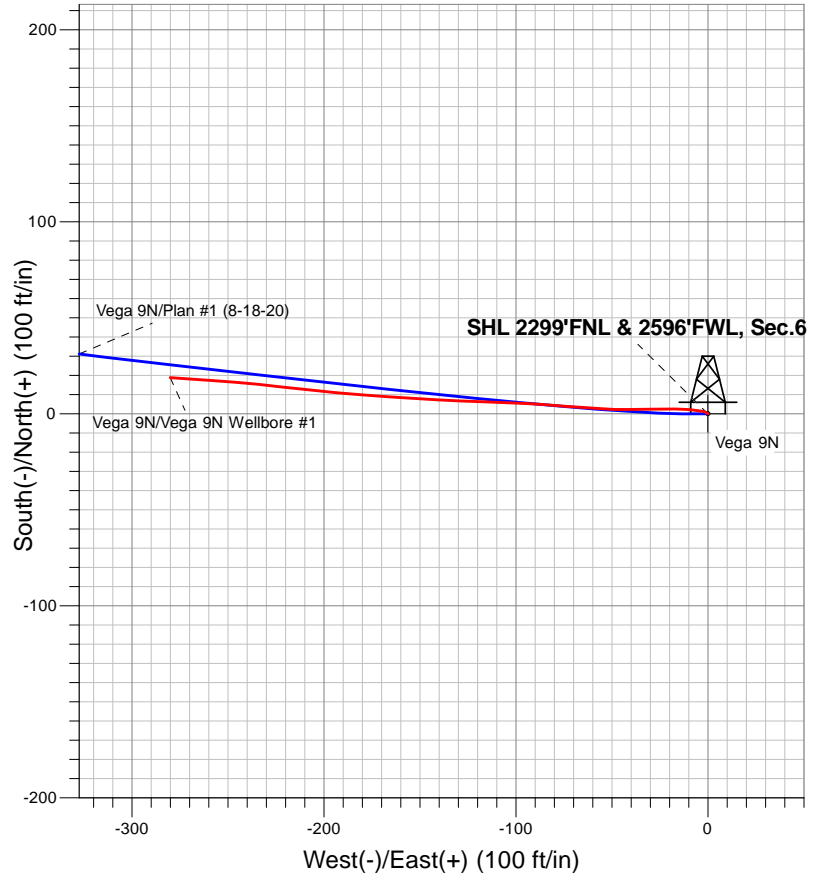
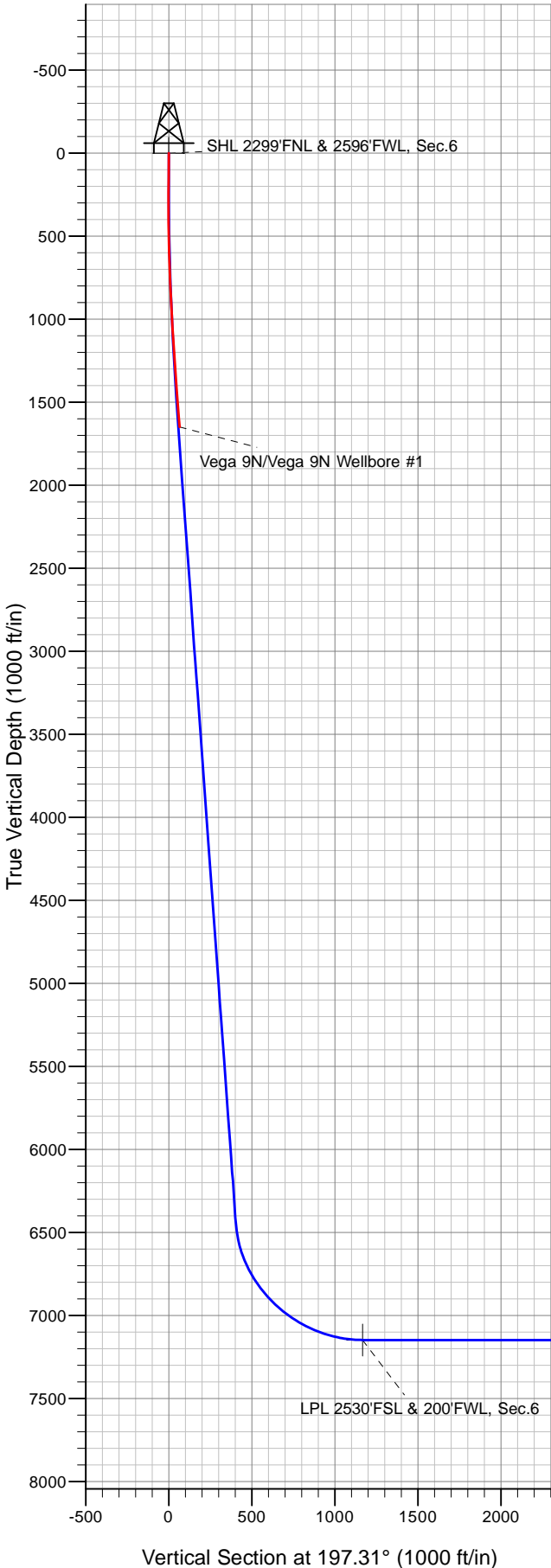


