

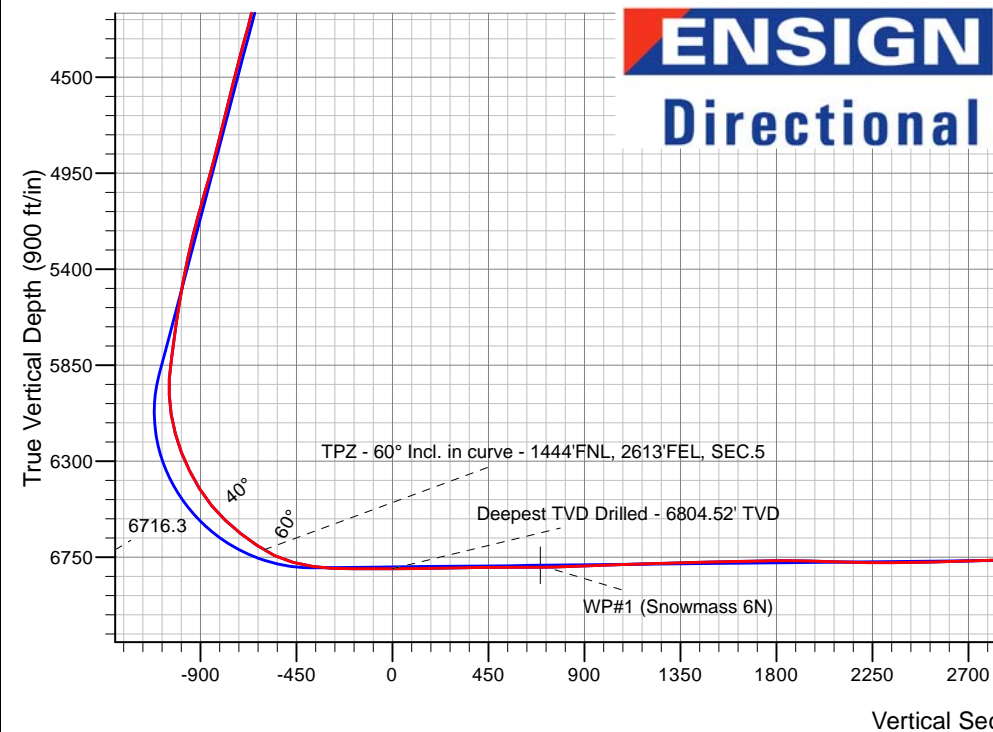
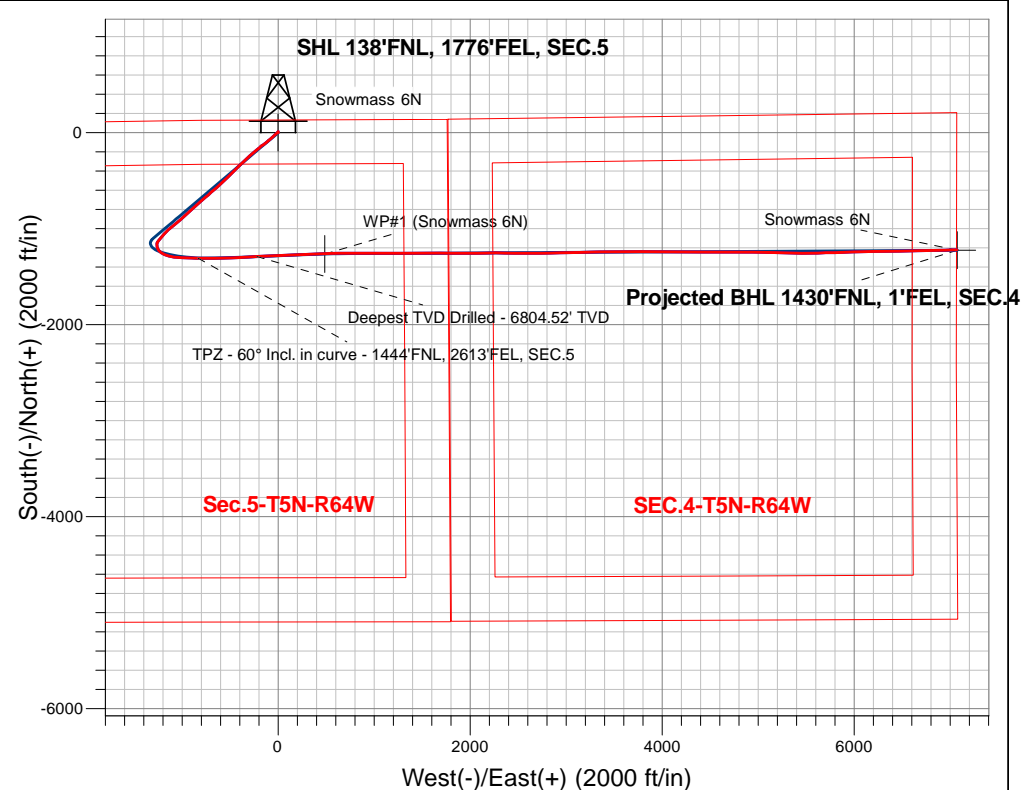
# PDC Energy Inc. DJ Basin

