

ENSIGN

Directional

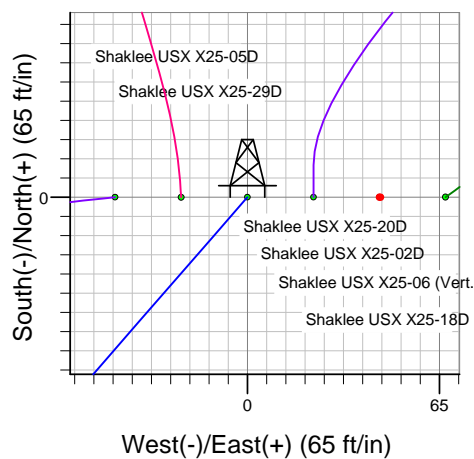
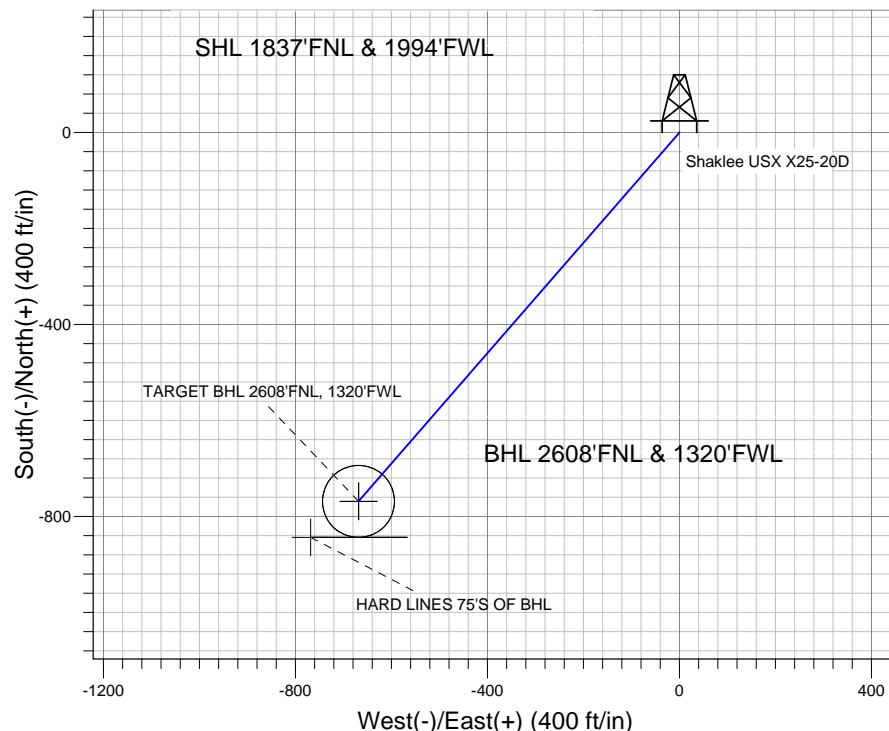
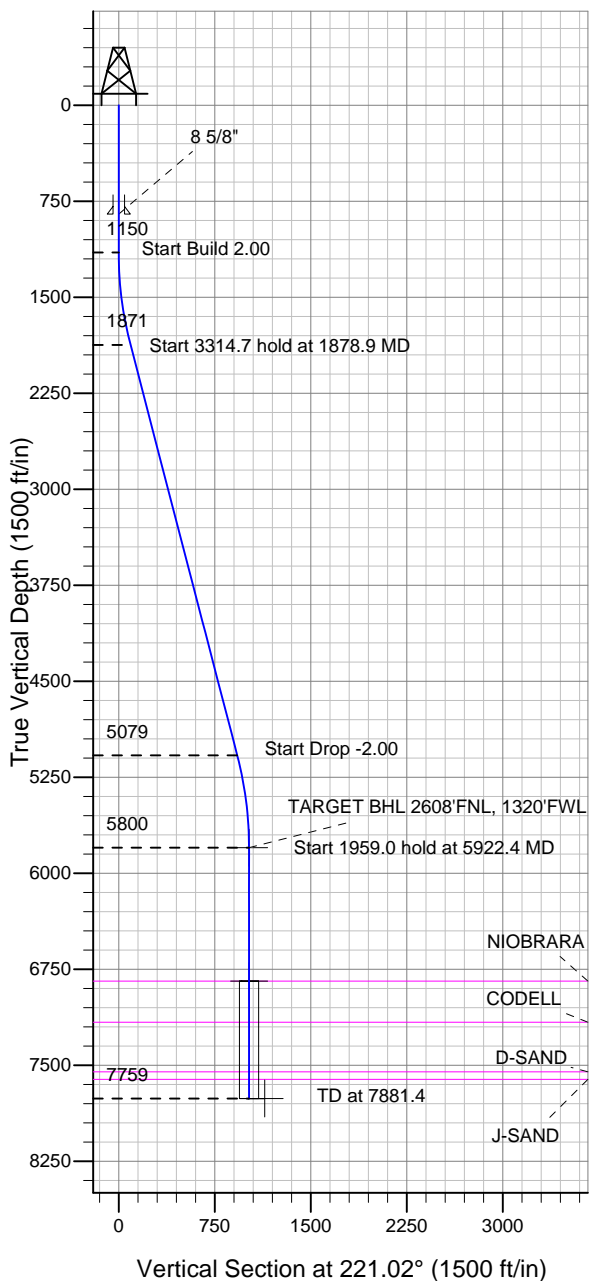
Well Name: Shaklee USX X25-20D

