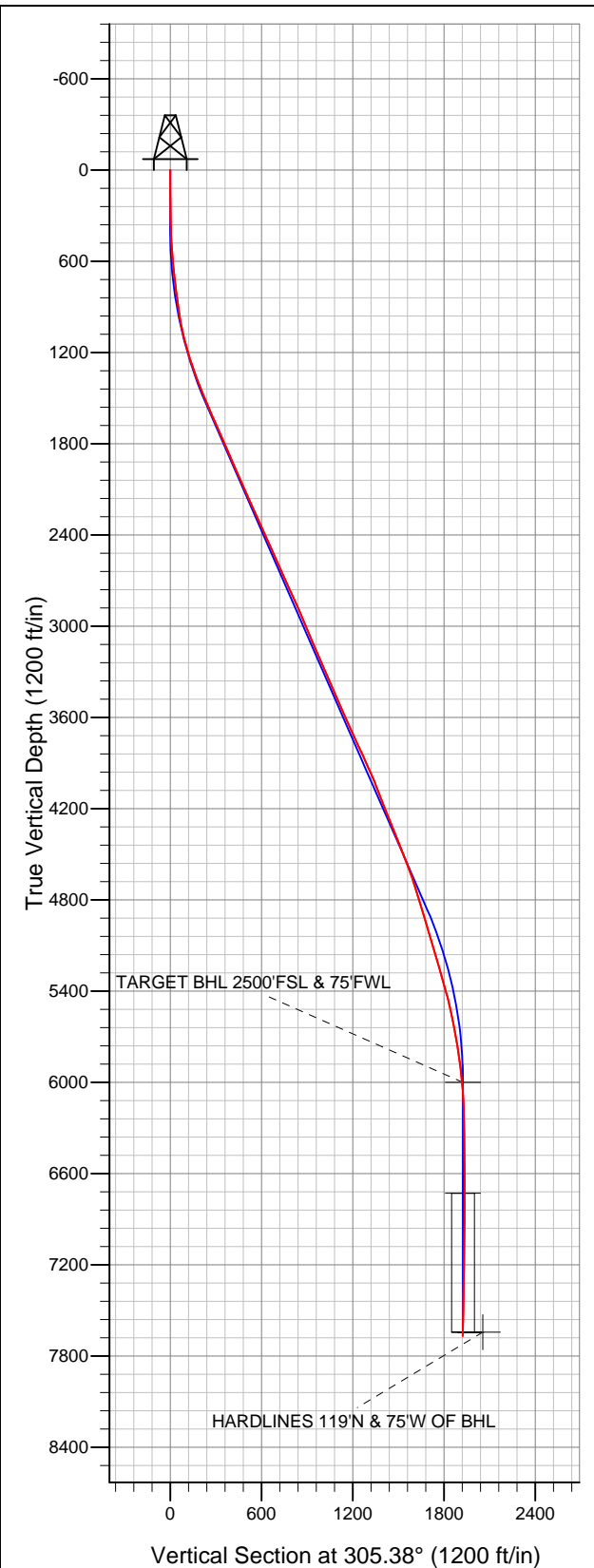


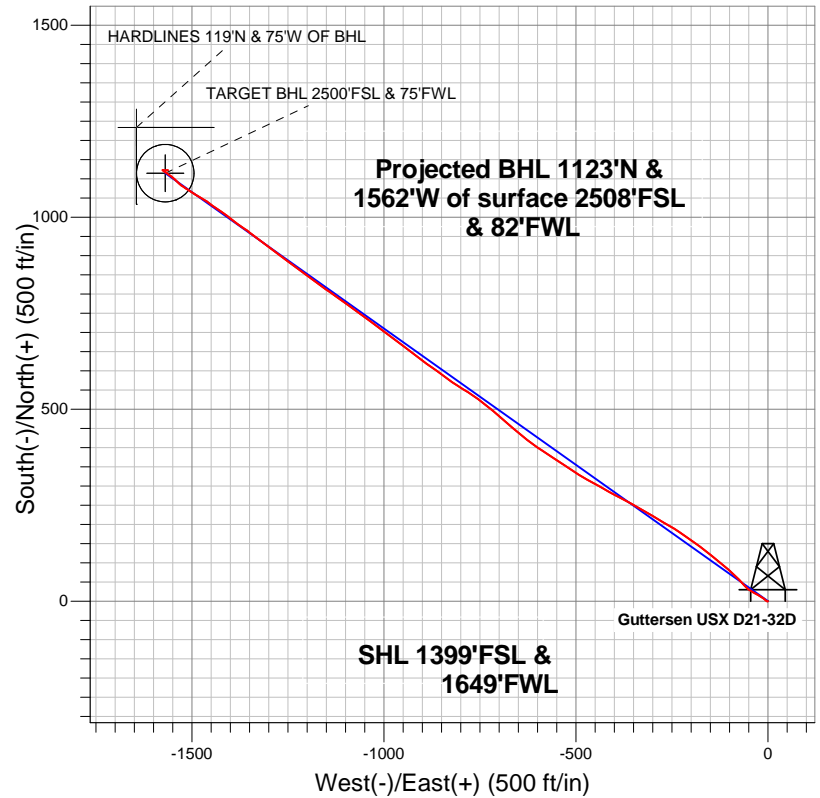
**Well Name: Gutteresen USX D21-32D**

Surface Location: Gutteresen USX D21-32D Pad Sec.21-T3N-R64W  
North American Datum 1983 US State Plane 1983Colorado Northern Zone  
Ground Elevation: 4820.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1319844.91	3262593.85	40.207550	-104.559800	
Original Well Elev			WELL @ 4833.0ft (Original Well Elev)			



**NOBLE ENERGY INC WELD COUNTY CO**



- LEGEND
- Wellbore #1
  - Gutteresen USX D21-32D, Wellbore #1, Noble Gutteresen USX D21-32D Plan #2 (1-24-12) V0
  - Survey #1

**Final Survey Plot**

Projected Final Survey -  
8025'MD & 7668'TVD @ 1924'VS  
1.00 deg Inc 86.40 deg AZ

Project: SEC.21-T3N-R64W  
Site: Gutteresen USX D21-32D Pad Sec.21-T3N-R64W  
Well: Gutteresen USX D21-32D  
Plan: Wellbore #1



# **NOBLE ENERGY INC WELD COUNTY CO**

**SEC.21-T3N-R64W**

**Guttersen USX D21-32D Pad Sec.21-T3N-R64W**

**Guttersen USX D21-32D**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**28 June, 2012**



<b>Company:</b>	NOBLE ENERGY INC WELD COUNTY CO	<b>Local Co-ordinate Reference:</b>	Well Guttersten USX D21-32D
<b>Project:</b>	SEC.21-T3N-R64W	<b>TVD Reference:</b>	WELL @ 4833.0ft (Original Well Elev)
<b>Site:</b>	Guttersten USX D21-32D Pad Sec.21-T3N-R64W	<b>MD Reference:</b>	WELL @ 4833.0ft (Original Well Elev)
