

ENSIGN

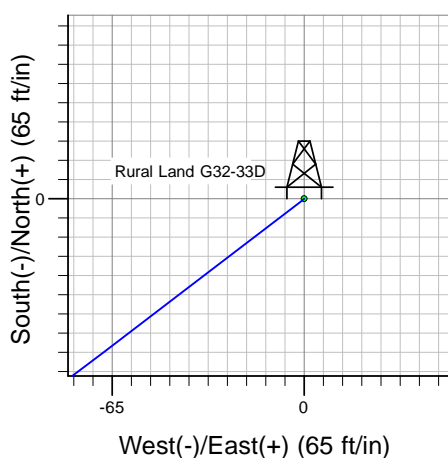
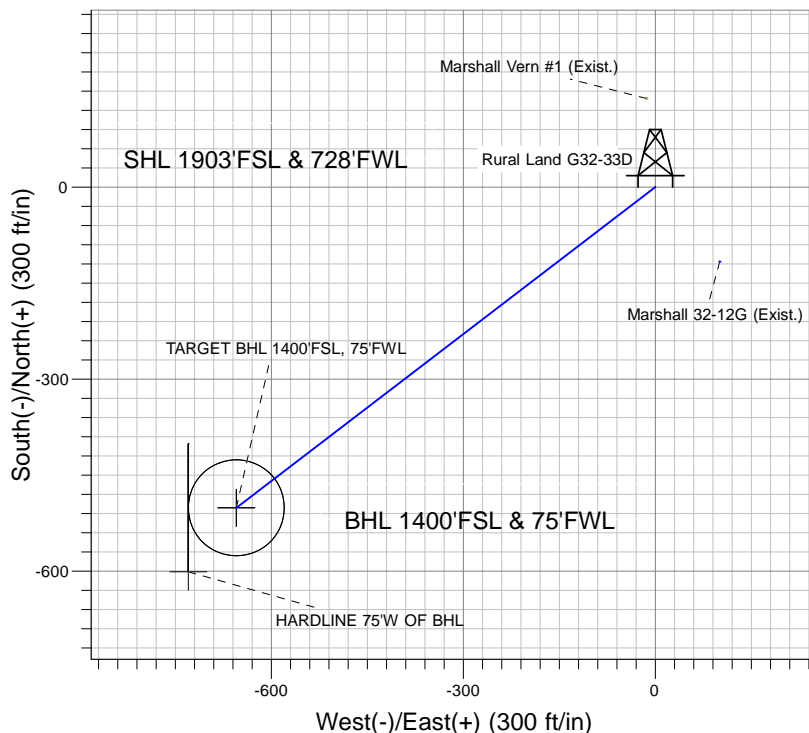
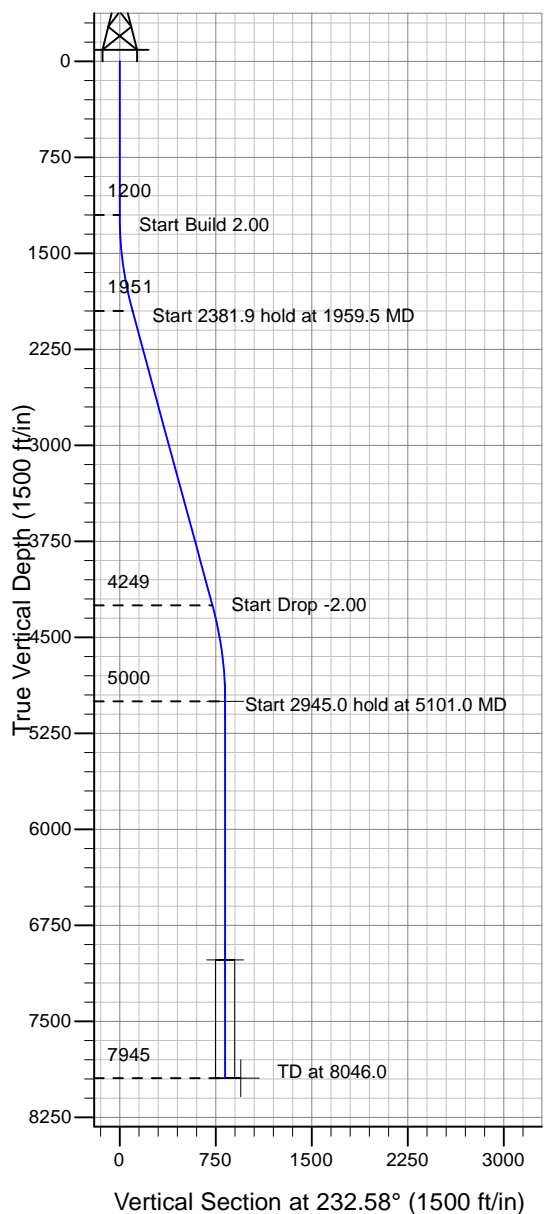
Directional

