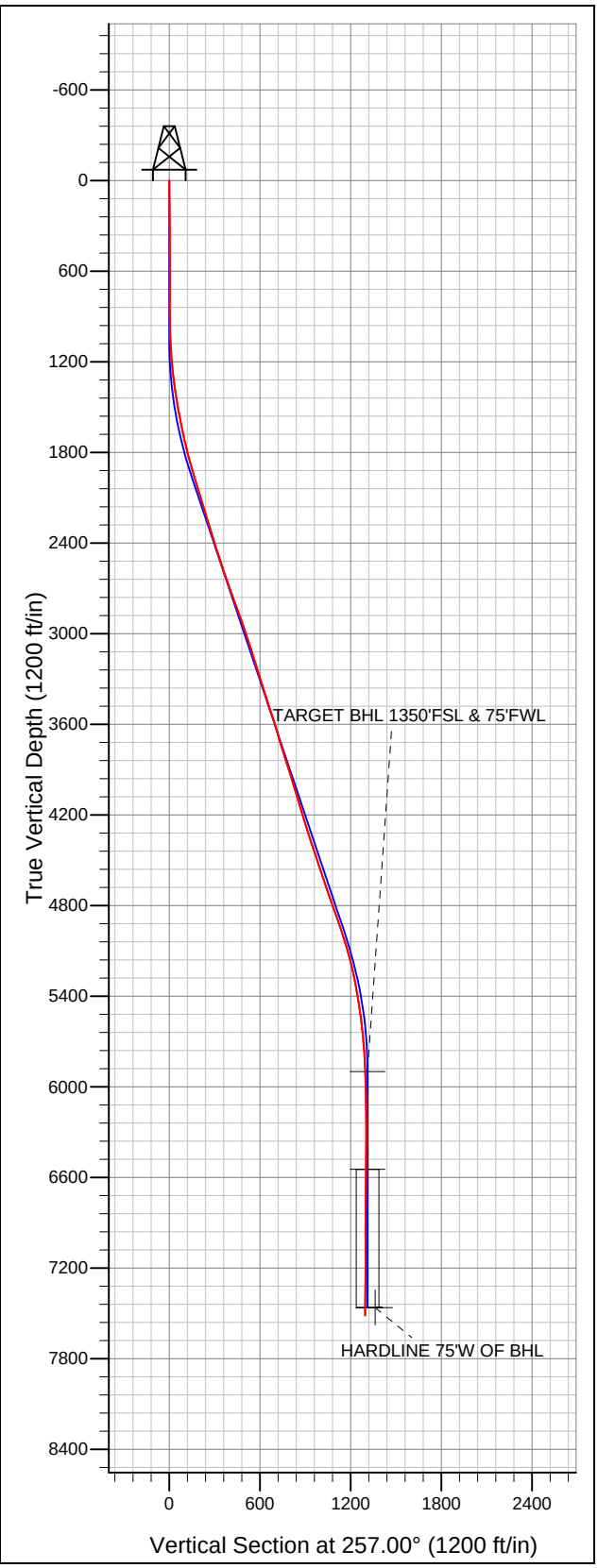
Well Name: Guttersen D02-33D

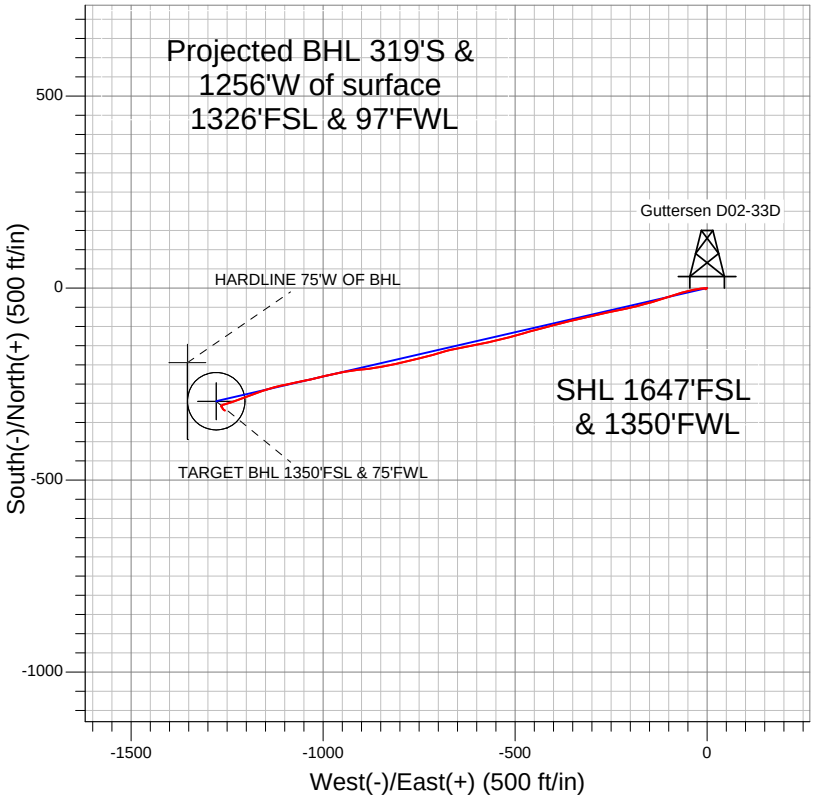
Surface Location: Guttersen D11-29D Pad Sec.2-T3N-R64W
North American Datum 1983 US State Plane 1983Colorado Northern Zone
Ground Elevation: 4699.0

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude	Slot
0.0	0.0	1336027.51	3272713.99	40.251670	-104.522930	

Original Well Elev WELL @ 4712.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO





LEGEND

- Wellbore #1
- Guttersen D02-33D, Wellbore #1, Noble Guttersen D02-33D Plan #2 (1-31-12) V0
- Survey #1

Final Survey Plot

Projected Final Survey -
7703'MD & 7516'TVD @ 1296'VS
0.90 deg Inc 129.20 deg AZ

Project: SEC.2-T3N-R64W
Site: Guttersen D11-29D Pad Sec.2-T3N-R64W
Well: Guttersen D02-33D
Plan: Wellbore #1

NOBLE ENERGY INC WELD COUNTY CO

SEC.2-T3N-R64W
Guttersen D11-29D Pad Sec.2-T3N-R64W
Guttersen D02-33D

Wellbore #1

Survey: Survey #1

Standard Survey Report

25 May, 2012

Company:	NOBLE ENERGY INC WELD COUNTY CO	**Local Co-ordinate Reference:**	Well Guttersen D02-33D
Project:	SEC.2-T3N-R64W	**TVD Reference:**	WELL @ 4712.0ft (Original Well Elev)
Site:	Guttersen D11-29D Pad Sec.2-T3N-R64W	**MD Reference:**	WELL @ 4712.0ft (Original Well Elev)
Well:	Guttersen D02-33D	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	Landmark

Project SEC.2-T3N-R64W, Weld County, CO

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 Guttersen D11-29D Pad Sec.2-T3N-R64W

Site Position:		**Northing:**	1,336,016.78 ft	**Latitude:**	40.251640
From:	Lat/Long	**Easting:**	3,272,730.85 ft	**Longitude:**	-104.522870
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	0.63 °

Well Guttersen D02-33D

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,336,027.51 ft	**Latitude:**	40.251670
	+E/-W	0.0 ft	**Easting:**	3,272,713.99 ft	**Longitude:**	-104.522930
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,699.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/31/2012	8.64	66.95	53,014

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 (°)
	5,900.0	0.0	0.0	257.00

