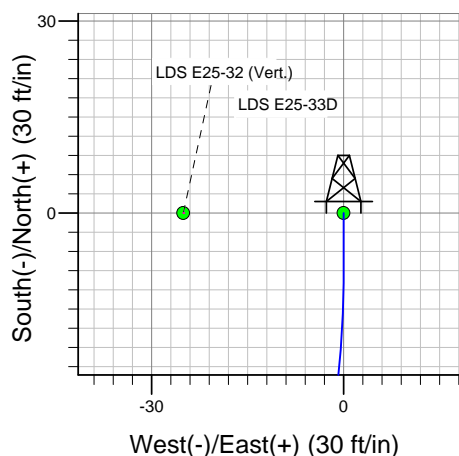
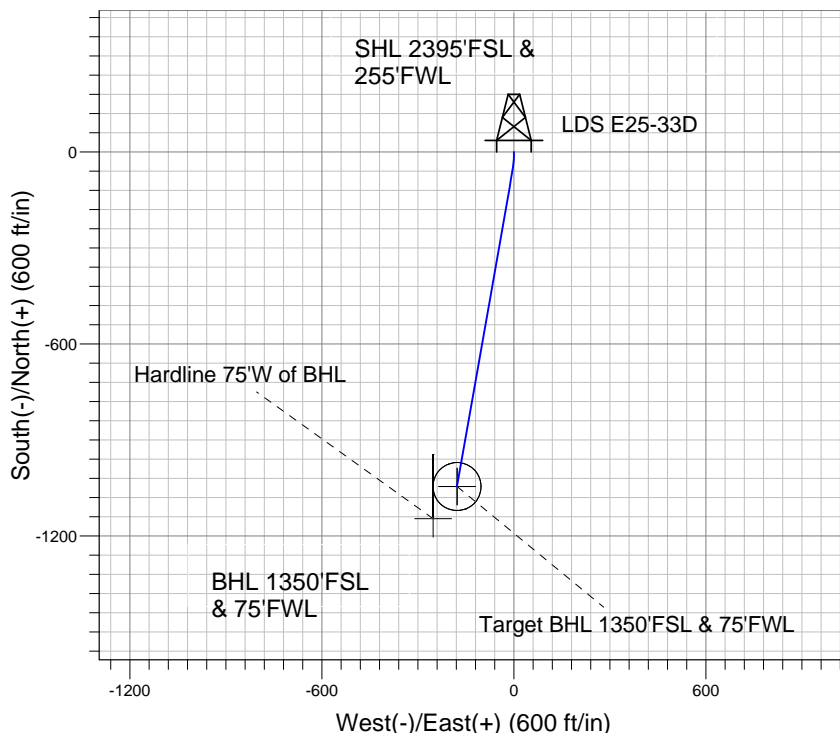
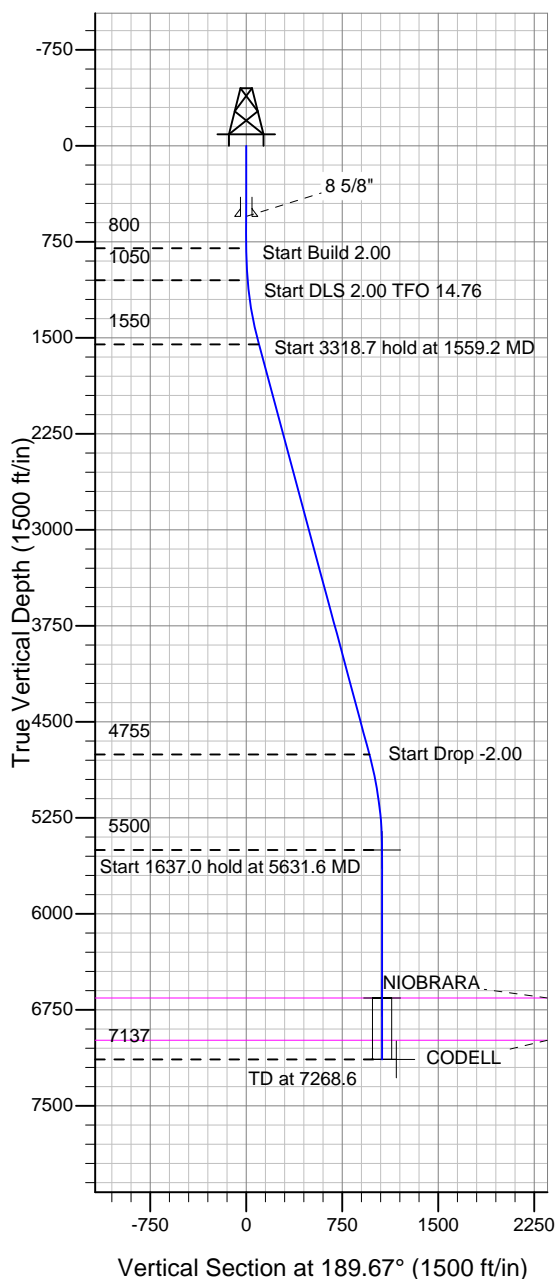


