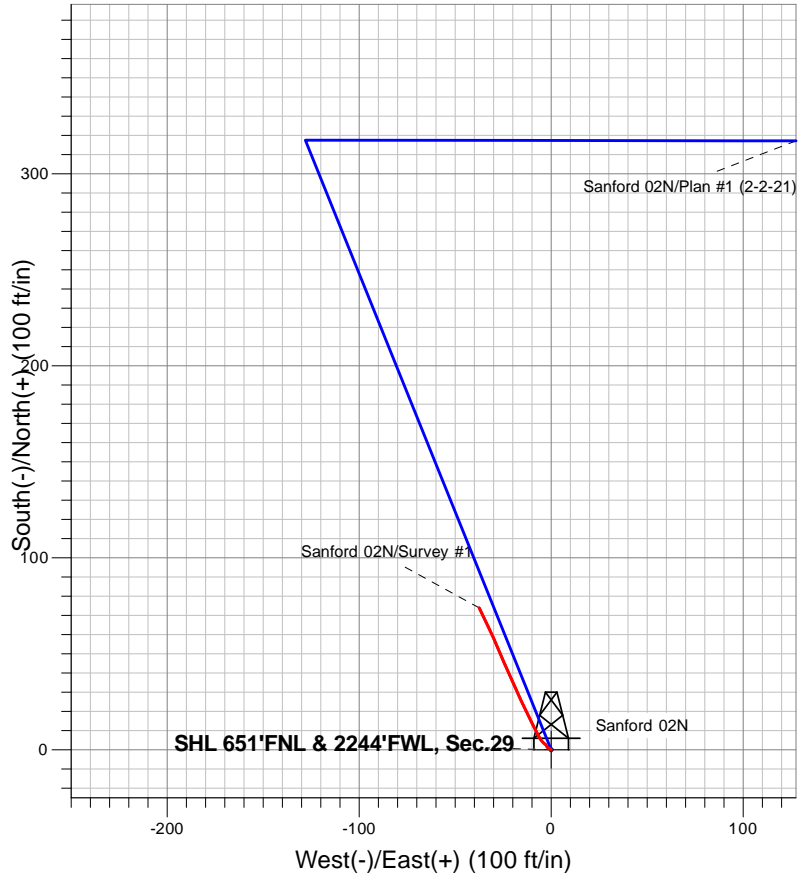
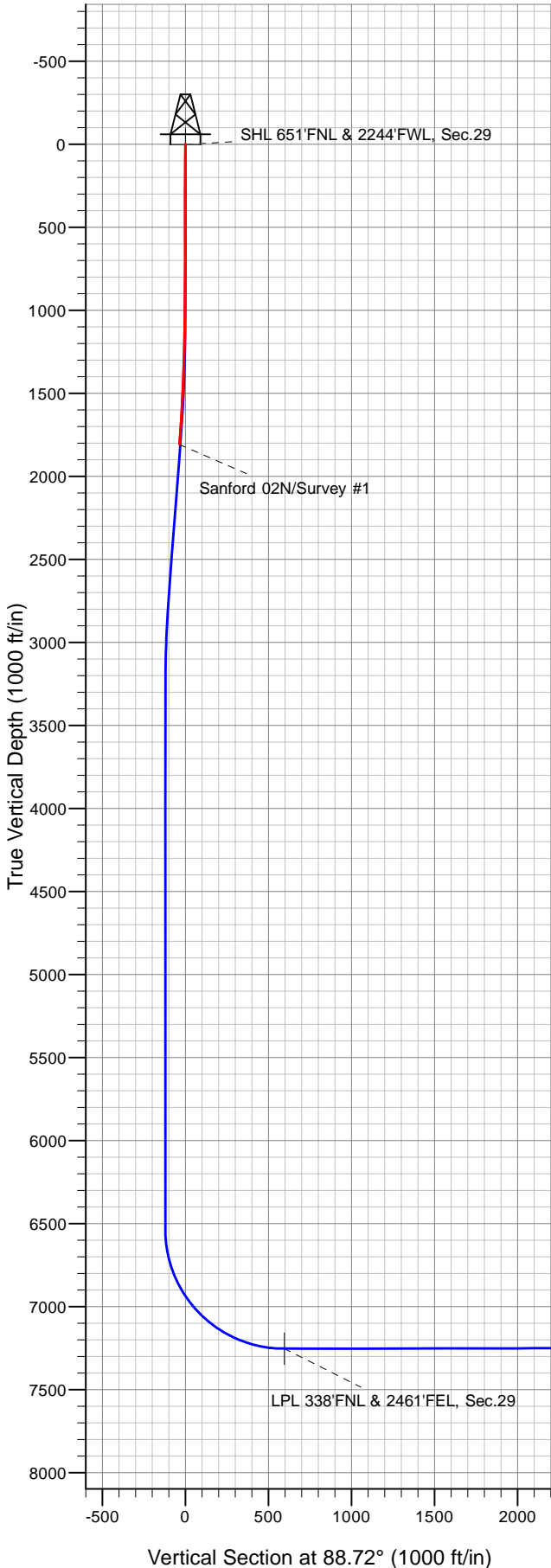