Survey Program **Date** 5/25/2012

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
139.0	7,703.0	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
139.0	1.00	222.00	139.0	-0.9	-0.8	1.0	0.72	0.72	0.00
234.0	1.20	223.90	234.0	-2.2	-2.1	2.5	0.21	0.21	2.00
328.0	0.40	230.30	328.0	-3.2	-3.0	3.6	0.86	-0.85	6.81
423.0	0.30	287.40	423.0	-3.3	-3.5	4.1	0.36	-0.11	60.11
518.0	0.20	175.60	518.0	-3.4	-3.7	4.4	0.44	-0.11	-117.68
613.0	0.30	340.10	613.0	-3.3	-3.8	4.4	0.52	0.11	173.16
676.0	0.40	332.20	676.0	-3.0	-3.9	4.5	0.18	0.16	-12.54
757.0	0.40	357.70	757.0	-2.4	-4.1	4.5	0.22	0.00	31.48
845.0	0.60	14.40	845.0	-1.7	-4.0	4.3	0.28	0.23	18.98
927.0	0.80	282.80	927.0	-1.1	-4.4	4.6	1.24	0.24	-111.71
1,009.0	1.80	273.00	1,008.9	-0.9	-6.3	6.3	1.24	1.22	-11.95
1,091.0	3.10	265.80	1,090.9	-1.0	-9.8	9.8	1.63	1.59	-8.78

