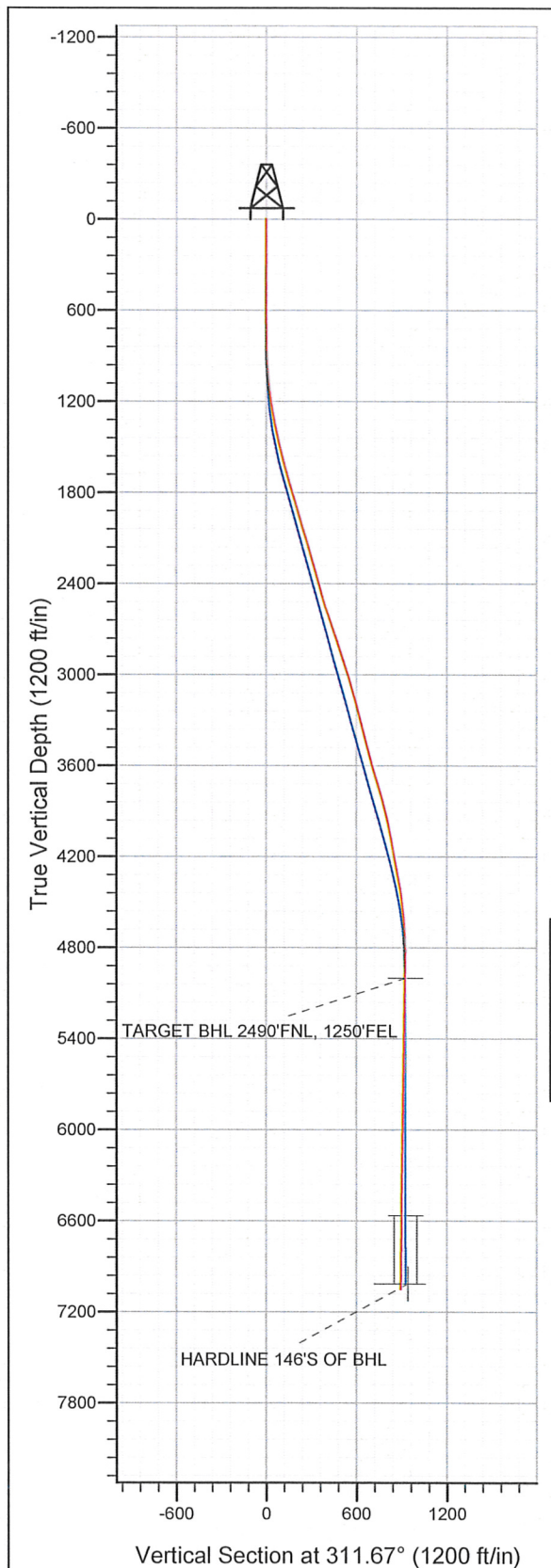
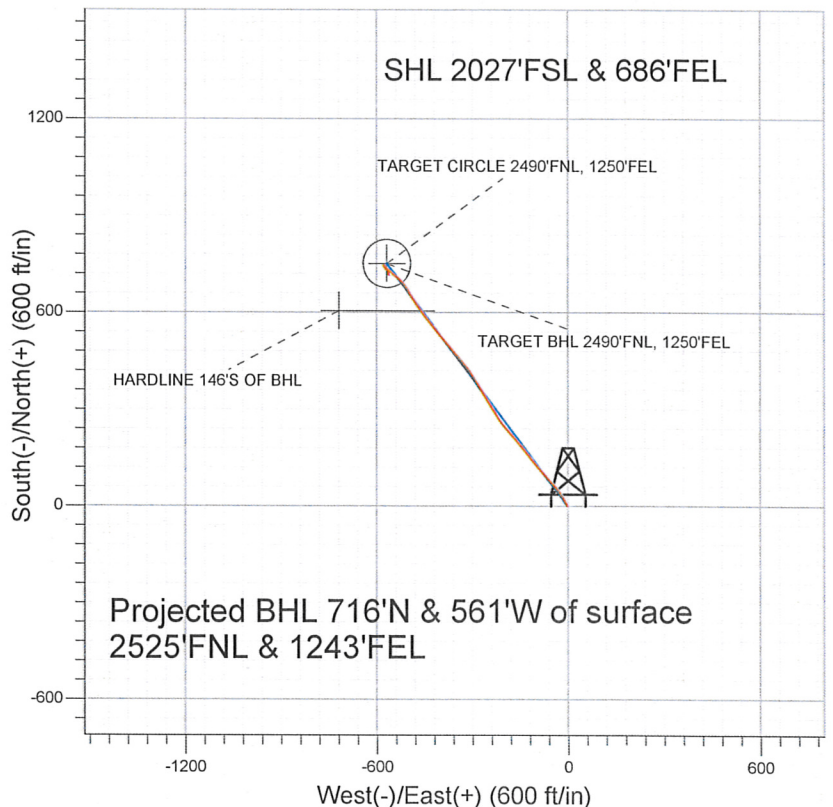