### NOBLE ENERGY INC WELD COUNTY CO



LDS E25-33D  
Noble LDS E25-33D Plan #1 (07-02-10)  
10:51, July 08 2010



Azimuths to True North  
Magnetic North: 8.95°  
Magnetic Field  
Strength: 53350.2snT  
Dip Angle: 67.18°  
Date: 12/31/2009  
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Target BHL 1350'FSL & 75'FWL	5500.0	-1045.5	-178.1	40° 27' 12.204 N	104° 37' 13.764 W	Point
Target Circle 1350'FSL & 75'FWL	6657.0	-1045.6	-178.1	40° 27' 12.204 N	104° 37' 13.764 W	Circle (Radius: 75.0)
Hardline 75'W of BHL	7137.0	-1145.6	-253.1	40° 27' 11.216 N	104° 37' 14.734 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	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1050.0	5.00	180.00	1049.7	-10.9	0.0	2.00	180.00	10.7	
4	1559.2	15.07	189.98	1550.5	-98.5	-11.5	2.00	14.76	99.1	
5	4877.9	15.07	189.98	4755.0	-948.5	-161.0	0.00	0.00	962.0	
6	5631.6	0.00	0.57	5500.0	-1045.5	-178.1	2.00	180.00	1060.6	Target BHL 1350'FSL & 75'FWL
7	7268.6	0.00	0.57	7137.0	-1045.5	-178.1	0.00	0.57	1060.6	



# **NOBLE ENERGY INC WELD COUNTY CO**

**SEC.25-T6N-R65W**

**LDS E25-33 Pad Sec.25-T6N-R65W**

**LDS E25-33D**

**Wellbore #1**

**Plan: Noble LDS E25-33D Plan #1 (07-02-10)**

## **Standard Planning Report**

**08 July, 2010**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well LDS E25-33D
<b>Company:</b>	NOBLE ENERGY INC WELD COUNTY CO	<b>TVD Reference:</b>	WELL @ 4697.0ft (Original Well Elev)
<b>Project:</b>	SEC.25-T6N-R65W	<b>MD Reference:</b>	WELL @ 4697.0ft (Original Well Elev)
<b>Site:</b>	LDS E25-33 Pad Sec.25-T6N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	LDS E25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Noble LDS E25-33D Plan #1 (07-02-10)		

<b>Project</b>	SEC.25-T6N-R65W		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site										LDS E25-33 Pad Sec.25-T6N-R65W																			
Site Position:					Northing:					1,410,271.38 ft					Latitude:					40° 27' 22.536 N									
From:					Lat/Long					Easting:					3,244,923.44 ft					Longitude:					104° 37' 11.460 W				
Position Uncertainty:					0.0 ft					Slot Radius:					"					Grid Convergence:					0.57 °				

Well	LDS E25-33D					
Well Position	+N-S	0.0 ft	Northing:	1,410,271.37 ft	Latitude:	40° 27' 22.536 N
	+E-W	0.0 ft	Easting:	3,244,923.44 ft	Longitude:	104° 37' 11.460 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,684.0 ft

Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	8.95	67.18	53,350

<b>Design</b>	Noble LDS E25-33D Plan #1 (07-02-10)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	189.67

