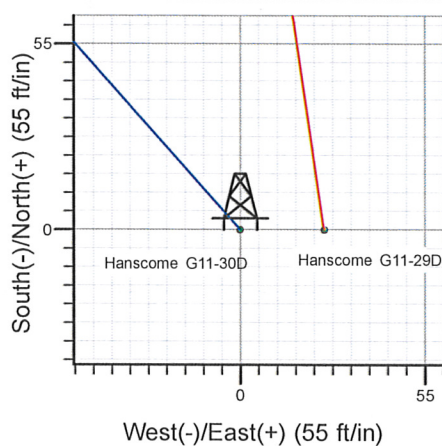
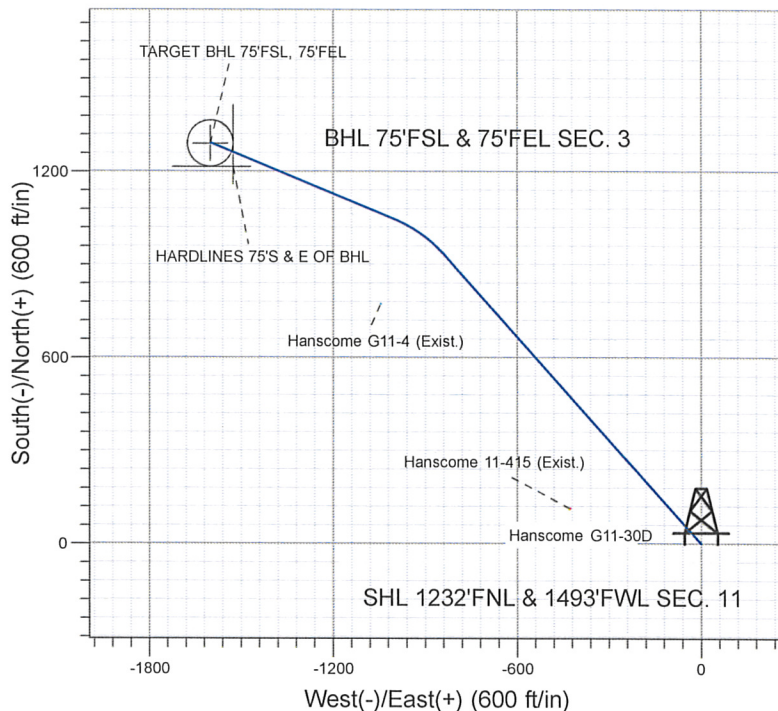
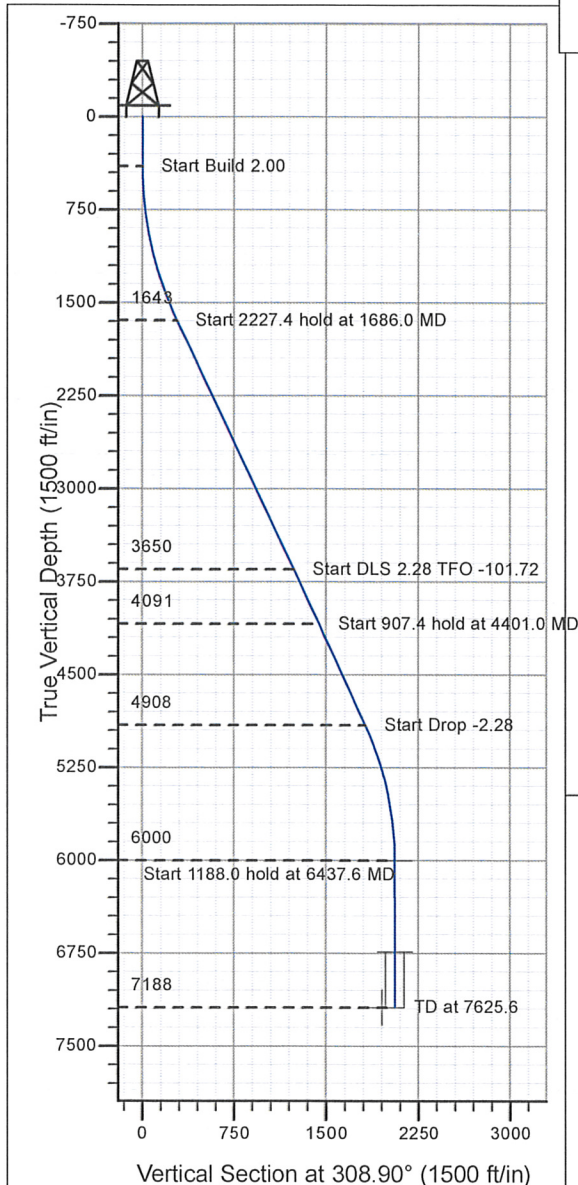