Well Name: **Snowmass 6N**

Surface Location: Snowmass 5N64W05 Pad Sec.5-T5N-R64W  
North American Datum 1983 , US State Plane 1983, Colorado Northern Zone  
Ground Elevation: 4634.0  
+N/-S+E/-W Northing Easting Latitude Longitude Slot  
0.0 0.0 1402629.993258552.81 40.434904 -104.571163  
Ensign Rig #152 - RKB - 23'WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')

## FINAL SURVEY

**Projected Bottom Hole Location**  
**15,131'MD 6718'TVD 1219'S & 7071'E of SHL**  
**91.3 degree Incl @ 88.3 degree AZM**



**ENSIGN**  
**Directional**

Snowmass 5N64W05 Pad Sec.5-T5N-R64W  
Snowmass 6N  
Snowmass 6N Wellbore #1  
7:42, January 22 2018

### ANNOTATIONS

TVD	MD	Annotation
6716.3	7204.6	TPZ - 60° Incl. in curve - 1444'FNL, 2613'FEL, SEC.5
6804.5	7833.0	Deepest TVD Drilled - 6804.52' TVD

### LEGEND

- Snowmass 6N, Snowmass 6N Wellbore #1, Plan #3 (8-31-17) V0
- Survey #1
- Snowmass 6N Wellbore #1



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

**SEC.5-T5N-R64W**

**Snowmass 5N64W05 Pad Sec.5-T5N-R64W**

**Snowmass 6N**

**Snowmass 6N Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**22 January, 2018**

<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Snowmass 6N
<b>Project:</b>	SEC.5-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
<b>Site:</b>	Snowmass 5N64W05 Pad Sec.5-T5N-R64W	<b>MD Reference:</b>	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
<b>Well:</b>	Snowmass 6N	<b>North Reference:</b>	True
<b>Wellbore:</b>	Snowmass 6N Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Snowmass 6N Wellbore #1	<b>Database:</b>	US_EDM

<b>Project</b>	SEC.5-T5N-R64W, Weld County, Colorado		
<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

Site	Snowmass 5N64W05 Pad Sec.5-T5N-R64W				
Site Position:		Northing:	1,402,678.95 usft	Latitude:	40.435040
From:	Lat/Long	Easting:	3,258,495.78 usft	Longitude:	-104.571366
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.60 °

Well	Snowmass 6N					
Well Position	+N/-S	0.0 ft	Northing:	1,402,629.99 usft	Latitude:	40.434904
	+E/-W	0.0 ft	Easting:	3,258,552.81 usft	Longitude:	-104.571163
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,634.0 ft

<b>Wellbore</b>	Snowmass 6N 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>
	IGRF2010	8/31/2017	7.92	66.89	52,516

<b>Design</b>	Snowmass 6N 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	99.81	

