6,917.2	-681.5	-419.3	492.7	2.17	2.11	-0.53	
<b>Deepest TVD Drilled - 6917.19' TVD</b>										
7,630.0	91.30	270.30	6,915.4	-680.8	-515.3	588.1	0.56	0.52	-0.21	
7,726.0	91.30	269.90	6,913.3	-680.6	-611.2	683.4	0.42	0.00	-0.42	
7,821.0	91.50	269.20	6,910.9	-681.4	-706.2	777.9	0.77	0.21	-0.74	
7,917.0	91.50	268.90	6,908.4	-683.0	-802.2	873.4	0.31	0.00	-0.31	
8,012.0	91.60	268.50	6,905.9	-685.1	-897.1	968.0	0.43	0.11	-0.42	
8,108.0	92.00	268.40	6,902.8	-687.7	-993.0	1,063.6	0.43	0.42	-0.10	
8,204.0	91.80	271.50	6,899.7	-687.8	-1,088.9	1,158.9	3.23	-0.21	3.23	
8,299.0	92.50	271.20	6,896.1	-685.5	-1,183.9	1,253.0	0.80	0.74	-0.32	
8,395.0	90.50	272.80	6,893.6	-682.2	-1,279.8	1,347.9	2.67	-2.08	1.67	
8,491.0	91.00	272.40	6,892.3	-677.8	-1,375.6	1,442.7	0.67	0.52	-0.42	
8,586.0	87.90	274.20	6,893.2	-672.4	-1,470.5	1,536.4	3.77	-3.26	1.89	
8,682.0	88.10	271.50	6,896.6	-667.6	-1,566.3	1,631.0	2.82	0.21	-2.81	

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<b>Site:</b>	Wilmoth 5N64W5J Pad Sec.5-T4N-R64W	<b>MD Reference:</b>	WELL @ 4762.0ft (RKB - 23')
<b>Well:</b>	Wilmoth W 5A-334	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wilmoth W 5A-334 Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wilmoth W 5A-334 Wellbore #1	<b>Database:</b>	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)	
8,778.0	88.20	270.80	6,899.7	-665.7	-1,662.2	1,726.1	0.74	0.10	-0.73	
8,873.0	88.00	271.00	6,902.8	-664.2	-1,757.1	1,820.3	0.30	-0.21	0.21	
8,969.0	90.10	269.60	6,904.4	-663.7	-1,853.1	1,915.6	2.63	2.19	-1.46	
9,065.0	90.20	269.10	6,904.2	-664.8	-1,949.1	2,011.2	0.53	0.10	-0.52	
9,160.0	90.00	268.00	6,904.0	-667.2	-2,044.1	2,105.8	1.18	-0.21	-1.16	
9,256.0	91.20	268.90	6,903.0	-669.8	-2,140.0	2,201.4	1.56	1.25	0.94	
9,351.0	91.60	268.40	6,900.7	-672.0	-2,235.0	2,296.0	0.67	0.42	-0.53	
9,447.0	91.60	267.70	6,898.0	-675.3	-2,330.9	2,391.7	0.73	0.00	-0.73	
9,542.0	91.90	267.00	6,895.1	-679.7	-2,425.7	2,486.5	0.80	0.32	-0.74	
9,637.0	92.00	268.20	6,891.9	-683.6	-2,520.6	2,581.2	1.27	0.11	1.26	
9,733.0	90.40	269.80	6,889.9	-685.3	-2,616.6	2,676.7	2.36	-1.67	1.67	
9,828.0	90.30	269.80	6,889.3	-685.7	-2,711.6	2,771.2	0.11	-0.11	0.00	
9,923.0	90.80	269.10	6,888.4	-686.6	-2,806.6	2,865.7	0.91	0.53	-0.74	
10,018.0	91.40	269.10	6,886.5	-688.1	-2,901.5	2,960.2	0.63	0.63	0.00	
10,114.0	90.90	270.10	6,884.6	-688.7	-2,997.5	3,055.7	1.16	-0.52	1.04	
10,209.0	90.70	269.40	6,883.3	-689.1	-3,092.5	3,150.1	0.77	-0.21	-0.74	
10,305.0	91.20	269.60	6,881.7	-690.0	-3,188.5	3,245.6	0.56	0.52	0.21	
10,401.0	91.40	269.90	6,879.5	-690.4	-3,284.4	3,341.0	0.38	0.21	0.31	
10,496.0	90.10	270.80	6,878.3	-689.8	-3,379.4	3,435.3	1.66	-1.37	0.95	
10,591.0	90.20	270.50	6,878.0	-688.7	-3,474.4	3,529.6	0.33	0.11	-0.32	
10,687.0	90.60	270.10	6,877.4	-688.2	-3,570.4	3,624.9	0.59	0.42	-0.42	
10,783.0	90.50	269.80	6,876.4	-688.3	-3,666.4	3,720.3	0.33	-0.10	-0.31	
10,879.0	90.30	269.20	6,875.8	-689.2	-3,762.4	3,815.8	0.66	-0.21	-0.63	
10,975.0	89.90	268.70	6,875.6	-690.9	-3,858.4	3,911.4	0.67	-0.42	-0.52	
11,070.0	89.40	268.00	6,876.2	-693.7	-3,953.4	4,006.1	0.91	-0.53	-0.74	
11,166.0	90.90	268.40	6,875.9	-696.7	-4,049.3	4,101.8	1.62	1.56	0.42	
11,261.0	91.10	267.70	6,874.3	-699.9	-4,144.2	4,196.5	0.77	0.21	-0.74	
11,357.0	91.60	268.70	6,872.0	-702.9	-4,240.2	4,292.1	1.16	0.52	1.04	
11,452.0	92.20	268.70	6,868.9	-705.1	-4,335.1	4,386.7	0.63	0.63	0.00	
11,547.0	93.30	270.50	6,864.3	-705.7	-4,430.0	4,481.1	2.22	1.16	1.89	
11,642.0	92.90	271.90	6,859.2	-703.7	-4,524.8	4,575.1	1.53	-0.42	1.47	
11,738.0	91.10	271.00	6,855.8	-701.3	-4,620.7	4,670.1	2.10	-1.88	-0.94	
11,833.0	91.60	270.60	6,853.6	-700.0	-4,715.7	4,764.3	0.67	0.53	-0.42	
11,929.0	89.50	272.40	6,852.6	-697.5	-4,811.6	4,859.4	2.88	-2.19	1.88	
12,025.0	89.10	271.70	6,853.8	-694.0	-4,907.6	4,954.4	0.84	-0.42	-0.73	
12,120.0	89.60	271.20	6,854.9	-691.6	-5,002.5	5,048.5	0.74	0.53	-0.53	
12,216.0	90.10	270.60	6,855.1	-690.1	-5,098.5	5,143.7	0.81	0.52	-0.63	
12,312.0	90.70	270.30	6,854.5	-689.4	-5,194.5	5,239.0	0.70	0.63	-0.31	
12,407.0	91.30	269.90	6,852.8	-689.2	-5,289.5	5,333.4	0.76	0.63	-0.42	
12,502.0	91.50	270.60	6,850.5	-688.8	-5,384.5	5,427.7	0.77	0.21	0.74	
12,597.0	90.80	270.60	6,848.6	-687.8	-5,479.4	5,522.0	0.74	-0.74	0.00	
12,693.0	91.50	270.10	6,846.7	-687.2	-5,575.4	5,617.3	0.90	0.73	-0.52	
12,789.0	90.00	272.80	6,845.4	-684.8	-5,671.4	5,712.4	3.22	-1.56	2.81	

