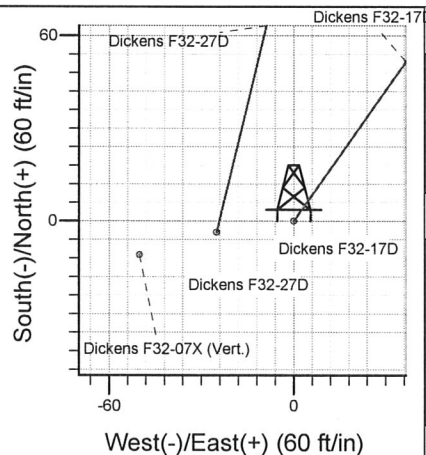
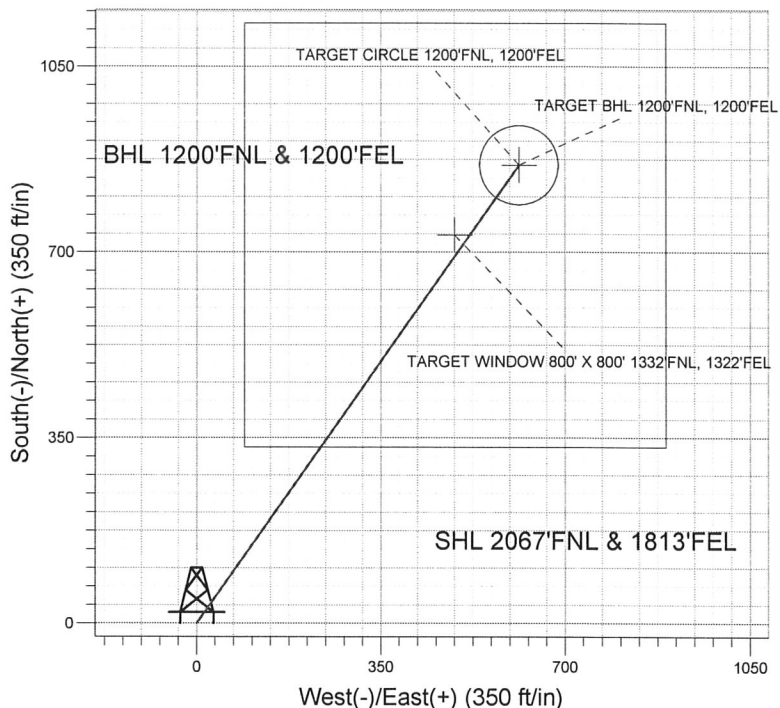
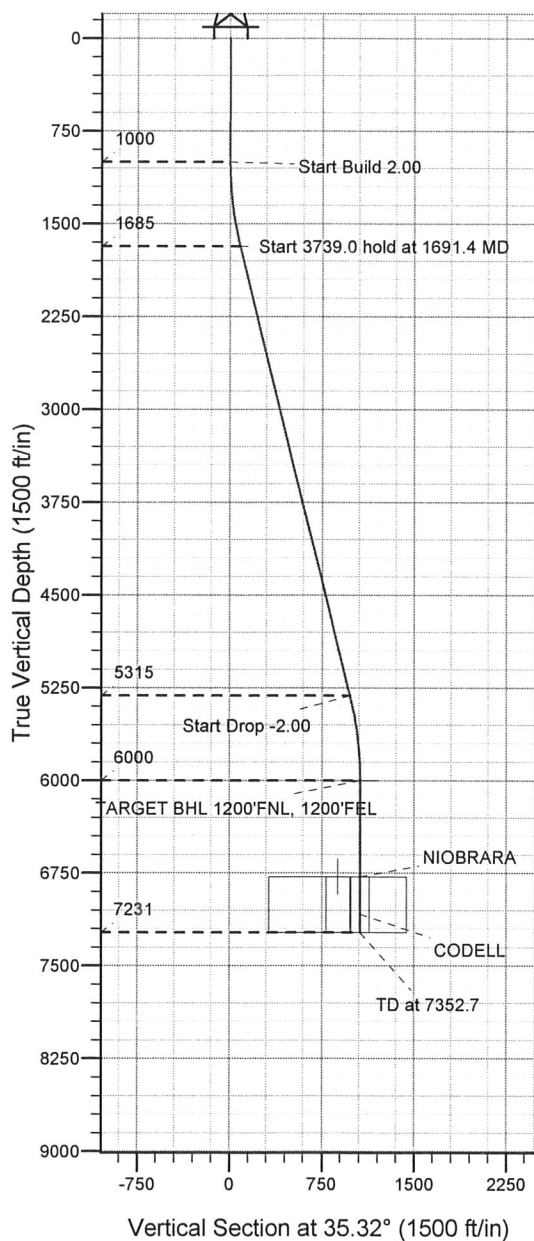