<b>Well:</b>	Guttersten USX D21-32D	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.21-T3N-R64W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		Guttersen USX D21-32D Pad Sec.21-T3N-R64W			
Site Position:		Northing:	1,319,830.53ft	Latitude:	40.207510
From:	Lat/Long	Easting:	3,262,610.76ft	Longitude:	-104.559740
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.61 °

Well	Guttersten USX D21-32D					
Well Position	+N-S	0.0 ft	Northing:	1,319,844.91 ft	Latitude:	40.207550
	+E-W	0.0 ft	Easting:	3,262,593.85 ft	Longitude:	-104.559800
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,820.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	6/20/2012	8.60	66.89	52,945

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 (°)	
	6,000.0	0.0	0.0	305.38	

<b>Survey Program</b>	<b>Date</b>	6/28/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
111.0	8,025.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
111.0	0.50	264.20	111.0	0.0	-0.5	0.4	0.45	0.45	0.00	
205.0	0.90	262.30	205.0	-0.2	-1.6	1.2	0.43	0.43	-2.02	
297.0	0.90	301.50	297.0	0.1	-3.0	2.5	0.66	0.00	42.61	
389.0	1.80	303.90	389.0	1.3	-4.8	4.6	0.98	0.98	2.61	
481.0	3.30	310.80	480.9	3.8	-8.0	8.7	1.66	1.63	7.50	
572.0	4.60	308.10	571.6	7.8	-12.8	15.0	1.44	1.43	-2.97	
654.0	6.10	304.60	653.3	12.3	-19.0	22.6	1.87	1.83	-4.27	
750.0	6.70	297.20	748.7	17.7	-28.2	33.2	1.06	0.63	-7.71	
835.0	7.30	299.70	833.1	22.7	-37.3	43.5	0.79	0.71	2.94	
916.0	8.40	302.00	913.3	28.4	-46.8	54.6	1.41	1.36	2.84	
998.0	10.10	313.80	994.2	36.5	-57.0	67.6	3.10	2.07	14.39	

