

PDC Energy Inc. DJ Basin

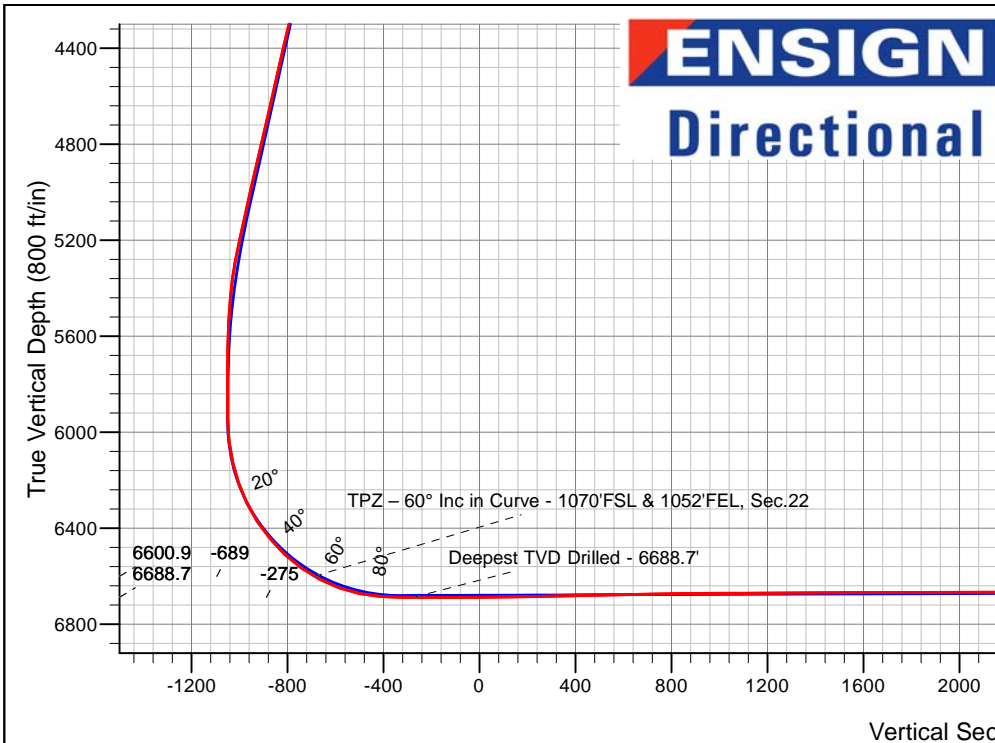
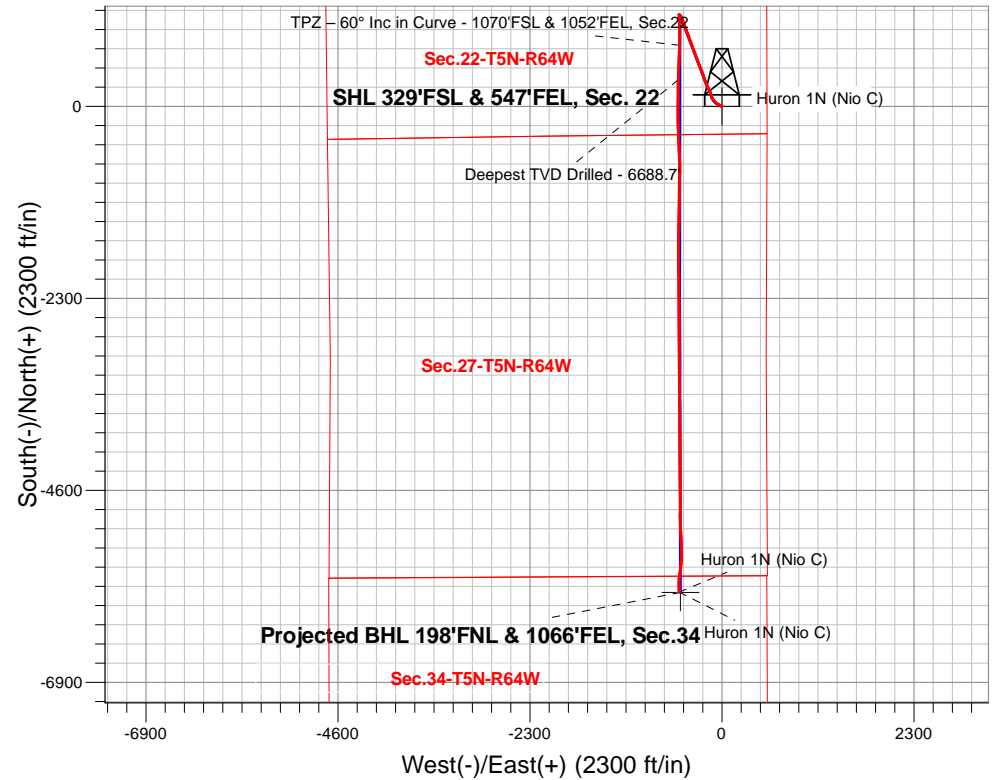
Well Name: **Huron 1N (Nio C)**
 Surface Location: Huron 5N64W22 Sec22-T5N-R64W
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
 Ground Elevation: 4598.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1382222.08	3270700.45	40.378530	-104.528330	

