

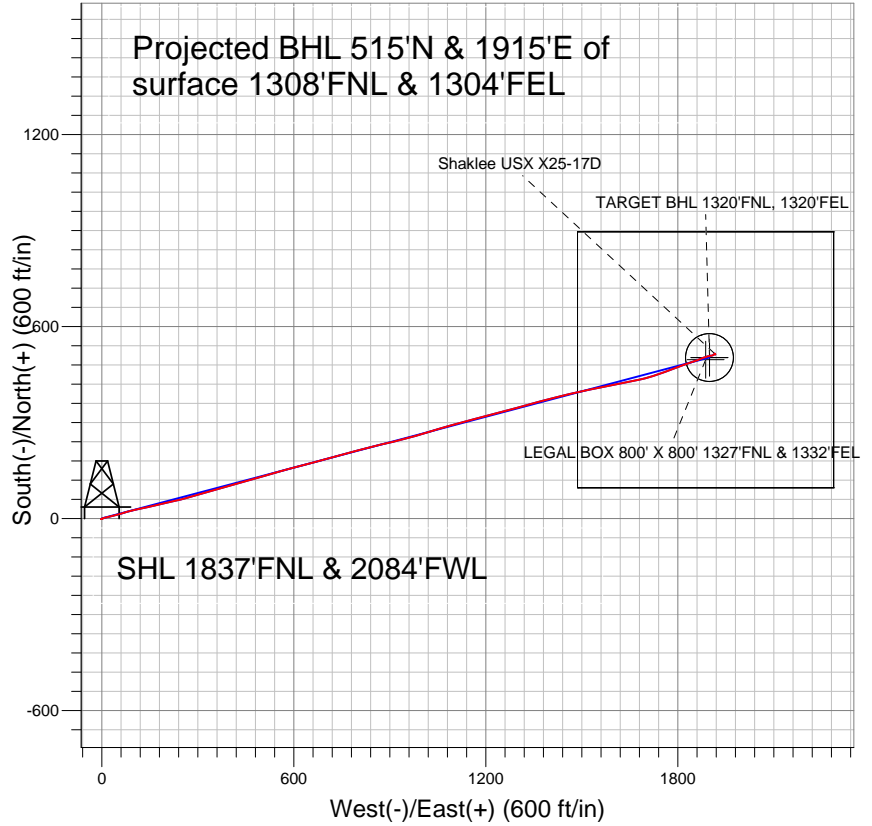
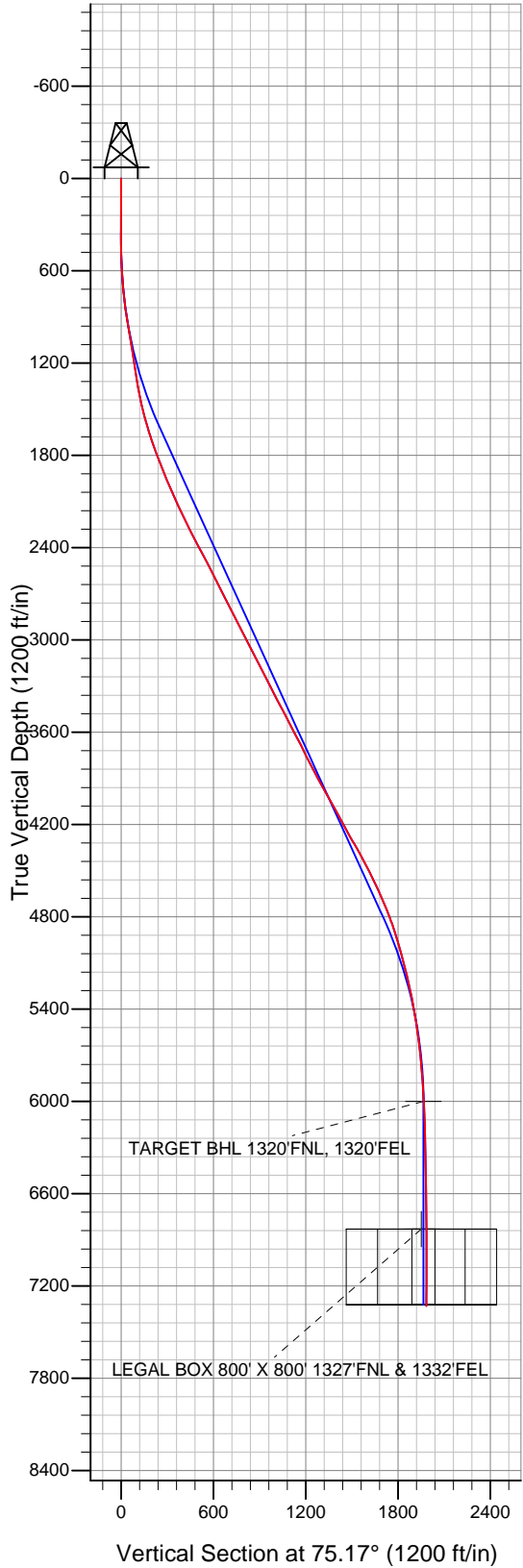
Well Name: **Shaklee USX X25-17D**