Surface Location: Aloysius C34-22D Pad Sec.34-T4N-R64W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4692.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1341706.32 3270653.25 40° 16' 2.352 N 104° 31' 48.324 W
 Original Well EleWELL @ 4705.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Aloysius C34-22D, Wellbore #1, Noble Aloysius C34-22D Plan #2 (9-02-10) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 7175'MD & 7050'TVD @ 910' VS
 1.0 deg Inc 154.5 deg AZ

Project: SEC.34-T4N-R64W
 Site: Aloysius C34-22D Pad Sec.34-T4N-R64W
 Well: Aloysius C34-22D
 Plan: Wellbore #1

Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.34-T4N-R64W
 Site: Aloysius C34-22D Pad Sec.34-T4N-R64W
 Well: Aloysius C34-22D
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well Aloysius C34-22D
 TVD Reference: WELL @ 4705.0ft (Original Well Elev)
 MD Reference: WELL @ 4705.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: Landmark

Project SEC.34-T4N-R64W, 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 Aloysius C34-22D Pad Sec.34-T4N-R64W

Site Position:		Northing:	1,341,706.33 ft	Latitude:	40° 16' 2.352 N
From:	Lat/Long	Easting:	3,270,653.25 ft	Longitude:	104° 31' 48.324 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.63 °

Well Aloysius C34-22D

Well Position	+N/-S	0.0 ft	Northing:	1,341,706.32 ft	Latitude:	40° 16' 2.352 N
	+E/-W	0.0 ft	Easting:	3,270,653.25 ft	Longitude:	104° 31' 48.324 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,692.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/30/2010	8.82	67.01	53,163

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	311.67	

Survey Program Date 10/6/2010

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
690.0	7,175.0	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
690.0	0.40	312.30	690.0	1.6	-1.8	2.4	0.06	0.06	0.00
775.0	0.20	358.60	775.0	2.0	-2.0	2.8	0.35	-0.24	54.47
861.0	1.70	340.40	861.0	3.3	-2.4	4.0	1.76	1.74	-21.16
946.0	3.70	330.50	945.9	6.9	-4.2	7.7	2.41	2.35	-11.65
1,032.0	5.50	333.20	1,031.6	13.0	-7.4	14.2	2.11	2.09	3.14
1,117.0	7.20	328.40	1,116.1	21.2	-12.1	23.1	2.09	2.00	-5.65
1,203.0	8.40	326.50	1,201.3	31.0	-18.4	34.3	1.43	1.40	-2.21
1,288.0	10.10	326.70	1,285.2	42.4	-25.9	47.5	2.00	2.00	0.24
1,374.0	11.60	320.80	1,369.6	55.4	-35.5	63.3	2.17	1.74	-6.86
1,459.0	13.10	319.10	1,452.7	69.3	-47.2	81.3	1.82	1.76	-2.00
1,545.0	14.30	317.00	1,536.2	84.4	-60.8	101.6	1.51	1.40	-2.44
1,630.0	15.90	317.90	1,618.3	100.8	-75.8	123.6	1.90	1.88	1.06