### Well Name: Hanscome G11-30D

Surface Location: Hanscome G11-30D Pad Sec.11-T4N-R65W  
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone  
 Ground Elevation: 4675.0  
 +N/-S+E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1364554.37 3241301.05 40° 19' 51.132 N 104° 38' 4.092 W  
 Original Well Elev WELL @ 4688.0ft (Original Well Elev)

### NOBLE ENERGY INC WELD COUNTY CO



Hanscome G11-30D Pad Sec.11-T4N-R65W  
 Hanscome G11-30D  
 Noble Hanscome G11-30D Plan #2 (01-08-10)  
 13:12, January 08 2010



Azimuths to True North  
 Magnetic North: 8.98°  
 Magnetic Field  
 Strength: 53310.8snT  
 Dip Angle: 67.08°  
 Date: 9/24/2009  
 Model: IGRF200510

#### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 75°FSL, 75°FEL	6000.0	1291.6	-1600.7	40° 20' 3.894 N	104° 38' 24.762 W	Point
TARGET CIRCLE 75°FSL, 75°FEL	6738.0	1291.6	-1600.7	40° 20' 3.895 N	104° 38' 24.762 W	Circle (Radius: 75.0)
HARDLINES 75°S & E OF BHL	7188.0	1216.6	-1525.7	40° 20' 3.154 N	104° 38' 23.793 W	Polygon

#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	1686.0	25.72	318.00	1643.2	210.9	-189.9	2.00	318.00	280.3	
4	3913.4	25.72	318.00	3650.0	929.3	-836.7	0.00	0.00	1234.7	
5	4401.0	25.70	292.24	4090.7	1048.3	-1005.9	2.28	-101.72	1441.1	
6	5308.4	25.70	292.24	4908.2	1197.3	-1370.2	0.00	0.00	1818.2	
7	6437.6	0.00	0.00	6000.0	1291.6	-1600.7	2.28	180.00	2056.8	TARGET BHL 75°FSL, 75°FEL
8	7625.6	0.00	0.00	7188.0	1291.6	-1600.7	0.00	0.00	2056.8	



## **Directional**

### **NOBLE ENERGY INC WELD COUNTY CO**

**SEC.11-T4N-R65W**

**Hanscome G11-30D Pad Sec.11-T4N-R65W**

**Hanscome G11-30D**

**Wellbore #1**

**Plan: Noble Hanscome G11-30D Plan #2 (01-08-10)**

### **Standard Planning Report**

**08 January, 2010**





Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Hanscome G11-30D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4688.0ft (Original Well Elev)
Project:	SEC.11-T4N-R65W	MD Reference:	WELL @ 4688.0ft (Original Well Elev)
Site:	Hanscome G11-30D Pad Sec.11-T4N-R65W	North Reference:	True
Well:	Hanscome G11-30D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Hanscome G11-30D Plan #2 (01-08-10)		

Project	SEC.11-T4N-R65W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Hanscome G11-30D Pad Sec.11-T4N-R65W				
Site Position:		Northing:	1,364,554.38ft	Latitude:	40° 19' 51.132 N
From:	Lat/Long	Easting:	3,241,301.05ft	Longitude:	104° 38' 4.092 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.56 °

Well	Hanscome G11-30D					
Well Position	+N/-S	0.0 ft	Northing:	1,364,554.37 ft	Latitude:	40° 19' 51.132 N
	+E/-W	0.0 ft	Easting:	3,241,301.05 ft	Longitude:	104° 38' 4.092 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,675.0 ft

Wellbore	Wellbore #1
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/24/2009	8.98	67.08	53,311