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

Ground Elevation: 4903.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1284773.71	3247732.69	40.111700	-104.614260	
		Original Well Elev WELL @ 4916.0ft (Original Well Elev)				

NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Wellbore #1
- Survey #1
- Shaklee USX X25-17D, Wellbore #1, Noble Shaklee USX X25-17D Plan #2 (7-22-11) V0

Final Survey Plot

Projected Final Survey -
 7743'MD & 7331'TVD @ 1983'VS
 1.1 deg Inc 317.1 deg AZ

Project: SEC.25-T2N-R65W
 Site: Shaklee USX X25-02D Pad Sec.25-T2N-R65W
 Well: Shaklee USX X25-17D
 Plan: Wellbore #1



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.25-T2N-R65W

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

Shaklee USX X25-17D

Wellbore #1

Survey: Survey #1

Standard Survey Report

16 November, 2011



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Shaklee USX X25-17D
Project:	SEC.25-T2N-R65W	TVD Reference:	WELL @ 4916.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	MD Reference:	WELL @ 4916.0ft (Original Well Elev)
Well:	Shaklee USX X25-17D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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:	1,284,773.06ft	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 X25-17D					
Well Position	+N/-S	0.0 ft	Northing:	1,284,773.71 ft	Latitude:	40.111700
	+E/-W	0.0 ft	Easting:	3,247,732.69 ft	Longitude:	-104.614260
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,903.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/22/2011	8.74	66.84	52,985

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:		Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
		0.0	0.0	0.0	75.17