Surface Location: Shaklee USX X25-02D Pad Sec.25-T2N-R65W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 4904.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1284772.82 3247643.19 40.111700 -104.614580
Original Well Elev WELL @ 4917.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO



Shaklee USX X25-02D Pad Sec.25-T2N-R65W
Shaklee USX X25-20D
Noble Shaklee USX X25-20D Plan #1 (4-19-11)
12:58, April 26 2011



Azimuths to True North
Magnetic North: 8.78°

Magnetic Field
Strength: 53009.8snT
Dip Angle: 66.85°
Date: 4/26/2011
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 2608'FNL, 1320'FWL	5800.0	-768.6	-668.5	40.109590	-104.616970	Point
TARGET CIRCLE 2608'FNL & 1320'FWL	6842.0	-768.6	-668.5	40.109590	-104.616970	Circle (Radius: 75.0)
HARD LINES 75'S OF BHL	7759.0	-843.6	-768.5	40.109384	-104.617327	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	1150.0	0.00	0.00	1150.0	0.0	0.0	0.00	0.00	0.0	
3	1878.9	14.58	221.02	1871.0	-69.6	-60.5	2.00	221.02	92.2	
4	5193.5	14.58	221.02	5079.0	-699.0	-608.0	0.00	0.00	926.5	
5	5922.4	0.00	0.00	5800.0	-768.6	-668.5	2.00	180.00	1018.7	TARGET BHL 2608'FNL, 1320'FWL
6	7881.4	0.00	0.00	7759.0	-768.6	-668.5	0.00	0.00	1018.7	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.25-T2N-R65W

Shaklee USX X25-02D Pad Sec.25-T2N-R65W

Shaklee USX X25-20D

Wellbore #1

Plan: Noble Shaklee USX X25-20D Plan #1 (4-19-11)

Standard Planning Report

26 April, 2011



Database:	Landmark	Local Co-ordinate Reference:	Well Shaklee USX X25-20D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4917.0ft (Original Well Elev)
Project:	SEC.25-T2N-R65W	MD Reference:	WELL @ 4917.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	North Reference:	True
Well:	Shaklee USX X25-20D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Shaklee USX X25-20D Plan #1 (4-19-11)		

Project	SEC.25-T2N-R65W, Weld County, Colorado,		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site						Shaklee USX X25-02D Pad Sec.25-T2N-R65W											
Site Position:						Northing:			1,284,773.06 ft			Latitude:			40.111700		
From:			Lat/Long			Easting:			3,247,665.57 ft			Longitude:			-104.614500		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.57 °		

