

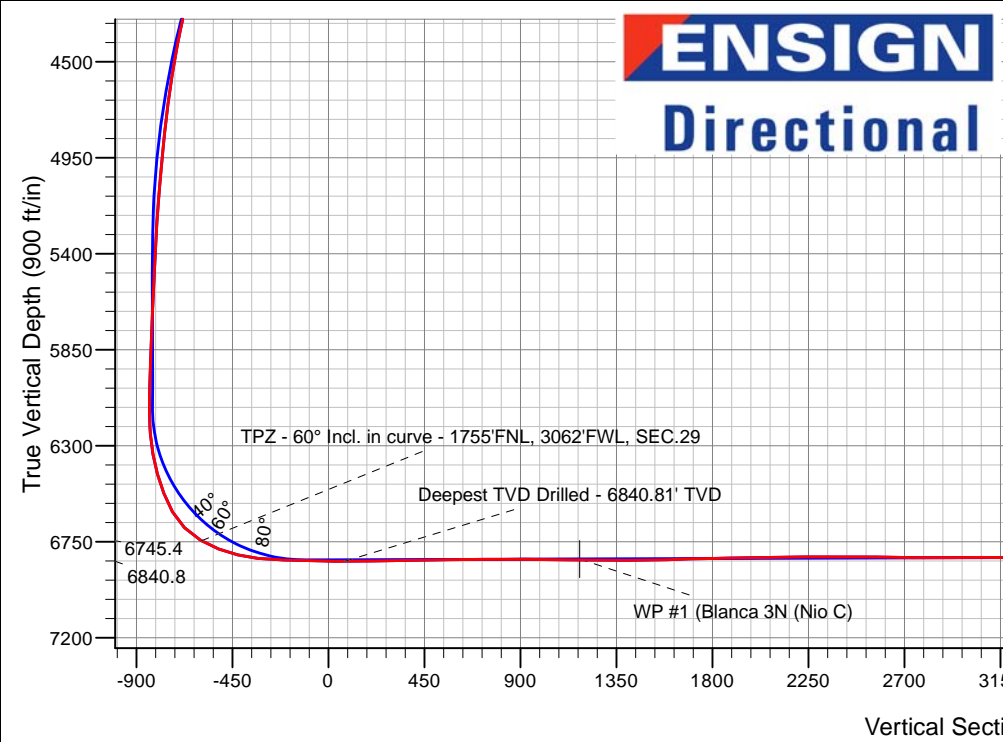
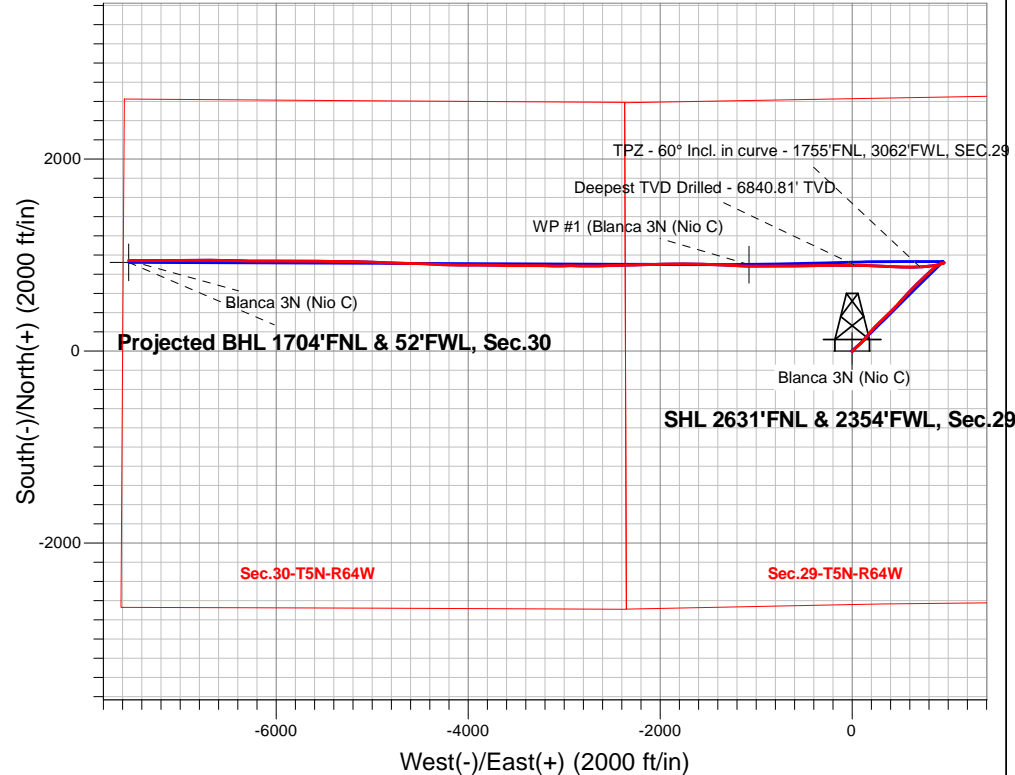
PDC Energy Inc. DJ Basin

