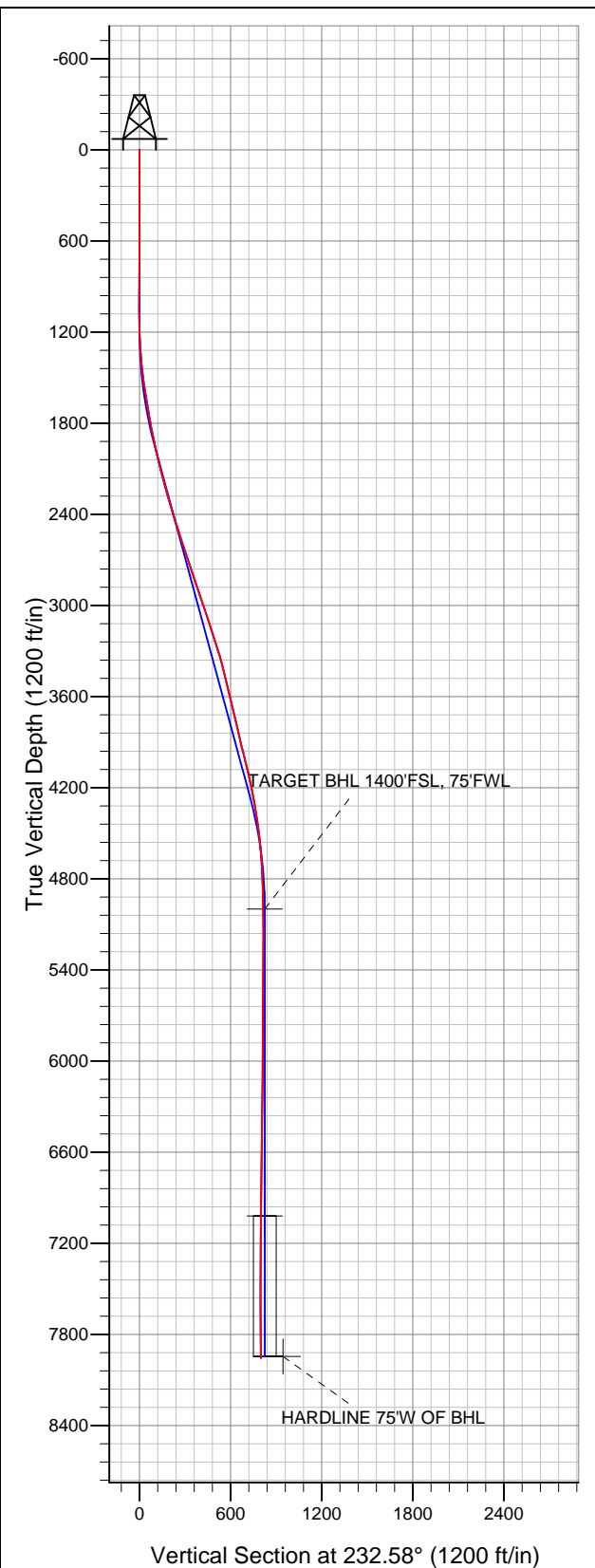




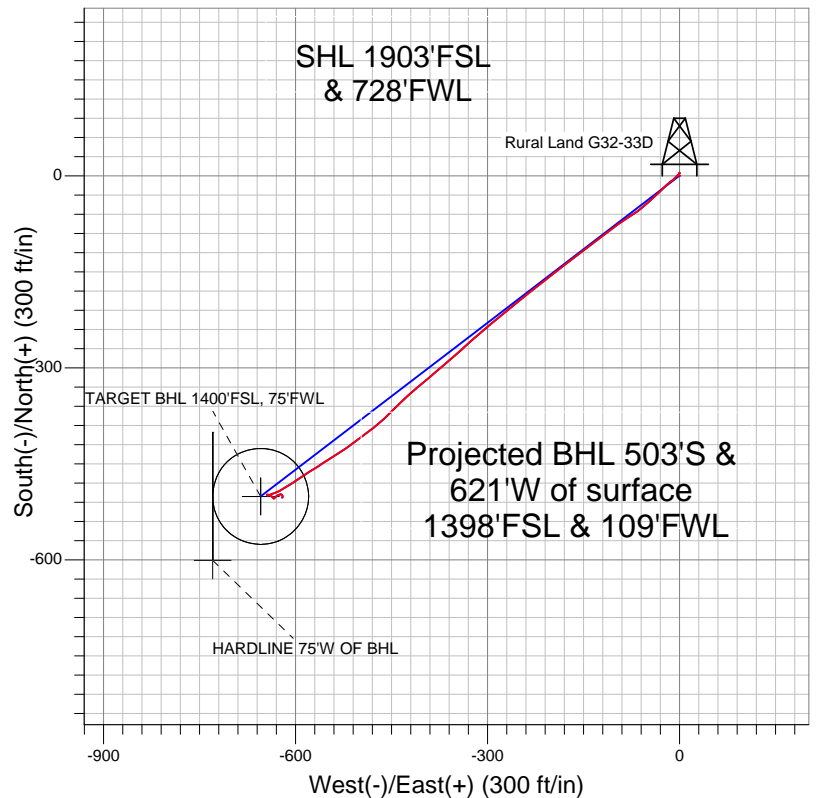
Well Name: Rural Land G32-33D

Surface Location: Rural Land G32-33D Pad Sec.32-T4N-R65W
North American Datum 1983 US State Plane 1983Colorado Northern Zone
Ground Elevation: 4922.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1341098.86	3224905.78	40.266910	-104.694040	
Original Well ElevWELL @ 4935.0ft (Original Well Elev)						



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Survey #1
- Rural Land G32-33D, Wellbore #1, Noble Rural Land G32-33D Plan #1 (03-24-10) V/O
- Wellbore #1

Final Survey Plot

Projected Final Survey -
8060'MD & 7956'TVD @ 799°VS
0.50 deg Inc 215.40 deg AZ

Project: SEC.32-T4N-R65W
Site: Rural Land G32-33D Pad Sec.32-T4N-R65W
Well: Rural Land G32-33D
Plan: Wellbore #1



NOBLE ENERGY INC WELD COUNTY CO

SEC.32-T4N-R65W

Rural Land G32-33D Pad Sec.32-T4N-R65W

Rural Land G32-33D

Wellbore #1

Survey: Survey #1

Standard Survey Report

04 January, 2012



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Rural Land G32-33D
Project:	SEC.32-T4N-R65W	TVD Reference:	WELL @ 4935.0ft (Original Well Elev)
Site:	Rural Land G32-33D Pad Sec.32-T4N-R65W	MD Reference:	WELL @ 4935.0ft (Original Well Elev)
Well:	Rural Land G32-33D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.32-T4N-R65W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Rural Land G32-33D Pad Sec.32-T4N-R65W				
Site Position:		Northing:	1,341,098.87 ft	Latitude:	40.266910
From:	Lat/Long	Easting:	3,224,905.77 ft	Longitude:	-104.694040
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.52 °

Well	Rural Land G32-33D					
Well Position	+N/-S	0.0 ft	Northing:	1,341,098.86 ft	Latitude:	40.266910
	+E/-W	0.0 ft	Easting:	3,224,905.78 ft	Longitude:	-104.694040
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,922.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/18/2011	8.71	66.95	53,046