Well Name: Rural Land G32-33D

Surface Location: Rural Land G32-33D Pad Sec.32-T4N-R65W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4922.0

+N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1341098.86 3224905.78 40° 16' 0.876 N 104° 41' 38.544 W
 Original Well Elev WELL @ 4935.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO



Rural Land G32-33D Pad Sec.32-T4N-R65W
 Rural Land G32-33D
 Noble Rural Land G32-33D Plan #1 (03-24-10)
 12:07, March 24 2010



Azimuths to True North
 Magnetic North: 8.97°

Magnetic Field
 Strength: 53241.0snT
 Dip Angle: 67.01°
 Date: 12/31/2009
 Model: IGRF200510

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1400'FSL, 75'FWL	5000.0	-501.0	-654.7	40° 15' 55.925 N	104° 41' 46.989 W	Point
TARGET CIRCLE 1400'FSL, 75'FWL	7020.0	-501.0	-654.7	40° 15' 55.925 N	104° 41' 46.989 W	Circle (Radius: 75.0)
HARDLINE 75'W OF BHL	7945.0	-601.0	-729.7	40° 15' 54.937 N	104° 41' 47.957 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	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1959.5	15.19	232.58	1950.7	-60.8	-79.5	2.00	232.58	100.1	
4	4341.4	15.19	232.58	4249.3	-440.1	-575.2	0.00	0.00	724.2	
5	5101.0	0.00	0.00	5000.0	-501.0	-654.7	2.00	180.00	824.3	TARGET BHL 1400'FSL, 75'FWL
6	8046.0	0.00	0.00	7945.0	-501.0	-654.7	0.00	0.00	824.3	



NOBLE ENERGY INC WELD COUNTY CO

SEC.32-T4N-R65W

Rural Land G32-33D Pad Sec.32-T4N-R65W

Rural Land G32-33D

Wellbore #1

Plan: Noble Rural Land G32-33D Plan #1 (03-24-10)

Standard Planning Report

24 March, 2010



Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Rural Land G32-33D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4935.0ft (Original Well Elev)
Project:	SEC.32-T4N-R65W	MD Reference:	WELL @ 4935.0ft (Original Well Elev)
Site:	Rural Land G32-33D Pad Sec.32-T4N-R65W	North Reference:	True
Well:	Rural Land G32-33D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Rural Land G32-33D Plan #1 (03-24-10)		

Project	SEC.32-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 Rural Land G32-33D Pad Sec.32-T4N-R65W					
Site Position:		Northing:		1,341,098.87 ft	
From:	Lat/Long	Easting:		3,224,905.77 ft	
Position Uncertainty:		0.0 ft		Slot Radius: "	
				Grid Convergence: 0.52 °	
				Latitude: 40° 16' 0.876 N	
				Longitude: 104° 41' 38.544 W	

Well	Rural Land G32-33D					
Well Position	+N-S	0.0 ft	Northing:	1,341,098.86 ft	Latitude:	40° 16' 0.876 N
	+E-W	0.0 ft	Easting:	3,224,905.78 ft	Longitude:	104° 41' 38.544 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,922.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	8.97	67.01	53,241