Well Name: **Blanca 3N (Nio C)**

Surface Location: Blanca 5N64W29 1-15 Pad Sec.29-T5N-R64W
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
 Ground Elevation: 4690.0
 +N/-S+E/-W Northing Easting Longitude Slot
 0.0 0.0 1379040.3 13257802.82 40.370175 -104.574741
 Ensign 158 - RKB 23' WELL @ 4713.0ft (Ensign 158 - RKB 23')

FINAL SURVEY

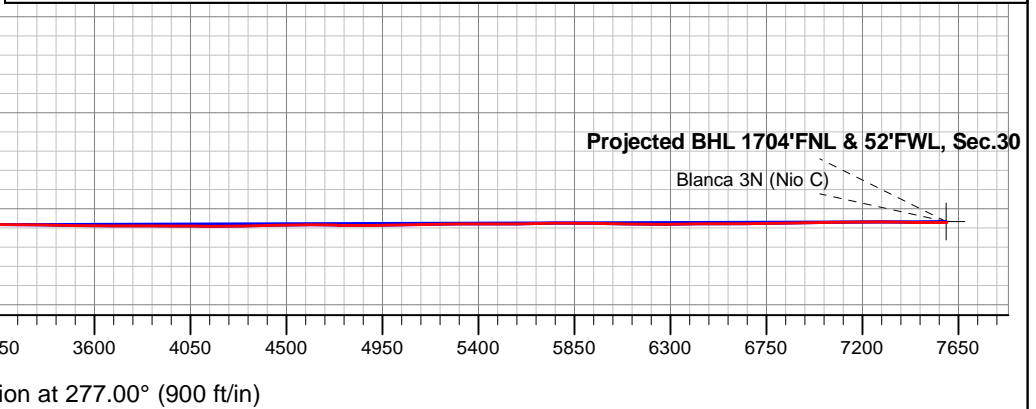
Projected Bottom Hole Location
15,300'MD 6814'TVD 944'N & 7534'W of SHL
89.8 degree Incl @ 271.3 degree AZM



Blanca 5N64W29 1-15 Pad Sec.29-T5N-R64W
 Blanca 3N (Nio C)
 Wellbore #1
 13:29, August 09 2018

ANNOTATIONS		
TVD	MD	Annotation
6745.4	7040.5	TPZ - 60° Incl. in curve - 1755'FNL, 3062'FWL, SEC.29
6840.8	7731.0	Deepest TVD Drilled - 6840.81' TVD

LEGEND	
	Blanca 3N (Nio C), Wellbore #1, Plan #2 (8-03-18) V0
	Wellbore #1
	Survey #1





PDC Energy Inc. DJ Basin

SEC.29-T5N-R64W

Blanca 5N64W29 1-15 Pad Sec.29-T5N-R64W

Blanca 3N (Nio C)

Wellbore #1

Survey: Survey #1

Standard Survey Report

09 August, 2018



Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Blanca 3N (Nio C)
Project:	SEC.29-T5N-R64W	TVD Reference:	WELL @ 4713.0ft (Ensign 158 - RKB 23')
Site:	Blanca 5N64W29 1-15 Pad Sec.29-T5N-R64W	MD Reference:	WELL @ 4713.0ft (Ensign 158 - RKB 23')
Well:	Blanca 3N (Nio C)	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

