

Devon Energy  
Planning Report

HOBBS OCD

OCT 03 2016

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Database:	EDM r5000 US Production	Local Co-ordinate Reference	Well Thistle Unit 112H
Company:	WESTERN DIVISION	TVD Reference:	RKB @ 3668.8usft
Project:	PBNM	MD Reference:	RKB @ 3668.8usft
Site:	Norwalk	North Reference:	Grid
Well:	Thistle Unit 112H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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	Latitude:	30° 59' 18.404 N
From:	Map	Easting:	0.00 usft	Longitude:	106° 3' 38.987 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.89 °

Well	Thistle Unit 112H					
Well Position	+N/-S	457,211.3 usft	Northing:	457,211.31 usft	Latitude:	32° 15' 16.454 N
	+E/-W	780,985.0 usft	Easting:	780,985.05 usft	Longitude:	103° 33' 29.187 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	3,681.0 usft	Ground Level:	3,643.8 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	User Defined	8/23/2016	(°) 0.00	(°) 0.00	(nT) 0

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	358.32

Plan Sections											
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00		
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.00	0.00	0.00	0.00		
5,700.0	5.00	270.00	5,699.4	0.0	-21.8	1.00	1.00	0.00	270.00		
6,880.0	5.00	270.00	6,874.9	0.0	-124.6	0.00	0.00	0.00	0.00		
7,880.0	0.00	0.00	7,873.6	0.0	-168.3	0.50	-0.50	0.00	180.00		
9,136.0	0.00	0.00	9,129.6	0.0	-168.3	0.00	0.00	0.00	0.00		
10,036.0	90.00	359.58	9,702.6	572.9	-172.5	10.00	10.00	-0.05	359.58		
17,132.2	90.00	359.58	9,703.0	7,668.9	-225.1	0.00	0.00	0.00	0.00	BHL_Thistle 112H	

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<b>Database:</b>	EDM r5000 US Production	<b>Local Co-ordinate Reference</b>	Well Thistle Unit 112H
<b>Company:</b>	WESTERN DIVISION	<b>TVD Reference:</b>	RKB @ 3668.8usft
<b>Project:</b>	PBNM	<b>MD Reference:</b>	RKB @ 3668.8usft
<b>Site:</b>	Norwalk	<b>North Reference:</b>	Grid
<b>Well:</b>	Thistle Unit 112H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	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	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00

