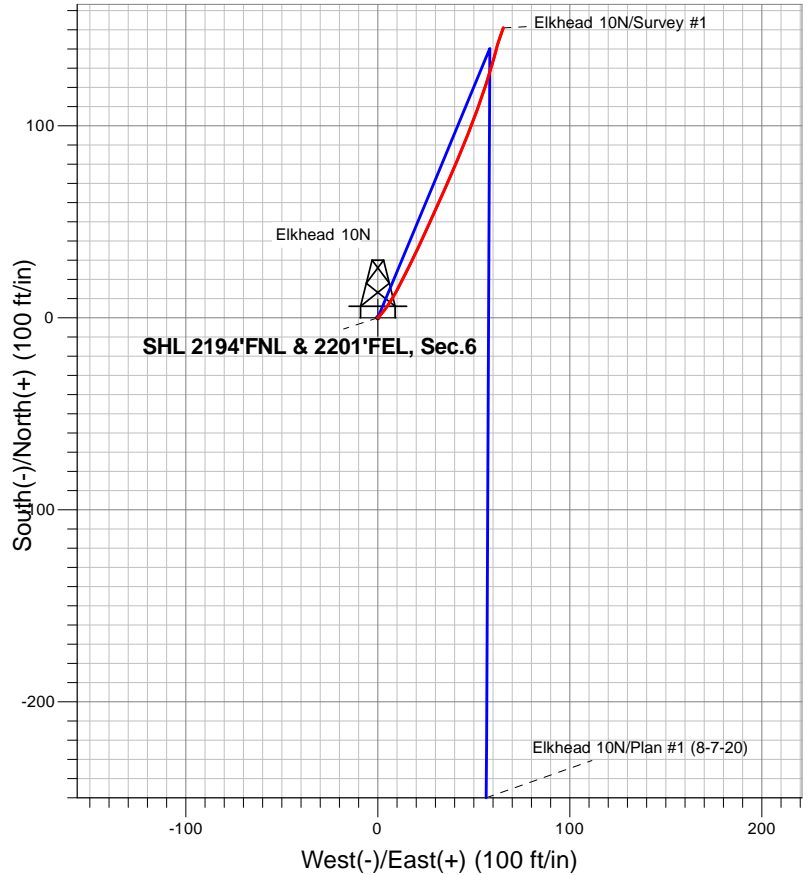


PDC Energy Inc. DJ Basin

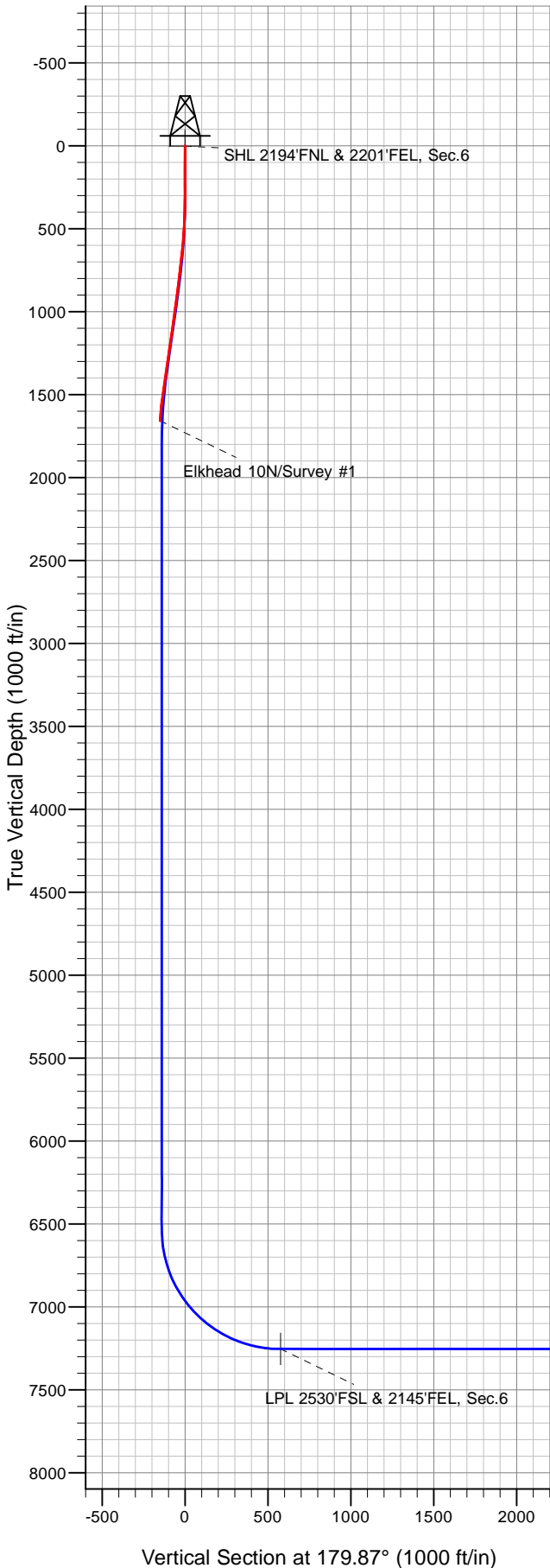


LEGEND

- Elkhead 10N, Elkhead 10N Wellbore #1, Plan #1 (8-7-20) V0
- Elkhead 10N Wellbore #1
- Survey #1

Final Survey Plot

Project: SEC.6-T3N-R65W
 Site: Elkhead 03N65W06 1-16 Pad
 Well: Elkhead 10N
 Plan: Elkhead 10N Wellbore #1





PDC Energy Inc. DJ Basin

SEC.6-T3N-R65W

Elkhead 03N65W06 1-16 Pad

Elkhead 10N

Elkhead 10N Wellbore #1

Survey: Survey #1

Standard Survey Report

18 November, 2020

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Elkhead 10N
Project:	SEC.6-T3N-R65W	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site:	Elkhead 03N65W06 1-16 Pad	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Well:	Elkhead 10N	North Reference:	True
Wellbore:	Elkhead 10N Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Elkhead 10N 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		Elkhead 03N65W06 1-16 Pad			
Site Position:		Northing:	1,336,763.37 usft	Latitude:	40.255081
From:	Lat/Long	Easting:	3,222,007.75 usft	Longitude:	-104.704564
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.51 °

Well	Elkhead 10N					
Well Position	+N/-S	0.0 ft	Northing:	1,336,973.29 usft	Latitude:	40.255657
	+E/-W	0.0 ft	Easting:	3,222,005.06 usft	Longitude:	-104.704567
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,975.0 ft

Wellbore	Elkhead 10N Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	08/07/2020	7.98	66.62	52,048

Design	Elkhead 10N 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 (°)	
	7,253.0	0.0	0.0	179.87	

Survey Program	Date	11/18/2020			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