Project	SEC.29-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	Blanca 5N64W29 1-15 Pad Sec.29-T5N-R64W				
Site Position:		Northing:	1,379,040.33 usft	Latitude:	40.370180
From:	Lat/Long	Easting:	3,257,622.85 usft	Longitude:	-104.575387
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.60 °

Well	Blanca 3N (Nio C)					
Well Position	+N/-S	0.0 ft	Northing:	1,379,040.31 usft	Latitude:	40.370175
	+E/-W	0.0 ft	Easting:	3,257,802.82 usft	Longitude:	-104.574742
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,690.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/3/2018	8.17	66.88	52,225

Design	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		277.00

Survey Program	Date	8/9/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
156.0	15,300.0	Survey #1 (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	
1.0	0.00	194.30	1.0	0.0	0.0	0.0	0.26	0.26	0.00	
SHL 2631'FNL & 2354'FWL, Sec.29										
156.0	0.40	194.30	156.0	-0.5	-0.1	0.1	0.26	0.26	0.00	
252.0	0.50	189.20	252.0	-1.3	-0.3	0.1	0.11	0.10	-5.31	
348.0	0.40	204.70	348.0	-2.0	-0.5	0.2	0.16	-0.10	16.15	
444.0	0.40	208.40	444.0	-2.6	-0.8	0.5	0.03	0.00	3.85	
540.0	0.50	179.70	540.0	-3.3	-0.9	0.5	0.25	0.10	-29.90	
635.0	1.10	50.40	635.0	-3.1	-0.2	-0.1	1.55	0.63	-136.11	
731.0	2.70	37.40	730.9	-0.7	1.8	-1.9	1.72	1.67	-13.54	
826.0	4.70	36.00	825.7	4.2	5.5	-4.9	2.11	2.11	-1.47	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Blanca 3N (Nio C)
Project:	SEC.29-T5N-R64W	TVD Reference:	WELL @ 4713.0ft (Ensign 158 - RKB 23')
Site:	Blanca 5N64W29 1-15 Pad Sec.29-T5N-R64W	MD Reference:	WELL @ 4713.0ft (Ensign 158 - RKB 23')
Well:	Blanca 3N (Nio C)	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	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)	
922.0	5.60	40.50	921.3	10.9	10.8	-9.4	1.03	0.94	4.69	
1,018.0	6.90	45.80	1,016.8	18.5	18.0	-15.6	1.48	1.35	5.52	
1,114.0	8.60	48.80	1,111.9	27.3	27.6	-24.0	1.82	1.77	3.13	
1,210.0	9.90	49.30	1,206.6	37.4	39.2	-34.4	1.36	1.35	0.52	
1,305.0	11.70	48.60	1,299.9	49.1	52.6	-46.3	1.90	1.89	-0.74	
1,401.0	12.80	47.20	1,393.8	62.7	67.7	-59.6	1.19	1.15	-1.46	
1,496.0	13.10	46.30	1,486.3	77.3	83.2	-73.2	0.38	0.32	-0.95	
1,593.0	12.80	44.20	1,580.9	92.6	98.7	-86.7	0.58	-0.31	-2.16	
1,636.0	12.00	45.40	1,622.9	99.2	105.2	-92.3	1.95	-1.86	2.79	
1,773.0	9.70	41.20	1,757.4	117.9	122.9	-107.7	1.77	-1.68	-3.07	
1,869.0	11.30	38.90	1,851.8	131.3	134.2	-117.2	1.72	1.67	-2.40	