ENSIGN

Directional

Well Name: **Dickens F32-17D**
 Surface Location: Dickens F32-27D Pad Sec.32-T5N-R65W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4668.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1374086.80 3227303.73 40° 21' 26.640 N 104° 41' 3.696 W
 Original Well Elev WELL @ 4681.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO



Dickens F32-17D
 Noble Dickens F32-17D Plan #2 (1-26-10)
 12:47, January 26 2010



Azimuths to True North
 Magnetic North: 8.98°
 Magnetic Field
 Strength: 53292.3snT
 Dip Angle: 67.09°
 Date: 12/29/2009
 Model: IGRF200510

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1200'FNL, 1200'FEL	6000.0	864.6	612.6	40° 21' 35.184 N	104° 40' 55.782 W	Point
TARGET CIRCLE 1200'FNL, 1200'FEL	6781.0	864.6	612.6	40° 21' 35.183 N	104° 40' 55.782 W	Circle (Radius: 75.0)
TARGET WINDOW 800' X 800' 1332'FNL, 1322'FEL	7352.7	732.6	490.6	40° 21' 33.879 N	104° 40' 57.358 W	Rectangle (Sides: L800.0 W800.0)

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	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1691.4	13.83	35.32	1684.7	67.7	48.0	2.00	35.32	83.0	
4	5430.4	13.83	35.32	5315.3	796.9	564.6	0.00	0.00	976.6	
5	6121.7	0.00	0.00	6000.0	864.6	612.6	2.00	180.00	1059.6	TARGET BHL 1200'FNL, 1200'FEL
6	7352.7	0.00	0.00	7231.0	864.6	612.6	0.00	0.00	1059.6	

ENSIGN

Directional

**NOBLE ENERGY INC WELD
COUNTY CO**

SEC.32-T5N-R65W

Dickens F32-27D Pad Sec.32-T5N-R65W

Dickens F32-17D

Wellbore #1

Plan: Noble Dickens F32-17D Plan #2 (1-26-10)

Standard Planning Report

26 January, 2010

ENSIGN

Directional

Planning Report

Database: Compass
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.32-T5N-R65W
Site: Dickens F32-27D Pad Sec.32-T5N-R65W
Well: Dickens F32-17D
Wellbore: Wellbore #1
Design: Noble Dickens F32-17D Plan #2 (1-26-10)

Local Co-ordinate Reference: Well Dickens F32-17D
TVD Reference: WELL @ 4681.0ft (Original Well Elev)
MD Reference: WELL @ 4681.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project SEC.32-T5N-R65W, Weld County, Colorado

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: Colorado Northern Zone

System Datum: Mean Sea Level
 Using Well Reference Point
 Using geodetic scale factor

Site Dickens F32-27D Pad Sec.32-T5N-R65W

Site Position: Northing: 1,374,086.80 ft Latitude: 40° 21' 26.640 N
From: Lat/Long Easting: 3,227,303.73 ft Longitude: 104° 41' 3.696 W
Position Uncertainty: 0.0 ft Slot Radius: " Grid Convergence: 0.53 °

Well Dickens F32-17D

Well Position +N/-S 0.0 ft Northing: 1,374,086.80 ft Latitude: 40° 21' 26.640 N
 +E/-W 0.0 ft Easting: 3,227,303.73 ft Longitude: 104° 41' 3.696 W
Position Uncertainty 0.0 ft Wellhead Elevation: ft Ground Level: 4,668.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/29/2009	8.98	67.09	53,292

Design Noble Dickens F32-17D Plan #2 (1-26-10)

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	35.32

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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,691.4	13.83	35.32	1,684.7	67.7	48.0	2.00	2.00	0.00	35.32	
5,430.4	13.83	35.32	5,315.3	796.9	564.6	0.00	0.00	0.00	0.00	
6,121.7	0.00	0.00	6,000.0	864.6	612.6	2.00	-2.00	0.00	180.00	TARGET BHL 120C
7,352.7	0.00	0.00	7,231.0	864.6	612.6	0.00	0.00	0.00	0.00	