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	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,050.0	5.00	180.00	1,049.7	-10.9	0.0	2.00	2.00	0.00	180.00	
1,559.2	15.07	189.98	1,550.5	-98.5	-11.5	2.00	1.98	1.96	14.76	
4,877.9	15.07	189.98	4,755.0	-948.5	-161.0	0.00	0.00	0.00	0.00	
5,631.6	0.00	0.57	5,500.0	-1,045.5	-178.1	2.00	-2.00	0.00	180.00	Target BHL 1350'F5
7,268.6	0.00	0.57	7,137.0	-1,045.5	-178.1	0.00	0.00	0.00	0.57	

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well LDS E25-33D
<b>Company:</b>	NOBLE ENERGY INC WELD COUNTY CO	<b>TVD Reference:</b>	WELL @ 4697.0ft (Original Well Elev)
<b>Project:</b>	SEC.25-T6N-R65W	<b>MD Reference:</b>	WELL @ 4697.0ft (Original Well Elev)
<b>Site:</b>	LDS E25-33 Pad Sec.25-T6N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	LDS E25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Noble LDS E25-33D Plan #1 (07-02-10)		

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	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
550.0	0.00	0.00	550.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
560.0	0.00	0.00	560.0	0.0	0.0	0.0	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
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	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
840.0	0.80	180.00	840.0	-0.3	0.0	0.3	2.00	2.00	0.00
880.0	1.60	180.00	880.0	-1.1	0.0	1.1	2.00	2.00	0.00
920.0	2.40	180.00	920.0	-2.5	0.0	2.5	2.00	2.00	0.00
960.0	3.20	180.00	959.9	-4.5	0.0	4.4	2.00	2.00	0.00
1,000.0	4.00	180.00	999.8	-7.0	0.0	6.9	2.00	2.00	0.00
1,040.0	4.80	180.00	1,039.7	-10.0	0.0	9.9	2.00	2.00	0.00
1,050.0	5.00	180.00	1,049.7	-10.9	0.0	10.7	2.00	2.00	0.00
1,080.0	5.58	181.57	1,079.6	-13.7	0.0	13.5	2.00	1.94	5.24
1,120.0	6.36	183.22	1,119.3	-17.8	-0.2	17.6	2.00	1.95	4.12
1,160.0	7.15	184.51	1,159.1	-22.5	-0.5	22.3	2.00	1.96	3.22
1,200.0	7.94	185.54	1,198.7	-27.8	-1.0	27.5	2.00	1.97	2.58
1,240.0	8.73	186.39	1,238.3	-33.5	-1.6	33.3	2.00	1.98	2.12
1,280.0	9.52	187.10	1,277.8	-39.8	-2.4	39.6	2.00	1.98	1.77
1,320.0	10.31	187.70	1,317.2	-46.6	-3.2	46.5	2.00	1.98	1.50
1,360.0	11.11	188.21	1,356.5	-54.0	-4.3	54.0	2.00	1.99	1.29
1,400.0	11.90	188.66	1,395.7	-61.9	-5.4	61.9	2.00	1.99	1.12
1,440.0	12.70	189.05	1,434.8	-70.3	-6.8	70.5	2.00	1.99	0.98
1,480.0	13.49	189.40	1,473.7	-79.3	-8.2	79.5	2.00	1.99	0.87
1,520.0	14.29	189.71	1,512.6	-88.7	-9.8	89.1	2.00	1.99	0.77
1,559.2	15.07	189.98	1,550.5	-98.5	-11.5	99.1	2.00	1.99	0.69
1,560.0	15.07	189.98	1,551.2	-98.7	-11.5	99.3	0.00	0.00	0.00
1,600.0	15.07	189.98	1,589.9	-109.0	-13.3	109.7	0.00	0.00	0.00
1,640.0	15.07	189.98	1,628.5	-119.2	-15.1	120.1	0.00	0.00	0.00
1,680.0	15.07	189.98	1,667.1	-129.5	-16.9	130.5	0.00	0.00	0.00
1,720.0	15.07	189.98	1,705.7	-139.7	-18.7	140.9	0.00	0.00	0.00
1,760.0	15.07	189.98	1,744.4	-150.0	-20.5	151.3	0.00	0.00	0.00
1,800.0	15.07	189.98	1,783.0	-160.2	-22.4	161.7	0.00	0.00	0.00
1,840.0	15.07	189.98	1,821.6	-170.4	-24.2	172.1	0.00	0.00	0.00
1,880.0	15.07	189.98	1,860.2	-180.7	-26.0	182.5	0.00	0.00	0.00
1,920.0	15.07	189.98	1,898.9	-190.9	-27.8	192.9	0.00	0.00	0.00
1,960.0	15.07	189.98	1,937.5	-201.2	-29.6	203.3	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well LDS E25-33D
<b>Company:</b>	NOBLE ENERGY INC WELD COUNTY CO	<b>TVD Reference:</b>	WELL @ 4697.0ft (Original Well Elev)
<b>Project:</b>	SEC.25-T6N-R65W	<b>MD Reference:</b>	WELL @ 4697.0ft (Original Well Elev)
<b>Site:</b>	LDS E25-33 Pad Sec.25-T6N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	LDS E25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Noble LDS E25-33D Plan #1 (07-02-10)		