Ensign 142 RKB - 28' WELL @ 4626.0ft (Ensign 142 RKB - 28')

FINAL SURVEY

Projected Bottom Hole Location
13,450'MD 6645'TVD 5819'S & 513'W of SHL
90.36 degree Inc @ 177.91 degree Azm



Huron 5N64W22 Sec22-T5N-R64W
 Huron 1N (Nio C)
 Huron 1N (Nio C) Wellbore #1
 16:06, March 11 2021

ANNOTATIONS

TVD	MD	Annotation
6600.9	6876.9	TPZ - 60° Inc in Curve - 1070'FSL & 1052'FEL, Sec. 22
6688.7	7307.0	Deepest TVD Drilled - 6688.7'

LEGEND

- ▲ Huron 1N (Nio C), Huron 1N (Nio C) Wellbore #1, Plan #3 (2-12-21) V0
- Huron 1N (Nio C) Wellbore #1
- Survey #1

Projected BHL 198'FNL & 1066'FEL, Sec. 34

Huron 1N (Nio C)
 Huron 1N (Nio C)



PDC Energy Inc. DJ Basin

SEC.22-T5N-R64W

Huron 5N64W22 Sec22-T5N-R64W

Huron 1N (Nio C)

Huron 1N (Nio C) Wellbore #1

Survey: Survey #1

Standard Survey Report

11 March, 2021

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Huron 1N (Nio C)
Project:	SEC.22-T5N-R64W	TVD Reference:	WELL @ 4626.0ft (Ensign 142 RKB - 28')
Site:	Huron 5N64W22 Sec22-T5N-R64W	MD Reference:	WELL @ 4626.0ft (Ensign 142 RKB - 28')
Well:	Huron 1N (Nio C)	North Reference:	True
Wellbore:	Huron 1N (Nio C) Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Huron 1N (Nio C) Wellbore #1	Database:	US_EDM

Project	SEC.22-T5N-R64W, Weld County, Colorado		
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	Huron 5N64W22 Sec22-T5N-R64W				
Site Position:		Northing:	1,382,211.17 usft	Latitude:	40.378499
From:	Lat/Long	Easting:	3,270,731.22 usft	Longitude:	-104.528220
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.63 °

Well	Huron 1N (Nio C)					
Well Position	+N/-S	0.0 ft	Northing:	1,382,222.08 usft	Latitude:	40.378530
	+E/-W	0.0 ft	Easting:	3,270,700.45 usft	Longitude:	-104.528330
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,598.0 ft

Wellbore	Huron 1N (Nio C) Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	02/08/2021	7.73	66.78	51,970

Design	Huron 1N (Nio C) 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	184.87	