ENSIGN

Directional

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Dickens F32-17D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4681.0ft (Original Well Elev)
Project:	SEC.32-T5N-R65W	MD Reference:	WELL @ 4681.0ft (Original Well Elev)
Site:	Dickens F32-27D Pad Sec.32-T5N-R65W	North Reference:	True
Well:	Dickens F32-17D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dickens F32-17D Plan #2 (1-26-10)		

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
50.0	0.00	0.00	50.0	0.0	0.0	0.0	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
150.0	0.00	0.00	150.0	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
250.0	0.00	0.00	250.0	0.0	0.0	0.0	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
350.0	0.00	0.00	350.0	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
450.0	0.00	0.00	450.0	0.0	0.0	0.0	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
550.0	0.00	0.00	550.0	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
650.0	0.00	0.00	650.0	0.0	0.0	0.0	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
750.0	0.00	0.00	750.0	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
850.0	0.00	0.00	850.0	0.0	0.0	0.0	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
950.0	0.00	0.00	950.0	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
1,050.0	1.00	35.32	1,050.0	0.4	0.3	0.4	2.00	2.00	0.00
1,100.0	2.00	35.32	1,100.0	1.4	1.0	1.7	2.00	2.00	0.00
1,150.0	3.00	35.32	1,149.9	3.2	2.3	3.9	2.00	2.00	0.00
1,200.0	4.00	35.32	1,199.8	5.7	4.0	7.0	2.00	2.00	0.00
1,250.0	5.00	35.32	1,249.7	8.9	6.3	10.9	2.00	2.00	0.00
1,300.0	6.00	35.32	1,299.5	12.8	9.1	15.7	2.00	2.00	0.00
1,350.0	7.00	35.32	1,349.1	17.4	12.3	21.4	2.00	2.00	0.00
1,400.0	8.00	35.32	1,398.7	22.7	16.1	27.9	2.00	2.00	0.00
1,450.0	9.00	35.32	1,448.2	28.8	20.4	35.3	2.00	2.00	0.00
1,500.0	10.00	35.32	1,497.5	35.5	25.2	43.5	2.00	2.00	0.00
1,550.0	11.00	35.32	1,546.6	42.9	30.4	52.6	2.00	2.00	0.00
1,600.0	12.00	35.32	1,595.6	51.1	36.2	62.6	2.00	2.00	0.00
1,650.0	13.00	35.32	1,644.4	59.9	42.4	73.4	2.00	2.00	0.00
1,691.4	13.83	35.32	1,684.7	67.7	48.0	83.0	2.00	2.00	0.00
1,700.0	13.83	35.32	1,693.1	69.4	49.2	85.1	0.00	0.00	0.00
1,750.0	13.83	35.32	1,741.6	79.2	56.1	97.0	0.00	0.00	0.00
1,800.0	13.83	35.32	1,790.2	88.9	63.0	109.0	0.00	0.00	0.00
1,850.0	13.83	35.32	1,838.7	98.7	69.9	120.9	0.00	0.00	0.00
1,900.0	13.83	35.32	1,887.3	108.4	76.8	132.9	0.00	0.00	0.00
1,950.0	13.83	35.32	1,935.8	118.2	83.7	144.8	0.00	0.00	0.00
2,000.0	13.83	35.32	1,984.4	127.9	90.6	156.8	0.00	0.00	0.00
2,050.0	13.83	35.32	2,032.9	137.7	97.5	168.7	0.00	0.00	0.00
2,100.0	13.83	35.32	2,081.5	147.4	104.5	180.7	0.00	0.00	0.00
2,150.0	13.83	35.32	2,130.0	157.2	111.4	192.6	0.00	0.00	0.00
2,200.0	13.83	35.32	2,178.6	166.9	118.3	204.6	0.00	0.00	0.00
2,250.0	13.83	35.32	2,227.1	176.7	125.2	216.5	0.00	0.00	0.00
2,300.0	13.83	35.32	2,275.7	186.4	132.1	228.5	0.00	0.00	0.00
2,350.0	13.83	35.32	2,324.2	196.2	139.0	240.4	0.00	0.00	0.00
2,400.0	13.83	35.32	2,372.8	205.9	145.9	252.4	0.00	0.00	0.00
2,450.0	13.83	35.32	2,421.3	215.7	152.8	264.3	0.00	0.00	0.00
2,500.0	13.83	35.32	2,469.9	225.4	159.7	276.3	0.00	0.00	0.00
2,550.0	13.83	35.32	2,518.4	235.2	166.6	288.2	0.00	0.00	0.00
2,600.0	13.83	35.32	2,567.0	244.9	173.5	300.2	0.00	0.00	0.00