1,965.0	12.60	40.20	1,945.7	146.6	146.8	-127.9	1.38	1.35	1.35	
2,060.0	13.50	38.20	2,038.3	163.2	160.4	-139.3	1.06	0.95	-2.11	
2,155.0	14.90	38.90	2,130.4	181.4	174.9	-151.5	1.48	1.47	0.74	
2,251.0	16.80	41.60	2,222.7	201.4	191.9	-165.9	2.12	1.98	2.81	
2,346.0	18.60	43.90	2,313.2	222.6	211.5	-182.8	2.03	1.89	2.42	
2,441.0	20.20	44.00	2,402.8	245.3	233.4	-201.8	1.68	1.68	0.11	
2,537.0	21.70	44.60	2,492.5	269.9	257.4	-222.6	1.58	1.56	0.63	
2,633.0	22.90	45.60	2,581.3	295.6	283.2	-245.1	1.31	1.25	1.04	
2,728.0	22.90	44.60	2,668.8	321.7	309.4	-267.9	0.41	0.00	-1.05	
2,825.0	23.70	45.80	2,757.9	348.7	336.6	-291.6	0.96	0.82	1.24	
2,921.0	22.90	45.60	2,846.1	375.2	363.8	-315.3	0.84	-0.83	-0.21	
3,017.0	21.90	45.80	2,934.8	400.8	389.9	-338.2	1.04	-1.04	0.21	
3,112.0	20.80	44.70	3,023.3	425.1	414.5	-359.6	1.23	-1.16	-1.16	
3,208.0	20.80	46.00	3,113.0	449.1	438.8	-380.8	0.48	0.00	1.35	
3,303.0	20.90	43.00	3,201.8	473.2	462.4	-401.4	1.13	0.11	-3.16	
3,399.0	21.60	43.20	3,291.3	498.6	486.2	-421.9	0.73	0.73	0.21	
3,495.0	21.90	41.90	3,380.5	524.8	510.3	-442.5	0.59	0.31	-1.35	
3,591.0	21.30	41.70	3,469.7	551.1	533.8	-462.7	0.63	-0.63	-0.21	
3,686.0	22.30	40.90	3,557.9	577.6	557.1	-482.6	1.10	1.05	-0.84	
3,782.0	24.80	44.60	3,645.9	605.7	583.2	-505.0	3.02	2.60	3.85	
3,878.0	25.00	44.20	3,733.0	634.6	611.5	-529.6	0.27	0.21	-0.42	
3,973.0	25.50	44.40	3,818.9	663.6	639.8	-554.2	0.53	0.53	0.21	
4,069.0	25.00	43.90	3,905.7	693.0	668.3	-578.9	0.57	-0.52	-0.52	
4,165.0	24.40	47.20	3,993.0	721.1	696.9	-603.9	1.57	-0.63	3.44	
4,261.0	23.10	47.00	4,080.8	747.4	725.2	-628.8	1.36	-1.35	-0.21	
4,356.0	21.50	47.40	4,168.7	771.9	751.7	-652.0	1.69	-1.68	0.42	
4,452.0	19.30	47.50	4,258.7	794.5	776.3	-673.7	2.29	-2.29	0.10	
4,547.0	17.70	48.20	4,348.8	814.8	798.7	-693.5	1.70	-1.68	0.74	
4,643.0	15.90	48.10	4,440.7	833.3	819.3	-711.7	1.88	-1.88	-0.10	
4,738.0	13.90	48.60	4,532.5	849.5	837.6	-727.8	2.11	-2.11	0.53	
4,834.0	11.70	49.80	4,626.1	863.4	853.7	-742.1	2.31	-2.29	1.25	
4,930.0	10.10	51.80	4,720.4	874.9	867.7	-754.7	1.71	-1.67	2.08	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Blanca 3N (Nio C)
Project:	SEC.29-T5N-R64W	TVD Reference:	WELL @ 4713.0ft (Ensign 158 - RKB 23')
Site:	Blanca 5N64W29 1-15 Pad Sec.29-T5N-R64W	MD Reference:	WELL @ 4713.0ft (Ensign 158 - RKB 23')
Well:	Blanca 3N (Nio C)	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	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)	