Survey Program	Date	03/11/2021			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
161.0	13,450.0	Survey #1 (Huron 1N (Nio C) Wellbore #1)	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	
161.0	0.18	201.82	161.0	-0.2	-0.1	0.2	0.11	0.11	0.00	
253.0	0.97	17.07	253.0	0.4	0.1	-0.4	1.25	0.86	190.49	
343.0	1.41	326.09	343.0	2.0	-0.3	-2.0	1.22	0.49	-56.64	
418.0	2.81	305.70	417.9	3.9	-2.3	-3.7	2.09	1.87	-27.19	
504.0	4.70	291.50	503.7	6.4	-7.3	-5.7	2.43	2.20	-16.51	
593.0	7.40	290.10	592.2	9.7	-16.1	-8.3	3.04	3.03	-1.57	
682.0	10.00	292.50	680.2	14.6	-28.6	-12.1	2.95	2.92	2.70	
772.0	12.50	299.60	768.5	22.4	-44.3	-18.6	3.17	2.78	7.89	
858.0	13.40	305.00	852.3	32.7	-60.6	-27.5	1.75	1.05	6.28	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Huron 1N (Nio C)
Project:	SEC.22-T5N-R64W	TVD Reference:	WELL @ 4626.0ft (Ensign 142 RKB - 28')
Site:	Huron 5N64W22 Sec22-T5N-R64W	MD Reference:	WELL @ 4626.0ft (Ensign 142 RKB - 28')
Well:	Huron 1N (Nio C)	North Reference:	True
Wellbore:	Huron 1N (Nio C) Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Huron 1N (Nio C) 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)
948.0	14.50	311.70	939.6	46.2	-77.5	-39.5	2.17	1.22	7.44
1,038.0	15.30	319.40	1,026.6	62.7	-93.7	-54.5	2.37	0.89	8.56
1,126.0	15.80	327.70	1,111.4	81.7	-107.6	-72.2	2.59	0.57	9.43
1,215.0	15.30	334.90	1,197.2	102.5	-119.1	-92.1	2.24	-0.56	8.09
1,304.0	15.40	343.30	1,283.0	124.5	-127.5	-113.2	2.50	0.11	9.44
1,393.0	15.30	343.30	1,368.8	147.1	-134.2	-135.1	0.11	-0.11	0.00
1,482.0	14.60	339.10	1,454.8	168.8	-141.6	-156.2	1.45	-0.79	-4.72
1,572.0	14.10	335.10	1,542.0	189.3	-150.3	-175.9	1.23	-0.56	-4.44
1,641.0	13.80	333.30	1,609.0	204.3	-157.5	-190.2	0.76	-0.43	-2.61
1,791.0	13.41	333.61	1,754.8	235.9	-173.3	-220.3	0.26	-0.26	0.21
1,881.0	13.10	333.89	1,842.4	254.4	-182.4	-238.0	0.35	-0.34	0.31
1,971.0	14.22	336.34	1,929.8	273.7	-191.3	-256.4	1.40	1.24	2.72
2,061.0	14.19	343.12	2,017.1	294.3	-199.0	-276.4	1.85	-0.03	7.53
2,150.0	14.45	341.19	2,103.3	315.3	-205.7	-296.7	0.61	0.29	-2.17
2,240.0	14.21	342.78	2,190.5	336.5	-212.6	-317.2	0.51	-0.27	1.77
2,329.0	14.43	342.76	2,276.7	357.5	-219.1	-337.6	0.25	0.25	-0.02
2,419.0	14.38	339.13	2,363.9	378.7	-226.4	-358.1	1.00	-0.06	-4.03
2,508.0	14.11	339.51	2,450.2	399.1	-234.2	-377.8	0.32	-0.30	0.43
2,598.0	13.93	338.67	2,537.5	419.5	-241.9	-397.5	0.30	-0.20	-0.93
2,688.0	14.21	337.60	2,624.8	439.8	-250.1	-417.0	0.42	0.31	-1.19
2,778.0	14.28	337.43	2,712.0	460.3	-258.6	-436.7	0.09	0.08	-0.19
2,867.0	14.23	338.68	2,798.3	480.6	-266.7	-456.2	0.35	-0.06	1.40
2,956.0	14.45	338.96	2,884.5	501.2	-274.7	-476.0	0.26	0.25	0.31
3,045.0	14.02	339.35	2,970.8	521.6	-282.5	-495.7	0.50	-0.48	0.44
3,135.0	13.16	338.07	3,058.3	541.3	-290.2	-514.7	1.01	-0.96	-1.42
3,225.0	13.12	339.00	3,145.9	560.4	-297.7	-533.1	0.24	-0.04	1.03
3,315.0	13.60	340.90	3,233.5	579.9	-304.8	-551.9	0.72	0.53	2.11
3,404.0	14.04	340.04	3,319.9	599.9	-311.9	-571.3	0.55	0.49	-0.97
3,494.0	13.98	340.07	3,407.2	620.4	-319.3	-591.1	0.07	-0.07	0.03
3,584.0	14.29	339.15	3,494.5	641.0	-327.0	-610.9	0.43	0.34	-1.02
3,674.0	14.49	339.44	3,581.7	661.9	-334.9	-631.1	0.24	0.22	0.32
3,764.0	13.81	338.89	3,668.9	682.5	-342.7	-650.9	0.77	-0.76	-0.61
3,853.0	14.32	339.66	3,755.3	702.7	-350.4	-670.4	0.61	0.57	0.87
3,943.0	14.14	339.52	3,842.5	723.5	-358.1	-690.4	0.20	-0.20	-0.16
4,033.0	13.82	341.48	3,929.8	744.0	-365.3	-710.2	0.63	-0.36	2.18
4,123.0	13.52	340.99	4,017.3	764.1	-372.2	-729.7	0.36	-0.33	-0.54
4,212.0	14.13	339.05	4,103.7	784.1	-379.5	-749.0	0.86	0.69	-2.18
4,302.0	14.08	339.12	4,191.0	804.6	-387.3	-768.8	0.06	-0.06	0.08
4,392.0	14.50	339.99	4,278.2	825.4	-395.0	-788.9	0.52	0.47	0.97
4,482.0	14.42	339.68	4,365.4	846.5	-402.8	-809.2	0.12	-0.09	-0.34
4,571.0	14.09	339.41	4,451.6	867.0	-410.4	-829.0	0.38	-0.37	-0.30
4,661.0	14.19	340.20	4,538.9	887.6	-418.0	-848.9	0.24	0.11	0.88
4,750.0	14.25	339.06	4,625.2	908.1	-425.6	-868.7	0.32	0.07	-1.28
4,840.0	14.16	340.02	4,712.4	928.8	-433.4	-888.7	0.28	-0.10	1.07

