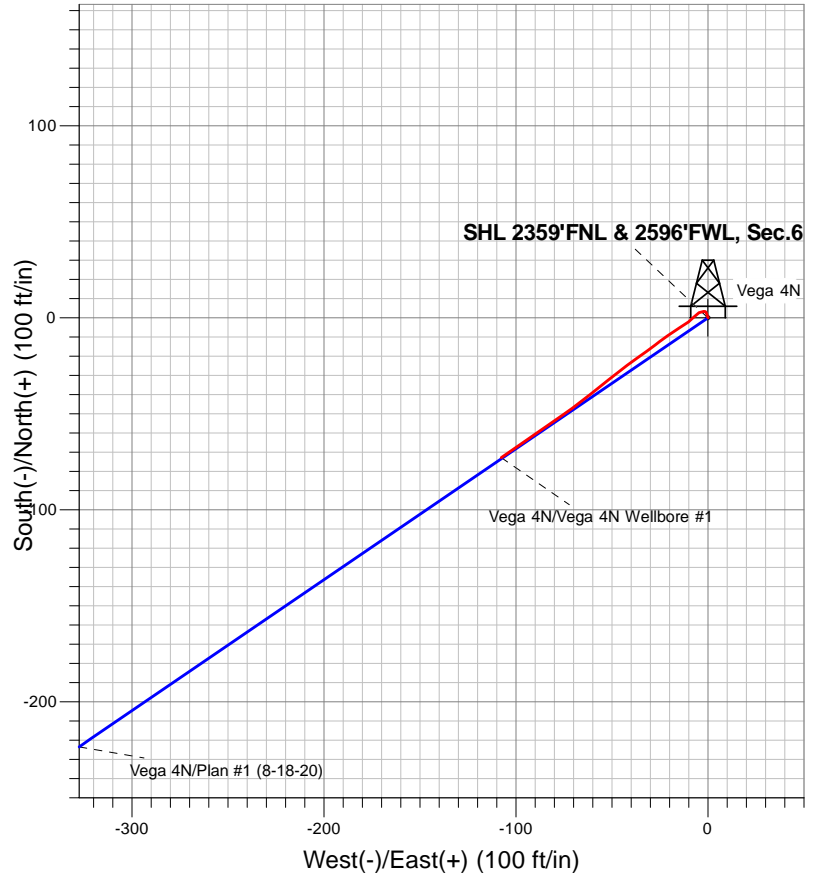


PDC Energy Inc. DJ Basin

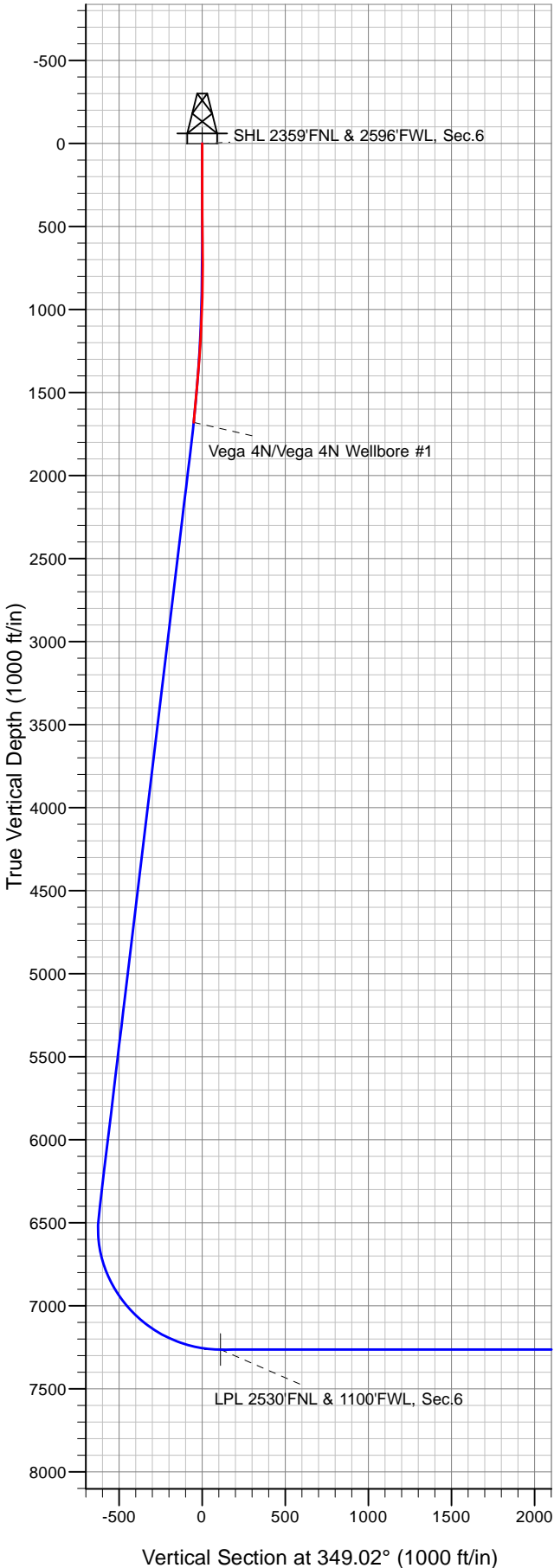


LEGEND

- Vega 4N, Vega 4N Wellbore #1, Plan #1 (8-18-20) V0
- Vega 4N Wellbore #1

Final Survey Plot

Project: SEC.6-T3N-R65W
 Site: Vega 3N65W06 1-16 Pad
 Well: Vega 4N
 Plan: Vega 4N Wellbore #1





PDC Energy Inc. DJ Basin

SEC.6-T3N-R65W

Vega 3N65W06 1-16 Pad

Vega 4N

Vega 4N Wellbore #1

Design: Vega 4N Wellbore #1

Standard Survey Report

02 December, 2020

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Vega 4N
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 4N	North Reference:	True
Wellbore:	Vega 4N Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Vega 4N 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 4N					
Well Position	+N/-S	0.0 ft	Northing:	1,336,802.38 usft	Latitude:	40.255200
	+E/-W	0.0 ft	Easting:	3,221,507.34 usft	Longitude:	-104.706356
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,975.0 ft

Wellbore	Vega 4N 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 4N 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	349.02	

Survey Program	Date	12/02/2020			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
147.0	1,691.0	Survey #1 (Vega 4N 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	
147.0	0.18	28.02	147.0	0.2	0.1	0.2	0.12	0.12	0.00	