5,026.0	8.40	54.80	4,815.1	884.2	880.1	-765.8	1.84	-1.77	3.13	
5,121.0	7.00	56.70	4,909.3	891.4	890.6	-775.4	1.50	-1.47	2.00	
5,218.0	6.50	57.40	5,005.6	897.6	900.1	-784.1	0.52	-0.52	0.72	
5,313.0	6.00	59.00	5,100.0	903.0	908.9	-792.1	0.56	-0.53	1.68	
5,409.0	4.70	63.90	5,195.6	907.3	916.8	-799.4	1.43	-1.35	5.10	
5,505.0	4.00	69.90	5,291.3	910.2	923.4	-805.7	0.87	-0.73	6.25	
5,600.0	3.50	73.00	5,386.1	912.2	929.3	-811.3	0.57	-0.53	3.26	
5,696.0	3.00	76.50	5,482.0	913.6	934.6	-816.3	0.56	-0.52	3.65	
5,792.0	2.90	72.70	5,577.8	914.9	939.3	-820.9	0.23	-0.10	-3.96	
5,888.0	2.60	70.20	5,673.7	916.4	943.7	-825.0	0.34	-0.31	-2.60	
5,983.0	2.30	70.20	5,768.6	917.8	947.5	-828.6	0.32	-0.32	0.00	
6,078.0	2.20	70.40	5,863.6	919.0	951.0	-832.0	0.11	-0.11	0.21	
6,174.0	2.20	73.90	5,959.5	920.2	954.5	-835.3	0.14	0.00	3.65	
6,270.0	2.20	76.50	6,055.4	921.1	958.1	-838.7	0.10	0.00	2.71	
6,365.0	1.00	242.10	6,150.4	921.1	959.1	-839.8	3.35	-1.26	174.32	
6,461.0	5.50	247.80	6,246.2	919.0	954.1	-835.1	4.69	4.69	5.94	
6,556.0	11.30	252.30	6,340.2	914.5	941.0	-822.6	6.14	6.11	4.74	
6,651.0	16.70	252.30	6,432.3	907.5	919.1	-801.8	5.68	5.68	0.00	
6,747.0	22.20	256.40	6,522.8	899.0	888.4	-772.2	5.90	5.73	4.27	
6,844.0	31.00	260.40	6,609.5	890.5	845.8	-731.0	9.25	9.07	4.12	
6,939.0	45.20	263.60	6,684.0	882.6	787.9	-674.5	15.09	14.95	3.37	
7,035.0	59.40	266.60	6,742.6	876.4	712.4	-600.4	14.99	14.79	3.13	
7,040.5	60.00	266.83	6,745.4	876.1	707.7	-595.7	11.50	10.90	4.24	
TPZ - 60° Incl. in curve - 1755'FNL, 3062'FWL, SEC.29										
7,130.0	69.80	270.30	6,783.3	874.2	626.8	-515.6	11.50	10.95	3.87	
7,225.0	76.20	273.10	6,811.1	876.9	536.0	-425.2	7.30	6.74	2.95	
7,321.0	83.80	271.80	6,827.7	880.9	441.6	-331.0	8.03	7.92	-1.35	
7,444.0	88.90	272.00	6,835.6	885.0	319.0	-208.8	4.15	4.15	0.16	
7,536.5	88.41	271.81	6,837.7	888.1	226.6	-116.7	0.57	-0.53	-0.21	
LPL 1704'FNL & 2585'FWL, Sec.29										
7,539.0	88.40	271.80	6,837.8	888.1	224.1	-114.2	0.57	-0.53	-0.21	
7,635.0	88.90	271.10	6,840.1	890.6	128.1	-18.7	0.90	0.52	-0.73	
7,731.0	90.20	270.80	6,840.8	892.2	32.1	76.8	1.39	1.35	-0.31	
Deepest TVD Drilled - 6840.81' TVD										
7,826.0	90.10	270.10	6,840.6	892.9	-62.8	171.2	0.74	-0.11	-0.74	
7,922.0	91.10	270.40	6,839.6	893.3	-158.8	266.5	1.09	1.04	0.31	
8,017.0	91.00	269.40	6,837.8	893.2	-253.8	360.7	1.06	-0.11	-1.05	
8,112.0	91.00	269.20	6,836.2	892.0	-348.8	454.9	0.21	0.00	-0.21	