Design	Noble Hanscome G11-30D Plan #2 (01-08-10)
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Audit Notes:	
Version:	Phase: PROTOTYPE Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	308.90

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	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	0.00	0.00	0.00	0.00	
1,686.0	25.72	318.00	1,643.2	210.9	-189.9	2.00	2.00	0.00	318.00	
3,913.4	25.72	318.00	3,650.0	929.3	-836.7	0.00	0.00	0.00	0.00	
4,401.0	25.70	292.24	4,090.7	1,048.3	-1,005.9	2.28	0.00	-5.28	-101.72	
5,308.4	25.70	292.24	4,908.2	1,197.3	-1,370.2	0.00	0.00	0.00	0.00	
6,437.6	0.00	0.00	6,000.0	1,291.6	-1,600.7	2.28	-2.28	0.00	180.00	TARGET BHL 75'F:
7,625.6	0.00	0.00	7,188.0	1,291.6	-1,600.7	0.00	0.00	0.00	0.00	

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Hanscome G11-30D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4688.0ft (Original Well Elev)
Project:	SEC.11-T4N-R65W	MD Reference:	WELL @ 4688.0ft (Original Well Elev)
Site:	Hanscome G11-30D Pad Sec.11-T4N-R65W	North Reference:	True
Well:	Hanscome G11-30D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Hanscome G11-30D Plan #2 (01-08-10)		

## Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	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
440.0	0.80	318.00	440.0	0.2	-0.2	0.3	2.00	2.00	0.00
480.0	1.60	318.00	480.0	0.8	-0.7	1.1	2.00	2.00	0.00
520.0	2.40	318.00	520.0	1.9	-1.7	2.5	2.00	2.00	0.00
560.0	3.20	318.00	559.9	3.3	-3.0	4.4	2.00	2.00	0.00
600.0	4.00	318.00	599.8	5.2	-4.7	6.9	2.00	2.00	0.00
640.0	4.80	318.00	639.7	7.5	-6.7	9.9	2.00	2.00	0.00
680.0	5.60	318.00	679.6	10.2	-9.1	13.5	2.00	2.00	0.00
720.0	6.40	318.00	719.3	13.3	-11.9	17.6	2.00	2.00	0.00
760.0	7.20	318.00	759.1	16.8	-15.1	22.3	2.00	2.00	0.00
800.0	8.00	318.00	798.7	20.7	-18.7	27.5	2.00	2.00	0.00
840.0	8.80	318.00	838.3	25.1	-22.6	33.3	2.00	2.00	0.00
880.0	9.60	318.00	877.8	29.8	-26.8	39.6	2.00	2.00	0.00
920.0	10.40	318.00	917.1	35.0	-31.5	46.5	2.00	2.00	0.00
960.0	11.20	318.00	956.4	40.5	-36.5	53.9	2.00	2.00	0.00
1,000.0	12.00	318.00	995.6	46.5	-41.9	61.8	2.00	2.00	0.00
1,040.0	12.80	318.00	1,034.7	52.9	-47.6	70.3	2.00	2.00	0.00
1,080.0	13.60	318.00	1,073.6	59.7	-53.7	79.3	2.00	2.00	0.00
1,120.0	14.40	318.00	1,112.4	66.9	-60.2	88.9	2.00	2.00	0.00
1,160.0	15.20	318.00	1,151.1	74.5	-67.1	99.0	2.00	2.00	0.00
1,200.0	16.00	318.00	1,189.6	82.5	-74.3	109.6	2.00	2.00	0.00
1,240.0	16.80	318.00	1,228.0	90.9	-81.8	120.7	2.00	2.00	0.00
1,280.0	17.60	318.00	1,266.2	99.7	-89.7	132.4	2.00	2.00	0.00
1,320.0	18.40	318.00	1,304.3	108.8	-98.0	144.6	2.00	2.00	0.00
1,360.0	19.20	318.00	1,342.1	118.4	-106.6	157.3	2.00	2.00	0.00
1,400.0	20.00	318.00	1,379.8	128.4	-115.6	170.6	2.00	2.00	0.00
1,440.0	20.80	318.00	1,417.3	138.8	-124.9	184.4	2.00	2.00	0.00
1,480.0	21.60	318.00	1,454.6	149.5	-134.6	198.6	2.00	2.00	0.00
1,520.0	22.40	318.00	1,491.7	160.6	-144.6	213.4	2.00	2.00	0.00
1,560.0	23.20	318.00	1,528.6	172.2	-155.0	228.7	2.00	2.00	0.00
1,600.0	24.00	318.00	1,565.2	184.1	-165.7	244.6	2.00	2.00	0.00
1,640.0	24.80	318.00	1,601.6	196.3	-176.8	260.9	2.00	2.00	0.00
1,680.0	25.60	318.00	1,637.8	209.0	-188.2	277.7	2.00	2.00	0.00
1,686.0	25.72	318.00	1,643.2	210.9	-189.9	280.3	2.00	2.00	0.00
1,720.0	25.72	318.00	1,673.9	221.9	-199.8	294.8	0.00	0.00	0.00
1,760.0	25.72	318.00	1,709.9	234.8	-211.4	312.0	0.00	0.00	0.00
1,800.0	25.72	318.00	1,745.9	247.7	-223.0	329.1	0.00	0.00	0.00
1,840.0	25.72	318.00	1,782.0	260.6	-234.6	346.2	0.00	0.00	0.00
1,880.0	25.72	318.00	1,818.0	273.5	-246.3	363.4	0.00	0.00	0.00
1,920.0	25.72	318.00	1,854.1	286.4	-257.9	380.5	0.00	0.00	0.00
1,960.0	25.72	318.00	1,890.1	299.3	-269.5	397.7	0.00	0.00	0.00
2,000.0	25.72	318.00	1,926.1	312.2	-281.1	414.8	0.00	0.00	0.00
2,040.0	25.72	318.00	1,962.2	325.1	-292.7	431.9	0.00	0.00	0.00
2,080.0	25.72	318.00	1,998.2	338.0	-304.3	449.1	0.00	0.00	0.00