Well	Shaklee USX X25-20D					
Well Position	+N/-S	0.0 ft	Northing:	1,284,772.82 ft	Latitude:	40.111700
	+E/-W	-22.4 ft	Easting:	3,247,643.19 ft	Longitude:	-104.614580
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,904.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/26/2011	8.78	66.85	53,010

Design	Noble Shaklee USX X25-20D Plan #1 (4-19-11)			
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	221.02

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	
1,150.0	0.00	0.00	1,150.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,878.9	14.58	221.02	1,871.0	-69.6	-60.5	2.00	2.00	0.00	221.02	
5,193.5	14.58	221.02	5,079.0	-699.0	-608.0	0.00	0.00	0.00	0.00	
5,922.4	0.00	0.00	5,800.0	-768.6	-668.5	2.00	-2.00	0.00	180.00	TARGET BHL 2606
7,881.4	0.00	0.00	7,759.0	-768.6	-668.5	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Shaklee USX X25-20D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4917.0ft (Original Well Elev)
Project:	SEC.25-T2N-R65W	MD Reference:	WELL @ 4917.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	North Reference:	True
Well:	Shaklee USX X25-20D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Shaklee USX X25-20D Plan #1 (4-19-11)		

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
850.0	0.00	0.00	850.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
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
1,150.0	0.00	0.00	1,150.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.20	221.02	1,160.0	0.0	0.0	0.0	2.00	2.00	0.00
1,200.0	1.00	221.02	1,200.0	-0.3	-0.3	0.4	2.00	2.00	0.00
1,240.0	1.80	221.02	1,240.0	-1.1	-0.9	1.4	2.00	2.00	0.00
1,280.0	2.60	221.02	1,280.0	-2.2	-1.9	2.9	2.00	2.00	0.00
1,320.0	3.40	221.02	1,319.9	-3.8	-3.3	5.0	2.00	2.00	0.00
1,360.0	4.20	221.02	1,359.8	-5.8	-5.0	7.7	2.00	2.00	0.00
1,400.0	5.00	221.02	1,399.7	-8.2	-7.2	10.9	2.00	2.00	0.00
1,440.0	5.80	221.02	1,439.5	-11.1	-9.6	14.7	2.00	2.00	0.00
1,480.0	6.60	221.02	1,479.3	-14.3	-12.5	19.0	2.00	2.00	0.00
1,520.0	7.40	221.02	1,519.0	-18.0	-15.7	23.9	2.00	2.00	0.00
1,560.0	8.20	221.02	1,558.6	-22.1	-19.2	29.3	2.00	2.00	0.00
1,600.0	9.00	221.02	1,598.2	-26.6	-23.1	35.3	2.00	2.00	0.00
1,640.0	9.80	221.02	1,637.6	-31.5	-27.4	41.8	2.00	2.00	0.00
1,680.0	10.60	221.02	1,677.0	-36.9	-32.1	48.9	2.00	2.00	0.00
1,720.0	11.40	221.02	1,716.2	-42.6	-37.1	56.5	2.00	2.00	0.00
1,760.0	12.20	221.02	1,755.4	-48.8	-42.5	64.7	2.00	2.00	0.00
1,800.0	13.00	221.02	1,794.4	-55.4	-48.2	73.4	2.00	2.00	0.00
1,840.0	13.80	221.02	1,833.3	-62.4	-54.3	82.7	2.00	2.00	0.00
1,878.9	14.58	221.02	1,871.0	-69.6	-60.5	92.2	2.00	2.00	0.00
1,880.0	14.58	221.02	1,872.1	-69.8	-60.7	92.5	0.00	0.00	0.00
1,920.0	14.58	221.02	1,910.8	-77.4	-67.3	102.6	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Shaklee USX X25-20D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4917.0ft (Original Well Elev)
Project:	SEC.25-T2N-R65W	MD Reference:	WELL @ 4917.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	North Reference:	True
Well:	Shaklee USX X25-20D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Shaklee USX X25-20D Plan #1 (4-19-11)		

