

WESTERN DIVISION

PBNM

Dzurisin

Thistle Unit 153H

Wellbore #1

Plan: Plan 1

Standard Planning Report

12 July, 2016

HOBBS OCD

FEB 09 2017

RECEIVED

Devon Energy

Planning Report

Database: EDM r5000 US Production
 Company: WESTERN DIVISION
 Project: PBNM
 Site: Dzurisin
 Well: Thistle Unit 153H
 Wellbore: Wellbore #1
 Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 153H
 TVD Reference: 1 @ 3684.20ft
 MD Reference: 1 @ 3684.20ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Project	PBNM		
Map System:	Flat Earth	System Datum:	Mean Sea Level
Geo Datum:	WGS 1984		
Map Zone:	No Conversions		

Site	Dzurisin		
Site Position:		Northing:	429,922.27 usft
From:	Map	Easting:	725,391.41 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	0.000000
		Longitude:	0.000000
		Grid Convergence:	

Well	Thistle Unit 153H					
Well Position	+N/-S	27,367.91 ft	Northing:	457,290.12 usft	Latitude:	0.000000
	+E/-W	48,310.97 ft	Easting:	773,702.28 usft	Longitude:	0.000000
Position Uncertainty	0.00 ft		Wellhead Elevation:	0.00 ft	Ground Level:	3,660.70 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	7/12/2016	0.00	0.00	0

Design	Plan 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	359.53

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,188.00	0.00	0.00	9,188.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,942.34	90.52	359.53	9,665.45	481.78	-3.98	12.00	12.00	0.00	359.53	Thistle Unit 153H BHI
9,954.90	90.52	359.53	9,665.33	494.34	-4.09	0.01	0.01	0.00	-0.18	
19,297.25	90.52	359.53	9,580.26	9,835.99	-81.30	0.00	0.00	0.00	0.00	
19,326.18	90.52	359.53	9,580.00	9,864.92	-81.54	0.01	-0.01	0.01	115.74	Thistle Unit 153H BHI

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North Reference: Grid
Survey Calculation Method: 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)
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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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
9,188.00	0.00	0.00	9,188.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	1.44	359.53	9,200.00	0.15	0.00	0.15	12.00	12.00	0.00
9,225.00	4.44	359.53	9,224.96	1.43	-0.01	1.43	12.00	12.00	0.00
9,250.00	7.44	359.53	9,249.83	4.02	-0.03	4.02	12.00	12.00	0.00
9,275.00	10.44	359.53	9,274.52	7.90	-0.07	7.90	12.00	12.00	0.00
9,300.00	13.44	359.53	9,298.98	13.08	-0.11	13.08	12.00	12.00	0.00
9,325.00	16.44	359.53	9,323.13	19.52	-0.16	19.52	12.00	12.00	0.00
9,350.00	19.44	359.53	9,346.91	27.22	-0.22	27.22	12.00	12.00	0.00
9,375.00	22.44	359.53	9,370.26	36.15	-0.30	36.15	12.00	12.00	0.00
9,400.00	25.44	359.53	9,393.10	46.30	-0.38	46.30	12.00	12.00	0.00
9,425.00	28.44	359.53	9,415.39	57.62	-0.48	57.62	12.00	12.00	0.00
9,450.00	31.44	359.53	9,437.05	70.10	-0.58	70.10	12.00	12.00	0.00
9,475.00	34.44	359.53	9,458.03	83.69	-0.69	83.69	12.00	12.00	0.00
9,500.00	37.44	359.53	9,478.27	98.36	-0.81	98.36	12.00	12.00	0.00
9,525.00	40.44	359.53	9,497.71	114.07	-0.94	114.07	12.00	12.00	0.00
9,550.00	43.44	359.53	9,516.30	130.78	-1.08	130.78	12.00	12.00	0.00