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Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4688.0ft (Original Well Elev)
Project:	SEC.11-T4N-R65W	MD Reference:	WELL @ 4688.0ft (Original Well Elev)
Site:	Hanscome G11-30D Pad Sec.11-T4N-R65W	North Reference:	True
Well:	Hanscome G11-30D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Hanscome G11-30D Plan #2 (01-08-10)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,120.0	25.72	318.00	2,034.2	350.9	-315.9	466.2	0.00	0.00	0.00
2,160.0	25.72	318.00	2,070.3	363.8	-327.6	483.4	0.00	0.00	0.00
2,200.0	25.72	318.00	2,106.3	376.7	-339.2	500.5	0.00	0.00	0.00
2,240.0	25.72	318.00	2,142.4	389.6	-350.8	517.6	0.00	0.00	0.00
2,280.0	25.72	318.00	2,178.4	402.5	-362.4	534.8	0.00	0.00	0.00
2,320.0	25.72	318.00	2,214.4	415.4	-374.0	551.9	0.00	0.00	0.00
2,360.0	25.72	318.00	2,250.5	428.3	-385.6	569.1	0.00	0.00	0.00
2,400.0	25.72	318.00	2,286.5	441.2	-397.3	586.2	0.00	0.00	0.00
2,440.0	25.72	318.00	2,322.5	454.1	-408.9	603.4	0.00	0.00	0.00
2,480.0	25.72	318.00	2,358.6	467.0	-420.5	620.5	0.00	0.00	0.00
2,520.0	25.72	318.00	2,394.6	479.9	-432.1	637.6	0.00	0.00	0.00
2,560.0	25.72	318.00	2,430.7	492.8	-443.7	654.8	0.00	0.00	0.00
2,600.0	25.72	318.00	2,466.7	505.7	-455.3	671.9	0.00	0.00	0.00
2,640.0	25.72	318.00	2,502.7	518.6	-466.9	689.1	0.00	0.00	0.00
2,680.0	25.72	318.00	2,538.8	531.5	-478.6	706.2	0.00	0.00	0.00
2,720.0	25.72	318.00	2,574.8	544.4	-490.2	723.3	0.00	0.00	0.00
2,760.0	25.72	318.00	2,610.8	557.3	-501.8	740.5	0.00	0.00	0.00
2,800.0	25.72	318.00	2,646.9	570.2	-513.4	757.6	0.00	0.00	0.00
2,840.0	25.72	318.00	2,682.9	583.1	-525.0	774.8	0.00	0.00	0.00
2,880.0	25.72	318.00	2,718.9	596.0	-536.6	791.9	0.00	0.00	0.00
2,920.0	25.72	318.00	2,755.0	608.9	-548.3	809.0	0.00	0.00	0.00
2,960.0	25.72	318.00	2,791.0	621.8	-559.9	826.2	0.00	0.00	0.00
3,000.0	25.72	318.00	2,827.1	634.7	-571.5	843.3	0.00	0.00	0.00
3,040.0	25.72	318.00	2,863.1	647.6	-583.1	860.5	0.00	0.00	0.00
3,080.0	25.72	318.00	2,899.1	660.5	-594.7	877.6	0.00	0.00	0.00
3,120.0	25.72	318.00	2,935.2	673.4	-606.3	894.7	0.00	0.00	0.00
3,160.0	25.72	318.00	2,971.2	686.3	-617.9	911.9	0.00	0.00	0.00
3,200.0	25.72	318.00	3,007.2	699.2	-629.6	929.0	0.00	0.00	0.00
3,240.0	25.72	318.00	3,043.3	712.1	-641.2	946.2	0.00	0.00	0.00
3,280.0	25.72	318.00	3,079.3	725.0	-652.8	963.3	0.00	0.00	0.00
3,320.0	25.72	318.00	3,115.4	737.9	-664.4	980.4	0.00	0.00	0.00
3,360.0	25.72	318.00	3,151.4	750.8	-676.0	997.6	0.00	0.00	0.00
3,400.0	25.72	318.00	3,187.4	763.7	-687.6	1,014.7	0.00	0.00	0.00
3,440.0	25.72	318.00	3,223.5	776.6	-699.3	1,031.9	0.00	0.00	0.00
3,480.0	25.72	318.00	3,259.5	789.5	-710.9	1,049.0	0.00	0.00	0.00
3,520.0	25.72	318.00	3,295.5	802.4	-722.5	1,066.1	0.00	0.00	0.00
3,560.0	25.72	318.00	3,331.6	815.3	-734.1	1,083.3	0.00	0.00	0.00
3,600.0	25.72	318.00	3,367.6	828.2	-745.7	1,100.4	0.00	0.00	0.00
3,640.0	25.72	318.00	3,403.7	841.1	-757.3	1,117.6	0.00	0.00	0.00
3,680.0	25.72	318.00	3,439.7	854.0	-768.9	1,134.7	0.00	0.00	0.00
3,720.0	25.72	318.00	3,475.7	866.9	-780.6	1,151.8	0.00	0.00	0.00
3,760.0	25.72	318.00	3,511.8	879.8	-792.2	1,169.0	0.00	0.00	0.00
3,800.0	25.72	318.00	3,547.8	892.7	-803.8	1,186.1	0.00	0.00	0.00
3,840.0	25.72	318.00	3,583.8	905.6	-815.4	1,203.3	0.00	0.00	0.00
3,880.0	25.72	318.00	3,619.9	918.5	-827.0	1,220.4	0.00	0.00	0.00
3,913.4	25.72	318.00	3,650.0	929.3	-836.7	1,234.7	0.00	0.00	0.00
3,920.0	25.69	317.66	3,655.9	931.4	-838.6	1,237.5	2.28	-0.46	-5.14
3,960.0	25.52	315.59	3,692.0	944.0	-850.5	1,254.7	2.28	-0.41	-5.18
4,000.0	25.39	313.50	3,728.1	956.0	-862.8	1,271.8	2.28	-0.34	-5.24
4,040.0	25.28	311.38	3,764.3	967.6	-875.4	1,288.9	2.28	-0.27	-5.28
4,080.0	25.21	309.26	3,800.4	978.6	-888.4	1,305.9	2.28	-0.19	-5.32
4,120.0	25.16	307.12	3,836.6	989.1	-901.8	1,322.9	2.28	-0.11	-5.34
4,160.0	25.15	304.98	3,872.8	999.1	-915.5	1,339.9	2.28	-0.04	-5.35
4,200.0	25.16	302.83	3,909.0	1,008.6	-929.6	1,356.8	2.28	0.04	-5.35