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)
2,000.0	15.07	189.98	1,976.1	-211.4	-31.4	213.7	0.00	0.00	0.00
2,040.0	15.07	189.98	2,014.7	-221.7	-33.2	224.1	0.00	0.00	0.00
2,080.0	15.07	189.98	2,053.4	-231.9	-35.0	234.5	0.00	0.00	0.00
2,120.0	15.07	189.98	2,092.0	-242.2	-36.8	244.9	0.00	0.00	0.00
2,160.0	15.07	189.98	2,130.6	-252.4	-38.6	255.3	0.00	0.00	0.00
2,200.0	15.07	189.98	2,169.2	-262.6	-40.4	265.7	0.00	0.00	0.00
2,240.0	15.07	189.98	2,207.9	-272.9	-42.2	276.1	0.00	0.00	0.00
2,280.0	15.07	189.98	2,246.5	-283.1	-44.0	286.5	0.00	0.00	0.00
2,320.0	15.07	189.98	2,285.1	-293.4	-45.8	296.9	0.00	0.00	0.00
2,360.0	15.07	189.98	2,323.7	-303.6	-47.6	307.3	0.00	0.00	0.00
2,400.0	15.07	189.98	2,362.3	-313.9	-49.4	317.7	0.00	0.00	0.00
2,440.0	15.07	189.98	2,401.0	-324.1	-51.2	328.1	0.00	0.00	0.00
2,480.0	15.07	189.98	2,439.6	-334.3	-53.0	338.5	0.00	0.00	0.00
2,520.0	15.07	189.98	2,478.2	-344.6	-54.8	348.9	0.00	0.00	0.00
2,560.0	15.07	189.98	2,516.8	-354.8	-56.6	359.3	0.00	0.00	0.00
2,600.0	15.07	189.98	2,555.5	-365.1	-58.4	369.7	0.00	0.00	0.00
2,640.0	15.07	189.98	2,594.1	-375.3	-60.2	380.1	0.00	0.00	0.00
2,680.0	15.07	189.98	2,632.7	-385.6	-62.0	390.5	0.00	0.00	0.00
2,720.0	15.07	189.98	2,671.3	-395.8	-63.8	400.9	0.00	0.00	0.00
2,760.0	15.07	189.98	2,710.0	-406.1	-65.6	411.3	0.00	0.00	0.00
2,800.0	15.07	189.98	2,748.6	-416.3	-67.4	421.7	0.00	0.00	0.00
2,840.0	15.07	189.98	2,787.2	-426.5	-69.2	432.1	0.00	0.00	0.00
2,880.0	15.07	189.98	2,825.8	-436.8	-71.0	442.5	0.00	0.00	0.00
2,920.0	15.07	189.98	2,864.5	-447.0	-72.8	452.9	0.00	0.00	0.00
2,960.0	15.07	189.98	2,903.1	-457.3	-74.6	463.3	0.00	0.00	0.00
3,000.0	15.07	189.98	2,941.7	-467.5	-76.4	473.7	0.00	0.00	0.00
3,040.0	15.07	189.98	2,980.3	-477.8	-78.2	484.1	0.00	0.00	0.00
3,080.0	15.07	189.98	3,019.0	-488.0	-80.0	494.5	0.00	0.00	0.00
3,120.0	15.07	189.98	3,057.6	-498.3	-81.8	504.9	0.00	0.00	0.00
3,160.0	15.07	189.98	3,096.2	-508.5	-83.6	515.3	0.00	0.00	0.00