PDC Energy Inc. DJ Basin



LEGEND

- ✕ Vega 9N, Vega 9N Wellbore #1, Plan #1 (8-18-20) V0
- ⊠ Vega 9N Wellbore #1

Final Survey Plot

Project: SEC.6-T3N-R65W
 Site: Vega 3N65W06 1-16 Pad
 Well: Vega 9N
 Plan: Vega 9N Wellbore #1



PDC Energy Inc. DJ Basin

SEC.6-T3N-R65W

Vega 3N65W06 1-16 Pad

Vega 9N

Vega 9N Wellbore #1

Design: Vega 9N Wellbore #1

Standard Survey Report

02 December, 2020

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Vega 9N
Project:	SEC.6-T3N-R65W	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site:	Vega 3N65W06 1-16 Pad	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Well:	Vega 9N	North Reference:	True
Wellbore:	Vega 9N Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Vega 9N Wellbore #1	Database:	US_EDM

Project	SEC.6-T3N-R65W		
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	Vega 3N65W06 1-16 Pad				
Site Position:		Northing:	1,336,847.37 usft	Latitude:	40.255324
From:	Lat/Long	Easting:	3,221,506.77 usft	Longitude:	-104.706356
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.51 °

Well	Vega 9N					
Well Position	+N/-S	0.0 ft	Northing:	1,336,862.33 usft	Latitude:	40.255365
	+E/-W	0.0 ft	Easting:	3,221,506.58 usft	Longitude:	-104.706357
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,975.0 ft

Wellbore	Vega 9N Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	08/18/2020	7.98	66.62	52,045

Design	Vega 9N 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 (°)	
	7,148.0	0.0	0.0	197.31	

Survey Program	Date	12/02/2020			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
148.0	1,687.0	Survey #1 (Vega 9N 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	
148.0	0.09	301.18	148.0	0.1	-0.1	0.0	0.06	0.06	0.00	
240.0	0.09	310.85	240.0	0.1	-0.2	-0.1	0.02	0.00	10.51	
331.0	0.97	304.70	331.0	0.6	-0.9	-0.3	0.97	0.97	-6.76	
450.0	2.37	277.63	449.9	1.5	-4.2	-0.2	1.32	1.18	-22.75	
540.0	4.13	275.87	539.8	2.1	-9.2	0.7	1.96	1.96	-1.96	
629.0	5.98	271.12	628.4	2.5	-17.1	2.7	2.13	2.08	-5.34	
718.0	7.83	268.66	716.8	2.5	-27.8	5.9	2.10	2.08	-2.76	
807.0	9.41	269.19	804.8	2.2	-41.1	10.1	1.78	1.78	0.60	
897.0	10.73	273.94	893.4	2.7	-56.8	14.3	1.73	1.47	5.28	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Vega 9N
Project:	SEC.6-T3N-R65W	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site:	Vega 3N65W06 1-16 Pad	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Well:	Vega 9N	North Reference:	True
Wellbore:	Vega 9N Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Vega 9N 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)
985.0	12.31	274.46	979.6	4.0	-74.3	18.3	1.80	1.80	0.59
1,071.0	14.60	273.23	1,063.3	5.3	-94.3	23.0	2.68	2.66	-1.43
1,161.0	14.51	271.48	1,150.4	6.2	-116.9	28.8	0.50	-0.10	-1.94
1,251.0	16.09	273.23	1,237.2	7.2	-140.6	34.9	1.83	1.76	1.94
1,340.0	17.32	273.94	1,322.4	8.8	-166.2	41.0	1.40	1.38	0.80
1,430.0	18.55	275.17	1,408.0	11.1	-193.8	47.1	1.43	1.37	1.37
1,520.0	18.73	276.75	1,493.3	14.0	-222.4	52.8	0.60	0.20	1.76
1,627.0	21.02	273.94	1,593.9	17.4	-258.6	60.3	2.32	2.14	-2.63
1,687.0	21.02	273.94	1,650.0	18.9	-280.1	65.3	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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