Survey Program	Date	11/16/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
135.0	7,743.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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	
135.0	1.00	198.10	135.0	-1.1	-0.4	-0.6	0.74	0.74	0.00	
259.0	0.40	267.50	259.0	-2.2	-1.1	-1.7	0.76	-0.48	55.97	
382.0	0.20	83.00	382.0	-2.2	-1.4	-1.9	0.49	-0.16	142.68	
475.0	1.60	65.70	475.0	-1.6	0.0	-0.4	1.52	1.51	-18.60	
567.0	2.80	65.70	566.9	-0.2	3.2	3.1	1.30	1.30	0.00	
659.0	4.20	75.60	658.7	1.6	8.5	8.7	1.65	1.52	10.76	
751.0	5.40	74.30	750.4	3.6	16.0	16.4	1.31	1.30	-1.41	
823.0	6.90	75.80	822.0	5.6	23.4	24.1	2.10	2.08	2.08	
905.0	9.00	77.20	903.2	8.2	34.4	35.4	2.57	2.56	1.71	
966.0	10.30	75.20	963.3	10.7	44.4	45.6	2.20	2.13	-3.28	
1,068.0	9.50	74.50	1,063.8	15.3	61.3	63.2	0.79	-0.78	-0.69	
1,149.0	7.90	71.70	1,143.9	18.8	73.0	75.4	2.04	-1.98	-3.46	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Shaklee USX X25-17D
Project:	SEC.25-T2N-R65W	TVD Reference:	WELL @ 4916.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	MD Reference:	WELL @ 4916.0ft (Original Well Elev)
Well:	Shaklee USX X25-17D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)	
1,231.0	8.10	76.00	1,225.1	22.0	84.0	86.8	0.77	0.24		5.24
1,313.0	9.80	74.50	1,306.1	25.2	96.3	99.6	2.09	2.07		-1.83
1,394.0	11.30	78.70	1,385.7	28.6	110.7	114.4	2.08	1.85		5.19
1,476.0	13.20	76.80	1,465.8	32.3	127.7	131.7	2.37	2.32		-2.32
1,558.0	14.80	77.70	1,545.4	36.7	147.1	151.6	1.97	1.95		1.10
1,640.0	16.40	77.90	1,624.4	41.4	168.6	173.6	1.95	1.95		0.24
1,721.0	18.60	77.30	1,701.6	46.6	192.4	197.9	2.73	2.72		-0.74
1,803.0	20.00	76.60	1,779.0	52.7	218.8	225.0	1.73	1.71		-0.85
1,885.0	21.60	76.50	1,855.7	59.5	247.1	254.1	1.95	1.95		-0.12
1,967.0	22.20	73.30	1,931.8	67.5	276.7	284.7	1.63	0.73		-3.90
2,048.0	23.00	75.40	2,006.5	75.9	306.6	315.8	1.40	0.99		2.59
2,130.0	24.20	74.70	2,081.7	84.3	338.3	348.7	1.50	1.46		-0.85
2,212.0	25.90	72.40	2,156.0	94.2	371.6	383.3	2.39	2.07		-2.80
2,293.0	26.40	74.00	2,228.7	104.5	405.8	419.0	1.07	0.62		1.98
2,375.0	26.90	74.00	2,302.0	114.6	441.2	455.8	0.61	0.61		0.00
2,457.0	27.70	74.70	2,374.8	124.8	477.4	493.4	1.05	0.98		0.85
2,539.0	27.90	74.50	2,447.4	134.9	514.2	531.6	0.27	0.24		-0.24
2,620.0	27.70	74.30	2,519.0	145.1	550.6	569.4	0.27	-0.25		-0.25
2,702.0	26.80	73.60	2,591.9	155.5	586.7	607.0	1.17	-1.10		-0.85
2,784.0	26.40	75.40	2,665.2	165.3	622.1	643.7	1.10	-0.49		2.20
2,865.0	26.00	77.00	2,737.9	173.8	656.8	679.4	1.00	-0.49		1.98
2,947.0	27.00	74.90	2,811.3	182.7	692.3	716.0	1.67	1.22		-2.56
3,029.0	27.20	74.00	2,884.3	192.7	728.3	753.3	0.56	0.24		-1.10
3,111.0	28.50	74.90	2,956.8	203.0	765.2	791.6	1.67	1.59		1.10
3,192.0	26.70	74.90	3,028.6	212.8	801.4	829.2	2.22	-2.22		0.00
3,274.0	26.60	75.00	3,101.9	222.3	836.9	866.0	0.13	-0.12		0.12
3,356.0	27.70	77.50	3,174.8	231.2	873.3	903.4	1.93	1.34		3.05
3,437.0	26.90	76.60	3,246.8	239.5	909.5	940.5	1.11	-0.99		-1.11
3,519.0	27.30	75.20	3,319.8	248.6	945.7	977.8	0.92	0.49		-1.71
3,601.0	27.20	74.00	3,392.7	258.6	981.9	1,015.4	0.68	-0.12		-1.46
3,683.0	27.90	73.10	3,465.4	269.3	1,018.3	1,053.3	0.99	0.85		-1.10
3,764.0	27.50	73.20	3,537.1	280.2	1,054.3	1,090.9	0.50	-0.49		0.12
3,846.0	27.70	74.90	3,609.8	290.7	1,090.8	1,128.9	0.99	0.24		2.07
3,928.0	27.40	75.80	3,682.5	300.3	1,127.5	1,166.8	0.63	-0.37		1.10
4,010.0	26.80	73.60	3,755.5	310.1	1,163.6	1,204.2	1.42	-0.73		-2.68
4,091.0	27.10	75.40	3,827.7	319.9	1,198.9	1,240.9	1.07	0.37		2.22
4,173.0	27.30	75.30	3,900.6	329.4	1,235.2	1,278.4	0.25	0.24		-0.12
4,255.0	29.00	75.90	3,972.9	339.0	1,272.7	1,317.0	2.10	2.07		0.73
4,336.0	30.00	73.60	4,043.4	349.5	1,311.1	1,356.9	1.87	1.23		-2.84
4,418.0	29.90	74.90	4,114.5	360.6	1,350.5	1,397.8	0.80	-0.12		1.59
4,500.0	28.60	76.10	4,186.0	370.7	1,389.3	1,437.9	1.74	-1.59		1.46
4,582.0	28.00	75.40	4,258.2	380.2	1,427.0	1,476.8	0.84	-0.73		-0.85
4,663.0	30.00	76.90	4,329.1	389.6	1,465.1	1,516.0	2.63	2.47		1.85
4,745.0	29.20	78.60	4,400.4	398.2	1,504.7	1,556.5	1.41	-0.98		2.07
4,827.0	27.50	78.20	4,472.5	406.0	1,542.8	1,595.4	2.09	-2.07		-0.49
4,908.0	25.80	78.90	4,544.9	413.3	1,578.4	1,631.6	2.13	-2.10		0.86
4,990.0	24.60	78.40	4,619.1	420.1	1,612.7	1,666.5	1.49	-1.46		-0.61
5,072.0	24.30	78.70	4,693.8	426.9	1,645.9	1,700.4	0.40	-0.37		0.37
5,154.0	21.40	78.40	4,769.3	433.2	1,677.1	1,732.2	3.54	-3.54		-0.37
5,235.0	18.60	74.70	4,845.4	439.6	1,704.1	1,759.8	3.79	-3.46		-4.57
5,313.0	17.90	71.70	4,919.5	446.6	1,727.5	1,784.2	1.50	-0.90		-3.85
5,395.0	16.40	70.50	4,997.9	454.4	1,750.3	1,808.4	1.88	-1.83		-1.46
5,476.0	14.50	70.00	5,075.9	461.7	1,770.7	1,829.8	2.35	-2.35		-0.62
5,558.0	14.30	69.60	5,155.3	468.8	1,789.8	1,850.2	0.27	-0.24		-0.49