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Huron 1N (Nio C)
Project:	SEC.22-T5N-R64W	TVD Reference:	WELL @ 4626.0ft (Ensign 142 RKB - 28')
Site:	Huron 5N64W22 Sec22-T5N-R64W	MD Reference:	WELL @ 4626.0ft (Ensign 142 RKB - 28')
Well:	Huron 1N (Nio C)	North Reference:	True
Wellbore:	Huron 1N (Nio C) Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Huron 1N (Nio C) 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)	
4,929.0	14.51	340.02	4,798.6	949.5	-440.9	-908.7	0.39	0.39	0.00	
5,019.0	14.23	339.49	4,885.8	970.5	-448.6	-928.9	0.34	-0.31	-0.59	
5,108.0	13.95	339.31	4,972.2	990.8	-456.2	-948.5	0.32	-0.31	-0.20	
5,198.0	13.94	340.53	5,059.5	1,011.1	-463.7	-968.1	0.33	-0.01	1.36	
5,288.0	13.65	340.10	5,146.9	1,031.3	-470.9	-987.6	0.34	-0.32	-0.48	
5,378.0	13.61	339.63	5,234.4	1,051.3	-478.2	-1,006.9	0.13	-0.04	-0.52	
5,467.0	10.50	330.92	5,321.4	1,068.2	-485.8	-1,023.1	4.04	-3.49	-9.79	
5,556.0	8.48	320.64	5,409.2	1,080.3	-493.9	-1,034.5	2.95	-2.27	-11.55	
5,646.0	6.46	310.75	5,498.4	1,088.8	-502.0	-1,042.2	2.65	-2.24	-10.99	
5,735.0	4.62	303.96	5,587.0	1,094.0	-508.7	-1,046.9	2.19	-2.07	-7.63	
5,825.0	0.85	290.56	5,676.9	1,096.3	-512.4	-1,048.8	4.22	-4.19	-14.89	
5,915.0	0.06	117.85	5,766.9	1,096.5	-512.9	-1,049.0	1.01	-0.88	-191.90	
6,005.0	0.12	30.62	5,856.9	1,096.6	-512.9	-1,049.1	0.15	0.07	-96.92	
6,095.0	0.02	168.44	5,946.9	1,096.6	-512.8	-1,049.1	0.15	-0.11	153.13	
6,185.0	7.11	185.93	6,036.7	1,091.1	-513.4	-1,043.6	7.88	7.88	19.43	
6,275.0	12.67	179.51	6,125.3	1,075.7	-513.9	-1,028.1	6.29	6.18	-7.13	
6,365.0	19.23	174.36	6,211.8	1,051.0	-512.3	-1,003.7	7.45	7.29	-5.72	
6,455.0	25.62	175.24	6,294.9	1,016.8	-509.2	-969.9	7.11	7.10	0.98	
6,544.0	33.92	178.36	6,372.1	972.8	-506.9	-926.2	9.48	9.33	3.51	
6,634.0	40.25	179.51	6,443.9	918.5	-506.0	-872.2	7.08	7.03	1.28	
6,723.0	45.92	179.83	6,508.9	857.8	-505.6	-811.7	6.38	6.37	0.36	
6,813.0	54.57	181.19	6,566.4	788.6	-506.3	-742.8	9.68	9.61	1.51	
6,876.9	60.00	181.44	6,600.9	734.9	-507.5	-689.2	8.51	8.50	0.39	
TPZ - 60° Inc in Curve - 1070'FSL & 1052'FEL, Sec.22										
6,903.0	62.22	181.53	6,613.5	712.1	-508.1	-666.4	8.51	8.50	0.36	
6,993.0	70.83	182.99	6,649.3	629.7	-511.4	-584.0	9.68	9.57	1.62	
7,082.0	78.33	181.94	6,673.0	544.0	-515.1	-498.3	8.50	8.43	-1.18	