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)
1,960.0	14.58	221.02	1,949.6	-85.0	-73.9	112.6	0.00	0.00	0.00
2,000.0	14.58	221.02	1,988.3	-92.6	-80.5	122.7	0.00	0.00	0.00
2,040.0	14.58	221.02	2,027.0	-100.2	-87.1	132.8	0.00	0.00	0.00
2,080.0	14.58	221.02	2,065.7	-107.8	-93.7	142.8	0.00	0.00	0.00
2,120.0	14.58	221.02	2,104.4	-115.4	-100.3	152.9	0.00	0.00	0.00
2,160.0	14.58	221.02	2,143.1	-123.0	-107.0	163.0	0.00	0.00	0.00
2,200.0	14.58	221.02	2,181.8	-130.6	-113.6	173.0	0.00	0.00	0.00
2,240.0	14.58	221.02	2,220.5	-138.2	-120.2	183.1	0.00	0.00	0.00
2,280.0	14.58	221.02	2,259.2	-145.8	-126.8	193.2	0.00	0.00	0.00
2,320.0	14.58	221.02	2,298.0	-153.4	-133.4	203.2	0.00	0.00	0.00
2,360.0	14.58	221.02	2,336.7	-161.0	-140.0	213.3	0.00	0.00	0.00
2,400.0	14.58	221.02	2,375.4	-168.5	-146.6	223.4	0.00	0.00	0.00
2,440.0	14.58	221.02	2,414.1	-176.1	-153.2	233.4	0.00	0.00	0.00
2,480.0	14.58	221.02	2,452.8	-183.7	-159.8	243.5	0.00	0.00	0.00
2,520.0	14.58	221.02	2,491.5	-191.3	-166.4	253.6	0.00	0.00	0.00
2,560.0	14.58	221.02	2,530.2	-198.9	-173.0	263.7	0.00	0.00	0.00
2,600.0	14.58	221.02	2,568.9	-206.5	-179.6	273.7	0.00	0.00	0.00
2,640.0	14.58	221.02	2,607.7	-214.1	-186.2	283.8	0.00	0.00	0.00
2,680.0	14.58	221.02	2,646.4	-221.7	-192.8	293.9	0.00	0.00	0.00
2,720.0	14.58	221.02	2,685.1	-229.3	-199.5	303.9	0.00	0.00	0.00
2,760.0	14.58	221.02	2,723.8	-236.9	-206.1	314.0	0.00	0.00	0.00
2,800.0	14.58	221.02	2,762.5	-244.5	-212.7	324.1	0.00	0.00	0.00
2,840.0	14.58	221.02	2,801.2	-252.1	-219.3	334.1	0.00	0.00	0.00
2,880.0	14.58	221.02	2,839.9	-259.7	-225.9	344.2	0.00	0.00	0.00
2,920.0	14.58	221.02	2,878.6	-267.3	-232.5	354.3	0.00	0.00	0.00
2,960.0	14.58	221.02	2,917.4	-274.9	-239.1	364.3	0.00	0.00	0.00
3,000.0	14.58	221.02	2,956.1	-282.5	-245.7	374.4	0.00	0.00	0.00
3,040.0	14.58	221.02	2,994.8	-290.1	-252.3	384.5	0.00	0.00	0.00
3,080.0	14.58	221.02	3,033.5	-297.7	-258.9	394.5	0.00	0.00	0.00
3,120.0	14.58	221.02	3,072.2	-305.3	-265.5	404.6	0.00	0.00	0.00
3,160.0	14.58	221.02	3,110.9	-312.9	-272.1	414.7	0.00	0.00	0.00
3,200.0	14.58	221.02	3,149.6	-320.5	-278.7	424.7	0.00	0.00	0.00
3,240.0	14.58	221.02	3,188.3	-328.1	-285.3	434.8	0.00	0.00	0.00
3,280.0	14.58	221.02	3,227.1	-335.7	-291.9	444.9	0.00	0.00	0.00
3,320.0	14.58	221.02	3,265.8	-343.3	-298.6	454.9	0.00	0.00	0.00
3,360.0	14.58	221.02	3,304.5	-350.9	-305.2	465.0	0.00	0.00	0.00
3,400.0	14.58	221.02	3,343.2	-358.5	-311.8	475.1	0.00	0.00	0.00
3,440.0	14.58	221.02	3,381.9	-366.0	-318.4	485.1	0.00	0.00	0.00
3,480.0	14.58	221.02	3,420.6	-373.6	-325.0	495.2	0.00	0.00	0.00
3,520.0	14.58	221.02	3,459.3	-381.2	-331.6	505.3	0.00	0.00	0.00
3,560.0	14.58	221.02	3,498.0	-388.8	-338.2	515.3	0.00	0.00	0.00
3,600.0	14.58	221.02	3,536.8	-396.4	-344.8	525.4	0.00	0.00	0.00
3,640.0	14.58	221.02	3,575.5	-404.0	-351.4	535.5	0.00	0.00	0.00
3,680.0	14.58	221.02	3,614.2	-411.6	-358.0	545.5	0.00	0.00	0.00
3,720.0	14.58	221.02	3,652.9	-419.2	-364.6	555.6	0.00	0.00	0.00
3,760.0	14.58	221.02	3,691.6	-426.8	-371.2	565.7	0.00	0.00	0.00
3,800.0	14.58	221.02	3,730.3	-434.4	-377.8	575.7	0.00	0.00	0.00
3,840.0	14.58	221.02	3,769.0	-442.0	-384.4	585.8	0.00	0.00	0.00
3,880.0	14.58	221.02	3,807.7	-449.6	-391.0	595.9	0.00	0.00	0.00
3,920.0	14.58	221.02	3,846.5	-457.2	-397.7	605.9	0.00	0.00	0.00
3,960.0	14.58	221.02	3,885.2	-464.8	-404.3	616.0	0.00	0.00	0.00
4,000.0	14.58	221.02	3,923.9	-472.4	-410.9	626.1	0.00	0.00	0.00
4,040.0	14.58	221.02	3,962.6	-480.0	-417.5	636.1	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Shaklee USX X25-20D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4917.0ft (Original Well Elev)
Project:	SEC.25-T2N-R65W	MD Reference:	WELL @ 4917.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	North Reference:	True
Well:	Shaklee USX X25-20D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Shaklee USX X25-20D Plan #1 (4-19-11)		