Design	Noble Rural Land G32-33D Plan #1 (03-24-10)			
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	232.58

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,959.5	15.19	232.58	1,950.7	-60.8	-79.5	2.00	2.00	0.00	232.58	
4,341.4	15.19	232.58	4,249.3	-440.1	-575.2	0.00	0.00	0.00	0.00	
5,101.0	0.00	0.00	5,000.0	-501.0	-654.7	2.00	-2.00	0.00	180.00	TARGET BHL 140C
8,046.0	0.00	0.00	7,945.0	-501.0	-654.7	0.00	0.00	0.00	0.00	

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Rural Land G32-33D
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Project:	SEC.32-T4N-R65W	MD Reference:	WELL @ 4935.0ft (Original Well Elev)
Site:	Rural Land G32-33D Pad Sec.32-T4N-R65W	North Reference:	True
Well:	Rural Land G32-33D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Rural Land G32-33D Plan #1 (03-24-10)		

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
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	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	0.0	0.0	0.0	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
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	0.0	0.0	0.0	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
1,240.0	0.80	232.58	1,240.0	-0.2	-0.2	0.3	2.00	2.00	0.00
1,280.0	1.60	232.58	1,280.0	-0.7	-0.9	1.1	2.00	2.00	0.00
1,320.0	2.40	232.58	1,320.0	-1.5	-2.0	2.5	2.00	2.00	0.00
1,360.0	3.20	232.58	1,359.9	-2.7	-3.5	4.5	2.00	2.00	0.00
1,400.0	4.00	232.58	1,399.8	-4.2	-5.5	7.0	2.00	2.00	0.00
1,440.0	4.80	232.58	1,439.7	-6.1	-8.0	10.0	2.00	2.00	0.00
1,480.0	5.60	232.58	1,479.6	-8.3	-10.9	13.7	2.00	2.00	0.00
1,520.0	6.40	232.58	1,519.3	-10.8	-14.2	17.9	2.00	2.00	0.00
1,560.0	7.20	232.58	1,559.1	-13.7	-17.9	22.6	2.00	2.00	0.00
1,600.0	8.00	232.58	1,598.7	-16.9	-22.1	27.9	2.00	2.00	0.00
1,640.0	8.80	232.58	1,638.3	-20.5	-26.8	33.7	2.00	2.00	0.00
1,680.0	9.60	232.58	1,677.8	-24.4	-31.9	40.1	2.00	2.00	0.00
1,720.0	10.40	232.58	1,717.1	-28.6	-37.4	47.1	2.00	2.00	0.00
1,760.0	11.20	232.58	1,756.4	-33.2	-43.3	54.6	2.00	2.00	0.00
1,800.0	12.00	232.58	1,795.6	-38.0	-49.7	62.6	2.00	2.00	0.00
1,840.0	12.80	232.58	1,834.7	-43.3	-56.5	71.2	2.00	2.00	0.00
1,880.0	13.60	232.58	1,873.6	-48.8	-63.8	80.3	2.00	2.00	0.00
1,920.0	14.40	232.58	1,912.4	-54.7	-71.5	90.0	2.00	2.00	0.00
1,959.5	15.19	232.58	1,950.7	-60.8	-79.5	100.1	2.00	2.00	0.00
1,960.0	15.19	232.58	1,951.1	-60.9	-79.6	100.2	0.00	0.00	0.00
2,000.0	15.19	232.58	1,989.7	-67.3	-87.9	110.7	0.00	0.00	0.00
2,040.0	15.19	232.58	2,028.3	-73.6	-96.2	121.2	0.00	0.00	0.00
2,080.0	15.19	232.58	2,066.9	-80.0	-104.6	131.7	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Rural Land G32-33D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4935.0ft (Original Well Elev)
Project:	SEC.32-T4N-R65W	MD Reference:	WELL @ 4935.0ft (Original Well Elev)
Site:	Rural Land G32-33D Pad Sec.32-T4N-R65W	North Reference:	True
Well:	Rural Land G32-33D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Rural Land G32-33D Plan #1 (03-24-10)		