PDC Energy Inc. DJ Basin



LEGEND

- Sanford 02N, Sanford 02N Wellbore #1, Plan #1 (2-2-21) V0
- Sanford 02N Wellbore #1
- Survey #1

Final Survey Plot

Project: SEC.29-T5N-R66W
 Site: Sanford 5N65W29 1-12 Pad Sec.29-T5N-R66W
 Well: Sanford 02N
 Plan: Sanford 02N Wellbore #1



PDC Energy Inc. DJ Basin

SEC.29-T5N-R66W

Sanford 5N65W29 1-12 Pad Sec.29-T5N-R66W

Sanford 02N

Sanford 02N Wellbore #1

Survey: Survey #1

Standard Survey Report

01 March, 2021

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Sanford 02N
Project:	SEC.29-T5N-R66W	TVD Reference:	WELL @ 4918.0ft (Original Well Elev)
Site:	Sanford 5N65W29 1-12 Pad Sec.29-T5N-R66W	MD Reference:	WELL @ 4918.0ft (Original Well Elev)
Well:	Sanford 02N	North Reference:	True
Wellbore:	Sanford 02N Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Sanford 02N Wellbore #1	Database:	US_EDM

Project	SEC.29-T5N-R66W, 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	Sanford 5N65W29 1-12 Pad Sec.29-T5N-R66W				
Site Position:		Northing:	1,380,603.61 usft	Latitude:	40.376075
From:	Lat/Long	Easting:	3,193,654.99 usft	Longitude:	-104.804914
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.45 °

Well	Sanford 02N					
Well Position	+N/-S	0.0 ft	Northing:	1,380,563.53 usft	Latitude:	40.375965
	+E/-W	0.0 ft	Easting:	3,193,655.58 usft	Longitude:	-104.804913
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,905.0 ft

Wellbore	Sanford 02N Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	02/02/2021	8.07	66.70	52,030

Design	Sanford 02N 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	88.72	

Survey Program	Date	03/01/2021			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
87.0	1,813.0	Survey #1 (Sanford 02N 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
87.0	0.09	267.17	87.0	0.0	-0.1	-0.1	0.10	0.10	0.00
178.0	0.26	341.00	178.0	0.2	-0.2	-0.2	0.28	0.19	81.13
269.0	0.18	302.33	269.0	0.5	-0.4	-0.4	0.18	-0.09	-42.49
361.0	0.35	302.86	361.0	0.7	-0.8	-0.7	0.18	0.18	0.58
447.0	0.18	276.14	447.0	0.8	-1.1	-1.1	0.24	-0.20	-31.07
536.0	0.09	294.95	536.0	0.9	-1.3	-1.3	0.11	-0.10	21.13
626.0	0.26	299.34	626.0	1.0	-1.6	-1.5	0.19	0.19	4.88
715.0	0.35	306.72	715.0	1.3	-1.9	-1.9	0.11	0.10	8.29
804.0	0.35	335.02	804.0	1.7	-2.3	-2.2	0.19	0.00	31.80

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Sanford 02N
Project:	SEC.29-T5N-R66W	TVD Reference:	WELL @ 4918.0ft (Original Well Elev)
Site:	Sanford 5N65W29 1-12 Pad Sec.29-T5N-R66W	MD Reference:	WELL @ 4918.0ft (Original Well Elev)
Well:	Sanford 02N	North Reference:	True
Wellbore:	Sanford 02N Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Sanford 02N 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)	
893.0	0.44	333.79	893.0	2.2	-2.5	-2.5	0.10	0.10	-1.38	
976.0	0.44	326.76	976.0	2.8	-2.9	-2.8	0.07	0.00	-8.47	
1,065.0	0.97	294.59	1,065.0	3.4	-3.7	-3.7	0.72	0.60	-36.15	
1,154.0	1.58	327.48	1,154.0	4.7	-5.1	-5.0	1.04	0.69	36.96	
1,244.0	2.90	331.68	1,243.9	7.8	-6.8	-6.6	1.48	1.47	4.67	
1,333.0	4.40	334.14	1,332.7	12.8	-9.4	-9.1	1.69	1.69	2.76	
1,419.0	6.16	333.97	1,418.3	20.0	-12.8	-12.4	2.05	2.05	-0.20	
1,509.0	7.56	334.14	1,507.7	29.6	-17.5	-16.9	1.56	1.56	0.19	
1,599.0	8.35	337.66	1,596.8	41.0	-22.6	-21.7	1.03	0.88	3.91	
1,685.0	9.50	336.61	1,681.8	53.3	-27.8	-26.6	1.35	1.34	-1.22	
1,753.0	10.55	334.50	1,748.7	64.1	-32.7	-31.3	1.64	1.54	-3.10	
1,813.0	10.55	334.50	1,807.7	74.0	-37.4	-35.8	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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