8,208.0	90.90	268.90	6,834.6	890.4	-444.8	549.9	0.33	-0.10	-0.31	
8,303.0	90.70	269.40	6,833.2	889.0	-539.8	644.0	0.57	-0.21	0.53	
8,398.0	90.10	269.20	6,832.6	887.8	-634.7	738.2	0.67	-0.63	-0.21	
8,494.0	90.20	270.10	6,832.3	887.2	-730.7	833.4	0.94	0.10	0.94	
8,589.0	89.60	269.70	6,832.5	887.1	-825.7	927.7	0.76	-0.63	-0.42	
8,685.0	89.30	269.70	6,833.4	886.6	-921.7	1,022.9	0.31	-0.31	0.00	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Blanca 3N (Nio C)
Project:	SEC.29-T5N-R64W	TVD Reference:	WELL @ 4713.0ft (Ensign 158 - RKB 23')
Site:	Blanca 5N64W29 1-15 Pad Sec.29-T5N-R64W	MD Reference:	WELL @ 4713.0ft (Ensign 158 - RKB 23')
Well:	Blanca 3N (Nio C)	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	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)	
8,780.0	89.00	269.20	6,834.8	885.7	-1,016.7	1,117.0	0.61	-0.32	-0.53	
8,839.1	89.37	270.76	6,835.7	885.6	-1,075.8	1,175.7	2.71	0.63	2.63	
WP #1 (Blanca 3N (Nio C))										
8,875.0	89.60	271.70	6,836.0	886.4	-1,111.7	1,211.4	2.71	0.63	2.63	
8,970.0	89.30	272.20	6,836.9	889.6	-1,206.6	1,306.0	0.61	-0.32	0.53	
9,067.0	89.80	273.40	6,837.7	894.4	-1,303.5	1,402.8	1.34	0.52	1.24	
9,162.0	92.00	272.70	6,836.2	899.4	-1,398.4	1,497.5	2.43	2.32	-0.74	
9,258.0	91.70	271.70	6,833.1	903.1	-1,494.2	1,593.1	1.09	-0.31	-1.04	
9,354.0	91.40	271.10	6,830.5	905.5	-1,590.2	1,688.6	0.70	-0.31	-0.63	
9,450.0	91.20	271.10	6,828.3	907.3	-1,686.1	1,784.1	0.21	-0.21	0.00	
9,545.0	90.90	269.90	6,826.5	908.1	-1,781.1	1,878.5	1.30	-0.32	-1.26	
9,641.0	91.20	269.40	6,824.8	907.5	-1,877.1	1,973.7	0.61	0.31	-0.52	
9,737.0	91.20	268.20	6,822.8	905.5	-1,973.1	2,068.7	1.25	0.00	-1.25	
9,833.0	90.00	269.00	6,821.8	903.2	-2,069.0	2,163.6	1.50	-1.25	0.83	
9,928.0	90.30	268.00	6,821.5	900.7	-2,164.0	2,257.6	1.10	0.32	-1.05	
10,024.0	89.90	269.00	6,821.4	898.2	-2,259.9	2,352.5	1.12	-0.42	1.04	
10,119.0	90.40	268.00	6,821.1	895.7	-2,354.9	2,446.5	1.18	0.53	-1.05	
10,215.0	89.40	267.60	6,821.3	892.0	-2,450.8	2,541.3	1.12	-1.04	-0.42	
10,311.0	89.20	269.90	6,822.4	889.9	-2,546.8	2,636.3	2.40	-0.21	2.40	
10,407.0	89.30	269.20	6,823.7	889.2	-2,642.8	2,731.4	0.74	0.10	-0.73	
10,503.0	90.40	269.60	6,824.0	888.2	-2,738.8	2,826.6	1.22	1.15	0.42	
10,599.0	89.60	270.80	6,824.0	888.5	-2,834.8	2,921.9	1.50	-0.83	1.25	
10,695.0	90.10	270.10	6,824.2	889.3	-2,930.8	3,017.3	0.90	0.52	-0.73	
10,790.0	90.70	269.20	6,823.5	888.7	-3,025.8	3,111.5	1.14	0.63	-0.95	
10,886.0	88.80	270.80	6,824.0	888.7	-3,121.8	3,206.8	2.59	-1.98	1.67	