<b>Company:</b>	NOBLE ENERGY INC WELD COUNTY CO	<b>Local Co-ordinate Reference:</b>	Well Guttersen USX D21-32D
<b>Project:</b>	SEC.21-T3N-R64W	<b>TVD Reference:</b>	WELL @ 4833.0ft (Original Well Elev)
<b>Site:</b>	Guttersen USX D21-32D Pad Sec.21-T3N-R64W	<b>MD Reference:</b>	WELL @ 4833.0ft (Original Well Elev)
<b>Well:</b>	Guttersen USX D21-32D	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
1,080.0	13.30	319.40	1,074.5	48.7	-68.4	83.9	4.14	3.90	6.83
1,161.0	15.50	313.20	1,153.0	63.1	-82.3	103.7	3.31	2.72	-7.65
1,243.0	17.70	311.80	1,231.6	79.0	-99.6	126.9	2.73	2.68	-1.71
1,325.0	19.30	309.70	1,309.3	95.9	-119.3	152.8	2.11	1.95	-2.56
1,406.0	21.10	309.50	1,385.3	113.7	-140.9	180.7	2.22	2.22	-0.25
1,488.0	21.90	307.60	1,461.6	132.5	-164.4	210.7	1.29	0.98	-2.32
1,570.0	23.40	305.70	1,537.3	151.3	-189.7	242.3	2.04	1.83	-2.32
1,652.0	24.00	305.10	1,612.4	170.4	-216.6	275.3	0.79	0.73	-0.73
1,733.0	23.70	301.80	1,686.5	188.4	-243.9	308.0	1.69	-0.37	-4.07
1,815.0	23.60	299.50	1,761.6	205.2	-272.2	340.7	1.13	-0.12	-2.80
1,897.0	24.00	301.30	1,836.6	222.0	-300.7	373.7	1.01	0.49	2.20
1,978.0	23.80	299.70	1,910.7	238.6	-329.0	406.4	0.84	-0.25	-1.98
2,060.0	23.40	299.50	1,985.8	254.8	-357.6	439.1	0.50	-0.49	-0.24
2,142.0	23.30	296.90	2,061.1	270.2	-386.2	471.3	1.26	-0.12	-3.17
2,223.0	24.20	299.90	2,135.2	285.7	-414.9	503.7	1.86	1.11	3.70
2,305.0	24.70	297.60	2,209.9	302.0	-444.6	537.4	1.31	0.61	-2.80
2,387.0	24.60	299.90	2,284.4	318.5	-474.6	571.3	1.18	-0.12	2.80
2,468.0	24.50	303.70	2,358.1	336.2	-503.2	604.9	1.95	-0.12	4.69
2,550.0	24.80	303.20	2,432.6	355.0	-531.7	639.1	0.45	0.37	-0.61
2,632.0	24.30	303.20	2,507.2	373.7	-560.2	673.1	0.61	-0.61	0.00
2,713.0	23.70	304.60	2,581.2	392.1	-587.6	706.1	1.02	-0.74	1.73
2,795.0	24.00	304.60	2,656.2	410.9	-614.9	739.2	0.37	0.37	0.00
2,877.0	25.00	310.90	2,730.8	431.7	-641.7	773.2	3.41	1.22	7.68
2,958.0	24.20	311.60	2,804.5	453.9	-667.1	806.7	1.05	-0.99	0.86