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<b>Project:</b>	PBNM	<b>MD Reference:</b>	RKB @ 3668.8usft
<b>Site:</b>	Norwalk	<b>North Reference:</b>	Grid
<b>Well:</b>	Thistle Unit 112H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,300.0	1.00	270.00	5,300.0	0.0	-0.9	0.0	1.00	1.00	0.00	
5,400.0	2.00	270.00	5,400.0	0.0	-3.5	0.1	1.00	1.00	0.00	
5,500.0	3.00	270.00	5,499.9	0.0	-7.9	0.2	1.00	1.00	0.00	
5,600.0	4.00	270.00	5,599.7	0.0	-14.0	0.4	1.00	1.00	0.00	
5,700.0	5.00	270.00	5,699.4	0.0	-21.8	0.6	1.00	1.00	0.00	
5,800.0	5.00	270.00	5,799.0	0.0	-30.5	0.9	0.00	0.00	0.00	
5,900.0	5.00	270.00	5,898.6	0.0	-39.2	1.2	0.00	0.00	0.00	
6,000.0	5.00	270.00	5,998.2	0.0	-47.9	1.4	0.00	0.00	0.00	
6,100.0	5.00	270.00	6,097.8	0.0	-56.7	1.7	0.00	0.00	0.00	
6,200.0	5.00	270.00	6,197.5	0.0	-65.4	1.9	0.00	0.00	0.00	
6,300.0	5.00	270.00	6,297.1	0.0	-74.1	2.2	0.00	0.00	0.00	
6,400.0	5.00	270.00	6,396.7	0.0	-82.8	2.4	0.00	0.00	0.00	
6,500.0	5.00	270.00	6,496.3	0.0	-91.5	2.7	0.00	0.00	0.00	
6,600.0	5.00	270.00	6,595.9	0.0	-100.2	2.9	0.00	0.00	0.00	
6,700.0	5.00	270.00	6,695.6	0.0	-109.0	3.2	0.00	0.00	0.00	
6,800.0	5.00	270.00	6,795.2	0.0	-117.7	3.5	0.00	0.00	0.00	
6,880.0	5.00	270.00	6,874.9	0.0	-124.6	3.7	0.00	0.00	0.00	
6,900.0	4.90	270.00	6,894.8	0.0	-126.4	3.7	0.50	-0.50	0.00	
7,000.0	4.40	270.00	6,994.5	0.0	-134.5	3.9	0.50	-0.50	0.00	
7,100.0	3.90	270.00	7,094.2	0.0	-141.7	4.2	0.50	-0.50	0.00	
7,200.0	3.40	270.00	7,194.0	0.0	-148.1	4.3	0.50	-0.50	0.00	
7,300.0	2.90	270.00	7,293.9	0.0	-153.6	4.5	0.50	-0.50	0.00	
7,400.0	2.40	270.00	7,393.7	0.0	-158.2	4.6	0.50	-0.50	0.00	
7,500.0	1.90	270.00	7,493.7	0.0	-162.0	4.8	0.50	-0.50	0.00	
7,600.0	1.40	270.00	7,593.6	0.0	-164.8	4.8	0.50	-0.50	0.00	
7,700.0	0.90	270.00	7,693.6	0.0	-166.8	4.9	0.50	-0.50	0.00	
7,800.0	0.40	270.00	7,793.6	0.0	-168.0	4.9	0.50	-0.50	0.00	
7,880.0	0.00	0.00	7,873.6	0.0	-168.3	4.9	0.50	-0.50	0.00	
7,900.0	0.00	0.00	7,893.6	0.0	-168.3	4.9	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,993.6	0.0	-168.3	4.9	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,093.6	0.0	-168.3	4.9	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,193.6	0.0	-168.3	4.9	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,293.6	0.0	-168.3	4.9	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,393.6	0.0	-168.3	4.9	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,493.6	0.0	-168.3	4.9	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,593.6	0.0	-168.3	4.9	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,693.6	0.0	-168.3	4.9	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,793.6	0.0	-168.3	4.9	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,893.6	0.0	-168.3	4.9	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,993.6	0.0	-168.3	4.9	0.00	0.00	0.00	
9,100.0	0.00	0.00	9,093.6	0.0	-168.3	4.9	0.00	0.00	0.00	
9,136.0	0.00	0.00	9,129.6	0.0	-168.3	4.9	0.00	0.00	0.00	
9,150.0	1.40	359.58	9,143.6	0.2	-168.3	5.1	10.00	10.00	0.00	
9,200.0	6.40	359.58	9,193.5	3.6	-168.3	8.5	10.00	10.00	0.00	
9,250.0	11.40	359.58	9,242.9	11.3	-168.3	16.2	10.00	10.00	0.00	
9,300.0	16.40	359.58	9,291.4	23.3	-168.4	28.2	10.00	10.00	0.00	
9,350.0	21.40	359.58	9,338.7	39.5	-168.5	44.4	10.00	10.00	0.00	
9,400.0	26.40	359.58	9,384.4	59.8	-168.7	64.7	10.00	10.00	0.00	
9,450.0	31.40	359.58	9,428.1	83.9	-168.9	88.8	10.00	10.00	0.00	
9,500.0	36.40	359.58	9,469.6	111.8	-169.1	116.7	10.00	10.00	0.00	
9,550.0	41.40	359.58	9,508.5	143.2	-169.3	148.1	10.00	10.00	0.00	
9,600.0	46.40	359.58	9,544.5	177.8	-169.6	182.7	10.00	10.00	0.00	
9,650.0	51.40	359.58	9,577.4	215.5	-169.8	220.4	10.00	10.00	0.00	