<b>Survey Program</b>	<b>Date</b>	1/22/2018			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
159.0	15,131.0	Survey #1 (Snowmass 6N Wellbore #1)	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	31.70	1.0	0.0	0.0	0.0	0.25	0.25	0.00	
<b>SHL 138°FNL, 1776°FEL, SEC.5</b>										
159.0	0.40	31.70	159.0	0.5	0.3	0.2	0.25	0.25	0.00	
254.0	0.40	32.40	254.0	1.0	0.6	0.5	0.01	0.00	0.74	
350.0	0.50	0.00	350.0	1.7	0.8	0.5	0.28	0.10	-33.75	
445.0	0.40	19.70	445.0	2.5	0.9	0.5	0.19	-0.11	20.74	
541.0	0.70	6.70	541.0	3.4	1.1	0.5	0.34	0.31	-13.54	
635.0	1.10	16.70	635.0	4.8	1.4	0.6	0.46	0.43	10.64	
730.0	1.80	333.50	729.9	7.0	1.0	-0.2	1.32	0.74	-45.47	
826.0	2.50	8.80	825.9	10.4	0.7	-1.1	1.53	0.73	36.77	

<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Snowmass 6N
<b>Project:</b>	SEC.5-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
<b>Site:</b>	Snowmass 5N64W05 Pad Sec.5-T5N-R64W	<b>MD Reference:</b>	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
<b>Well:</b>	Snowmass 6N	<b>North Reference:</b>	True
<b>Wellbore:</b>	Snowmass 6N Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Snowmass 6N 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)
921.0	1.10	2.80	920.8	13.4	1.0	-1.2	1.48	-1.47	-6.32
1,016.0	1.40	206.60	1,015.8	13.3	0.6	-1.7	2.58	0.32	-164.42
1,112.0	4.00	213.20	1,111.7	9.4	-1.8	-3.4	2.72	2.71	6.88
1,207.0	6.10	217.60	1,206.3	2.6	-6.7	-7.0	2.25	2.21	4.63
1,302.0	8.30	226.10	1,300.6	-6.1	-14.7	-13.4	2.57	2.32	8.95
1,398.0	10.60	229.60	1,395.3	-16.7	-26.4	-23.2	2.47	2.40	3.65
1,493.0	12.30	229.60	1,488.4	-28.9	-40.8	-35.3	1.79	1.79	0.00
1,620.0	12.70	227.80	1,612.4	-47.0	-61.4	-52.5	0.44	0.31	-1.42
1,685.0	12.00	228.20	1,675.9	-56.3	-71.8	-61.1	1.08	-1.08	0.62
1,780.0	13.10	227.10	1,768.6	-70.2	-87.0	-73.8	1.18	1.16	-1.16
1,876.0	16.30	232.70	1,861.4	-85.8	-105.7	-89.5	3.64	3.33	5.83
1,971.0	17.90	230.30	1,952.2	-103.2	-127.5	-108.1	1.84	1.68	-2.53
2,067.0	19.50	233.80	2,043.2	-122.1	-151.8	-128.8	2.04	1.67	3.65