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	15.19	232.58	2,105.5	-86.4	-112.9	142.1	0.00	0.00	0.00
2,160.0	15.19	232.58	2,144.1	-92.8	-121.2	152.6	0.00	0.00	0.00
2,200.0	15.19	232.58	2,182.7	-99.1	-129.5	163.1	0.00	0.00	0.00
2,240.0	15.19	232.58	2,221.3	-105.5	-137.9	173.6	0.00	0.00	0.00
2,280.0	15.19	232.58	2,259.9	-111.9	-146.2	184.1	0.00	0.00	0.00
2,320.0	15.19	232.58	2,298.5	-118.2	-154.5	194.6	0.00	0.00	0.00
2,360.0	15.19	232.58	2,337.1	-124.6	-162.8	205.0	0.00	0.00	0.00
2,400.0	15.19	232.58	2,375.7	-131.0	-171.2	215.5	0.00	0.00	0.00
2,440.0	15.19	232.58	2,414.3	-137.3	-179.5	226.0	0.00	0.00	0.00
2,480.0	15.19	232.58	2,452.9	-143.7	-187.8	236.5	0.00	0.00	0.00
2,520.0	15.19	232.58	2,491.5	-150.1	-196.1	247.0	0.00	0.00	0.00
2,560.0	15.19	232.58	2,530.2	-156.4	-204.5	257.4	0.00	0.00	0.00
2,600.0	15.19	232.58	2,568.8	-162.8	-212.8	267.9	0.00	0.00	0.00
2,640.0	15.19	232.58	2,607.4	-169.2	-221.1	278.4	0.00	0.00	0.00
2,680.0	15.19	232.58	2,646.0	-175.6	-229.4	288.9	0.00	0.00	0.00
2,720.0	15.19	232.58	2,684.6	-181.9	-237.7	299.4	0.00	0.00	0.00
2,760.0	15.19	232.58	2,723.2	-188.3	-246.1	309.8	0.00	0.00	0.00
2,800.0	15.19	232.58	2,761.8	-194.7	-254.4	320.3	0.00	0.00	0.00
2,840.0	15.19	232.58	2,800.4	-201.0	-262.7	330.8	0.00	0.00	0.00
2,880.0	15.19	232.58	2,839.0	-207.4	-271.0	341.3	0.00	0.00	0.00
2,920.0	15.19	232.58	2,877.6	-213.8	-279.4	351.8	0.00	0.00	0.00
2,960.0	15.19	232.58	2,916.2	-220.1	-287.7	362.3	0.00	0.00	0.00
3,000.0	15.19	232.58	2,954.8	-226.5	-296.0	372.7	0.00	0.00	0.00
3,040.0	15.19	232.58	2,993.4	-232.9	-304.3	383.2	0.00	0.00	0.00
3,080.0	15.19	232.58	3,032.0	-239.3	-312.7	393.7	0.00	0.00	0.00
3,120.0	15.19	232.58	3,070.6	-245.6	-321.0	404.2	0.00	0.00	0.00
3,160.0	15.19	232.58	3,109.2	-252.0	-329.3	414.7	0.00	0.00	0.00