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<b>Project:</b>	PBNM	<b>MD Reference:</b>	RKB @ 3668.8usft
<b>Site:</b>	Norwalk	<b>North Reference:</b>	Grid
<b>Well:</b>	Thistle Unit 112H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)	
9,700.0	56.40	359.58	9,606.8	255.9	-170.1	260.8	10.00	10.00	0.00	
9,750.0	61.40	359.58	9,632.7	298.7	-170.5	303.6	10.00	10.00	0.00	
9,800.0	66.40	359.58	9,654.6	343.6	-170.8	348.4	10.00	10.00	0.00	
9,850.0	71.40	359.58	9,672.6	390.2	-171.1	395.0	10.00	10.00	0.00	
9,900.0	76.40	359.58	9,686.5	438.2	-171.5	443.1	10.00	10.00	0.00	
9,950.0	81.40	359.58	9,696.1	487.3	-171.9	492.1	10.00	10.00	0.00	
10,000.0	86.40	359.58	9,701.4	537.0	-172.2	541.8	10.00	10.00	0.00	
10,036.0	90.00	359.58	9,702.6	572.9	-172.5	577.7	10.00	10.00	0.00	
10,100.0	90.00	359.58	9,702.6	636.9	-173.0	641.7	0.00	0.00	0.00	
10,200.0	90.00	359.58	9,702.6	736.9	-173.7	741.7	0.00	0.00	0.00	
10,300.0	90.00	359.58	9,702.6	836.9	-174.5	841.7	0.00	0.00	0.00	
10,400.0	90.00	359.58	9,702.6	936.9	-175.2	941.7	0.00	0.00	0.00	
10,500.0	90.00	359.58	9,702.6	1,036.9	-175.9	1,041.6	0.00	0.00	0.00	
10,600.0	90.00	359.58	9,702.6	1,136.9	-176.7	1,141.6	0.00	0.00	0.00	
10,700.0	90.00	359.58	9,702.6	1,236.9	-177.4	1,241.6	0.00	0.00	0.00	
10,800.0	90.00	359.58	9,702.6	1,336.9	-178.2	1,341.6	0.00	0.00	0.00	
10,900.0	90.00	359.58	9,702.6	1,436.9	-178.9	1,441.5	0.00	0.00	0.00	
11,000.0	90.00	359.58	9,702.6	1,536.9	-179.6	1,541.5	0.00	0.00	0.00	
11,100.0	90.00	359.58	9,702.6	1,636.9	-180.4	1,641.5	0.00	0.00	0.00	
11,200.0	90.00	359.58	9,702.6	1,736.9	-181.1	1,741.5	0.00	0.00	0.00	
11,300.0	90.00	359.58	9,702.6	1,836.9	-181.9	1,841.5	0.00	0.00	0.00	
11,400.0	90.00	359.58	9,702.6	1,936.9	-182.6	1,941.4	0.00	0.00	0.00	
11,500.0	90.00	359.58	9,702.7	2,036.9	-183.3	2,041.4	0.00	0.00	0.00	
11,600.0	90.00	359.58	9,702.7	2,136.9	-184.1	2,141.4	0.00	0.00	0.00	
11,700.0	90.00	359.58	9,702.7	2,236.9	-184.8	2,241.4	0.00	0.00	0.00	
11,800.0	90.00	359.58	9,702.7	2,336.9	-185.6	2,341.3	0.00	0.00	0.00	
11,900.0	90.00	359.58	9,702.7	2,436.9	-186.3	2,441.3	0.00	0.00	0.00	
12,000.0	90.00	359.58	9,702.7	2,536.9	-187.1	2,541.3	0.00	0.00	0.00	
12,100.0	90.00	359.58	9,702.7	2,636.9	-187.8	2,641.3	0.00	0.00	0.00	
12,200.0	90.00	359.58	9,702.7	2,736.9	-188.5	2,741.2	0.00	0.00	0.00	
12,300.0	90.00	359.58	9,702.7	2,836.9	-189.3	2,841.2	0.00	0.00	0.00	
12,400.0	90.00	359.58	9,702.7	2,936.9	-190.0	2,941.2	0.00	0.00	0.00	
12,500.0	90.00	359.58	9,702.7	3,036.9	-190.8	3,041.2	0.00	0.00	0.00	
12,600.0	90.00	359.58	9,702.7	3,136.9	-191.5	3,141.1	0.00	0.00	0.00	
12,700.0	90.00	359.58	9,702.7	3,236.9	-192.2	3,241.1	0.00	0.00	0.00	
12,800.0	90.00	359.58	9,702.7	3,336.9	-193.0	3,341.1	0.00	0.00	0.00	
12,900.0	90.00	359.58	9,702.7	3,436.9	-193.7	3,441.1	0.00	0.00	0.00	
13,000.0	90.00	359.58	9,702.7	3,536.9	-194.5	3,541.0	0.00	0.00	0.00	
13,100.0	90.00	359.58	9,702.7	3,636.9	-195.2	3,641.0	0.00	0.00	0.00	
13,200.0	90.00	359.58	9,702.7	3,736.9	-195.9	3,741.0	0.00	0.00	0.00	
13,300.0	90.00	359.58	9,702.8	3,836.9	-196.7	3,841.0	0.00	0.00	0.00	
13,400.0	90.00	359.58	9,702.8	3,936.8	-197.4	3,940.9	0.00	0.00	0.00	
13,500.0	90.00	359.58	9,702.8	4,036.8	-198.2	4,040.9	0.00	0.00	0.00	
13,600.0	90.00	359.58	9,702.8	4,136.8	-198.9	4,140.9	0.00	0.00	0.00	
13,700.0	90.00	359.58	9,702.8	4,236.8	-199.6	4,240.9	0.00	0.00	0.00	
13,800.0	90.00	359.58	9,702.8	4,336.8	-200.4	4,340.9	0.00	0.00	0.00	
13,900.0	90.00	359.58	9,702.8	4,436.8	-201.1	4,440.8	0.00	0.00	0.00	
14,000.0	90.00	359.58	9,702.8	4,536.8	-201.9	4,540.8	0.00	0.00	0.00	
14,100.0	90.00	359.58	9,702.8	4,636.8	-202.6	4,640.8	0.00	0.00	0.00	
14,200.0	90.00	359.58	9,702.8	4,736.8	-203.4	4,740.8	0.00	0.00	0.00	
14,300.0	90.00	359.58	9,702.8	4,836.8	-204.1	4,840.7	0.00	0.00	0.00	
14,400.0	90.00	359.58	9,702.8	4,936.8	-204.8	4,940.7	0.00	0.00	0.00	
14,500.0	90.00	359.58	9,702.8	5,036.8	-205.6	5,040.7	0.00	0.00	0.00	