2,162.0	21.10	232.60	2,132.3	-141.9	-178.2	-151.4	1.74	1.68	-1.26
2,258.0	21.90	230.50	2,221.6	-163.7	-205.7	-174.8	1.16	0.83	-2.19
2,354.0	20.90	229.60	2,311.0	-186.2	-232.6	-197.5	1.10	-1.04	-0.94
2,450.0	21.50	228.90	2,400.5	-208.9	-258.9	-219.5	0.68	0.63	-0.73
2,545.0	21.50	227.30	2,488.9	-232.1	-284.8	-241.1	0.62	0.00	-1.68
2,641.0	20.90	226.90	2,578.4	-255.8	-310.2	-262.1	0.64	-0.63	-0.42
2,736.0	23.00	227.30	2,666.5	-279.9	-336.3	-283.6	2.22	2.21	0.42
2,831.0	23.70	227.60	2,753.7	-305.4	-364.0	-306.6	0.75	0.74	0.32
2,927.0	23.10	226.90	2,841.8	-331.3	-392.0	-329.8	0.69	-0.63	-0.73
3,023.0	22.70	226.80	2,930.2	-356.8	-419.2	-352.3	0.42	-0.42	-0.10
3,119.0	21.90	226.10	3,019.1	-381.9	-445.7	-374.0	0.88	-0.83	-0.73
3,214.0	20.80	225.20	3,107.5	-406.1	-470.4	-394.3	1.21	-1.16	-0.95
3,310.0	21.10	221.30	3,197.2	-431.1	-493.9	-413.2	1.49	0.31	-4.06
3,406.0	20.90	222.70	3,286.8	-456.7	-516.9	-431.5	0.56	-0.21	1.46
3,502.0	21.00	224.70	3,376.5	-481.5	-540.6	-450.6	0.75	0.10	2.08
3,597.0	21.40	229.90	3,465.1	-504.7	-565.9	-471.5	2.02	0.42	5.47
3,693.0	21.60	229.90	3,554.4	-527.4	-592.8	-494.2	0.21	0.21	0.00
3,789.0	21.80	229.40	3,643.6	-550.4	-619.8	-516.9	0.28	0.21	-0.52
3,884.0	21.90	228.30	3,731.7	-573.6	-646.4	-539.2	0.44	0.11	-1.16
3,980.0	22.00	228.00	3,820.8	-597.6	-673.2	-561.5	0.16	0.10	-0.31
4,076.0	21.70	227.80	3,909.9	-621.5	-699.7	-583.5	0.32	-0.31	-0.21
4,172.0	23.60	229.10	3,998.5	-646.0	-727.4	-606.6	2.05	1.98	1.35
4,267.0	23.60	228.70	4,085.5	-671.0	-756.0	-630.6	0.17	0.00	-0.42
4,362.0	22.70	228.50	4,172.9	-695.7	-784.0	-654.0	0.95	-0.95	-0.21
4,458.0	21.50	227.30	4,261.8	-719.9	-810.8	-676.2	1.34	-1.25	-1.25
4,554.0	23.90	230.50	4,350.4	-744.2	-838.8	-699.6	2.81	2.50	3.33
4,650.0	23.40	228.50	4,438.3	-769.2	-868.1	-724.2	0.98	-0.52	-2.08
4,746.0	21.90	226.90	4,526.9	-794.1	-895.4	-746.9	1.69	-1.56	-1.67
4,842.0	20.80	226.60	4,616.3	-818.1	-920.9	-767.9	1.15	-1.15	-0.31
4,938.0	23.50	228.70	4,705.2	-842.4	-947.6	-790.2	2.93	2.81	2.19