Company:	NOBLE ENERGY INC WELD COUNTY CO	**Local Co-ordinate Reference:**	Well Guttersen D02-33D
Project:	SEC.2-T3N-R64W	**TVD Reference:**	WELL @ 4712.0ft (Original Well Elev)
Site:	Guttersen D11-29D Pad Sec.2-T3N-R64W	**MD Reference:**	WELL @ 4712.0ft (Original Well Elev)
Well:	Guttersen D02-33D	**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)
1,172.0	4.50	265.10	1,171.7	-1.5	-15.1	15.1	1.73	1.73	-0.86
1,254.0	5.80	263.50	1,253.3	-2.2	-22.4	22.4	1.59	1.59	-1.95
1,336.0	7.50	257.70	1,334.8	-3.8	-31.8	31.8	2.23	2.07	-7.07
1,418.0	8.80	255.60	1,416.0	-6.5	-43.1	43.5	1.63	1.59	-2.56
1,499.0	10.10	254.50	1,495.9	-10.0	-55.9	56.7	1.62	1.60	-1.36
1,581.0	10.70	250.80	1,576.5	-14.4	-70.1	71.5	1.09	0.73	-4.51
1,663.0	11.90	254.00	1,656.9	-19.2	-85.4	87.5	1.65	1.46	3.90
1,745.0	13.60	254.20	1,736.9	-24.2	-102.8	105.6	2.07	2.07	0.24
1,827.0	14.60	252.80	1,816.4	-29.9	-121.9	125.5	1.29	1.22	-1.71
1,909.0	15.40	253.50	1,895.6	-36.0	-142.2	146.7	1.00	0.98	0.85
1,990.0	16.40	254.00	1,973.5	-42.2	-163.5	168.9	1.25	1.23	0.62
2,072.0	16.50	256.30	2,052.2	-48.2	-186.0	192.1	0.80	0.12	2.80
2,154.0	17.80	257.90	2,130.5	-53.5	-209.6	216.2	1.69	1.59	1.95
2,235.0	17.70	257.20	2,207.7	-58.9	-233.7	240.9	0.29	-0.12	-0.86
2,317.0	17.00	258.90	2,285.9	-63.9	-257.6	265.4	1.05	-0.85	2.07
2,399.0	17.00	258.70	2,364.4	-68.6	-281.1	289.3	0.07	0.00	-0.24
2,481.0	17.10	256.60	2,442.8	-73.7	-304.6	313.4	0.76	0.12	-2.56
2,562.0	17.90	256.30	2,520.0	-79.4	-328.3	337.7	0.99	0.99	-0.37
2,644.0	19.00	255.90	2,597.8	-85.7	-353.5	363.7	1.35	1.34	-0.49
2,726.0	20.00	255.70	2,675.1	-92.4	-380.0	391.0	1.22	1.22	-0.24
2,808.0	20.10	255.70	2,752.1	-99.3	-407.2	419.1	0.12	0.12	0.00
2,889.0	20.10	255.70	2,828.2	-106.2	-434.2	447.0	0.00	0.00	0.00
2,971.0	19.80	254.90	2,905.3	-113.3	-461.3	474.9	0.49	-0.37	-0.98
3,053.0	18.50	253.50	2,982.7	-120.6	-487.2	501.8	1.68	-1.59	-1.71
3,135.0	18.10	254.50	3,060.6	-127.7	-511.9	527.5	0.62	-0.49	1.22
3,217.0	17.50	256.60	3,138.6	-134.0	-536.2	552.6	1.07	-0.73	2.56
3,298.0	16.60	258.70	3,216.1	-139.1	-559.4	576.3	1.35	-1.11	2.59
3,380.0	17.30	257.30	3,294.5	-144.1	-582.7	600.2	0.99	0.85	-1.71
3,462.0	17.90	258.20	3,372.7	-149.3	-607.0	625.0	0.80	0.73	1.10
3,544.0	18.20	259.40	3,450.7	-154.2	-631.9	650.4	0.58	0.37	1.46
3,626.0	18.40	258.40	3,528.5	-159.2	-657.2	676.1	0.45	0.24	-1.22
3,707.0	17.10	254.50	3,605.7	-165.0	-681.2	700.8	2.17	-1.60	-4.81
3,789.0	15.90	253.60	3,684.3	-171.3	-703.6	724.1	1.50	-1.46	-1.10
3,871.0	17.10	255.00	3,762.9	-177.6	-726.0	747.3	1.54	1.46	1.71
3,953.0	17.70	256.50	3,841.1	-183.7	-749.7	771.8	0.91	0.73	1.83
4,034.0	17.80	256.50	3,918.3	-189.4	-773.8	796.5	0.12	0.12	0.00
4,116.0	17.30	257.70	3,996.5	-195.0	-797.9	821.3	0.75	-0.61	1.46
4,198.0	17.10	257.20	4,074.8	-200.2	-821.5	845.5	0.30	-0.24	-0.61
4,280.0	16.00	260.50	4,153.4	-204.8	-844.4	868.8	1.76	-1.34	4.02
4,361.0	16.70	261.50	4,231.1	-208.3	-866.9	891.6	0.93	0.86	1.23
4,443.0	17.80	263.00	4,309.4	-211.6	-891.0	915.8	1.45	1.34	1.83
4,525.0	19.00	263.50	4,387.2	-214.6	-916.7	941.5	1.48	1.46	0.61
4,607.0	18.10	260.80	4,465.0	-218.2	-942.6	967.5	1.52	-1.10	-3.29
4,688.0	17.90	257.20	4,542.0	-223.0	-967.1	992.5	1.40	-0.25	-4.44
4,770.0	19.10	256.50	4,619.8	-228.9	-992.5	1,018.5	1.49	1.46	-0.85
4,852.0	19.50	256.60	4,697.2	-235.2	-1,018.8	1,045.6	0.49	0.49	0.12
4,934.0	18.70	259.30	4,774.7	-240.8	-1,045.1	1,072.4	1.45	-0.98	3.29
5,016.0	18.70	257.50	4,852.3	-246.1	-1,070.8	1,098.7	0.70	0.00	-2.20
5,098.0	19.20	256.50	4,929.9	-252.1	-1,096.8	1,125.4	0.73	0.61	-1.22
5,179.0	18.70	256.30	5,006.5	-258.3	-1,122.3	1,151.7	0.62	-0.62	-0.25
5,261.0	16.30	254.50	5,084.7	-264.4	-1,146.2	1,176.3	3.00	-2.93	-2.20
5,343.0	14.20	249.80	5,163.8	-271.0	-1,166.7	1,197.8	2.97	-2.56	-5.73
5,425.0	12.80	249.60	5,243.5	-277.6	-1,184.7	1,216.8	1.71	-1.71	-0.24
5,506.0	10.50	247.50	5,322.9	-283.6	-1,199.9	1,232.9	2.89	-2.84	-2.59