ENSIGN

Directional

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Dickens F32-17D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4681.0ft (Original Well Elev)
Project:	SEC.32-T5N-R65W	MD Reference:	WELL @ 4681.0ft (Original Well Elev)
Site:	Dickens F32-27D Pad Sec.32-T5N-R65W	North Reference:	True
Well:	Dickens F32-17D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dickens F32-17D Plan #2 (1-26-10)		

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)	
2,650.0	13.83	35.32	2,615.5	254.7	180.5	312.1	0.00	0.00	0.00	
2,700.0	13.83	35.32	2,664.1	264.4	187.4	324.1	0.00	0.00	0.00	
2,750.0	13.83	35.32	2,712.6	274.2	194.3	336.0	0.00	0.00	0.00	
2,800.0	13.83	35.32	2,761.2	283.9	201.2	348.0	0.00	0.00	0.00	
2,850.0	13.83	35.32	2,809.7	293.7	208.1	359.9	0.00	0.00	0.00	
2,900.0	13.83	35.32	2,858.3	303.4	215.0	371.9	0.00	0.00	0.00	
2,950.0	13.83	35.32	2,906.8	313.2	221.9	383.8	0.00	0.00	0.00	
3,000.0	13.83	35.32	2,955.4	322.9	228.8	395.8	0.00	0.00	0.00	
3,050.0	13.83	35.32	3,003.9	332.7	235.7	407.7	0.00	0.00	0.00	
3,100.0	13.83	35.32	3,052.5	342.4	242.6	419.7	0.00	0.00	0.00	
3,150.0	13.83	35.32	3,101.0	352.2	249.5	431.6	0.00	0.00	0.00	
3,200.0	13.83	35.32	3,149.6	361.9	256.4	443.6	0.00	0.00	0.00	
3,250.0	13.83	35.32	3,198.1	371.7	263.4	455.5	0.00	0.00	0.00	
3,300.0	13.83	35.32	3,246.7	381.4	270.3	467.5	0.00	0.00	0.00	
3,350.0	13.83	35.32	3,295.2	391.2	277.2	479.4	0.00	0.00	0.00	
3,400.0	13.83	35.32	3,343.8	400.9	284.1	491.4	0.00	0.00	0.00	
3,450.0	13.83	35.32	3,392.3	410.7	291.0	503.3	0.00	0.00	0.00	
3,500.0	13.83	35.32	3,440.9	420.4	297.9	515.3	0.00	0.00	0.00	
3,550.0	13.83	35.32	3,489.4	430.2	304.8	527.2	0.00	0.00	0.00	
3,600.0	13.83	35.32	3,538.0	439.9	311.7	539.2	0.00	0.00	0.00	
3,650.0	13.83	35.32	3,586.5	449.7	318.6	551.1	0.00	0.00	0.00	
3,700.0	13.83	35.32	3,635.1	459.4	325.5	563.1	0.00	0.00	0.00	
3,750.0	13.83	35.32	3,683.7	469.2	332.4	575.0	0.00	0.00	0.00	