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<b>Site:</b>	Snowmass 5N64W05 Pad Sec.5-T5N-R64W	<b>MD Reference:</b>	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
<b>Well:</b>	Snowmass 6N	<b>North Reference:</b>	True
<b>Wellbore:</b>	Snowmass 6N Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Snowmass 6N 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)
5,033.0	22.80	228.00	4,792.6	-867.2	-975.5	-813.4	0.79	-0.74	-0.74
5,128.0	22.10	226.60	4,880.4	-891.8	-1,002.2	-835.5	0.93	-0.74	-1.47
5,224.0	23.60	229.80	4,968.9	-916.6	-1,030.0	-858.7	2.03	1.56	3.33
5,319.0	23.80	232.20	5,055.8	-940.7	-1,059.7	-883.8	1.04	0.21	2.53
5,415.0	22.70	230.50	5,144.1	-964.3	-1,089.3	-909.0	1.34	-1.15	-1.77
5,511.0	21.50	229.40	5,233.0	-987.5	-1,116.9	-932.2	1.32	-1.25	-1.15
5,606.0	20.00	227.50	5,321.8	-1,009.9	-1,142.1	-953.3	1.73	-1.58	-2.00
5,702.0	18.70	225.90	5,412.4	-1,031.7	-1,165.3	-972.4	1.46	-1.35	-1.67
5,797.0	17.50	223.40	5,502.7	-1,052.6	-1,186.0	-989.2	1.50	-1.26	-2.63
5,893.0	16.80	221.10	5,594.4	-1,073.6	-1,205.1	-1,004.4	1.02	-0.73	-2.40
6,018.0	15.60	219.40	5,714.5	-1,100.2	-1,227.6	-1,022.1	1.03	-0.96	-1.36
6,114.0	14.80	216.40	5,807.1	-1,120.0	-1,243.1	-1,034.0	1.17	-0.83	-3.13
6,209.0	14.00	214.80	5,899.1	-1,139.2	-1,256.8	-1,044.3	0.94	-0.84	-1.68
6,304.0	18.80	177.00	5,990.5	-1,164.0	-1,262.6	-1,045.7	12.04	5.05	-39.79
6,400.0	19.60	169.10	6,081.2	-1,195.3	-1,258.8	-1,036.6	2.83	0.83	-8.23
6,496.0	21.30	143.60	6,171.3	-1,225.2	-1,245.3	-1,018.3	9.37	1.77	-26.56
6,591.0	23.00	123.40	6,259.4	-1,249.3	-1,219.6	-988.8	8.17	1.79	-21.26
6,687.0	26.70	112.90	6,346.5	-1,268.1	-1,184.0	-950.5	5.99	3.85	-10.94
6,783.0	32.30	106.40	6,430.1	-1,283.7	-1,139.5	-904.0	6.71	5.83	-6.77
6,879.0	39.40	97.00	6,507.9	-1,294.7	-1,084.5	-848.0	9.34	7.40	-9.79
6,974.0	46.50	96.00	6,577.4	-1,302.0	-1,020.3	-783.4	7.51	7.47	-1.05
7,070.0	51.90	90.00	6,640.1	-1,305.6	-947.8	-711.3	7.35	5.63	-6.25
7,165.0	56.70	89.80	6,695.6	-1,305.5	-870.7	-635.4	5.06	5.05	-0.21
7,204.6	60.00	90.36	6,716.3	-1,305.5	-836.9	-602.2	8.42	8.33	1.42
TPZ - 60° Incl. in curve - 1444'FNL, 2613'FEL, SEC.5									
7,261.0	64.70	91.10	6,742.5	-1,306.2	-787.0	-552.8	8.42	8.34	1.31
7,355.0	75.30	90.40	6,774.6	-1,307.3	-698.8	-465.7	11.30	11.28	-0.74
7,451.0	81.40	88.80	6,794.0	-1,306.7	-604.8	-373.3	6.56	6.35	-1.67
7,454.4	81.64	88.79	6,794.5	-1,306.6	-601.4	-369.9	6.89	6.87	-0.42
LPL 1435'FNL, 2813'FWL, SEC.5									
7,547.0	88.00	88.40	6,802.8	-1,304.3	-509.3	-279.5	6.89	6.88	-0.42
7,643.0	90.30	86.80	6,804.3	-1,300.3	-413.4	-185.7	2.92	2.40	-1.67
7,738.0	90.00	86.70	6,804.0	-1,294.9	-318.6	-93.2	0.33	-0.32	-0.11
7,833.0	89.40	87.00	6,804.5	-1,289.7	-223.7	-0.6	0.71	-0.63	0.32
Deepest TVD Drilled - 6804.52' TVD									
7,929.0	91.00	87.50	6,804.2	-1,285.1	-127.8	93.1	1.75	1.67	0.52
8,024.0	91.10	87.20	6,802.4	-1,280.7	-33.0	185.8	0.33	0.11	-0.32
8,120.0	90.80	88.10	6,800.9	-1,276.8	62.9	279.7	0.99	-0.31	0.94
8,215.0	90.80	87.70	6,799.5	-1,273.3	157.9	372.6	0.42	0.00	-0.42
8,311.0	90.80	87.50	6,798.2	-1,269.3	253.8	466.4	0.21	0.00	-0.21
8,407.0	90.00	87.00	6,797.5	-1,264.7	349.7	560.1	0.98	-0.83	-0.52
8,503.0	89.50	86.70	6,797.9	-1,259.4	445.5	653.7	0.61	-0.52	-0.31
8,541.9	90.48	87.85	6,797.9	-1,257.5	484.4	691.7	3.88	2.53	2.95
WP#1 (Snowmass 6N)									