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)
4,080.0	14.58	221.02	4,001.3	-487.6	-424.1	646.2	0.00	0.00	0.00
4,120.0	14.58	221.02	4,040.0	-495.2	-430.7	656.3	0.00	0.00	0.00
4,160.0	14.58	221.02	4,078.7	-502.8	-437.3	666.3	0.00	0.00	0.00
4,200.0	14.58	221.02	4,117.4	-510.4	-443.9	676.4	0.00	0.00	0.00
4,240.0	14.58	221.02	4,156.2	-518.0	-450.5	686.5	0.00	0.00	0.00
4,280.0	14.58	221.02	4,194.9	-525.6	-457.1	696.5	0.00	0.00	0.00
4,320.0	14.58	221.02	4,233.6	-533.2	-463.7	706.6	0.00	0.00	0.00
4,360.0	14.58	221.02	4,272.3	-540.8	-470.3	716.7	0.00	0.00	0.00
4,400.0	14.58	221.02	4,311.0	-548.4	-476.9	726.7	0.00	0.00	0.00
4,440.0	14.58	221.02	4,349.7	-556.0	-483.5	736.8	0.00	0.00	0.00
4,480.0	14.58	221.02	4,388.4	-563.5	-490.1	746.9	0.00	0.00	0.00
4,520.0	14.58	221.02	4,427.1	-571.1	-496.8	756.9	0.00	0.00	0.00
4,560.0	14.58	221.02	4,465.9	-578.7	-503.4	767.0	0.00	0.00	0.00
4,600.0	14.58	221.02	4,504.6	-586.3	-510.0	777.1	0.00	0.00	0.00
4,640.0	14.58	221.02	4,543.3	-593.9	-516.6	787.2	0.00	0.00	0.00
4,680.0	14.58	221.02	4,582.0	-601.5	-523.2	797.2	0.00	0.00	0.00
4,720.0	14.58	221.02	4,620.7	-609.1	-529.8	807.3	0.00	0.00	0.00
4,760.0	14.58	221.02	4,659.4	-616.7	-536.4	817.4	0.00	0.00	0.00
4,800.0	14.58	221.02	4,698.1	-624.3	-543.0	827.4	0.00	0.00	0.00
4,840.0	14.58	221.02	4,736.8	-631.9	-549.6	837.5	0.00	0.00	0.00
4,880.0	14.58	221.02	4,775.6	-639.5	-556.2	847.6	0.00	0.00	0.00
4,920.0	14.58	221.02	4,814.3	-647.1	-562.8	857.6	0.00	0.00	0.00
4,960.0	14.58	221.02	4,853.0	-654.7	-569.4	867.7	0.00	0.00	0.00
5,000.0	14.58	221.02	4,891.7	-662.3	-576.0	877.8	0.00	0.00	0.00
5,040.0	14.58	221.02	4,930.4	-669.9	-582.6	887.8	0.00	0.00	0.00
5,080.0	14.58	221.02	4,969.1	-677.5	-589.3	897.9	0.00	0.00	0.00
5,120.0	14.58	221.02	5,007.8	-685.1	-595.9	908.0	0.00	0.00	0.00
5,160.0	14.58	221.02	5,046.5	-692.7	-602.5	918.0	0.00	0.00	0.00
5,193.5	14.58	221.02	5,079.0	-699.0	-608.0	926.5	0.00	0.00	0.00
5,200.0	14.45	221.02	5,085.3	-700.3	-609.1	928.1	2.00	-2.00	0.00
5,240.0	13.65	221.02	5,124.1	-707.6	-615.4	937.8	2.00	-2.00	0.00
5,280.0	12.85	221.02	5,163.0	-714.5	-621.5	947.0	2.00	-2.00	0.00
5,320.0	12.05	221.02	5,202.1	-721.0	-627.1	955.6	2.00	-2.00	0.00
5,360.0	11.25	221.02	5,241.2	-727.1	-632.4	963.7	2.00	-2.00	0.00
5,400.0	10.45	221.02	5,280.5	-732.8	-637.4	971.2	2.00	-2.00	0.00
5,440.0	9.65	221.02	5,319.9	-738.1	-641.9	978.2	2.00	-2.00	0.00
5,480.0	8.85	221.02	5,359.4	-742.9	-646.1	984.6	2.00	-2.00	0.00
5,520.0	8.05	221.02	5,398.9	-747.3	-650.0	990.5	2.00	-2.00	0.00
5,560.0	7.25	221.02	5,438.6	-751.4	-653.5	995.8	2.00	-2.00	0.00
5,600.0	6.45	221.02	5,478.3	-755.0	-656.6	1,000.6	2.00	-2.00	0.00
5,640.0	5.65	221.02	5,518.1	-758.1	-659.4	1,004.8	2.00	-2.00	0.00
5,680.0	4.85	221.02	5,557.9	-760.9	-661.8	1,008.4	2.00	-2.00	0.00
5,720.0	4.05	221.02	5,597.8	-763.2	-663.8	1,011.5	2.00	-2.00	0.00
5,760.0	3.25	221.02	5,637.7	-765.2	-665.5	1,014.1	2.00	-2.00	0.00
5,800.0	2.45	221.02	5,677.7	-766.7	-666.8	1,016.1	2.00	-2.00	0.00
5,840.0	1.65	221.02	5,717.6	-767.7	-667.7	1,017.5	2.00	-2.00	0.00
5,880.0	0.85	221.02	5,757.6	-768.4	-668.3	1,018.4	2.00	-2.00	0.00
5,920.0	0.05	221.02	5,797.6	-768.6	-668.5	1,018.7	2.00	-2.00	0.00
5,922.4	0.00	0.00	5,800.0	-768.6	-668.5	1,018.7	2.00	-2.00	5,851.79
TARGET BHL 2608'FNL, 1320'FWL									
5,960.0	0.00	0.00	5,837.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,877.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00
6,040.0	0.00	0.00	5,917.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Shaklee USX X25-20D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4917.0ft (Original Well Elev)
Project:	SEC.25-T2N-R65W	MD Reference:	WELL @ 4917.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	North Reference:	True
Well:	Shaklee USX X25-20D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Shaklee USX X25-20D Plan #1 (4-19-11)		

