

Devon Energy
Planning Report

HOBBS OCD
FEB 01 2017

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Database: EDM r5000 US Production
Company: WESTERN DIVISION
Project: PBNM
Site: Norwalk
Well: Thistle Unit 138Y Wellbore
Wellbore: #1
Design: Design #1

Local Co-ordinate Reference: Well Thistle Unit 138Y
TVD Reference: RKB @ 3665.30ft
MD Reference: RKB @ 3665.30ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	PBNM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Norwalk			
Site Position:		Northing:		0.00 usft	
From: Map		Easting:		0.00 usft	
Position Uncertainty:		0.00 ft		Slot Radius:	
		13-3/16 "		Grid Convergence:	
				-0.89	
				30.988446	
				-106.060830	

Well	Thistle Unit 138Y					
Well Position	+N/-S	457,158.01 ft	Northing:	457,157.10 usft	Latitude:	32.254390
	+E/-W	782,578.68 ft	Easting:	782,577.12 usft	Longitude:	-103.552959
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	3,640.30 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/29/2016	6.94	60.09	48,114

Design	Design #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	359.72	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,151.04	0.00	0.00	9,151.04	0.00	0.00	0.00	0.00	0.00	0.00	
10,051.04	90.00	359.72	9,724.00	572.95	-2.78	10.00	10.00	0.00	359.72	
17,210.84	90.00	359.72	9,724.00	7,732.67	-37.51	0.00	0.00	0.00	0.00	Thistle Unit 138Y_BHL

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Company:	WESTERN DIVISION	TVD Reference:	RKB @ 3665.30ft
Project:	PBNM	MD Reference:	RKB @ 3665.30ft
Site:	Norwalk	North Reference:	Grid
Well:	Thistle Unit 138Y Wellbore	Survey Calculation Method:	Minimum Curvature
Wellbore:	#1		
Design:	Design #1		

Planned 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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

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Project: PBNM
Site: Norwalk
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Wellbore: #1
Design: Design #1

Local Co-ordinate Reference: Well Thistle Unit 138Y
TVD Reference: RKB @ 3665.30ft RKB
MD Reference: @ 3665.30ft Grid
North Reference: Minimum Curvature
Survey Calculation Method:

Planned 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)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,151.04	0.00	0.00	9,151.04	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	4.90	359.72	9,199.94	2.09	-0.01	2.09	10.00	10.00	0.00
9,250.00	9.90	359.72	9,249.51	8.52	-0.04	8.52	10.00	10.00	0.00
9,300.00	14.90	359.72	9,298.33	19.25	-0.09	19.25	10.00	10.00	0.00
9,350.00	19.90	359.72	9,346.03	34.20	-0.17	34.20	10.00	10.00	0.00
9,400.00	24.90	359.72	9,392.24	53.24	-0.26	53.24	10.00	10.00	0.00
9,450.00	29.90	359.72	9,436.62	76.24	-0.37	76.24	10.00	10.00	0.00
9,500.00	34.90	359.72	9,478.82	103.02	-0.50	103.02	10.00	10.00	0.00
9,550.00	39.90	359.72	9,518.53	133.38	-0.65	133.38	10.00	10.00	0.00
9,600.00	44.90	359.72	9,555.45	167.08	-0.81	167.08	10.00	10.00	0.00
9,650.00	49.90	359.72	9,589.28	203.87	-0.99	203.87	10.00	10.00	0.00
9,700.00	54.90	359.72	9,619.78	243.47	-1.18	243.47	10.00	10.00	0.00
9,750.00	59.90	359.72	9,646.72	285.57	-1.39	285.58	10.00	10.00	0.00
9,800.00	64.90	359.72	9,669.88	329.87	-1.60	329.87	10.00	10.00	0.00
9,850.00	69.90	359.72	9,689.09	376.01	-1.82	376.02	10.00	10.00	0.00
9,900.00	74.90	359.72	9,704.21	423.65	-2.06	423.66	10.00	10.00	0.00

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Planning Report

Database:	EDM r5000 US Production	Local Co-ordinate Reference:	Well Thistle Unit 138Y
Company:	WESTERN DIVISION	TVD Reference:	RKB @ 3665.30ft RKB
Project:	PBNM	MD Reference:	@ 3665.30ft Grid
Site:	Norwalk	North Reference:	Minimum Curvature
Well:	Thistle Unit 138Y Wellbore	Survey Calculation Method:	
Wellbore:	#1		
Design:	Design #1		