7,171.0	86.01	181.52	6,685.1	455.9	-517.7	-410.3	8.64	8.63	-0.47	
7,261.0	89.63	182.13	6,688.5	366.1	-520.6	-320.5	4.08	4.02	0.68	
7,307.0	89.85	182.31	6,688.7	320.1	-522.4	-274.6	0.61	0.47	0.39	
Deepest TVD Drilled - 6688.7'										
7,350.0	90.05	182.48	6,688.7	277.1	-524.2	-231.6	0.61	0.47	0.39	
7,440.0	90.19	178.65	6,688.5	187.2	-525.1	-141.9	4.26	0.16	-4.26	
7,529.0	90.40	180.91	6,688.1	98.2	-524.7	-53.3	2.55	0.24	2.54	
7,618.0	89.66	181.96	6,688.0	9.2	-527.0	35.6	1.44	-0.83	1.18	
7,707.0	91.11	179.62	6,687.4	-79.8	-528.2	124.3	3.09	1.63	-2.63	
7,797.0	91.34	177.43	6,685.5	-169.7	-525.9	213.8	2.45	0.26	-2.43	
7,887.0	91.33	178.43	6,683.4	-259.6	-522.6	303.1	1.11	-0.01	1.11	
7,976.0	91.25	177.97	6,681.4	-348.6	-519.8	391.5	0.52	-0.09	-0.52	
8,066.0	91.02	178.20	6,679.6	-438.5	-516.8	480.8	0.36	-0.26	0.26	
8,156.0	91.39	178.10	6,677.7	-528.4	-513.9	570.2	0.43	0.41	-0.11	
8,245.0	90.97	177.73	6,675.9	-617.4	-510.7	658.5	0.63	-0.47	-0.42	
8,335.0	90.88	177.95	6,674.5	-707.3	-507.3	747.8	0.26	-0.10	0.24	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Huron 1N (Nio C)
Project:	SEC.22-T5N-R64W	TVD Reference:	WELL @ 4626.0ft (Ensign 142 RKB - 28')
Site:	Huron 5N64W22 Sec22-T5N-R64W	MD Reference:	WELL @ 4626.0ft (Ensign 142 RKB - 28')
Well:	Huron 1N (Nio C)	North Reference:	True
Wellbore:	Huron 1N (Nio C) Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Huron 1N (Nio C) 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)
8,424.0	90.33	181.38	6,673.5	-796.3	-506.8	836.4	3.90	-0.62	3.85
8,513.0	90.77	179.58	6,672.7	-885.3	-507.5	925.2	2.08	0.49	-2.02
8,603.0	90.10	182.26	6,672.0	-975.2	-509.0	1,014.9	3.07	-0.74	2.98
8,693.0	90.41	179.52	6,671.6	-1,065.2	-510.4	1,104.7	3.06	0.34	-3.04
8,782.0	90.35	182.54	6,671.0	-1,154.2	-511.9	1,193.5	3.39	-0.07	3.39
8,872.0	90.37	180.58	6,670.4	-1,244.2	-514.4	1,283.3	2.18	0.02	-2.18
8,961.0	90.23	181.80	6,670.0	-1,333.1	-516.2	1,372.1	1.38	-0.16	1.37
9,051.0	90.20	179.24	6,669.6	-1,423.1	-517.1	1,461.9	2.84	-0.03	-2.84
9,141.0	90.70	181.26	6,668.9	-1,513.1	-517.5	1,551.6	2.31	0.56	2.24
9,231.0	90.31	181.92	6,668.1	-1,603.1	-520.0	1,641.4	0.85	-0.43	0.73
9,321.0	89.99	179.06	6,667.9	-1,693.1	-520.7	1,731.2	3.20	-0.36	-3.18
9,410.0	90.23	179.44	6,667.7	-1,782.0	-519.6	1,819.7	0.50	0.27	0.43