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)	
6,080.0	0.00	0.00	5,957.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,120.0	0.00	0.00	5,997.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,160.0	0.00	0.00	6,037.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,077.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,240.0	0.00	0.00	6,117.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,280.0	0.00	0.00	6,157.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,320.0	0.00	0.00	6,197.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,360.0	0.00	0.00	6,237.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,277.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,440.0	0.00	0.00	6,317.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,480.0	0.00	0.00	6,357.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,520.0	0.00	0.00	6,397.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,560.0	0.00	0.00	6,437.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,477.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,640.0	0.00	0.00	6,517.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,680.0	0.00	0.00	6,557.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,720.0	0.00	0.00	6,597.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,760.0	0.00	0.00	6,637.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,677.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,840.0	0.00	0.00	6,717.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,880.0	0.00	0.00	6,757.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,920.0	0.00	0.00	6,797.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,960.0	0.00	0.00	6,837.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
6,964.4	0.00	0.00	6,842.0	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
NIORARA - TARGET CIRCLE 2608'FNL & 1320'FWL										
7,000.0	0.00	0.00	6,877.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,040.0	0.00	0.00	6,917.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,080.0	0.00	0.00	6,957.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,120.0	0.00	0.00	6,997.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,160.0	0.00	0.00	7,037.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,077.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,240.0	0.00	0.00	7,117.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,280.0	0.00	0.00	7,157.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,286.4	0.00	0.00	7,164.0	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
CODELL										
7,320.0	0.00	0.00	7,197.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,360.0	0.00	0.00	7,237.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,277.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,440.0	0.00	0.00	7,317.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,480.0	0.00	0.00	7,357.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,520.0	0.00	0.00	7,397.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,560.0	0.00	0.00	7,437.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,477.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,640.0	0.00	0.00	7,517.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,673.4	0.00	0.00	7,551.0	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
D-SAND										
7,680.0	0.00	0.00	7,557.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,720.0	0.00	0.00	7,597.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,731.4	0.00	0.00	7,609.0	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
J-SAND										
7,760.0	0.00	0.00	7,637.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,677.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Shaklee USX X25-20D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4917.0ft (Original Well Elev)
Project:	SEC.25-T2N-R65W	MD Reference:	WELL @ 4917.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	North Reference:	True
Well:	Shaklee USX X25-20D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Shaklee USX X25-20D Plan #1 (4-19-11)		