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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)
9,575.00	46.44	359.53	9,534.00	148.43	-1.23	148.44	12.00	12.00	0.00
9,600.00	49.44	359.53	9,550.74	166.99	-1.38	167.00	12.00	12.00	0.00
9,625.00	52.44	359.53	9,566.49	186.40	-1.54	186.41	12.00	12.00	0.00
9,650.00	55.44	359.53	9,581.21	206.61	-1.71	206.61	12.00	12.00	0.00
9,675.00	58.44	359.53	9,594.84	227.56	-1.88	227.56	12.00	12.00	0.00
9,700.00	61.44	359.53	9,607.37	249.19	-2.06	249.20	12.00	12.00	0.00
9,725.00	64.44	359.53	9,618.74	271.45	-2.24	271.46	12.00	12.00	0.00
9,750.00	67.44	359.53	9,628.93	294.27	-2.43	294.28	12.00	12.00	0.00
9,775.00	70.44	359.53	9,637.91	317.60	-2.63	317.61	12.00	12.00	0.00
9,800.00	73.44	359.53	9,645.66	341.37	-2.82	341.38	12.00	12.00	0.00
9,825.00	76.44	359.53	9,652.16	365.50	-3.02	365.52	12.00	12.00	0.00
9,850.00	79.44	359.53	9,657.38	389.95	-3.22	389.96	12.00	12.00	0.00
9,875.00	82.44	359.53	9,661.32	414.63	-3.43	414.65	12.00	12.00	0.00
9,900.00	85.44	359.53	9,663.95	439.49	-3.63	439.50	12.00	12.00	0.00
9,925.00	88.44	359.53	9,665.29	464.45	-3.84	464.47	12.00	12.00	0.00
9,942.34	90.52	359.53	9,665.45	481.78	-3.98	481.80	12.00	12.00	0.00
9,954.90	90.52	359.53	9,665.33	494.34	-4.09	494.36	0.01	0.01	0.00
10,000.00	90.52	359.53	9,664.92	539.44	-4.46	539.46	0.00	0.00	0.00
10,100.00	90.52	359.53	9,664.01	639.44	-5.29	639.46	0.00	0.00	0.00
10,200.00	90.52	359.53	9,663.10	739.43	-6.11	739.45	0.00	0.00	0.00
10,300.00	90.52	359.53	9,662.19	839.42	-6.94	839.45	0.00	0.00	0.00
10,400.00	90.52	359.53	9,661.28	939.41	-7.76	939.45	0.00	0.00	0.00
10,500.00	90.52	359.53	9,660.37	1,039.41	-8.59	1,039.44	0.00	0.00	0.00
10,600.00	90.52	359.53	9,659.46	1,139.40	-9.42	1,139.44	0.00	0.00	0.00
10,700.00	90.52	359.53	9,658.55	1,239.39	-10.24	1,239.43	0.00	0.00	0.00
10,800.00	90.52	359.53	9,657.64	1,339.38	-11.07	1,339.43	0.00	0.00	0.00
10,900.00	90.52	359.53	9,656.73	1,439.38	-11.90	1,439.42	0.00	0.00	0.00
11,000.00	90.52	359.53	9,655.82	1,539.37	-12.72	1,539.42	0.00	0.00	0.00
11,100.00	90.52	359.53	9,654.91	1,639.36	-13.55	1,639.42	0.00	0.00	0.00
11,200.00	90.52	359.53	9,653.99	1,739.35	-14.38	1,739.41	0.00	0.00	0.00
11,300.00	90.52	359.53	9,653.08	1,839.35	-15.20	1,839.41	0.00	0.00	0.00
11,400.00	90.52	359.53	9,652.17	1,939.34	-16.03	1,939.40	0.00	0.00	0.00
11,500.00	90.52	359.53	9,651.26	2,039.33	-16.86	2,039.40	0.00	0.00	0.00
11,600.00	90.52	359.53	9,650.35	2,139.32	-17.68	2,139.40	0.00	0.00	0.00
11,700.00	90.52	359.53	9,649.44	2,239.31	-18.51	2,239.39	0.00	0.00	0.00
11,800.00	90.52	359.53	9,648.53	2,339.31	-19.34	2,339.39	0.00	0.00	0.00
11,900.00	90.52	359.53	9,647.62	2,439.30	-20.16	2,439.38	0.00	0.00	0.00
12,000.00	90.52	359.53	9,646.71	2,539.29	-20.99	2,539.38	0.00	0.00	0.00
12,100.00	90.52	359.53	9,645.80	2,639.28	-21.82	2,639.37	0.00	0.00	0.00
12,200.00	90.52	359.53	9,644.89	2,739.28	-22.64	2,739.37	0.00	0.00	0.00
12,300.00	90.52	359.53	9,643.98	2,839.27	-23.47	2,839.37	0.00	0.00	0.00
12,400.00	90.52	359.53	9,643.07	2,939.26	-24.30	2,939.36	0.00	0.00	0.00
12,500.00	90.52	359.53	9,642.16	3,039.25	-25.12	3,039.36	0.00	0.00	0.00
12,600.00	90.52	359.53	9,641.25	3,139.25	-25.95	3,139.35	0.00	0.00	0.00
12,700.00	90.52	359.53	9,640.34	3,239.24	-26.77	3,239.35	0.00	0.00	0.00
12,800.00	90.52	359.53	9,639.43	3,339.23	-27.60	3,339.35	0.00	0.00	0.00
12,900.00	90.52	359.53	9,638.51	3,439.22	-28.43	3,439.34	0.00	0.00	0.00
13,000.00	90.52	359.53	9,637.60	3,539.22	-29.25	3,539.34	0.00	0.00	0.00
13,100.00	90.52	359.53	9,636.69	3,639.21	-30.08	3,639.33	0.00	0.00	0.00
13,200.00	90.52	359.53	9,635.78	3,739.20	-30.91	3,739.33	0.00	0.00	0.00
13,300.00	90.52	359.53	9,634.87	3,839.19	-31.73	3,839.33	0.00	0.00	0.00
13,400.00	90.52	359.53	9,633.96	3,939.19	-32.56	3,939.32	0.00	0.00	0.00
13,500.00	90.52	359.53	9,633.05	4,039.18	-33.39	4,039.32	0.00	0.00	0.00
13,600.00	90.52	359.53	9,632.14	4,139.17	-34.21	4,139.31	0.00	0.00	0.00