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<b>Site:</b>	Snowmass 5N64W05 Pad Sec.5-T5N-R64W	<b>MD Reference:</b>	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
<b>Well:</b>	Snowmass 6N	<b>North Reference:</b>	True
<b>Wellbore:</b>	Snowmass 6N Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Snowmass 6N 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)
8,598.0	91.90	89.50	6,796.8	-1,256.2	540.4	746.7	3.88	2.53	2.95
8,694.0	92.20	89.50	6,793.3	-1,255.4	636.4	841.1	0.31	0.31	0.00
8,790.0	92.00	90.00	6,789.8	-1,255.0	732.3	935.5	0.56	-0.21	0.52
8,886.0	91.60	90.00	6,786.8	-1,255.0	828.3	1,030.1	0.42	-0.42	0.00
8,981.0	91.80	90.20	6,784.0	-1,255.1	923.2	1,123.7	0.30	0.21	0.21
9,077.0	91.70	90.00	6,781.1	-1,255.3	1,019.2	1,218.2	0.23	-0.10	-0.21
9,173.0	91.70	89.80	6,778.2	-1,255.1	1,115.1	1,312.8	0.21	0.00	-0.21
9,268.0	92.00	89.70	6,775.1	-1,254.7	1,210.1	1,406.2	0.33	0.32	-0.11
9,365.0	91.10	90.20	6,772.5	-1,254.6	1,307.0	1,501.8	1.06	-0.93	0.52
9,461.0	90.90	90.00	6,770.8	-1,254.8	1,403.0	1,596.4	0.29	-0.21	-0.21
9,556.0	91.00	89.80	6,769.3	-1,254.6	1,498.0	1,690.0	0.24	0.11	-0.21
9,653.0	91.10	89.30	6,767.5	-1,253.9	1,595.0	1,785.4	0.53	0.10	-0.52
9,749.0	89.20	90.20	6,767.2	-1,253.5	1,691.0	1,879.9	2.19	-1.98	0.94
9,845.0	88.70	90.70	6,769.0	-1,254.2	1,787.0	1,974.6	0.74	-0.52	0.52
9,940.0	88.40	90.40	6,771.4	-1,255.1	1,881.9	2,068.3	0.45	-0.32	-0.32
10,036.0	87.80	90.40	6,774.6	-1,255.8	1,977.9	2,163.0	0.63	-0.63	0.00
10,132.0	90.20	88.60	6,776.3	-1,255.0	2,073.8	2,257.4	3.12	2.50	-1.88
10,228.0	89.80	88.30	6,776.3	-1,252.4	2,169.8	2,351.5	0.52	-0.42	-0.31
10,323.0	91.60	91.10	6,775.1	-1,251.9	2,264.8	2,445.0	3.50	1.89	2.95