Planned 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)
9,950.00	79.90	359.72	9,715.11	472.43	-2.29	472.44	10.00	10.00	0.00
10,000.00	84.90	359.72	9,721.73	521.98	-2.53	521.98	10.00	10.00	0.00
10,051.04	90.00	359.72	9,724.00	572.95	-2.78	572.96	10.00	10.00	0.00
10,100.00	90.00	359.72	9,724.00	621.91	-3.02	621.92	0.00	0.00	0.00
10,200.00	90.00	359.72	9,724.00	721.91	-3.50	721.92	0.00	0.00	0.00
10,300.00	90.00	359.72	9,724.00	821.91	-3.99	821.92	0.00	0.00	0.00
10,400.00	90.00	359.72	9,724.00	921.91	-4.47	921.92	0.00	0.00	0.00
10,500.00	90.00	359.72	9,724.00	1,021.90	-4.96	1,021.92	0.00	0.00	0.00
10,600.00	90.00	359.72	9,724.00	1,121.90	-5.44	1,121.92	0.00	0.00	0.00
10,700.00	90.00	359.72	9,724.00	1,221.90	-5.93	1,221.92	0.00	0.00	0.00
10,800.00	90.00	359.72	9,724.00	1,321.90	-6.41	1,321.92	0.00	0.00	0.00
10,900.00	90.00	359.72	9,724.00	1,421.90	-6.90	1,421.92	0.00	0.00	0.00
11,000.00	90.00	359.72	9,724.00	1,521.90	-7.38	1,521.92	0.00	0.00	0.00
11,100.00	90.00	359.72	9,724.00	1,621.90	-7.87	1,621.92	0.00	0.00	0.00
11,200.00	90.00	359.72	9,724.00	1,721.90	-8.35	1,721.92	0.00	0.00	0.00
11,300.00	90.00	359.72	9,724.00	1,821.89	-8.84	1,821.92	0.00	0.00	0.00
11,400.00	90.00	359.72	9,724.00	1,921.89	-9.32	1,921.92	0.00	0.00	0.00
11,500.00	90.00	359.72	9,724.00	2,021.89	-9.81	2,021.92	0.00	0.00	0.00
11,600.00	90.00	359.72	9,724.00	2,121.89	-10.29	2,121.92	0.00	0.00	0.00
11,700.00	90.00	359.72	9,724.00	2,221.89	-10.78	2,221.92	0.00	0.00	0.00
11,800.00	90.00	359.72	9,724.00	2,321.89	-11.26	2,321.92	0.00	0.00	0.00
11,900.00	90.00	359.72	9,724.00	2,421.89	-11.75	2,421.92	0.00	0.00	0.00
12,000.00	90.00	359.72	9,724.00	2,521.89	-12.23	2,521.92	0.00	0.00	0.00
12,100.00	90.00	359.72	9,724.00	2,621.89	-12.72	2,621.92	0.00	0.00	0.00
12,200.00	90.00	359.72	9,724.00	2,721.88	-13.20	2,721.92	0.00	0.00	0.00
12,300.00	90.00	359.72	9,724.00	2,821.88	-13.69	2,821.92	0.00	0.00	0.00
12,400.00	90.00	359.72	9,724.00	2,921.88	-14.17	2,921.92	0.00	0.00	0.00
12,500.00	90.00	359.72	9,724.00	3,021.88	-14.66	3,021.92	0.00	0.00	0.00
12,600.00	90.00	359.72	9,724.00	3,121.88	-15.14	3,121.92	0.00	0.00	0.00
12,700.00	90.00	359.72	9,724.00	3,221.88	-15.63	3,221.92	0.00	0.00	0.00
12,800.00	90.00	359.72	9,724.00	3,321.88	-16.11	3,321.92	0.00	0.00	0.00
12,900.00	90.00	359.72	9,724.00	3,421.88	-16.60	3,421.92	0.00	0.00	0.00
13,000.00	90.00	359.72	9,724.00	3,521.87	-17.08	3,521.92	0.00	0.00	0.00
13,100.00	90.00	359.72	9,724.00	3,621.87	-17.57	3,621.92	0.00	0.00	0.00
13,200.00	90.00	359.72	9,724.00	3,721.87	-18.05	3,721.92	0.00	0.00	0.00
13,300.00	90.00	359.72	9,724.00	3,821.87	-18.54	3,821.92	0.00	0.00	0.00
13,400.00	90.00	359.72	9,724.00	3,921.87	-19.02	3,921.92	0.00	0.00	0.00
13,500.00	90.00	359.72	9,724.00	4,021.87	-19.51	4,021.92	0.00	0.00	0.00
13,600.00	90.00	359.72	9,724.00	4,121.87	-19.99	4,121.92	0.00	0.00	0.00
13,700.00	90.00	359.72	9,724.00	4,221.87	-20.48	4,221.92	0.00	0.00	0.00
13,800.00	90.00	359.72	9,724.00	4,321.87	-20.96	4,321.92	0.00	0.00	0.00
13,900.00	90.00	359.72	9,724.00	4,421.86	-21.45	4,421.92	0.00	0.00	0.00
14,000.00	90.00	359.72	9,724.00	4,521.86	-21.93	4,521.92	0.00	0.00	0.00
14,100.00	90.00	359.72	9,724.00	4,621.86	-22.42	4,621.92	0.00	0.00	0.00
14,200.00	90.00	359.72	9,724.00	4,721.86	-22.91	4,721.92	0.00	0.00	0.00
14,300.00	90.00	359.72	9,724.00	4,821.86	-23.39	4,821.92	0.00	0.00	0.00
14,400.00	90.00	359.72	9,724.00	4,921.86	-23.88	4,921.92	0.00	0.00	0.00
14,500.00	90.00	359.72	9,724.00	5,021.86	-24.36	5,021.92	0.00	0.00	0.00
14,600.00	90.00	359.72	9,724.00	5,121.86	-24.85	5,121.92	0.00	0.00	0.00
14,700.00	90.00	359.72	9,724.00	5,221.85	-25.33	5,221.92	0.00	0.00	0.00
14,800.00	90.00	359.72	9,724.00	5,321.85	-25.82	5,321.92	0.00	0.00	0.00
14,900.00	90.00	359.72	9,724.00	5,421.85	-26.30	5,421.92	0.00	0.00	0.00
15,000.00	90.00	359.72	9,724.00	5,521.85	-26.79	5,521.92	0.00	0.00	0.00
15,100.00	90.00	359.72	9,724.00	5,621.85	-27.27	5,621.92	0.00	0.00	0.00