3,200.0	15.19	232.58	3,147.8	-258.4	-337.6	425.1	0.00	0.00	0.00
3,240.0	15.19	232.58	3,186.4	-264.7	-346.0	435.6	0.00	0.00	0.00
3,280.0	15.19	232.58	3,225.0	-271.1	-354.3	446.1	0.00	0.00	0.00
3,320.0	15.19	232.58	3,263.6	-277.5	-362.6	456.6	0.00	0.00	0.00
3,360.0	15.19	232.58	3,302.2	-283.8	-370.9	467.1	0.00	0.00	0.00
3,400.0	15.19	232.58	3,340.8	-290.2	-379.3	477.6	0.00	0.00	0.00
3,440.0	15.19	232.58	3,379.4	-296.6	-387.6	488.0	0.00	0.00	0.00
3,480.0	15.19	232.58	3,418.0	-302.9	-395.9	498.5	0.00	0.00	0.00
3,520.0	15.19	232.58	3,456.6	-309.3	-404.2	509.0	0.00	0.00	0.00
3,560.0	15.19	232.58	3,495.2	-315.7	-412.6	519.5	0.00	0.00	0.00
3,600.0	15.19	232.58	3,533.8	-322.1	-420.9	530.0	0.00	0.00	0.00
3,640.0	15.19	232.58	3,572.4	-328.4	-429.2	540.4	0.00	0.00	0.00
3,680.0	15.19	232.58	3,611.0	-334.8	-437.5	550.9	0.00	0.00	0.00
3,720.0	15.19	232.58	3,649.6	-341.2	-445.8	561.4	0.00	0.00	0.00
3,760.0	15.19	232.58	3,688.2	-347.5	-454.2	571.9	0.00	0.00	0.00
3,800.0	15.19	232.58	3,726.8	-353.9	-462.5	582.4	0.00	0.00	0.00
3,840.0	15.19	232.58	3,765.4	-360.3	-470.8	592.8	0.00	0.00	0.00
3,880.0	15.19	232.58	3,804.0	-366.6	-479.1	603.3	0.00	0.00	0.00
3,920.0	15.19	232.58	3,842.6	-373.0	-487.5	613.8	0.00	0.00	0.00
3,960.0	15.19	232.58	3,881.2	-379.4	-495.8	624.3	0.00	0.00	0.00
4,000.0	15.19	232.58	3,919.8	-385.8	-504.1	634.8	0.00	0.00	0.00
4,040.0	15.19	232.58	3,958.4	-392.1	-512.4	645.3	0.00	0.00	0.00
4,080.0	15.19	232.58	3,997.0	-398.5	-520.8	655.7	0.00	0.00	0.00
4,120.0	15.19	232.58	4,035.6	-404.9	-529.1	666.2	0.00	0.00	0.00
4,160.0	15.19	232.58	4,074.2	-411.2	-537.4	676.7	0.00	0.00	0.00
4,200.0	15.19	232.58	4,112.8	-417.6	-545.7	687.2	0.00	0.00	0.00
4,240.0	15.19	232.58	4,151.4	-424.0	-554.1	697.7	0.00	0.00	0.00