9,500.0	90.03	180.52	6,667.5	-1,872.0	-519.5	1,909.4	1.22	-0.22	1.20
9,590.0	90.05	179.60	6,667.4	-1,962.0	-519.6	1,999.1	1.02	0.02	-1.02
9,680.0	89.98	179.46	6,667.4	-2,052.0	-518.9	2,088.7	0.17	-0.08	-0.16
9,770.0	90.20	179.68	6,667.3	-2,142.0	-518.2	2,178.3	0.35	0.24	0.24
9,859.0	90.01	179.32	6,667.1	-2,231.0	-517.4	2,266.9	0.46	-0.21	-0.40
9,949.0	90.11	179.49	6,667.0	-2,321.0	-516.5	2,356.5	0.22	0.11	0.19
10,039.0	89.96	179.17	6,667.0	-2,411.0	-515.4	2,446.1	0.39	-0.17	-0.36
10,129.0	90.43	179.65	6,666.7	-2,501.0	-514.5	2,535.7	0.75	0.52	0.53
10,219.0	89.84	179.67	6,666.5	-2,591.0	-514.0	2,625.3	0.66	-0.66	0.02
10,309.0	90.12	179.65	6,666.5	-2,681.0	-513.4	2,714.9	0.31	0.31	-0.02
10,398.0	90.20	179.55	6,666.2	-2,770.0	-512.8	2,803.6	0.14	0.09	-0.11
10,488.0	89.86	179.63	6,666.2	-2,860.0	-512.2	2,893.2	0.39	-0.38	0.09
10,578.0	90.04	179.67	6,666.3	-2,950.0	-511.6	2,982.8	0.20	0.20	0.04
10,668.0	90.18	179.86	6,666.1	-3,040.0	-511.3	3,072.4	0.26	0.16	0.21
10,757.0	90.01	178.90	6,665.9	-3,129.0	-510.3	3,161.0	1.10	-0.19	-1.08
10,847.0	90.08	180.26	6,665.9	-3,219.0	-509.6	3,250.6	1.51	0.08	1.51
10,936.0	89.75	178.47	6,666.0	-3,308.0	-508.7	3,339.2	2.05	-0.37	-2.01
11,025.0	89.96	180.31	6,666.2	-3,397.0	-507.7	3,427.8	2.08	0.24	2.07
11,115.0	90.39	179.90	6,666.0	-3,487.0	-507.9	3,517.5	0.66	0.48	-0.46
11,205.0	90.09	178.69	6,665.6	-3,577.0	-506.8	3,607.1	1.39	-0.33	-1.34
11,294.0	90.04	180.72	6,665.5	-3,666.0	-506.3	3,695.7	2.28	-0.06	2.28
11,384.0	89.96	178.80	6,665.5	-3,756.0	-505.9	3,785.3	2.14	-0.09	-2.13
11,474.0	90.10	179.81	6,665.4	-3,845.9	-504.8	3,874.9	1.13	0.16	1.12
11,564.0	89.88	180.84	6,665.4	-3,935.9	-505.4	3,964.6	1.17	-0.24	1.14
11,653.0	89.84	179.90	6,665.7	-4,024.9	-505.9	4,053.4	1.06	-0.04	-1.06
11,743.0	89.99	178.93	6,665.8	-4,114.9	-505.0	4,143.0	1.09	0.17	-1.08
11,833.0	90.57	180.67	6,665.4	-4,204.9	-504.7	4,232.6	2.04	0.64	1.93
11,923.0	90.71	179.24	6,664.4	-4,294.9	-504.6	4,322.3	1.60	0.16	-1.59
12,013.0	90.42	179.71	6,663.5	-4,384.9	-503.8	4,411.9	0.61	-0.32	0.52
12,102.0	90.52	179.08	6,662.7	-4,473.9	-502.9	4,500.4	0.72	0.11	-0.71
12,191.0	90.20	177.66	6,662.2	-4,562.9	-500.3	4,588.9	1.64	-0.36	-1.60
12,281.0	90.38	179.10	6,661.7	-4,652.8	-497.8	4,678.3	1.61	0.20	1.60