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Project:	SEC.11-T4N-R65W	MD Reference:	WELL @ 4688.0ft (Original Well Elev)
Site:	Hanscome G11-30D Pad Sec.11-T4N-R65W	North Reference:	True
Well:	Hanscome G11-30D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Hanscome G11-30D Plan #2 (01-08-10)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,240.0	25.21	300.70	3,945.2	1,017.6	-944.1	1,373.7	2.28	0.12	-5.34
4,280.0	25.29	298.57	3,981.4	1,026.0	-958.9	1,390.6	2.28	0.19	-5.32
4,320.0	25.39	296.46	4,017.6	1,033.9	-974.1	1,407.3	2.28	0.27	-5.28
4,360.0	25.53	294.37	4,053.7	1,041.3	-989.6	1,424.1	2.28	0.34	-5.23
4,400.0	25.70	292.30	4,089.8	1,048.1	-1,005.5	1,440.7	2.28	0.42	-5.18
4,401.0	25.70	292.24	4,090.7	1,048.3	-1,005.9	1,441.1	2.28	0.46	-5.14
4,440.0	25.70	292.24	4,125.8	1,054.7	-1,021.6	1,457.3	0.00	0.00	0.00
4,480.0	25.70	292.24	4,161.8	1,061.3	-1,037.6	1,474.0	0.00	0.00	0.00
4,520.0	25.70	292.24	4,197.9	1,067.8	-1,053.7	1,490.6	0.00	0.00	0.00
4,560.0	25.70	292.24	4,233.9	1,074.4	-1,069.7	1,507.2	0.00	0.00	0.00
4,600.0	25.70	292.24	4,270.0	1,081.0	-1,085.8	1,523.8	0.00	0.00	0.00
4,640.0	25.70	292.24	4,306.0	1,087.5	-1,101.9	1,540.5	0.00	0.00	0.00
4,680.0	25.70	292.24	4,342.1	1,094.1	-1,117.9	1,557.1	0.00	0.00	0.00
4,720.0	25.70	292.24	4,378.1	1,100.7	-1,134.0	1,573.7	0.00	0.00	0.00
4,760.0	25.70	292.24	4,414.1	1,107.2	-1,150.0	1,590.3	0.00	0.00	0.00
4,800.0	25.70	292.24	4,450.2	1,113.8	-1,166.1	1,606.9	0.00	0.00	0.00
4,840.0	25.70	292.24	4,486.2	1,120.4	-1,182.2	1,623.6	0.00	0.00	0.00
4,880.0	25.70	292.24	4,522.3	1,126.9	-1,198.2	1,640.2	0.00	0.00	0.00
4,920.0	25.70	292.24	4,558.3	1,133.5	-1,214.3	1,656.8	0.00	0.00	0.00
4,960.0	25.70	292.24	4,594.3	1,140.1	-1,230.3	1,673.4	0.00	0.00	0.00
5,000.0	25.70	292.24	4,630.4	1,146.7	-1,246.4	1,690.0	0.00	0.00	0.00
5,040.0	25.70	292.24	4,666.4	1,153.2	-1,262.4	1,706.7	0.00	0.00	0.00
5,080.0	25.70	292.24	4,702.5	1,159.8	-1,278.5	1,723.3	0.00	0.00	0.00
5,120.0	25.70	292.24	4,738.5	1,166.4	-1,294.6	1,739.9	0.00	0.00	0.00
5,160.0	25.70	292.24	4,774.6	1,172.9	-1,310.6	1,756.5	0.00	0.00	0.00