10,982.0	89.30	270.80	6,825.6	890.0	-3,217.7	3,302.2	0.52	0.52	0.00	
11,079.0	89.00	270.30	6,827.0	890.9	-3,314.7	3,398.6	0.60	-0.31	-0.52	
11,174.0	89.20	269.60	6,828.5	890.9	-3,409.7	3,492.8	0.77	0.21	-0.74	
11,270.0	89.60	269.00	6,829.5	889.7	-3,505.7	3,588.0	0.75	0.42	-0.63	
11,366.0	89.30	271.80	6,830.4	890.4	-3,601.7	3,683.3	2.93	-0.31	2.92	
11,461.0	90.30	272.20	6,830.7	893.7	-3,696.6	3,778.0	1.13	1.05	0.42	
11,557.0	89.80	271.30	6,830.7	896.6	-3,792.6	3,873.6	1.07	-0.52	-0.94	
11,653.0	89.80	270.10	6,831.0	897.8	-3,888.6	3,969.0	1.25	0.00	-1.25	
11,749.0	89.50	268.50	6,831.6	896.6	-3,984.6	4,064.1	1.70	-0.31	-1.67	
11,844.0	89.80	271.00	6,832.2	896.2	-4,079.5	4,158.3	2.65	0.32	2.63	
11,940.0	91.10	272.50	6,831.4	899.1	-4,175.5	4,253.9	2.07	1.35	1.56	
12,035.0	91.40	272.00	6,829.3	902.9	-4,270.4	4,348.6	0.61	0.32	-0.53	
12,130.0	91.10	272.40	6,827.3	906.5	-4,365.3	4,443.2	0.53	-0.32	0.42	
12,226.0	90.70	272.00	6,825.8	910.2	-4,461.2	4,538.9	0.59	-0.42	-0.42	
12,321.0	90.00	271.10	6,825.2	912.8	-4,556.2	4,633.4	1.20	-0.74	-0.95	
12,417.0	88.30	269.90	6,826.6	913.6	-4,652.2	4,728.8	2.17	-1.77	-1.25	
12,513.0	89.70	273.20	6,828.3	916.2	-4,748.1	4,824.3	3.73	1.46	3.44	
12,609.0	91.20	272.00	6,827.5	920.5	-4,844.0	4,920.1	2.00	1.56	-1.25	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Blanca 3N (Nio C)
Project:	SEC.29-T5N-R64W	TVD Reference:	WELL @ 4713.0ft (Ensign 158 - RKB 23')
Site:	Blanca 5N64W29 1-15 Pad Sec.29-T5N-R64W	MD Reference:	WELL @ 4713.0ft (Ensign 158 - RKB 23')
Well:	Blanca 3N (Nio C)	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	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)	
12,705.0	91.00	272.20	6,825.7	924.1	-4,939.9	5,015.7	0.29	-0.21	0.21	
12,801.0	90.60	271.80	6,824.3	927.4	-5,035.8	5,111.3	0.59	-0.42	-0.42	
12,897.0	91.00	271.00	6,823.0	929.8	-5,131.8	5,206.8	0.93	0.42	-0.83	
12,992.0	90.70	271.00	6,821.6	931.4	-5,226.8	5,301.3	0.32	-0.32	0.00	
13,088.0	90.00	271.00	6,821.0	933.1	-5,322.8	5,396.8	0.73	-0.73	0.00	
13,183.0	89.20	271.00	6,821.7	934.7	-5,417.7	5,491.3	0.84	-0.84	0.00	
13,279.0	91.60	270.10	6,821.0	935.7	-5,513.7	5,586.6	2.67	2.50	-0.94	
13,374.0	91.00	270.40	6,818.8	936.1	-5,608.7	5,681.0	0.71	-0.63	0.32	
13,470.0	90.20	270.60	6,817.8	936.9	-5,704.7	5,776.3	0.86	-0.83	0.21	
13,565.0	89.60	270.30	6,818.0	937.7	-5,799.7	5,870.7	0.71	-0.63	-0.32	
13,661.0	89.20	269.70	6,819.0	937.7	-5,895.7	5,966.0	0.75	-0.42	-0.63	