3,800.0	13.83	35.32	3,732.2	478.9	339.3	587.0	0.00	0.00	0.00	
3,850.0	13.83	35.32	3,780.8	488.7	346.3	598.9	0.00	0.00	0.00	
3,900.0	13.83	35.32	3,829.3	498.4	353.2	610.9	0.00	0.00	0.00	
3,950.0	13.83	35.32	3,877.9	508.2	360.1	622.8	0.00	0.00	0.00	
4,000.0	13.83	35.32	3,926.4	517.9	367.0	634.8	0.00	0.00	0.00	
4,050.0	13.83	35.32	3,975.0	527.7	373.9	646.7	0.00	0.00	0.00	
4,100.0	13.83	35.32	4,023.5	537.4	380.8	658.7	0.00	0.00	0.00	
4,150.0	13.83	35.32	4,072.1	547.2	387.7	670.6	0.00	0.00	0.00	
4,200.0	13.83	35.32	4,120.6	556.9	394.6	682.6	0.00	0.00	0.00	
4,250.0	13.83	35.32	4,169.2	566.7	401.5	694.5	0.00	0.00	0.00	
4,300.0	13.83	35.32	4,217.7	576.4	408.4	706.5	0.00	0.00	0.00	
4,350.0	13.83	35.32	4,266.3	586.2	415.3	718.4	0.00	0.00	0.00	
4,400.0	13.83	35.32	4,314.8	595.9	422.3	730.4	0.00	0.00	0.00	
4,450.0	13.83	35.32	4,363.4	605.7	429.2	742.3	0.00	0.00	0.00	
4,500.0	13.83	35.32	4,411.9	615.4	436.1	754.3	0.00	0.00	0.00	
4,550.0	13.83	35.32	4,460.5	625.2	443.0	766.2	0.00	0.00	0.00	
4,600.0	13.83	35.32	4,509.0	634.9	449.9	778.2	0.00	0.00	0.00	
4,650.0	13.83	35.32	4,557.6	644.7	456.8	790.1	0.00	0.00	0.00	
4,700.0	13.83	35.32	4,606.1	654.4	463.7	802.1	0.00	0.00	0.00	
4,750.0	13.83	35.32	4,654.7	664.2	470.6	814.0	0.00	0.00	0.00	
4,800.0	13.83	35.32	4,703.2	673.9	477.5	826.0	0.00	0.00	0.00	
4,850.0	13.83	35.32	4,751.8	683.7	484.4	837.9	0.00	0.00	0.00	
4,900.0	13.83	35.32	4,800.3	693.4	491.3	849.9	0.00	0.00	0.00	
4,950.0	13.83	35.32	4,848.9	703.2	498.2	861.8	0.00	0.00	0.00	
5,000.0	13.83	35.32	4,897.4	712.9	505.2	873.8	0.00	0.00	0.00	
5,050.0	13.83	35.32	4,946.0	722.7	512.1	885.7	0.00	0.00	0.00	
5,100.0	13.83	35.32	4,994.5	732.4	519.0	897.7	0.00	0.00	0.00	
5,150.0	13.83	35.32	5,043.1	742.2	525.9	909.6	0.00	0.00	0.00	
5,200.0	13.83	35.32	5,091.6	751.9	532.8	921.6	0.00	0.00	0.00	
5,250.0	13.83	35.32	5,140.2	761.7	539.7	933.5	0.00	0.00	0.00	
5,300.0	13.83	35.32	5,188.7	771.4	546.6	945.5	0.00	0.00	0.00	