# Devon Energy

## Planning Report

<b>Database:</b>	EDM r5000 US Production	<b>Local Co-ordinate Reference</b>	Well Thistle Unit 112H
<b>Company:</b>	WESTERN DIVISION	<b>TVD Reference:</b>	RKB @ 3668.8usft
<b>Project:</b>	PBNM	<b>MD Reference:</b>	RKB @ 3668.8usft
<b>Site:</b>	Norwalk	<b>North Reference:</b>	Grid
<b>Well:</b>	Thistle Unit 112H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,600.0	90.00	359.58	9,702.8	5,136.8	-206.3	5,140.7	0.00	0.00	0.00	
14,700.0	90.00	359.58	9,702.8	5,236.8	-207.1	5,240.6	0.00	0.00	0.00	
14,800.0	90.00	359.58	9,702.8	5,336.8	-207.8	5,340.6	0.00	0.00	0.00	
14,900.0	90.00	359.58	9,702.8	5,436.8	-208.5	5,440.6	0.00	0.00	0.00	
15,000.0	90.00	359.58	9,702.9	5,536.8	-209.3	5,540.6	0.00	0.00	0.00	
15,100.0	90.00	359.58	9,702.9	5,636.8	-210.0	5,640.5	0.00	0.00	0.00	
15,200.0	90.00	359.58	9,702.9	5,736.8	-210.8	5,740.5	0.00	0.00	0.00	
15,300.0	90.00	359.58	9,702.9	5,836.8	-211.5	5,840.5	0.00	0.00	0.00	
15,400.0	90.00	359.58	9,702.9	5,936.8	-212.2	5,940.5	0.00	0.00	0.00	
15,500.0	90.00	359.58	9,702.9	6,036.8	-213.0	6,040.4	0.00	0.00	0.00	
15,600.0	90.00	359.58	9,702.9	6,136.8	-213.7	6,140.4	0.00	0.00	0.00	
15,700.0	90.00	359.58	9,702.9	6,236.8	-214.5	6,240.4	0.00	0.00	0.00	
15,800.0	90.00	359.58	9,702.9	6,336.8	-215.2	6,340.4	0.00	0.00	0.00	
15,900.0	90.00	359.58	9,702.9	6,436.8	-216.0	6,440.3	0.00	0.00	0.00	
16,000.0	90.00	359.58	9,702.9	6,536.8	-216.7	6,540.3	0.00	0.00	0.00	
16,100.0	90.00	359.58	9,702.9	6,636.8	-217.4	6,640.3	0.00	0.00	0.00	
16,200.0	90.00	359.58	9,702.9	6,736.8	-218.2	6,740.3	0.00	0.00	0.00	
16,300.0	90.00	359.58	9,702.9	6,836.8	-218.9	6,840.2	0.00	0.00	0.00	
16,400.0	90.00	359.58	9,702.9	6,936.8	-219.7	6,940.2	0.00	0.00	0.00	
16,500.0	90.00	359.58	9,702.9	7,036.8	-220.4	7,040.2	0.00	0.00	0.00	
16,600.0	90.00	359.58	9,702.9	7,136.8	-221.1	7,140.2	0.00	0.00	0.00	
16,700.0	90.00	359.58	9,703.0	7,236.8	-221.9	7,240.2	0.00	0.00	0.00	
16,800.0	90.00	359.58	9,703.0	7,336.8	-222.6	7,340.1	0.00	0.00	0.00	
16,900.0	90.00	359.58	9,703.0	7,436.8	-223.4	7,440.1	0.00	0.00	0.00	
17,000.0	90.00	359.58	9,703.0	7,536.8	-224.1	7,540.1	0.00	0.00	0.00	
17,100.0	90.00	359.58	9,703.0	7,636.7	-224.8	7,640.1	0.00	0.00	0.00	
17,132.2	90.00	359.58	9,703.0	7,668.9	-225.1	7,672.2	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
BHL_Thistle 112H	0.00	0.00	9,703.0	7,668.9	-225.1	464,880.22	780,759.97	32° 16' 32.355 N	103° 33' 31.164 W	
- hit/miss target										
- Shape										
- plan hits target center										
- Point										