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	232.58	

Survey Program	Date	1/4/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
210.0	8,060.0	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	
210.0	0.30	316.90	210.0	0.4	-0.4	0.1	0.14	0.14	0.00	
400.0	0.20	307.40	400.0	1.0	-1.0	0.2	0.06	-0.05	-5.00	
595.0	0.30	10.60	595.0	1.7	-1.2	-0.1	0.14	0.05	32.41	
660.0	0.40	8.40	660.0	2.1	-1.1	-0.4	0.16	0.15	-3.38	
700.0	0.40	8.30	700.0	2.3	-1.1	-0.6	0.00	0.00	-0.25	
783.0	0.80	11.00	783.0	3.2	-0.9	-1.2	0.48	0.48	3.25	
865.0	1.00	31.00	865.0	4.4	-0.4	-2.3	0.45	0.24	24.39	
946.0	0.30	186.00	946.0	4.8	-0.1	-2.8	1.58	-0.86	191.36	
1,028.0	0.40	164.30	1,028.0	4.3	0.0	-2.6	0.20	0.12	-26.46	
1,110.0	0.40	195.00	1,110.0	3.7	0.0	-2.2	0.26	0.00	37.44	
1,191.0	1.50	221.10	1,191.0	2.7	-0.8	-1.0	1.43	1.36	32.22	
1,273.0	3.40	228.30	1,272.9	0.2	-3.3	2.5	2.34	2.32	8.78	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Rural Land G32-33D
Project:	SEC.32-T4N-R65W	TVD Reference:	WELL @ 4935.0ft (Original Well Elev)
Site:	Rural Land G32-33D Pad Sec.32-T4N-R65W	MD Reference:	WELL @ 4935.0ft (Original Well Elev)
Well:	Rural Land G32-33D	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)
1,355.0	4.50	226.00	1,354.7	-3.6	-7.4	8.1	1.36	1.34	-2.80
1,436.0	6.10	232.70	1,435.3	-8.4	-13.2	15.6	2.11	1.98	8.27
1,518.0	7.70	227.80	1,516.7	-14.8	-20.7	25.4	2.08	1.95	-5.98
1,600.0	9.10	224.60	1,597.9	-23.1	-29.3	37.3	1.80	1.71	-3.90
1,681.0	9.50	228.10	1,677.8	-32.1	-38.8	50.3	0.86	0.49	4.32
1,763.0	10.20	227.80	1,758.6	-41.5	-49.2	64.3	0.86	0.85	-0.37
1,845.0	11.30	230.90	1,839.1	-51.4	-60.8	79.6	1.52	1.34	3.78
1,926.0	12.00	237.40	1,918.5	-61.0	-74.1	95.9	1.84	0.86	8.02
2,008.0	12.40	236.20	1,998.6	-70.5	-88.6	113.2	0.58	0.49	-1.46
2,090.0	14.00	234.10	2,078.5	-81.2	-103.9	131.9	2.04	1.95	-2.56
2,172.0	14.10	231.10	2,158.0	-93.3	-119.7	151.8	0.90	0.12	-3.66
2,253.0	15.50	233.70	2,236.3	-105.9	-136.1	172.5	1.91	1.73	3.21
2,335.0	17.90	232.30	2,314.9	-120.1	-154.9	196.0	2.97	2.93	-1.71
2,417.0	16.70	231.40	2,393.1	-135.1	-174.1	220.4	1.50	-1.46	-1.10
2,499.0	16.80	231.80	2,471.7	-149.8	-192.6	244.0	0.19	0.12	0.49
2,580.0	17.60	232.70	2,549.0	-164.5	-211.6	268.0	1.04	0.99	1.11
2,662.0	18.30	232.80	2,627.1	-179.8	-231.7	293.2	0.85	0.85	0.12
2,744.0	18.90	229.70	2,704.8	-196.1	-252.1	319.4	1.41	0.73	-3.78