ENSIGN

Directional

Planning Report

Database: Compass
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.32-T5N-R65W
Site: Dickens F32-27D Pad Sec.32-T5N-R65W
Well: Dickens F32-17D
Wellbore: Wellbore #1
Design: Noble Dickens F32-17D Plan #2 (1-26-10)

Local Co-ordinate Reference: Well Dickens F32-17D
TVD Reference: WELL @ 4681.0ft (Original Well Elev)
MD Reference: WELL @ 4681.0ft (Original Well Elev)
North Reference: True
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 (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,350.0	13.83	35.32	5,237.3	781.2	553.5	957.4	0.00	0.00	0.00
5,400.0	13.83	35.32	5,285.8	790.9	560.4	969.4	0.00	0.00	0.00
5,430.4	13.83	35.32	5,315.3	796.9	564.6	976.6	0.00	0.00	0.00
5,450.0	13.43	35.32	5,334.4	800.6	567.3	981.2	2.00	-2.00	0.00
5,500.0	12.43	35.32	5,383.1	809.8	573.8	992.4	2.00	-2.00	0.00
5,550.0	11.43	35.32	5,432.1	818.2	579.7	1,002.8	2.00	-2.00	0.00
5,600.0	10.43	35.32	5,481.1	825.9	585.2	1,012.3	2.00	-2.00	0.00
5,650.0	9.43	35.32	5,530.4	833.0	590.2	1,020.9	2.00	-2.00	0.00
5,700.0	8.43	35.32	5,579.8	839.3	594.7	1,028.7	2.00	-2.00	0.00
5,750.0	7.43	35.32	5,629.3	845.0	598.7	1,035.6	2.00	-2.00	0.00
5,800.0	6.43	35.32	5,678.9	849.9	602.2	1,041.6	2.00	-2.00	0.00
5,850.0	5.43	35.32	5,728.7	854.1	605.2	1,046.8	2.00	-2.00	0.00
5,900.0	4.43	35.32	5,778.5	857.6	607.7	1,051.1	2.00	-2.00	0.00
5,950.0	3.43	35.32	5,828.4	860.4	609.6	1,054.5	2.00	-2.00	0.00
6,000.0	2.43	35.32	5,878.3	862.5	611.1	1,057.1	2.00	-2.00	0.00
6,050.0	1.43	35.32	5,928.3	863.9	612.1	1,058.7	2.00	-2.00	0.00
6,100.0	0.43	35.32	5,978.3	864.5	612.6	1,059.6	2.00	-2.00	0.00
6,121.7	0.00	0.00	6,000.0	864.6	612.6	1,059.6	2.00	-2.00	-162.50
TARGET BHL 1200'FNL, 1200'FEL									
6,150.0	0.00	0.00	6,028.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,200.0	0.00	0.00	6,078.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,250.0	0.00	0.00	6,128.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,300.0	0.00	0.00	6,178.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,350.0	0.00	0.00	6,228.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,400.0	0.00	0.00	6,278.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,450.0	0.00	0.00	6,328.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,500.0	0.00	0.00	6,378.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,550.0	0.00	0.00	6,428.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,600.0	0.00	0.00	6,478.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,650.0	0.00	0.00	6,528.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,700.0	0.00	0.00	6,578.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,750.0	0.00	0.00	6,628.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,800.0	0.00	0.00	6,678.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,850.0	0.00	0.00	6,728.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,900.0	0.00	0.00	6,778.3	864.6	612.6	1,059.6	0.00	0.00	0.00
6,902.7	0.00	0.00	6,781.0	864.6	612.6	1,059.6	0.00	0.00	0.00
NIOBRARA - TARGET CIRCLE 1200'FNL, 1200'FEL - TARGET WINDOW 800' X 800' 1332'FNL, 1322'FEL									
6,950.0	0.00	0.00	6,828.3	864.6	612.6	1,059.6	0.00	0.00	0.00
7,000.0	0.00	0.00	6,878.3	864.6	612.6	1,059.6	0.00	0.00	0.00
7,050.0	0.00	0.00	6,928.3	864.6	612.6	1,059.6	0.00	0.00	0.00
7,100.0	0.00	0.00	6,978.3	864.6	612.6	1,059.6	0.00	0.00	0.00
7,150.0	0.00	0.00	7,028.3	864.6	612.6	1,059.6	0.00	0.00	0.00
7,200.0	0.00	0.00	7,078.3	864.6	612.6	1,059.6	0.00	0.00	0.00
7,202.7	0.00	0.00	7,081.0	864.6	612.6	1,059.6	0.00	0.00	0.00
CODELL									
7,250.0	0.00	0.00	7,128.3	864.6	612.6	1,059.6	0.00	0.00	0.00
7,300.0	0.00	0.00	7,178.3	864.6	612.6	1,059.6	0.00	0.00	0.00
7,350.0	0.00	0.00	7,228.3	864.6	612.6	1,059.6	0.00	0.00	0.00
7,352.7	0.00	0.00	7,231.0	864.6	612.6	1,059.6	0.00	0.00	0.00

ENSIGN

Directional

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Dickens F32-17D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4681.0ft (Original Well Elev)
Project:	SEC.32-T5N-R65W	MD Reference:	WELL @ 4681.0ft (Original Well Elev)
Site:	Dickens F32-27D Pad Sec.32-T5N-R65W	North Reference:	True
Well:	Dickens F32-17D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dickens F32-17D Plan #2 (1-26-10)		

Targets										
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
- Shape										
TARGET BHL 1200'F	0.00	0.00	6,000.0	864.6	612.6	1,374,956.96	3,227,908.34	40° 21' 35.184 N	104° 40' 55.782 W	
- plan hits target										
- Point										
TARGET CIRCLE 12'	0.00	0.00	6,781.0	864.6	612.6	1,374,956.91	3,227,908.34	40° 21' 35.183 N	104° 40' 55.782 W	
- plan hits target										
- Circle (radius 75.0)										
TARGET WINDOW 8'	0.00	0.00	6,781.0	732.6	490.6	1,374,823.80	3,227,787.57	40° 21' 33.879 N	104° 40' 57.358 W	
- plan misses by 179.8ft at 6902.7ft MD (6781.0 TVD, 864.6 N, 612.6 E)										
- Rectangle (sides W800.0 H800.0 D450.0)										

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
6,902.7	6,781.0	NIOBRARA		0.00		
7,202.7	7,081.0	CODELL		0.00		