3,200.0	15.07	189.98	3,134.8	-518.7	-85.4	525.7	0.00	0.00	0.00
3,240.0	15.07	189.98	3,173.5	-529.0	-87.2	536.1	0.00	0.00	0.00
3,280.0	15.07	189.98	3,212.1	-539.2	-89.0	546.5	0.00	0.00	0.00
3,320.0	15.07	189.98	3,250.7	-549.5	-90.8	556.9	0.00	0.00	0.00
3,360.0	15.07	189.98	3,289.3	-559.7	-92.6	567.3	0.00	0.00	0.00
3,400.0	15.07	189.98	3,327.9	-570.0	-94.4	577.7	0.00	0.00	0.00
3,440.0	15.07	189.98	3,366.6	-580.2	-96.2	588.1	0.00	0.00	0.00
3,480.0	15.07	189.98	3,405.2	-590.5	-98.0	598.5	0.00	0.00	0.00
3,520.0	15.07	189.98	3,443.8	-600.7	-99.8	608.9	0.00	0.00	0.00
3,560.0	15.07	189.98	3,482.4	-610.9	-101.6	619.3	0.00	0.00	0.00
3,600.0	15.07	189.98	3,521.1	-621.2	-103.5	629.7	0.00	0.00	0.00
3,640.0	15.07	189.98	3,559.7	-631.4	-105.3	640.1	0.00	0.00	0.00
3,680.0	15.07	189.98	3,598.3	-641.7	-107.1	650.5	0.00	0.00	0.00
3,720.0	15.07	189.98	3,636.9	-651.9	-108.9	660.9	0.00	0.00	0.00
3,760.0	15.07	189.98	3,675.6	-662.2	-110.7	671.3	0.00	0.00	0.00
3,800.0	15.07	189.98	3,714.2	-672.4	-112.5	681.7	0.00	0.00	0.00
3,840.0	15.07	189.98	3,752.8	-682.7	-114.3	692.1	0.00	0.00	0.00
3,880.0	15.07	189.98	3,791.4	-692.9	-116.1	702.5	0.00	0.00	0.00
3,920.0	15.07	189.98	3,830.1	-703.1	-117.9	712.9	0.00	0.00	0.00
3,960.0	15.07	189.98	3,868.7	-713.4	-119.7	723.4	0.00	0.00	0.00
4,000.0	15.07	189.98	3,907.3	-723.6	-121.5	733.8	0.00	0.00	0.00
4,040.0	15.07	189.98	3,945.9	-733.9	-123.3	744.2	0.00	0.00	0.00
4,080.0	15.07	189.98	3,984.6	-744.1	-125.1	754.6	0.00	0.00	0.00
4,120.0	15.07	189.98	4,023.2	-754.4	-126.9	765.0	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well LDS E25-33D
<b>Company:</b>	NOBLE ENERGY INC WELD COUNTY CO	<b>TVD Reference:</b>	WELL @ 4697.0ft (Original Well Elev)
<b>Project:</b>	SEC.25-T6N-R65W	<b>MD Reference:</b>	WELL @ 4697.0ft (Original Well Elev)
<b>Site:</b>	LDS E25-33 Pad Sec.25-T6N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	LDS E25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Noble LDS E25-33D Plan #1 (07-02-10)		