5,200.0	25.70	292.24	4,810.6	1,179.5	-1,326.7	1,773.1	0.00	0.00	0.00
5,240.0	25.70	292.24	4,846.6	1,186.1	-1,342.7	1,789.8	0.00	0.00	0.00
5,280.0	25.70	292.24	4,882.7	1,192.6	-1,358.8	1,806.4	0.00	0.00	0.00
5,308.4	25.70	292.24	4,908.2	1,197.3	-1,370.2	1,818.2	0.00	0.00	0.00
5,320.0	25.44	292.24	4,918.7	1,199.2	-1,374.8	1,823.0	2.28	-2.28	0.00
5,360.0	24.53	292.24	4,955.0	1,205.6	-1,390.5	1,839.2	2.28	-2.28	0.00
5,400.0	23.62	292.24	4,991.5	1,211.8	-1,405.6	1,854.8	2.28	-2.28	0.00
5,440.0	22.71	292.24	5,028.3	1,217.7	-1,420.1	1,869.9	2.28	-2.28	0.00
5,480.0	21.80	292.24	5,065.3	1,223.4	-1,434.1	1,884.4	2.28	-2.28	0.00
5,520.0	20.89	292.24	5,102.6	1,229.0	-1,447.6	1,898.3	2.28	-2.28	0.00
5,560.0	19.98	292.24	5,140.0	1,234.2	-1,460.5	1,911.7	2.28	-2.28	0.00
5,600.0	19.07	292.24	5,177.7	1,239.3	-1,472.9	1,924.5	2.28	-2.28	0.00
5,640.0	18.16	292.24	5,215.7	1,244.1	-1,484.7	1,936.7	2.28	-2.28	0.00
5,680.0	17.24	292.24	5,253.8	1,248.7	-1,496.0	1,948.4	2.28	-2.28	0.00
5,720.0	16.33	292.24	5,292.1	1,253.1	-1,506.7	1,959.5	2.28	-2.28	0.00
5,760.0	15.42	292.24	5,330.5	1,257.3	-1,516.8	1,970.0	2.28	-2.28	0.00
5,800.0	14.51	292.24	5,369.2	1,261.2	-1,526.4	1,979.9	2.28	-2.28	0.00
5,840.0	13.60	292.24	5,408.0	1,264.8	-1,535.4	1,989.2	2.28	-2.28	0.00
5,880.0	12.69	292.24	5,446.9	1,268.3	-1,543.8	1,997.9	2.28	-2.28	0.00
5,920.0	11.78	292.24	5,486.0	1,271.5	-1,551.6	2,006.0	2.28	-2.28	0.00
5,960.0	10.87	292.24	5,525.2	1,274.5	-1,558.9	2,013.5	2.28	-2.28	0.00
6,000.0	9.96	292.24	5,564.6	1,277.2	-1,565.6	2,020.5	2.28	-2.28	0.00
6,040.0	9.05	292.24	5,604.0	1,279.7	-1,571.7	2,026.8	2.28	-2.28	0.00
6,080.0	8.14	292.24	5,643.6	1,282.0	-1,577.2	2,032.5	2.28	-2.28	0.00
6,120.0	7.23	292.24	5,683.2	1,284.0	-1,582.2	2,037.6	2.28	-2.28	0.00
6,160.0	6.32	292.24	5,722.9	1,285.8	-1,586.6	2,042.2	2.28	-2.28	0.00
6,200.0	5.41	292.24	5,762.7	1,287.3	-1,590.3	2,046.1	2.28	-2.28	0.00
6,240.0	4.50	292.24	5,802.6	1,288.6	-1,593.5	2,049.4	2.28	-2.28	0.00
6,280.0	3.59	292.24	5,842.5	1,289.7	-1,596.2	2,052.1	2.28	-2.28	0.00



Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Hanscome G11-30D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4688.0ft (Original Well Elev)
Project:	SEC.11-T4N-R65W	MD Reference:	WELL @ 4688.0ft (Original Well Elev)
Site:	Hanscome G11-30D Pad Sec.11-T4N-R65W	North Reference:	True
Well:	Hanscome G11-30D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Hanscome G11-30D Plan #2 (01-08-10)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,320.0	2.68	292.24	5,882.4	1,290.5	-1,598.2	2,054.2	2.28	-2.28	0.00
6,360.0	1.77	292.24	5,922.4	1,291.1	-1,599.6	2,055.7	2.28	-2.28	0.00
6,400.0	0.86	292.24	5,962.4	1,291.5	-1,600.5	2,056.5	2.28	-2.28	0.00
6,437.6	0.00	0.00	6,000.0	1,291.6	-1,600.7	2,056.8	2.28	-2.28	0.00
<b>TARGET BHL 75°FSL, 75°FEL</b>									
6,440.0	0.00	0.00	6,002.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
6,480.0	0.00	0.00	6,042.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
6,520.0	0.00	0.00	6,082.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
6,560.0	0.00	0.00	6,122.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
6,600.0	0.00	0.00	6,162.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
6,640.0	0.00	0.00	6,202.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
6,680.0	0.00	0.00	6,242.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
6,720.0	0.00	0.00	6,282.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
6,760.0	0.00	0.00	6,322.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
6,800.0	0.00	0.00	6,362.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
6,840.0	0.00	0.00	6,402.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
6,880.0	0.00	0.00	6,442.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
6,920.0	0.00	0.00	6,482.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
6,960.0	0.00	0.00	6,522.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,000.0	0.00	0.00	6,562.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,040.0	0.00	0.00	6,602.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,080.0	0.00	0.00	6,642.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,120.0	0.00	0.00	6,682.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,160.0	0.00	0.00	6,722.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,175.6	0.00	0.00	6,738.0	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
<b>NIOBARA - TARGET CIRCLE 75°FSL, 75°FEL</b>									
7,200.0	0.00	0.00	6,762.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,240.0	0.00	0.00	6,802.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,280.0	0.00	0.00	6,842.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,320.0	0.00	0.00	6,882.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,360.0	0.00	0.00	6,922.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,400.0	0.00	0.00	6,962.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,440.0	0.00	0.00	7,002.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,475.6	0.00	0.00	7,038.0	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
<b>CODELL</b>									
7,480.0	0.00	0.00	7,042.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,520.0	0.00	0.00	7,082.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,560.0	0.00	0.00	7,122.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,600.0	0.00	0.00	7,162.4	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
7,625.6	0.00	0.00	7,188.0	1,291.6	-1,600.7	2,056.8	0.00	0.00	0.00
<b>HARDLINES 75°S &amp; E OF BHL</b>									