Devon Energy

Planning Report

Database: EDM r5000 US Production
 Company: WESTERN DIVISION
 Project: PBNM
 Site: Dzurisin
 Well: Thistle Unit 153H
 Wellbore: Wellbore #1
 Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 153H
 TVD Reference: 1 @ 3684.20ft
 MD Reference: 1 @ 3684.20ft
 North Reference: Grid
 Survey Calculation Method: 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)
13,700.00	90.52	359.53	9,631.23	4,239.16	-35.04	4,239.31	0.00	0.00	0.00
13,800.00	90.52	359.53	9,630.32	4,339.16	-35.87	4,339.30	0.00	0.00	0.00
13,900.00	90.52	359.53	9,629.41	4,439.15	-36.69	4,439.30	0.00	0.00	0.00
14,000.00	90.52	359.53	9,628.50	4,539.14	-37.52	4,539.30	0.00	0.00	0.00
14,100.00	90.52	359.53	9,627.59	4,639.13	-38.35	4,639.29	0.00	0.00	0.00
14,200.00	90.52	359.53	9,626.68	4,739.13	-39.17	4,739.29	0.00	0.00	0.00
14,300.00	90.52	359.53	9,625.77	4,839.12	-40.00	4,839.28	0.00	0.00	0.00
14,400.00	90.52	359.53	9,624.86	4,939.11	-40.83	4,939.28	0.00	0.00	0.00
14,500.00	90.52	359.53	9,623.95	5,039.10	-41.65	5,039.28	0.00	0.00	0.00
14,600.00	90.52	359.53	9,623.04	5,139.10	-42.48	5,139.27	0.00	0.00	0.00
14,700.00	90.52	359.53	9,622.12	5,239.09	-43.31	5,239.27	0.00	0.00	0.00
14,800.00	90.52	359.53	9,621.21	5,339.08	-44.13	5,339.26	0.00	0.00	0.00
14,900.00	90.52	359.53	9,620.30	5,439.07	-44.96	5,439.26	0.00	0.00	0.00
15,000.00	90.52	359.53	9,619.39	5,539.07	-45.78	5,539.25	0.00	0.00	0.00
15,100.00	90.52	359.53	9,618.48	5,639.06	-46.61	5,639.25	0.00	0.00	0.00
15,200.00	90.52	359.53	9,617.57	5,739.05	-47.44	5,739.25	0.00	0.00	0.00
15,300.00	90.52	359.53	9,616.66	5,839.04	-48.26	5,839.24	0.00	0.00	0.00
15,400.00	90.52	359.53	9,615.75	5,939.04	-49.09	5,939.24	0.00	0.00	0.00
15,500.00	90.52	359.53	9,614.84	6,039.03	-49.92	6,039.23	0.00	0.00	0.00
15,600.00	90.52	359.53	9,613.93	6,139.02	-50.74	6,139.23	0.00	0.00	0.00
15,700.00	90.52	359.53	9,613.02	6,239.01	-51.57	6,239.23	0.00	0.00	0.00
15,800.00	90.52	359.53	9,612.11	6,339.00	-52.40	6,339.22	0.00	0.00	0.00
15,900.00	90.52	359.53	9,611.20	6,439.00	-53.22	6,439.22	0.00	0.00	0.00
16,000.00	90.52	359.53	9,610.29	6,538.99	-54.05	6,539.21	0.00	0.00	0.00
16,100.00	90.52	359.53	9,609.38	6,638.98	-54.88	6,639.21	0.00	0.00	0.00
16,200.00	90.52	359.53	9,608.47	6,738.97	-55.70	6,739.20	0.00	0.00	0.00
16,300.00	90.52	359.53	9,607.56	6,838.97	-56.53	6,839.20	0.00	0.00	0.00
16,400.00	90.52	359.53	9,606.64	6,938.96	-57.36	6,939.20	0.00	0.00	0.00
16,500.00	90.52	359.53	9,605.73	7,038.95	-58.18	7,039.19	0.00	0.00	0.00
16,600.00	90.52	359.53	9,604.82	7,138.94	-59.01	7,139.19	0.00	0.00	0.00
16,700.00	90.52	359.53	9,603.91	7,238.94	-59.84	7,239.18	0.00	0.00	0.00