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)
4,160.0	15.07	189.98	4,061.8	-764.6	-128.7	775.4	0.00	0.00	0.00
4,200.0	15.07	189.98	4,100.4	-774.9	-130.5	785.8	0.00	0.00	0.00
4,240.0	15.07	189.98	4,139.0	-785.1	-132.3	796.2	0.00	0.00	0.00
4,280.0	15.07	189.98	4,177.7	-795.3	-134.1	806.6	0.00	0.00	0.00
4,320.0	15.07	189.98	4,216.3	-805.6	-135.9	817.0	0.00	0.00	0.00
4,360.0	15.07	189.98	4,254.9	-815.8	-137.7	827.4	0.00	0.00	0.00
4,400.0	15.07	189.98	4,293.5	-826.1	-139.5	837.8	0.00	0.00	0.00
4,440.0	15.07	189.98	4,332.2	-836.3	-141.3	848.2	0.00	0.00	0.00
4,480.0	15.07	189.98	4,370.8	-846.6	-143.1	858.6	0.00	0.00	0.00
4,520.0	15.07	189.98	4,409.4	-856.8	-144.9	869.0	0.00	0.00	0.00
4,560.0	15.07	189.98	4,448.0	-867.0	-146.7	879.4	0.00	0.00	0.00
4,600.0	15.07	189.98	4,486.7	-877.3	-148.5	889.8	0.00	0.00	0.00
4,640.0	15.07	189.98	4,525.3	-887.5	-150.3	900.2	0.00	0.00	0.00
4,680.0	15.07	189.98	4,563.9	-897.8	-152.1	910.6	0.00	0.00	0.00
4,720.0	15.07	189.98	4,602.5	-908.0	-153.9	921.0	0.00	0.00	0.00
4,760.0	15.07	189.98	4,641.2	-918.3	-155.7	931.4	0.00	0.00	0.00
4,800.0	15.07	189.98	4,679.8	-928.5	-157.5	941.8	0.00	0.00	0.00
4,840.0	15.07	189.98	4,718.4	-938.8	-159.3	952.2	0.00	0.00	0.00
4,877.9	15.07	189.98	4,755.0	-948.5	-161.0	962.0	0.00	0.00	0.00
4,880.0	15.03	189.98	4,757.0	-949.0	-161.1	962.6	2.00	-2.00	0.00
4,920.0	14.23	189.98	4,795.7	-959.0	-162.9	972.7	2.00	-2.00	0.00
4,960.0	13.43	189.98	4,834.6	-968.4	-164.5	982.2	2.00	-2.00	0.00
5,000.0	12.63	189.98	4,873.5	-977.3	-166.1	991.3	2.00	-2.00	0.00
5,040.0	11.83	189.98	4,912.6	-985.6	-167.6	999.7	2.00	-2.00	0.00
5,080.0	11.03	189.98	4,951.8	-993.4	-168.9	1,007.7	2.00	-2.00	0.00
5,120.0	10.23	189.98	4,991.2	-1,000.7	-170.2	1,015.0	2.00	-2.00	0.00
5,160.0	9.43	189.98	5,030.6	-1,007.4	-171.4	1,021.9	2.00	-2.00	0.00
5,200.0	8.63	189.98	5,070.1	-1,013.6	-172.5	1,028.2	2.00	-2.00	0.00
5,240.0	7.83	189.98	5,109.7	-1,019.2	-173.5	1,033.9	2.00	-2.00	0.00
5,280.0	7.03	189.98	5,149.3	-1,024.3	-174.4	1,039.1	2.00	-2.00	0.00
5,320.0	6.23	189.98	5,189.1	-1,028.9	-175.2	1,043.7	2.00	-2.00	0.00
5,360.0	5.43	189.98	5,228.8	-1,032.9	-175.9	1,047.7	2.00	-2.00	0.00
5,400.0	4.63	189.98	5,268.7	-1,036.3	-176.5	1,051.2	2.00	-2.00	0.00
5,440.0	3.83	189.98	5,308.6	-1,039.2	-177.0	1,054.2	2.00	-2.00	0.00
5,480.0	3.03	189.98	5,348.5	-1,041.6	-177.4	1,056.6	2.00	-2.00	0.00
5,520.0	2.23	189.98	5,388.5	-1,043.4	-177.7	1,058.4	2.00	-2.00	0.00
5,560.0	1.43	189.98	5,428.4	-1,044.7	-178.0	1,059.7	2.00	-2.00	0.00
5,600.0	0.63	189.98	5,468.4	-1,045.4	-178.1	1,060.4	2.00	-2.00	0.00
5,631.6	0.00	0.57	5,500.0	-1,045.5	-178.1	1,060.6	2.00	-2.00	0.00
Target BHL 1350'FSL & 75'FWL									
5,640.0	0.00	0.57	5,508.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
5,680.0	0.00	0.57	5,548.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
5,720.0	0.00	0.57	5,588.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
5,760.0	0.00	0.57	5,628.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
5,800.0	0.00	0.57	5,668.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
5,840.0	0.00	0.57	5,708.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
5,880.0	0.00	0.57	5,748.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
5,920.0	0.00	0.57	5,788.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
5,960.0	0.00	0.57	5,828.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,000.0	0.00	0.57	5,868.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,040.0	0.00	0.57	5,908.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,080.0	0.00	0.57	5,948.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,120.0	0.00	0.57	5,988.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,160.0	0.00	0.57	6,028.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well LDS E25-33D
<b>Company:</b>	NOBLE ENERGY INC WELD COUNTY CO	<b>TVD Reference:</b>	WELL @ 4697.0ft (Original Well Elev)
<b>Project:</b>	SEC.25-T6N-R65W	<b>MD Reference:</b>	WELL @ 4697.0ft (Original Well Elev)
<b>Site:</b>	LDS E25-33 Pad Sec.25-T6N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	LDS E25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Noble LDS E25-33D Plan #1 (07-02-10)		