13,757.0	88.50	270.30	6,820.9	937.7	-5,991.7	6,061.3	0.96	-0.73	0.63	
13,853.0	90.10	270.10	6,822.1	938.0	-6,087.7	6,156.6	1.68	1.67	-0.21	
13,949.0	89.40	270.30	6,822.5	938.3	-6,183.7	6,251.9	0.76	-0.73	0.21	
14,044.0	91.10	270.30	6,822.1	938.8	-6,278.6	6,346.3	1.79	1.79	0.00	
14,140.0	90.50	271.00	6,820.8	939.9	-6,374.6	6,441.7	0.96	-0.63	0.73	
14,235.0	89.50	271.70	6,820.8	942.2	-6,469.6	6,536.2	1.28	-1.05	0.74	
14,330.0	90.80	271.80	6,820.5	945.1	-6,564.6	6,630.8	1.37	1.37	0.11	
14,426.0	91.20	269.70	6,818.8	946.3	-6,660.5	6,726.2	2.23	0.42	-2.19	
14,522.0	90.70	269.90	6,817.3	946.0	-6,756.5	6,821.4	0.56	-0.52	0.21	
14,617.0	89.90	270.40	6,816.8	946.2	-6,851.5	6,915.8	0.99	-0.84	0.53	
14,713.0	91.80	269.00	6,815.3	945.7	-6,947.5	7,011.0	2.46	1.98	-1.46	
14,808.0	91.20	269.40	6,812.8	944.4	-7,042.4	7,105.0	0.76	-0.63	0.42	
14,904.0	90.00	269.40	6,811.8	943.4	-7,138.4	7,200.2	1.25	-1.25	0.00	
14,999.0	89.70	269.40	6,812.1	942.4	-7,233.4	7,294.4	0.32	-0.32	0.00	
15,095.0	88.90	269.60	6,813.3	941.6	-7,329.4	7,389.5	0.86	-0.83	0.21	
15,191.0	90.10	270.80	6,814.1	941.9	-7,425.4	7,484.9	1.77	1.25	1.25	
15,240.0	89.80	271.30	6,814.1	942.8	-7,474.4	7,533.6	1.19	-0.61	1.02	
15,300.0	89.80	271.30	6,814.4	944.2	-7,534.4	7,593.3	0.00	0.00	0.00	
BHL 1704'FNL & 50'FWL, Sec.30										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL 2631'FNL & 2354'F - hit/miss target - Shape - Point	0.00	0.00	1.0	0.0	0.0	1,379,040.32	3,257,802.82	40.370175	-104.574742	
BHL 1704'FNL & 50'FWL - survey misses target center by 19.8ft at 15300.0ft MD (6814.4 TVD, 944.2 N, -7534.4 E) - Point	0.00	0.00	6,810.0	925.0	-7,536.3	1,379,886.56	3,250,257.63	40.372711	-104.601789	
WP #1 (Blanca 3N (Nio C) - survey misses target center by 15.5ft at 8839.3ft MD (6835.7 TVD, 885.6 N, -1076.0 E) - Point	0.00	0.00	6,830.8	900.4	-1,075.8	1,379,929.40	3,256,717.77	40.372647	-104.578602	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Blanca 3N (Nio C)
Project:	SEC.29-T5N-R64W	TVD Reference:	WELL @ 4713.0ft (Ensign 158 - RKB 23')
Site:	Blanca 5N64W29 1-15 Pad Sec.29-T5N-R64W	MD Reference:	WELL @ 4713.0ft (Ensign 158 - RKB 23')
Well:	Blanca 3N (Nio C)	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,040.5	6,745.4	876.1	707.7	TPZ - 60° Incl. in curve - 1755'FNL, 3062'FWL, SEC.29
7,731.0	6,840.8	892.2	32.1	Deepest TVD Drilled - 6840.81' TVD

Checked By: _____ Approved By: _____ Date: _____