147.0	1,668.0	Survey #1 (Elkhead 10N 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	0.26	68.98	147.0	0.1	0.3	-0.1	0.18	0.18	0.00	
239.0	0.18	22.75	239.0	0.3	0.6	-0.3	0.20	-0.09	-50.25	
330.0	0.26	26.09	330.0	0.6	0.7	-0.6	0.09	0.09	3.67	
450.0	2.81	40.15	449.9	3.1	2.7	-3.1	2.13	2.13	11.72	
539.0	5.28	32.94	538.7	8.2	6.4	-8.2	2.83	2.78	-8.10	
628.0	7.21	27.14	627.2	16.7	11.1	-16.6	2.28	2.17	-6.52	
717.0	7.30	26.61	715.5	26.7	16.2	-26.6	0.13	0.10	-0.60	
806.0	7.56	25.38	803.7	37.0	21.3	-37.0	0.34	0.29	-1.38	
896.0	7.83	24.68	892.9	47.9	26.4	-47.9	0.32	0.30	-0.78	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Elkhead 10N
Project:	SEC.6-T3N-R65W	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site:	Elkhead 03N65W06 1-16 Pad	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Well:	Elkhead 10N	North Reference:	True
Wellbore:	Elkhead 10N Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Elkhead 10N 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	8.35	23.80	981.0	59.4	31.5	-59.3	0.60	0.58	-0.99	
1,070.0	8.62	23.27	1,065.1	70.9	36.5	-70.8	0.33	0.32	-0.62	
1,161.0	8.53	22.92	1,155.1	83.3	41.8	-83.2	0.11	-0.10	-0.38	
1,250.0	8.79	21.69	1,243.1	95.7	46.9	-95.6	0.36	0.29	-1.38	
1,339.0	9.23	20.46	1,331.0	108.7	51.9	-108.6	0.54	0.49	-1.38	
1,429.0	9.15	17.65	1,419.8	122.3	56.6	-122.2	0.51	-0.09	-3.12	
1,519.0	7.83	14.31	1,508.8	135.1	60.3	-135.0	1.57	-1.47	-3.71	
1,608.0	5.89	19.23	1,597.2	145.3	63.3	-145.1	2.28	-2.18	5.53	
1,668.0	5.89	19.23	1,656.9	151.1	65.3	-150.9	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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