<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Wilmoth W 5A-334
<b>Project:</b>	SEC.5-T4N-R64W	<b>TVD Reference:</b>	WELL @ 4762.0ft (RKB - 23')
<b>Site:</b>	Wilmoth 5N64W5J Pad Sec.5-T4N-R64W	<b>MD Reference:</b>	WELL @ 4762.0ft (RKB - 23')
<b>Well:</b>	Wilmoth W 5A-334	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wilmoth W 5A-334 Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wilmoth W 5A-334 Wellbore #1	<b>Database:</b>	US_EDM

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)
12,885.0	89.10	271.20	6,846.2	-681.4	-5,767.3	5,807.3	1.91	-0.94	-1.67
12,981.0	89.60	270.80	6,847.3	-679.8	-5,863.3	5,902.5	0.67	0.52	-0.42
13,077.0	89.40	269.90	6,848.1	-679.2	-5,959.3	5,997.8	0.96	-0.21	-0.94
13,178.0	89.10	269.60	6,849.4	-679.6	-6,060.3	6,098.2	0.42	-0.30	-0.30
13,238.0	89.10	269.60	6,850.4	-680.0	-6,120.2	6,157.9	0.00	0.00	0.00
<b>BHL 1820'FNL &amp; 150'FWL, Sec.6</b>									

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL 1158'FNL & 1100'FV - hit/miss target - Shape - Point	0.00	0.00	1.0	0.0	0.0	1,369,968.69	3,256,559.85	40.345310	-104.579540
BHL 1820'FNL & 150'FV - survey misses target center by 8.9ft at 13238.0ft MD (6850.4 TVD, -680.0 N, -6120.2 E) - Point	0.00	0.00	6,846.0	-687.8	-6,120.9	1,369,217.44	3,250,446.68	40.343420	-104.601498

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
7,031.0	6,829.0	-681.9	69.8	TPZ - 60° Incl in curve - 1840'FNL, 1170'FWL, Sec.5
7,534.0	6,917.2	-681.5	-419.3	Deepest TVD Drilled - 6917.19' TVD

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_