Database: EDM den0-adp01 Server Data  
 Company: NOBLE ENERGY INC WELD COUNTY CO  
 Project: SEC.11-T4N-R65W  
 Site: Hanscome G11-30D Pad Sec.11-T4N-R65W  
 Well: Hanscome G11-30D  
 Wellbore: Wellbore #1  
 Design: Noble Hanscome G11-30D Plan #2 (01-08-10)

Local Co-ordinate Reference: Well Hanscome G11-30D  
 TVD Reference: WELL @ 4688.0ft (Original Well Elev)  
 MD Reference: WELL @ 4688.0ft (Original Well Elev)  
 North Reference: True  
 Survey Calculation Method: Minimum Curvature

**Targets**
**Target Name**

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
TARGET CIRCLE 75'	0.00	0.00	6,738.0	1,291.6	-1,600.7	1,365,830.23	3,239,687.89	40° 20' 3.895 N	104° 38' 24.762 W
- plan hits target center									
- Circle (radius 75.0)									
HARDLINES 75'S & E	0.00	0.00	7,188.0	1,216.6	-1,525.7	1,365,755.97	3,239,763.61	40° 20' 3.154 N	104° 38' 23.793 W
- plan misses target center by 106.1ft at 7625.6ft MD (7188.0 TVD, 1291.6 N, -1600.7 E)									
- Polygon									
Point 1			7,188.0	0.0	0.0	1,365,755.97	3,239,763.61		
Point 2			7,188.0	0.0	-200.0	1,365,754.01	3,239,563.63		
Point 3			7,188.0	0.0	0.0	1,365,755.97	3,239,763.61		
Point 4			7,188.0	200.0	0.0	1,365,955.95	3,239,761.66		
TARGET BHL 75'FSL	0.00	0.00	6,000.0	1,291.6	-1,600.7	1,365,830.20	3,239,687.87	40° 20' 3.894 N	104° 38' 24.762 W
- plan hits target center									
- Point									

**Formations**

Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
7,175.6	6,738.0	NIOBRARA		0.00	
7,475.6	7,038.0	CODELL		0.00	