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Huron 1N (Nio C)
Project:	SEC.22-T5N-R64W	TVD Reference:	WELL @ 4626.0ft (Ensign 142 RKB - 28')
Site:	Huron 5N64W22 Sec22-T5N-R64W	MD Reference:	WELL @ 4626.0ft (Ensign 142 RKB - 28')
Well:	Huron 1N (Nio C)	North Reference:	True
Wellbore:	Huron 1N (Nio C) Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Huron 1N (Nio C) 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)	
12,371.0	90.61	180.26	6,660.9	-4,742.8	-497.3	4,767.9	1.31	0.26	1.29	
12,460.0	90.54	180.47	6,660.1	-4,831.8	-497.8	4,856.6	0.25	-0.08	0.24	
12,550.0	90.33	179.16	6,659.4	-4,921.8	-497.6	4,946.3	1.47	-0.23	-1.46	
12,639.0	89.29	179.63	6,659.7	-5,010.8	-496.6	5,034.9	1.28	-1.17	0.53	
12,728.0	91.54	177.85	6,659.0	-5,099.8	-494.7	5,123.4	3.22	2.53	-2.00	
12,818.0	93.71	176.28	6,654.9	-5,189.5	-490.1	5,212.4	2.97	2.41	-1.74	
12,907.0	91.47	177.29	6,650.9	-5,278.3	-485.1	5,300.4	2.76	-2.52	1.13	
12,997.0	89.68	179.99	6,650.0	-5,368.3	-482.9	5,389.9	3.60	-1.99	3.00	
13,086.0	90.05	185.16	6,650.2	-5,457.1	-486.9	5,478.8	5.82	0.42	5.81	
13,176.0	90.51	189.06	6,649.7	-5,546.4	-498.1	5,568.7	4.36	0.51	4.33	
13,266.0	91.12	186.91	6,648.5	-5,635.6	-510.6	5,658.6	2.48	0.68	-2.39	
13,355.0	91.78	179.40	6,646.2	-5,724.3	-515.5	5,747.4	8.47	0.74	-8.44	
13,428.0	90.36	177.91	6,644.8	-5,797.3	-513.8	5,820.0	2.82	-1.95	-2.04	
13,450.0	90.36	177.91	6,644.7	-5,819.3	-512.9	5,841.8	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL 329'FSL & 547'FEL - hit/miss target - Shape - Point	0.00	0.00	1.0	0.0	0.0	1,382,222.09	3,270,700.45	40.378530	-104.528330	
BHL 200'FNL & 1049'FE - survey misses target center by 22.7ft at 13450.0ft MD (6644.7 TVD, -5819.3 N, -512.9 E) - Point	0.00	0.00	6,659.7	-5,821.7	-496.0	1,376,395.59	3,270,268.24	40.362550	-104.530110	

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
6,876.9	6,600.9	734.9	-507.5	TPZ – 60° Inc in Curve - 1070'FSL & 1052'FEL, Sec.22	
7,307.0	6,688.7	320.1	-522.4	Deepest TVD Drilled - 6688.7'	

Checked By: _____ Approved By: _____ Date: _____