3,040.0	23.40	309.00	2,879.5	475.3	-692.3	839.7	1.61	-0.98	-3.17
3,122.0	23.70	310.40	2,954.7	496.3	-717.5	872.3	0.77	0.37	1.71
3,203.0	22.90	309.20	3,029.1	516.8	-742.1	904.3	1.15	-0.99	-1.48
3,285.0	23.00	302.90	3,104.6	535.6	-767.9	936.2	3.00	0.12	-7.68
3,367.0	23.90	301.80	3,179.8	553.0	-795.5	968.8	1.22	1.10	-1.34
3,448.0	23.10	304.60	3,254.1	570.7	-822.5	1,001.0	1.70	-0.99	3.46
3,530.0	22.90	307.10	3,329.6	589.5	-848.5	1,033.1	1.22	-0.24	3.05
3,612.0	24.00	304.10	3,404.8	608.4	-875.0	1,065.7	1.98	1.34	-3.66
3,694.0	24.00	308.00	3,479.7	628.1	-902.0	1,099.0	1.93	0.00	4.76
3,775.0	24.00	306.20	3,553.7	647.9	-928.2	1,132.0	0.90	0.00	-2.22
3,857.0	24.20	308.80	3,628.6	668.3	-954.8	1,165.4	1.32	0.24	3.17
3,939.0	23.70	305.80	3,703.5	688.5	-981.3	1,198.7	1.61	-0.61	-3.66
4,020.0	25.10	308.30	3,777.3	708.6	-1,007.9	1,232.1	2.15	1.73	3.09
4,102.0	25.10	305.00	3,851.6	729.4	-1,035.8	1,266.9	1.71	0.00	-4.02
4,184.0	24.20	305.70	3,926.1	749.2	-1,063.7	1,301.1	1.15	-1.10	0.85
4,265.0	23.00	305.80	4,000.3	768.1	-1,090.1	1,333.5	1.48	-1.48	0.12
4,347.0	20.70	306.50	4,076.4	786.1	-1,114.7	1,364.0	2.82	-2.80	0.85
4,429.0	22.30	303.90	4,152.7	803.4	-1,139.3	1,394.1	2.27	1.95	-3.17
4,510.0	21.30	308.10	4,227.9	821.1	-1,163.6	1,424.1	2.29	-1.23	5.19
4,592.0	21.20	305.10	4,304.3	838.8	-1,187.5	1,453.8	1.33	-0.12	-3.66
4,674.0	21.80	306.20	4,380.6	856.3	-1,211.9	1,483.9	0.88	0.73	1.34
4,755.0	22.30	308.70	4,455.7	874.8	-1,236.0	1,514.3	1.31	0.62	3.09
4,837.0	22.20	305.70	4,531.6	893.6	-1,260.7	1,545.3	1.39	-0.12	-3.66
4,919.0	19.90	306.40	4,608.1	910.9	-1,284.5	1,574.7	2.82	-2.80	0.85
5,000.0	17.90	306.00	4,684.8	926.4	-1,305.7	1,601.0	2.47	-2.47	-0.49
5,082.0	16.90	307.10	4,763.0	941.0	-1,325.4	1,625.5	1.28	-1.22	1.34
5,164.0	17.30	309.40	4,841.4	955.9	-1,344.3	1,649.6	0.96	0.49	2.80
5,245.0	16.00	303.60	4,919.0	969.7	-1,362.9	1,672.7	2.60	-1.60	-7.16
5,327.0	17.10	306.20	4,997.6	983.1	-1,382.1	1,696.1	1.62	1.34	3.17