Devon Energy
Planning Report

Database: EDM r5000 US Production
Company: WESTERN DIVISION
Project: PBNM
Site: Norwalk
Well: Thistle Unit 138Y Wellbore
Wellbore: #1
Design: Design #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Thistle Unit 138Y
RKB @ 3665.30ft RKB
@ 3665.30ft Grid
Minimum Curvature

Planned 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)
15,200.00	90.00	359.72	9,724.00	5,721.85	-27.76	5,721.92	0.00	0.00	0.00
15,300.00	90.00	359.72	9,724.00	5,821.85	-28.24	5,821.92	0.00	0.00	0.00
15,400.00	90.00	359.72	9,724.00	5,921.85	-28.73	5,921.92	0.00	0.00	0.00
15,500.00	90.00	359.72	9,724.00	6,021.85	-29.21	6,021.92	0.00	0.00	0.00
15,600.00	90.00	359.72	9,724.00	6,121.84	-29.70	6,121.92	0.00	0.00	0.00
15,700.00	90.00	359.72	9,724.00	6,221.84	-30.18	6,221.92	0.00	0.00	0.00
15,800.00	90.00	359.72	9,724.00	6,321.84	-30.67	6,321.92	0.00	0.00	0.00
15,900.00	90.00	359.72	9,724.00	6,421.84	-31.15	6,421.92	0.00	0.00	0.00
16,000.00	90.00	359.72	9,724.00	6,521.84	-31.64	6,521.92	0.00	0.00	0.00
16,100.00	90.00	359.72	9,724.00	6,621.84	-32.12	6,621.92	0.00	0.00	0.00
16,200.00	90.00	359.72	9,724.00	6,721.84	-32.61	6,721.92	0.00	0.00	0.00
16,300.00	90.00	359.72	9,724.00	6,821.84	-33.09	6,821.92	0.00	0.00	0.00
16,400.00	90.00	359.72	9,724.00	6,921.83	-33.58	6,921.92	0.00	0.00	0.00
16,500.00	90.00	359.72	9,724.00	7,021.83	-34.06	7,021.92	0.00	0.00	0.00
16,600.00	90.00	359.72	9,724.00	7,121.83	-34.55	7,121.92	0.00	0.00	0.00
16,700.00	90.00	359.72	9,724.00	7,221.83	-35.03	7,221.92	0.00	0.00	0.00
16,800.00	90.00	359.72	9,724.00	7,321.83	-35.52	7,321.92	0.00	0.00	0.00
16,900.00	90.00	359.72	9,724.00	7,421.83	-36.00	7,421.92	0.00	0.00	0.00
17,000.00	90.00	359.72	9,724.00	7,521.83	-36.49	7,521.92	0.00	0.00	0.00
17,100.00	90.00	359.72	9,724.00	7,621.83	-36.97	7,621.92	0.00	0.00	0.00
17,200.00	90.00	359.72	9,724.00	7,721.83	-37.46	7,721.92	0.00	0.00	0.00
17,210.84	90.00	359.72	9,724.00	7,732.67	-37.51	7,732.76	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Thistle Unit 138Y_BHL - plan hits target center - Point	0.00	0.00	9,724.00	7,732.67	-37.51	464,889.75	782,539.61	32.275645	-103.552899