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.34-T4N-R64W
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Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Aloysius C34-22D
TVD Reference: WELL @ 4705.0ft (Original Well Elev)
MD Reference: WELL @ 4705.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
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)
1,715.0	16.40	320.00	1,699.9	118.6	-91.3	147.0	0.90	0.59	2.47
1,801.0	16.40	321.00	1,782.4	137.3	-106.7	171.0	0.33	0.00	1.16
1,886.0	16.90	321.60	1,863.9	156.3	-122.0	195.0	0.62	0.59	0.71
1,972.0	17.00	320.50	1,946.1	175.8	-137.7	219.8	0.39	0.12	-1.28
2,057.0	17.00	318.90	2,027.4	194.8	-153.8	244.4	0.55	0.00	-1.88
2,143.0	17.00	320.40	2,109.7	213.9	-170.1	269.3	0.51	0.00	1.74
2,228.0	15.60	317.80	2,191.2	232.0	-185.7	292.9	1.86	-1.65	-3.06
2,314.0	15.20	319.50	2,274.2	249.1	-200.8	315.6	0.70	-0.47	1.98
2,399.0	16.70	325.20	2,355.9	267.6	-215.0	338.5	2.55	1.76	6.71
2,485.0	16.50	330.10	2,438.3	288.4	-228.1	362.1	1.64	-0.23	5.70
2,570.0	17.60	328.20	2,519.6	309.8	-240.9	385.9	1.45	1.29	-2.24
2,656.0	20.10	329.50	2,600.9	333.5	-255.3	412.4	2.95	2.91	1.51
2,741.0	19.70	329.40	2,680.9	358.5	-270.0	440.0	0.47	-0.47	-0.12
2,827.0	20.10	327.30	2,761.7	383.4	-285.3	468.0	0.95	0.47	-2.44
2,912.0	18.80	326.50	2,841.9	407.1	-300.8	495.3	1.56	-1.53	-0.94
2,998.0	16.50	319.60	2,923.8	427.9	-316.3	520.8	3.61	-2.67	-8.02
3,083.0	18.50	320.80	3,004.9	447.6	-332.7	546.1	2.39	2.35	1.41
3,169.0	16.80	320.70	3,086.9	467.8	-349.2	571.8	1.98	-1.98	-0.12
3,254.0	15.20	320.10	3,168.6	485.8	-364.1	595.0	1.89	-1.88	-0.71
3,340.0	14.90	321.40	3,251.6	503.1	-378.3	617.0	0.53	-0.35	1.51
3,425.0	14.40	317.40	3,333.8	519.4	-392.2	638.3	1.33	-0.59	-4.71
3,511.0	14.20	320.30	3,417.2	535.4	-406.2	659.4	0.86	-0.23	3.37
3,596.0	14.40	321.70	3,499.5	551.7	-419.4	680.1	0.47	0.24	1.65
3,682.0	15.40	320.70	3,582.7	569.0	-433.3	701.9	1.20	1.16	-1.16
3,767.0	17.10	323.70	3,664.3	587.8	-447.8	725.3	2.23	2.00	3.53
3,853.0	17.60	324.30	3,746.3	608.5	-462.9	750.3	0.62	0.58	0.70
3,938.0	16.20	325.80	3,827.7	628.8	-477.1	774.4	1.72	-1.65	1.76
4,024.0	14.30	327.60	3,910.6	647.7	-489.5	796.2	2.28	-2.21	2.09
4,109.0	12.70	330.10	3,993.3	664.6	-499.8	815.2	2.00	-1.88	2.94
4,194.0	10.20	328.00	4,076.6	679.1	-508.4	831.3	2.98	-2.94	-2.47
4,280.0	10.20	314.30	4,161.2	690.9	-517.9	846.2	2.81	0.00	-15.93
4,365.0	10.60	315.70	4,244.8	701.7	-528.8	861.5	0.56	0.47	1.65
4,451.0	10.80	308.70	4,329.4	712.4	-540.6	877.5	1.53	0.23	-8.14
4,537.0	9.30	310.50	4,414.0	722.0	-552.1	892.5	1.78	-1.74	2.09
4,622.0	7.30	310.50	4,498.1	730.0	-561.5	904.7	2.35	-2.35	0.00
4,708.0	5.30	314.60	4,583.6	736.3	-568.5	914.1	2.38	-2.33	4.77
4,793.0	3.80	311.00	4,668.3	740.9	-573.4	920.9	1.80	-1.76	-4.24
4,878.0	1.80	329.40	4,753.2	743.9	-576.2	925.0	2.55	-2.35	21.65
4,964.0	0.50	189.00	4,839.2	744.7	-576.9	926.1	2.57	-1.51	-163.26
5,124.7	0.29	117.20	5,000.0	743.8	-576.7	925.3	0.31	-0.13	-44.67
TARGET BHL 2490'FNL, 1250'FEL									
5,135.0	0.30	111.40	5,010.2	743.8	-576.6	925.2	0.31	0.10	-56.53
5,306.0	0.90	139.20	5,181.2	742.6	-575.3	923.5	0.38	0.35	16.26
5,477.0	1.20	152.70	5,352.2	740.0	-573.6	920.5	0.23	0.18	7.89
5,648.0	1.40	150.00	5,523.1	736.6	-571.8	916.8	0.12	0.12	-1.58
5,819.0	0.70	121.10	5,694.1	734.3	-569.8	913.8	0.50	-0.41	-16.90
5,990.0	0.80	129.00	5,865.1	733.0	-568.0	911.6	0.08	0.06	4.62
6,161.0	1.20	140.80	6,036.1	730.8	-565.9	908.6	0.26	0.23	6.90
6,332.0	0.80	153.30	6,207.0	728.4	-564.3	905.8	0.27	-0.23	7.31
6,502.0	0.80	178.50	6,377.0	726.1	-563.7	903.8	0.21	0.00	14.82
6,673.0	1.10	161.10	6,548.0	723.4	-563.2	901.6	0.24	0.18	-10.18
6,689.6	1.05	162.60	6,564.6	723.1	-563.1	901.3	0.37	-0.33	9.06
TARGET CIRCLE 2490'FNL, 1250'FEL									
6,844.0	0.60	189.20	6,719.0	720.9	-562.8	899.7	0.37	-0.29	17.22

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7,015.0	1.00	158.90	6,890.0	718.7	-562.4	897.9	0.33	0.23	-17.72
7,127.0	1.00	154.50	7,002.0	716.9	-561.6	896.1	0.07	0.00	-3.93
HARDLINE 146'S OF BHL									
7,175.0	1.00	154.50	7,049.9	716.1	-561.2	895.3	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____