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)
6,200.0	0.00	0.57	6,068.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,240.0	0.00	0.57	6,108.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,280.0	0.00	0.57	6,148.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,320.0	0.00	0.57	6,188.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,360.0	0.00	0.57	6,228.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,400.0	0.00	0.57	6,268.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,440.0	0.00	0.57	6,308.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,480.0	0.00	0.57	6,348.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,520.0	0.00	0.57	6,388.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,560.0	0.00	0.57	6,428.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,600.0	0.00	0.57	6,468.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,640.0	0.00	0.57	6,508.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,680.0	0.00	0.57	6,548.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,720.0	0.00	0.57	6,588.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,760.0	0.00	0.57	6,628.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,788.6	0.00	0.57	6,657.0	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
NIOBRARA - Target Circle 1350'FSL & 75'FWL									
6,800.0	0.00	0.57	6,668.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,840.0	0.00	0.57	6,708.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,880.0	0.00	0.57	6,748.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,920.0	0.00	0.57	6,788.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
6,960.0	0.00	0.57	6,828.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
7,000.0	0.00	0.57	6,868.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
7,040.0	0.00	0.57	6,908.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
7,080.0	0.00	0.57	6,948.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
7,118.6	0.00	0.57	6,987.0	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
CODELL									
7,120.0	0.00	0.57	6,988.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
7,160.0	0.00	0.57	7,028.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
7,200.0	0.00	0.57	7,068.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
7,240.0	0.00	0.57	7,108.4	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
7,268.6	0.00	0.57	7,137.0	-1,045.5	-178.1	1,060.6	0.00	0.00	0.00
Hardline 75'W of BHL									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Hardline 75'W of BHL	0.00	0.00	7,137.0	-1,145.6	-253.1	1,409,123.36	3,244,681.73	40° 27' 11.216 N	104° 37' 14.734 W
- plan misses by 125.0ft at 7268.6ft MD (7137.0 TVD, -1045.5 N, -178.1 E)									
- Polygon									
Point 1			7,137.0	0.0	0.0	1,409,123.36	3,244,681.73		
Point 2			7,137.0	200.0	0.0	1,409,323.35	3,244,679.75		
Target Circle 1350'FS	0.00	0.57	6,657.0	-1,045.6	-178.1	1,409,224.09	3,244,755.73	40° 27' 12.204 N	104° 37' 13.764 W
- plan hits target									
- Circle (radius 75.0)									
Target BHL 1350'FSL	0.00	0.57	5,500.0	-1,045.5	-178.1	1,409,224.12	3,244,755.72	40° 27' 12.204 N	104° 37' 13.764 W
- plan hits target									
- Point									

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well LDS E25-33D
<b>Company:</b>	NOBLE ENERGY INC WELD COUNTY CO	<b>TVD Reference:</b>	WELL @ 4697.0ft (Original Well Elev)
<b>Project:</b>	SEC.25-T6N-R65W	<b>MD Reference:</b>	WELL @ 4697.0ft (Original Well Elev)
<b>Site:</b>	LDS E25-33 Pad Sec.25-T6N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	LDS E25-33D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Noble LDS E25-33D Plan #1 (07-02-10)		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
550.0	550.0	8 5/8"	8-5/8	12-1/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,788.6	6,657.0	NIOBRARA		0.00		
7,118.6	6,987.0	CODELL		0.00		