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Wellbore:	Wellbore #1		
Design:	Noble Rural Land G32-33D Plan #1 (03-24-10)		

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)
4,280.0	15.19	232.58	4,190.1	-430.3	-562.4	708.1	0.00	0.00	0.00
4,320.0	15.19	232.58	4,228.7	-436.7	-570.7	718.6	0.00	0.00	0.00
4,341.4	15.19	232.58	4,249.3	-440.1	-575.2	724.2	0.00	0.00	0.00
4,360.0	14.82	232.58	4,267.3	-443.0	-579.0	729.1	2.00	-2.00	0.00
4,400.0	14.02	232.58	4,306.0	-449.1	-586.9	739.0	2.00	-2.00	0.00
4,440.0	13.22	232.58	4,344.9	-454.8	-594.4	748.4	2.00	-2.00	0.00
4,480.0	12.42	232.58	4,383.9	-460.2	-601.4	757.3	2.00	-2.00	0.00
4,520.0	11.62	232.58	4,423.0	-465.3	-608.0	765.6	2.00	-2.00	0.00
4,560.0	10.82	232.58	4,462.2	-470.0	-614.2	773.4	2.00	-2.00	0.00
4,600.0	10.02	232.58	4,501.6	-474.4	-620.0	780.7	2.00	-2.00	0.00
4,640.0	9.22	232.58	4,541.0	-478.5	-625.3	787.3	2.00	-2.00	0.00
4,680.0	8.42	232.58	4,580.6	-482.2	-630.1	793.5	2.00	-2.00	0.00
4,720.0	7.62	232.58	4,620.2	-485.6	-634.6	799.0	2.00	-2.00	0.00
4,760.0	6.82	232.58	4,659.8	-488.6	-638.6	804.1	2.00	-2.00	0.00
4,800.0	6.02	232.58	4,699.6	-491.4	-642.1	808.5	2.00	-2.00	0.00
4,840.0	5.22	232.58	4,739.4	-493.7	-645.2	812.5	2.00	-2.00	0.00
4,880.0	4.42	232.58	4,779.3	-495.8	-647.9	815.8	2.00	-2.00	0.00
4,920.0	3.62	232.58	4,819.2	-497.5	-650.1	818.6	2.00	-2.00	0.00
4,960.0	2.82	232.58	4,859.1	-498.8	-651.9	820.9	2.00	-2.00	0.00
5,000.0	2.02	232.58	4,899.1	-499.9	-653.3	822.6	2.00	-2.00	0.00
5,040.0	1.22	232.58	4,939.0	-500.6	-654.1	823.7	2.00	-2.00	0.00
5,080.0	0.42	232.58	4,979.0	-500.9	-654.6	824.3	2.00	-2.00	0.00
5,101.0	0.00	0.00	5,000.0	-501.0	-654.7	824.3	2.00	-2.00	607.87
TARGET BHL 1400'FSL, 75'FWL									
5,120.0	0.00	0.00	5,019.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,160.0	0.00	0.00	5,059.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,200.0	0.00	0.00	5,099.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,240.0	0.00	0.00	5,139.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,280.0	0.00	0.00	5,179.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,320.0	0.00	0.00	5,219.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,360.0	0.00	0.00	5,259.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,400.0	0.00	0.00	5,299.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,440.0	0.00	0.00	5,339.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,480.0	0.00	0.00	5,379.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,520.0	0.00	0.00	5,419.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,560.0	0.00	0.00	5,459.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,600.0	0.00	0.00	5,499.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,640.0	0.00	0.00	5,539.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,680.0	0.00	0.00	5,579.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,720.0	0.00	0.00	5,619.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,760.0	0.00	0.00	5,659.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,800.0	0.00	0.00	5,699.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,840.0	0.00	0.00	5,739.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,880.0	0.00	0.00	5,779.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,920.0	0.00	0.00	5,819.0	-501.0	-654.7	824.3	0.00	0.00	0.00
5,960.0	0.00	0.00	5,859.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,000.0	0.00	0.00	5,899.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,040.0	0.00	0.00	5,939.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,080.0	0.00	0.00	5,979.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,120.0	0.00	0.00	6,019.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,160.0	0.00	0.00	6,059.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,200.0	0.00	0.00	6,099.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,240.0	0.00	0.00	6,139.0	-501.0	-654.7	824.3	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Rural Land G32-33D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4935.0ft (Original Well Elev)
Project:	SEC.32-T4N-R65W	MD Reference:	WELL @ 4935.0ft (Original Well Elev)
Site:	Rural Land G32-33D Pad Sec.32-T4N-R65W	North Reference:	True
Well:	Rural Land G32-33D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Rural Land G32-33D Plan #1 (03-24-10)		