2,825.0	19.40	230.70	2,781.3	-213.1	-272.5	345.9	0.74	0.62	1.23
2,907.0	18.70	229.80	2,858.8	-230.3	-293.1	372.7	0.93	-0.85	-1.10
2,989.0	18.60	230.40	2,936.5	-247.1	-313.2	398.9	0.26	-0.12	0.73
3,071.0	19.00	227.00	3,014.1	-264.5	-333.0	425.2	1.42	0.49	-4.15
3,152.0	17.90	229.00	3,091.0	-281.7	-352.1	450.8	1.57	-1.36	2.47
3,234.0	16.50	229.00	3,169.3	-297.6	-370.4	475.0	1.71	-1.71	0.00
3,316.0	19.30	230.40	3,247.3	-313.9	-389.6	500.1	3.45	3.41	1.71
3,397.0	16.40	229.40	3,324.4	-329.8	-408.6	524.9	3.60	-3.58	-1.23
3,479.0	14.60	228.10	3,403.4	-344.3	-425.1	546.8	2.24	-2.20	-1.59
3,561.0	13.50	224.40	3,483.0	-358.0	-439.5	566.6	1.73	-1.34	-4.51
3,643.0	13.90	227.40	3,562.6	-371.5	-453.4	585.9	0.99	0.49	3.66
3,724.0	13.50	226.90	3,641.3	-384.6	-467.5	605.0	0.52	-0.49	-0.62
3,806.0	13.20	234.10	3,721.1	-396.6	-482.0	623.8	2.06	-0.37	8.78
3,888.0	13.90	232.80	3,800.8	-408.1	-497.5	643.1	0.93	0.85	-1.59
3,969.0	12.10	232.50	3,879.8	-419.1	-512.0	661.3	2.22	-2.22	-0.37
4,051.0	13.90	237.60	3,959.7	-429.6	-527.1	679.7	2.60	2.20	6.22
4,133.0	14.20	237.20	4,039.2	-440.3	-543.9	699.5	0.38	0.37	-0.49
4,215.0	13.50	236.20	4,118.8	-451.1	-560.3	719.1	0.90	-0.85	-1.22
4,296.0	11.60	239.50	4,197.9	-460.5	-575.2	736.6	2.51	-2.35	4.07
4,378.0	10.00	234.80	4,278.4	-468.8	-588.1	751.9	2.23	-1.95	-5.73
4,460.0	9.10	237.40	4,359.3	-476.4	-599.4	765.5	1.22	-1.10	3.17
4,542.0	8.00	237.90	4,440.4	-482.9	-609.7	777.6	1.34	-1.34	0.61
4,623.0	6.90	237.00	4,520.7	-488.6	-618.5	788.1	1.37	-1.36	-1.11
4,705.0	5.40	245.80	4,602.2	-492.8	-626.2	796.8	2.16	-1.83	10.73
4,787.0	4.00	247.90	4,683.9	-495.5	-632.3	803.3	1.72	-1.71	2.56
4,868.0	3.00	253.00	4,764.8	-497.2	-637.0	808.0	1.29	-1.23	6.30
4,950.0	2.00	246.40	4,846.7	-498.4	-640.3	811.4	1.27	-1.22	-8.05
5,032.0	1.40	237.00	4,928.7	-499.5	-642.5	813.8	0.80	-0.73	-11.46
5,103.5	0.80	286.13	5,000.2	-499.8	-643.7	815.0	1.49	-0.84	68.68
TARGET BHL 1400'FSL, 75'FWL									
5,114.0	0.80	297.30	5,010.7	-499.8	-643.8	815.0	1.49	-0.02	106.68
5,195.0	0.50	304.20	5,091.7	-499.3	-644.6	815.4	0.38	-0.37	8.52
5,277.0	0.50	349.00	5,173.7	-498.8	-645.0	815.3	0.46	0.00	54.63
5,440.0	0.40	89.20	5,336.6	-498.1	-644.6	814.6	0.43	-0.06	61.47
5,604.0	0.97	97.83	5,500.6	-498.2	-642.6	813.1	0.35	0.35	5.26
5,767.0	1.20	124.37	5,663.6	-499.4	-639.8	811.6	0.34	0.14	16.28