10,419.0	91.30	90.50	6,772.7	-1,253.2	2,360.8	2,539.8	0.70	-0.31	-0.63
10,515.0	91.90	90.50	6,770.0	-1,254.0	2,456.7	2,634.5	0.63	0.63	0.00
10,610.0	91.70	90.40	6,767.0	-1,254.8	2,551.7	2,728.2	0.24	-0.21	-0.11
10,706.0	91.60	89.80	6,764.2	-1,255.0	2,647.6	2,822.8	0.63	-0.10	-0.63
10,801.0	91.70	89.50	6,761.5	-1,254.4	2,742.6	2,916.3	0.33	0.11	-0.32
10,896.0	91.80	89.00	6,758.6	-1,253.1	2,837.5	3,009.6	0.54	0.11	-0.53
10,992.0	91.90	89.00	6,755.5	-1,251.5	2,933.5	3,103.9	0.10	0.10	0.00
11,087.0	91.40	88.80	6,752.8	-1,249.6	3,028.4	3,197.1	0.57	-0.53	-0.21
11,183.0	91.60	87.90	6,750.3	-1,246.9	3,124.3	3,291.1	0.96	0.21	-0.94
11,278.0	89.20	88.80	6,749.6	-1,244.1	3,219.3	3,384.2	2.70	-2.53	0.95
11,374.0	89.50	89.00	6,750.7	-1,242.3	3,315.3	3,478.5	0.38	0.31	0.21
11,470.0	89.40	88.40	6,751.6	-1,240.1	3,411.2	3,572.7	0.63	-0.10	-0.63
11,565.0	90.60	90.50	6,751.6	-1,239.2	3,506.2	3,666.1	2.55	1.26	2.21
11,661.0	91.20	89.80	6,750.1	-1,239.5	3,602.2	3,760.8	0.96	0.63	-0.73
11,756.0	91.50	89.50	6,747.9	-1,238.9	3,697.2	3,854.2	0.45	0.32	-0.32
11,851.0	90.80	90.70	6,746.0	-1,239.0	3,792.2	3,947.9	1.46	-0.74	1.26
11,947.0	90.70	90.20	6,744.7	-1,239.8	3,888.1	4,042.6	0.53	-0.10	-0.52
12,043.0	90.10	89.80	6,744.0	-1,239.8	3,984.1	4,137.2	0.75	-0.63	-0.42
12,138.0	91.40	90.20	6,742.8	-1,239.8	4,079.1	4,230.8	1.43	1.37	0.42
12,234.0	89.30	90.50	6,742.2	-1,240.4	4,175.1	4,325.4	2.21	-2.19	0.31
12,330.0	89.80	90.70	6,743.0	-1,241.4	4,271.1	4,420.2	0.56	0.52	0.21
12,425.0	89.90	90.70	6,743.2	-1,242.5	4,366.1	4,514.0	0.11	0.11	0.00
12,521.0	90.00	90.50	6,743.3	-1,243.6	4,462.1	4,608.8	0.23	0.10	-0.21
12,617.0	90.20	90.00	6,743.1	-1,244.0	4,558.1	4,703.4	0.56	0.21	-0.52