16,800.00	90.52	359.53	9,603.00	7,338.93	-60.66	7,339.18	0.00	0.00	0.00
16,900.00	90.52	359.53	9,602.09	7,438.92	-61.49	7,439.18	0.00	0.00	0.00
17,000.00	90.52	359.53	9,601.18	7,538.91	-62.31	7,539.17	0.00	0.00	0.00
17,100.00	90.52	359.53	9,600.27	7,638.91	-63.14	7,639.17	0.00	0.00	0.00
17,200.00	90.52	359.53	9,599.36	7,738.90	-63.97	7,739.16	0.00	0.00	0.00
17,300.00	90.52	359.53	9,598.45	7,838.89	-64.79	7,839.16	0.00	0.00	0.00
17,400.00	90.52	359.53	9,597.54	7,938.88	-65.62	7,939.16	0.00	0.00	0.00
17,500.00	90.52	359.53	9,596.63	8,038.88	-66.45	8,039.15	0.00	0.00	0.00
17,600.00	90.52	359.53	9,595.72	8,138.87	-67.27	8,139.15	0.00	0.00	0.00
17,700.00	90.52	359.53	9,594.81	8,238.86	-68.10	8,239.14	0.00	0.00	0.00
17,800.00	90.52	359.53	9,593.90	8,338.85	-68.93	8,339.14	0.00	0.00	0.00
17,900.00	90.52	359.53	9,592.99	8,438.85	-69.75	8,439.13	0.00	0.00	0.00
18,000.00	90.52	359.53	9,592.08	8,538.84	-70.58	8,539.13	0.00	0.00	0.00
18,100.00	90.52	359.53	9,591.17	8,638.83	-71.41	8,639.13	0.00	0.00	0.00
18,200.00	90.52	359.53	9,590.25	8,738.82	-72.23	8,739.12	0.00	0.00	0.00
18,300.00	90.52	359.53	9,589.34	8,838.82	-73.06	8,839.12	0.00	0.00	0.00
18,400.00	90.52	359.53	9,588.43	8,938.81	-73.89	8,939.11	0.00	0.00	0.00
18,500.00	90.52	359.53	9,587.52	9,038.80	-74.71	9,039.11	0.00	0.00	0.00
18,600.00	90.52	359.53	9,586.61	9,138.79	-75.54	9,139.11	0.00	0.00	0.00
18,700.00	90.52	359.53	9,585.70	9,238.79	-76.37	9,239.10	0.00	0.00	0.00
18,800.00	90.52	359.53	9,584.79	9,338.78	-77.19	9,339.10	0.00	0.00	0.00
18,900.00	90.52	359.53	9,583.88	9,438.77	-78.02	9,439.09	0.00	0.00	0.00
19,000.00	90.52	359.53	9,582.97	9,538.76	-78.85	9,539.09	0.00	0.00	0.00

Devon Energy

Planning Report

Database: EDM r5000 US Production
Company: WESTERN DIVISION
Project: PBNM
Site: Dzurisin
Well: Thistle Unit 153H
Wellbore: Wellbore #1
Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 153H
TVD Reference: 1 @ 3684.20ft
MD Reference: 1 @ 3684.20ft
North Reference: Grid
Survey Calculation Method: 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)
19,100.00	90.52	359.53	9,582.06	9,638.76	-79.67	9,639.08	0.00	0.00	0.00
19,200.00	90.52	359.53	9,581.15	9,738.75	-80.50	9,739.08	0.00	0.00	0.00
19,297.25	90.52	359.53	9,580.26	9,835.99	-81.30	9,836.33	0.00	0.00	0.00
19,300.00	90.52	359.53	9,580.24	9,838.74	-81.32	9,839.08	0.01	-0.01	0.01
19,326.18	90.52	359.53	9,580.00	9,864.92	-81.54	9,865.26	0.01	-0.01	0.01

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Thistle Unit 153H BHL	0.00	0.00	9,580.00	9,864.92	-81.54	467,155.02	773,620.74	0.000000	0.000000
- plan hits target center									
- Point									