239.0	0.18	274.46	239.0	0.3	0.0	0.3	0.33	0.00	-123.44	
330.0	0.62	348.64	330.0	0.8	-0.2	0.9	0.66	0.48	81.52	
450.0	0.35	325.09	450.0	1.8	-0.5	1.8	0.28	-0.23	-19.63	
539.0	0.26	336.87	539.0	2.2	-0.8	2.3	0.12	-0.10	13.24	
628.0	0.53	351.81	628.0	2.8	-0.9	2.9	0.32	0.30	16.79	
717.0	1.49	279.03	717.0	3.4	-2.1	3.7	1.60	1.08	-81.78	
806.0	2.11	237.90	805.9	2.7	-4.6	3.5	1.56	0.70	-46.21	
896.0	3.52	224.02	895.8	-0.2	-8.0	1.3	1.73	1.57	-15.42	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Vega 4N
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 4N	North Reference:	True
Wellbore:	Vega 4N Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Vega 4N 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	4.66	239.13	984.6	-4.0	-13.0	-1.5	1.75	1.28	16.98
1,070.0	5.72	234.91	1,069.3	-8.2	-19.4	-4.4	1.32	1.25	-4.96
1,161.0	6.86	232.80	1,159.7	-14.1	-27.4	-8.6	1.28	1.25	-2.32
1,250.0	8.62	234.74	1,247.9	-21.2	-37.1	-13.7	2.00	1.98	2.18
1,339.0	9.67	231.75	1,335.8	-29.7	-48.4	-19.9	1.29	1.18	-3.36
1,429.0	11.17	231.22	1,424.3	-39.8	-61.2	-27.4	1.67	1.67	-0.59
1,519.0	11.87	235.09	1,512.5	-50.6	-75.6	-35.2	1.16	0.78	4.30
1,631.0	13.72	235.27	1,621.7	-64.7	-95.9	-45.2	1.65	1.65	0.16
1,691.0	13.72	235.27	1,680.0	-72.8	-107.6	-51.0	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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