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Rural Land G32-33D
Project:	SEC.32-T4N-R65W	TVD Reference:	WELL @ 4935.0ft (Original Well Elev)
Site:	Rural Land G32-33D Pad Sec.32-T4N-R65W	MD Reference:	WELL @ 4935.0ft (Original Well Elev)
Well:	Rural Land G32-33D	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)	
5,931.0	1.10	121.60	5,827.6	-501.2	-637.1	810.5	0.07	-0.06	-1.69	
6,094.0	1.10	150.00	5,990.5	-503.4	-635.0	810.2	0.33	0.00	17.42	
6,258.0	0.60	42.50	6,154.5	-504.1	-633.6	809.5	0.86	-0.30	-65.55	
6,421.0	0.40	53.50	6,317.5	-503.1	-632.6	808.1	0.14	-0.12	6.75	
6,585.0	1.00	47.40	6,481.5	-501.8	-631.1	806.1	0.37	0.37	-3.72	
6,748.0	0.60	41.90	6,644.5	-500.2	-629.4	803.9	0.25	-0.25	-3.37	
6,911.0	0.90	73.00	6,807.5	-499.2	-627.6	801.8	0.30	0.18	19.08	
7,075.0	0.70	69.50	6,971.5	-498.5	-625.5	799.7	0.13	-0.12	-2.13	
7,123.2	0.70	71.69	7,019.6	-498.3	-624.9	799.1	0.06	0.00	4.54	
TARGET CIRCLE 1400'FSL, 75'FWL										
7,238.0	0.70	76.90	7,134.5	-497.9	-623.6	797.8	0.06	0.00	4.54	
7,402.0	0.50	121.70	7,298.4	-498.0	-622.0	796.6	0.30	-0.12	27.32	
7,565.0	0.60	145.30	7,461.4	-499.1	-620.9	796.4	0.15	0.06	14.48	
7,729.0	0.50	170.00	7,625.4	-500.5	-620.3	796.8	0.16	-0.06	15.06	
7,892.0	0.40	203.30	7,788.4	-501.8	-620.4	797.6	0.17	-0.06	20.43	
8,010.0	0.50	215.40	7,906.4	-502.6	-620.8	798.5	0.12	0.08	10.25	
8,049.8	0.50	215.40	7,946.2	-502.8	-621.0	798.8	0.00	0.00	0.00	
HARDLINE 75'W OF BHL										
8,060.0	0.50	215.40	7,956.4	-502.9	-621.1	798.9	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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