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)
7,840.0	0.00	0.00	7,717.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00
7,880.0	0.00	0.00	7,757.6	-768.6	-668.5	1,018.7	0.00	0.00	0.00
7,881.4	0.00	0.00	7,759.0	-768.6	-668.5	1,018.7	0.00	0.00	0.00
HARD LINES 75'S OF BHL									

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
TARGET CIRCLE 26C - plan hits target center - Circle (radius 75.0)	0.00	0.00	6,842.0	-768.6	-668.5	1,283,997.59	3,246,982.41	40.109590	-104.616970
TARGET BHL 2608'F - plan hits target center - Point	0.00	0.00	5,800.0	-768.6	-668.5	1,283,997.59	3,246,982.41	40.109590	-104.616970
HARD LINES 75'S OF - plan misses target center by 125.0ft at 7881.4ft MD (7759.0 TVD, -768.6 N, -668.5 E) - Polygon	0.00	0.00	7,759.0	-843.6	-768.5	1,283,921.63	3,246,883.18	40.109384	-104.617327
Point 1			7,759.0	0.0	0.0	1,283,921.63	3,246,883.18		
Point 2			7,759.0	0.0	200.0	1,283,923.63	3,247,083.17		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
850.0	850.0	8 5/8"	8-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,964.4	6,842.0	NIOBRARA		0.00	
7,286.4	7,164.0	CODELL		0.00	
7,673.4	7,551.0	D-SAND		0.00	
7,731.4	7,609.0	J-SAND		0.00	