<b>Company:</b>	NOBLE ENERGY INC WELD COUNTY CO	<b>Local Co-ordinate Reference:</b>	Well Guttersen USX D21-32D
<b>Project:</b>	SEC.21-T3N-R64W	<b>TVD Reference:</b>	WELL @ 4833.0ft (Original Well Elev)
<b>Site:</b>	Guttersen USX D21-32D Pad Sec.21-T3N-R64W	<b>MD Reference:</b>	WELL @ 4833.0ft (Original Well Elev)
<b>Well:</b>	Guttersen USX D21-32D	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
5,409.0	16.80	308.70	5,076.0	997.6	-1,401.1	1,720.0	0.96	-0.37	3.05
5,490.0	15.50	303.70	5,153.8	1,011.0	-1,419.2	1,742.5	2.35	-1.60	-6.17
5,572.0	15.70	305.10	5,232.8	1,023.4	-1,437.4	1,764.5	0.52	0.24	1.71
5,654.0	16.20	307.10	5,311.7	1,036.7	-1,455.6	1,787.0	0.91	0.61	2.44
5,736.0	15.80	299.90	5,390.5	1,049.2	-1,474.4	1,809.6	2.47	-0.49	-8.78
5,817.0	13.70	302.20	5,468.8	1,059.8	-1,492.1	1,830.2	2.69	-2.59	2.84
5,899.0	12.60	303.20	5,548.7	1,069.9	-1,507.8	1,848.8	1.37	-1.34	1.22
5,981.0	10.20	301.50	5,629.0	1,078.5	-1,521.5	1,865.0	2.96	-2.93	-2.07
6,062.0	10.40	312.40	5,708.7	1,087.2	-1,533.0	1,879.4	2.42	0.25	13.46
6,144.0	8.40	314.30	5,789.6	1,096.4	-1,542.7	1,892.6	2.47	-2.44	2.32
6,226.0	8.10	308.10	5,870.8	1,104.2	-1,551.6	1,904.3	1.14	-0.37	-7.56
6,307.0	6.20	305.80	5,951.2	1,110.2	-1,559.6	1,914.4	2.37	-2.35	-2.84
6,356.6	5.29	306.98	6,000.6	1,113.2	-1,563.6	1,919.4	1.85	-1.83	2.38
TARGET BHL 2500'FSL & 75'FWL									
6,389.0	4.70	308.00	6,032.8	1,114.9	-1,565.8	1,922.2	1.85	-1.83	3.14
6,471.0	3.20	300.40	6,114.6	1,118.1	-1,570.5	1,927.8	1.93	-1.83	-9.27
6,552.0	1.60	312.00	6,195.5	1,120.0	-1,573.2	1,931.2	2.05	-1.98	14.32
6,634.0	0.90	315.70	6,277.5	1,121.2	-1,574.6	1,933.0	0.86	-0.85	4.51
6,716.0	0.70	314.80	6,359.5	1,122.1	-1,575.4	1,934.1	0.24	-0.24	-1.10
6,797.0	0.40	318.90	6,440.5	1,122.6	-1,575.9	1,934.9	0.37	-0.37	5.06
6,879.0	0.30	290.20	6,522.5	1,122.9	-1,576.3	1,935.4	0.24	-0.12	-35.00
6,961.0	0.10	257.90	6,604.5	1,123.0	-1,576.6	1,935.6	0.27	-0.24	-39.39
7,042.0	0.20	28.10	6,685.5	1,123.1	-1,576.6	1,935.7	0.34	0.12	160.74
7,084.5	0.16	99.43	6,728.0	1,123.1	-1,576.5	1,935.6	0.50	-0.10	167.69
TARGET CIRCLE 2500'FSL & 75'FWL									
7,124.0	0.30	135.30	6,767.5	1,123.1	-1,576.3	1,935.5	0.50	0.36	90.90
7,206.0	0.40	129.40	6,849.5	1,122.7	-1,576.0	1,935.0	0.13	0.12	-7.20
7,287.0	0.40	74.30	6,930.5	1,122.6	-1,575.5	1,934.5	0.46	0.00	-68.02
7,369.0	0.40	124.40	7,012.5	1,122.5	-1,575.0	1,934.1	0.41	0.00	61.10
7,451.0	0.40	105.80	7,094.5	1,122.3	-1,574.5	1,933.5	0.16	0.00	-22.68
7,532.0	0.60	113.70	7,175.5	1,122.0	-1,573.8	1,932.8	0.26	0.25	9.75
7,614.0	1.10	92.30	7,257.5	1,121.8	-1,572.6	1,931.7	0.71	0.61	-26.10
7,696.0	1.60	83.70	7,339.4	1,121.9	-1,570.7	1,930.2	0.66	0.61	-10.49
7,778.0	1.50	81.40	7,421.4	1,122.2	-1,568.5	1,928.6	0.14	-0.12	-2.80
7,859.0	1.60	87.20	7,502.4	1,122.4	-1,566.3	1,926.9	0.23	0.12	7.16
7,980.0	1.30	82.40	7,623.3	1,122.7	-1,563.3	1,924.6	0.27	-0.25	-3.97
HARDLINES 119'N & 75'W OF BHL									
8,025.0	1.00	86.40	7,668.3	1,122.8	-1,562.4	1,923.9	0.69	-0.67	8.89

Checked By: _____	Approved By: _____	Date: _____
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