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Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	MD Reference:	WELL @ 4916.0ft (Original Well Elev)
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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
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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)	
5,640.0	12.90	69.80	5,235.0	475.5	1,807.9	1,869.3	1.71	-1.71	0.24	
5,721.0	11.10	69.20	5,314.3	481.3	1,823.6	1,886.1	2.23	-2.22	-0.74	
5,803.0	10.60	70.70	5,394.8	486.6	1,838.1	1,901.5	0.70	-0.61	1.83	
5,885.0	9.10	71.50	5,475.6	491.2	1,851.4	1,915.5	1.84	-1.83	0.98	
5,966.0	7.70	69.60	5,555.7	495.1	1,862.6	1,927.3	1.76	-1.73	-2.35	
6,048.0	6.50	68.40	5,637.1	498.7	1,872.0	1,937.3	1.47	-1.46	-1.46	
6,129.0	5.70	68.40	5,717.6	501.9	1,880.0	1,945.9	0.99	-0.99	0.00	
6,211.0	4.80	68.90	5,799.3	504.6	1,887.0	1,953.3	1.10	-1.10	0.61	
6,292.0	4.10	76.80	5,880.0	506.5	1,893.0	1,959.6	1.15	-0.86	9.75	
6,374.0	3.60	78.40	5,961.9	507.7	1,898.4	1,965.1	0.62	-0.61	1.95	
6,412.1	3.03	80.15	5,999.9	508.1	1,900.6	1,967.3	1.51	-1.49	4.59	
TARGET BHL 1320'FNL, 1320'FEL										
6,455.0	2.40	83.10	6,042.7	508.4	1,902.6	1,969.3	1.51	-1.48	6.88	
6,619.0	1.20	75.20	6,206.7	509.3	1,907.6	1,974.4	0.75	-0.73	-4.82	
6,782.0	1.00	54.60	6,369.6	510.5	1,910.4	1,977.5	0.27	-0.12	-12.64	
6,945.0	1.60	54.70	6,532.6	512.7	1,913.5	1,980.9	0.37	0.37	0.06	
7,108.0	0.60	87.70	6,695.6	514.0	1,916.2	1,983.9	0.70	-0.61	20.25	
7,243.3	0.29	144.91	6,830.9	513.8	1,917.1	1,984.7	0.37	-0.23	42.28	
LEGAL BOX 800' X 800' 1327'FNL & 1332'FEL										
7,243.5	0.29	144.91	6,831.0	513.8	1,917.1	1,984.7	0.00	0.00	0.00	
TARGET CIRCLE 1320'FNL & 1320'FEL										
7,272.0	0.30	165.80	6,859.6	513.6	1,917.1	1,984.7	0.38	0.04	73.17	
7,435.0	0.30	154.20	7,022.6	512.8	1,917.4	1,984.8	0.04	0.00	-7.12	
7,599.0	0.80	324.10	7,186.6	513.4	1,916.9	1,984.5	0.67	0.30	103.60	
7,693.0	1.10	317.10	7,280.5	514.6	1,915.9	1,983.8	0.34	0.32	-7.45	
7,743.0	1.10	317.10	7,330.5	515.3	1,915.3	1,983.4	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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