<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Snowmass 6N
<b>Project:</b>	SEC.5-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
<b>Site:</b>	Snowmass 5N64W05 Pad Sec.5-T5N-R64W	<b>MD Reference:</b>	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
<b>Well:</b>	Snowmass 6N	<b>North Reference:</b>	True
<b>Wellbore:</b>	Snowmass 6N Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Snowmass 6N 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)
12,713.0	90.70	90.00	6,742.4	-1,244.0	4,654.1	4,798.0	0.52	0.52	0.00
12,808.0	91.10	89.70	6,740.9	-1,243.7	4,749.1	4,891.6	0.53	0.42	-0.32
12,904.0	91.50	89.30	6,738.7	-1,242.9	4,845.1	4,986.0	0.59	0.42	-0.42
12,999.0	90.00	91.10	6,737.4	-1,243.2	4,940.0	5,079.7	2.47	-1.58	1.89
13,095.0	90.30	91.10	6,737.2	-1,245.1	5,036.0	5,174.5	0.31	0.31	0.00
13,191.0	90.50	91.20	6,736.5	-1,247.0	5,132.0	5,269.4	0.23	0.21	0.10
13,286.0	90.40	91.40	6,735.8	-1,249.1	5,227.0	5,363.4	0.24	-0.11	0.21
13,382.0	90.60	92.10	6,734.9	-1,252.1	5,322.9	5,458.4	0.76	0.21	0.73
13,477.0	90.80	90.90	6,733.8	-1,254.6	5,417.9	5,552.4	1.28	0.21	-1.26
13,573.0	90.70	89.10	6,732.5	-1,254.6	5,513.9	5,647.0	1.88	-0.10	-1.88
13,669.0	90.20	88.30	6,731.8	-1,252.4	5,609.8	5,741.2	0.98	-0.52	-0.83
13,765.0	90.50	88.80	6,731.2	-1,250.0	5,705.8	5,835.4	0.61	0.31	0.52
13,861.0	90.70	89.10	6,730.2	-1,248.2	5,801.8	5,929.6	0.38	0.21	0.31
13,956.0	90.60	88.10	6,729.1	-1,245.9	5,896.7	6,022.8	1.06	-0.11	-1.05
14,052.0	90.30	87.20	6,728.3	-1,241.9	5,992.7	6,116.7	0.99	-0.31	-0.94
14,148.0	89.90	88.80	6,728.2	-1,238.6	6,088.6	6,210.6	1.72	-0.42	1.67
14,243.0	90.70	88.80	6,727.7	-1,236.6	6,183.6	6,303.9	0.84	0.84	0.00
14,339.0	90.50	89.50	6,726.7	-1,235.2	6,279.6	6,398.2	0.76	-0.21	0.73
14,434.0	91.20	89.80	6,725.3	-1,234.6	6,374.5	6,491.7	0.80	0.74	0.32
14,529.0	90.10	89.10	6,724.2	-1,233.7	6,469.5	6,585.1	1.37	-1.16	-0.74
14,625.0	90.10	88.40	6,724.0	-1,231.6	6,565.5	6,679.4	0.73	0.00	-0.73
14,720.0	90.60	89.30	6,723.4	-1,229.7	6,660.5	6,772.6	1.08	0.53	0.95
14,815.0	90.10	88.40	6,722.9	-1,227.8	6,755.5	6,865.9	1.08	-0.53	-0.95
14,911.0	90.60	88.40	6,722.3	-1,225.1	6,851.4	6,960.0	0.52	0.52	0.00
15,007.0	90.90	88.40	6,721.0	-1,222.4	6,947.4	7,054.1	0.31	0.31	0.00
15,075.0	91.30	88.30	6,719.7	-1,220.5	7,015.3	7,120.7	0.61	0.59	-0.15
15,131.0	91.30	88.30	6,718.4	-1,218.8	7,071.3	7,175.6	0.00	0.00	0.00
BHL 1435'FNL, 0'FEL, SEC.4									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL 138'FNL, 1776'FEL - hit/miss target - Shape - survey hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,402,630.00	3,258,552.81	40.434904	-104.571163
BHL 1435'FNL, 0'FEL, S - survey misses target center by 5.0ft at 15131.0ft MD (6718.4 TVD, -1218.8 N, 7071.3 E) - Point	0.00	0.00	6,720.0	-1,223.4	7,072.3	1,401,480.74	3,265,637.22	40.431543	-104.545759
WP#1 (Snowmass 6N) - survey misses target center by 10.7ft at 8541.7ft MD (6797.9 TVD, -1257.5 N, 484.2 E) - Point	0.00	0.00	6,788.7	-1,262.8	484.5	1,401,372.38	3,259,050.46	40.431438	-104.569423

<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Snowmass 6N
<b>Project:</b>	SEC.5-T5N-R64W	<b>TVD Reference:</b>	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
<b>Site:</b>	Snowmass 5N64W05 Pad Sec.5-T5N-R64W	<b>MD Reference:</b>	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
<b>Well:</b>	Snowmass 6N	<b>North Reference:</b>	True
<b>Wellbore:</b>	Snowmass 6N Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Snowmass 6N Wellbore #1	<b>Database:</b>	US_EDM

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,204.6	6,716.3	-1,305.5	-836.9	TPZ - 60° Incl. in curve - 1444'FNL, 2613'FEL, SEC.5
7,833.0	6,804.5	-1,289.7	-223.7	Deepest TVD Drilled - 6804.52' TVD

Checked By: _____	Approved By: _____	Date: _____
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