Company:	NOBLE ENERGY INC WELD COUNTY CO	**Local Co-ordinate Reference:**	Well Guttersen D02-33D
Project:	SEC.2-T3N-R64W	**TVD Reference:**	WELL @ 4712.0ft (Original Well Elev)
Site:	Guttersen D11-29D Pad Sec.2-T3N-R64W	**MD Reference:**	WELL @ 4712.0ft (Original Well Elev)
Well:	Guttersen D02-33D	**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)
5,588.0	9.20	248.70	5,403.7	-288.8	-1,212.9	1,246.8	1.60	-1.59	1.46
5,670.0	8.90	251.70	5,484.6	-293.2	-1,225.0	1,259.6	0.68	-0.37	3.66
5,751.0	6.90	251.20	5,564.9	-296.7	-1,235.6	1,270.7	2.47	-2.47	-0.62
5,833.0	5.50	249.40	5,646.4	-299.7	-1,243.9	1,279.5	1.72	-1.71	-2.20
5,915.0	4.80	257.90	5,728.1	-301.8	-1,251.0	1,286.8	1.26	-0.85	10.37
5,997.0	3.30	257.30	5,809.8	-303.0	-1,256.6	1,292.6	1.83	-1.83	-0.73
6,079.0	2.60	249.20	5,891.7	-304.2	-1,260.7	1,296.8	0.99	-0.85	-9.88
6,087.7	2.51	248.55	5,900.5	-304.4	-1,261.0	1,297.2	1.06	-1.01	-7.41
TARGET BHL 1350'FSL & 75'FWL									
6,160.0	1.80	240.80	5,972.7	-305.5	-1,263.5	1,299.8	1.06	-0.99	-10.73
6,242.0	1.30	223.40	6,054.7	-306.8	-1,265.3	1,301.9	0.83	-0.61	-21.22
6,324.0	0.30	118.60	6,136.6	-307.6	-1,265.7	1,302.5	1.72	-1.22	-127.81
6,487.0	0.40	151.20	6,299.6	-308.3	-1,265.1	1,302.0	0.13	0.06	20.00
6,651.0	0.50	160.10	6,463.6	-309.5	-1,264.6	1,301.8	0.07	0.06	5.43
6,734.2	0.43	145.22	6,546.8	-310.1	-1,264.3	1,301.6	0.17	-0.08	-17.88
TARGET CIRCLE 1350'FSL & 75'FWL									
6,814.0	0.40	127.30	6,626.6	-310.5	-1,263.9	1,301.3	0.17	-0.04	-22.46
6,978.0	0.50	134.60	6,790.6	-311.3	-1,262.9	1,300.6	0.07	0.06	4.45
7,141.0	0.60	168.00	6,953.6	-312.7	-1,262.2	1,300.2	0.20	0.06	20.49
7,305.0	1.00	147.60	7,117.6	-314.7	-1,261.3	1,299.7	0.30	0.24	-12.44
7,468.0	1.00	129.90	7,280.6	-316.8	-1,259.4	1,298.4	0.19	0.00	-10.86
7,631.0	1.10	125.80	7,443.6	-318.6	-1,257.1	1,296.5	0.08	0.06	-2.52
7,646.8	0.98	127.70	7,459.4	-318.8	-1,256.8	1,296.3	0.80	-0.77	12.03
HARDLINE 75'W OF BHL									
7,657.0	0.90	129.20	7,469.5	-318.9	-1,256.7	1,296.2	0.80	-0.77	14.70
7,703.0	0.90	129.20	7,515.5	-319.4	-1,256.1	1,295.8	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____