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)
6,280.0	0.00	0.00	6,179.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,320.0	0.00	0.00	6,219.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,360.0	0.00	0.00	6,259.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,400.0	0.00	0.00	6,299.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,440.0	0.00	0.00	6,339.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,480.0	0.00	0.00	6,379.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,520.0	0.00	0.00	6,419.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,560.0	0.00	0.00	6,459.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,600.0	0.00	0.00	6,499.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,640.0	0.00	0.00	6,539.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,680.0	0.00	0.00	6,579.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,720.0	0.00	0.00	6,619.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,760.0	0.00	0.00	6,659.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,800.0	0.00	0.00	6,699.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,840.0	0.00	0.00	6,739.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,880.0	0.00	0.00	6,779.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,920.0	0.00	0.00	6,819.0	-501.0	-654.7	824.3	0.00	0.00	0.00
6,960.0	0.00	0.00	6,859.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,899.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,040.0	0.00	0.00	6,939.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,080.0	0.00	0.00	6,979.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,120.0	0.00	0.00	7,019.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,121.0	0.00	0.00	7,020.0	-501.0	-654.7	824.3	0.00	0.00	0.00
NOBRARA - TARGET CIRCLE 1400'FSL, 75'FWL									
7,160.0	0.00	0.00	7,059.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,200.0	0.00	0.00	7,099.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,240.0	0.00	0.00	7,139.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,280.0	0.00	0.00	7,179.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,320.0	0.00	0.00	7,219.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,360.0	0.00	0.00	7,259.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,400.0	0.00	0.00	7,299.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,431.0	0.00	0.00	7,330.0	-501.0	-654.7	824.3	0.00	0.00	0.00
CODELL									
7,440.0	0.00	0.00	7,339.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,480.0	0.00	0.00	7,379.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,520.0	0.00	0.00	7,419.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,560.0	0.00	0.00	7,459.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,600.0	0.00	0.00	7,499.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,640.0	0.00	0.00	7,539.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,680.0	0.00	0.00	7,579.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,720.0	0.00	0.00	7,619.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,760.0	0.00	0.00	7,659.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,800.0	0.00	0.00	7,699.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,840.0	0.00	0.00	7,739.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,841.0	0.00	0.00	7,740.0	-501.0	-654.7	824.3	0.00	0.00	0.00
D-SAND									
7,880.0	0.00	0.00	7,779.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,896.0	0.00	0.00	7,795.0	-501.0	-654.7	824.3	0.00	0.00	0.00
J-SAND									
7,920.0	0.00	0.00	7,819.0	-501.0	-654.7	824.3	0.00	0.00	0.00
7,960.0	0.00	0.00	7,859.0	-501.0	-654.7	824.3	0.00	0.00	0.00
8,000.0	0.00	0.00	7,899.0	-501.0	-654.7	824.3	0.00	0.00	0.00
8,040.0	0.00	0.00	7,939.0	-501.0	-654.7	824.3	0.00	0.00	0.00
8,046.0	0.00	0.00	7,945.0	-501.0	-654.7	824.3	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Rural Land G32-33D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4935.0ft (Original Well Elev)
Project:	SEC.32-T4N-R65W	MD Reference:	WELL @ 4935.0ft (Original Well Elev)
Site:	Rural Land G32-33D Pad Sec.32-T4N-R65W	North Reference:	True
Well:	Rural Land G32-33D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Rural Land G32-33D Plan #1 (03-24-10)		

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)
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
- hit/miss target									
- Shape									
TARGET BHL 1400'F:	0.00	0.00	5,000.0	-501.0	-654.7	1,340,592.00	3,224,255.72	40° 15' 55.925 N	104° 41' 46.989 W
- plan hits target center									
- Point									
TARGET CIRCLE 140	0.00	0.00	7,020.0	-501.0	-654.7	1,340,591.95	3,224,255.68	40° 15' 55.925 N	104° 41' 46.989 W
- plan misses target center by 0.1ft at 7121.0ft MD (7020.0 TVD, -501.0 N, -654.7 E)									
- Circle (radius 75.0)									
HARDLINE 75'W OF I	0.00	0.00	7,945.0	-601.0	-729.7	1,340,491.28	3,224,181.60	40° 15' 54.937 N	104° 41' 47.957 W
- plan misses target center by 125.1ft at 8046.0ft MD (7945.0 TVD, -501.0 N, -654.7 E)									
- Polygon									
Point 1			7,945.0	0.0	0.0	1,340,491.28	3,224,181.60		
Point 2			7,945.0	200.0	0.0	1,340,691.26	3,224,179.78		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,121.0	7,020.0	NIOBRARA		0.00		
7,431.0	7,330.0	CODELL		0.00		
7,841.0	7,740.0	D-SAND		0.00		
7,896.0	7,795.0	J-SAND		0.00		