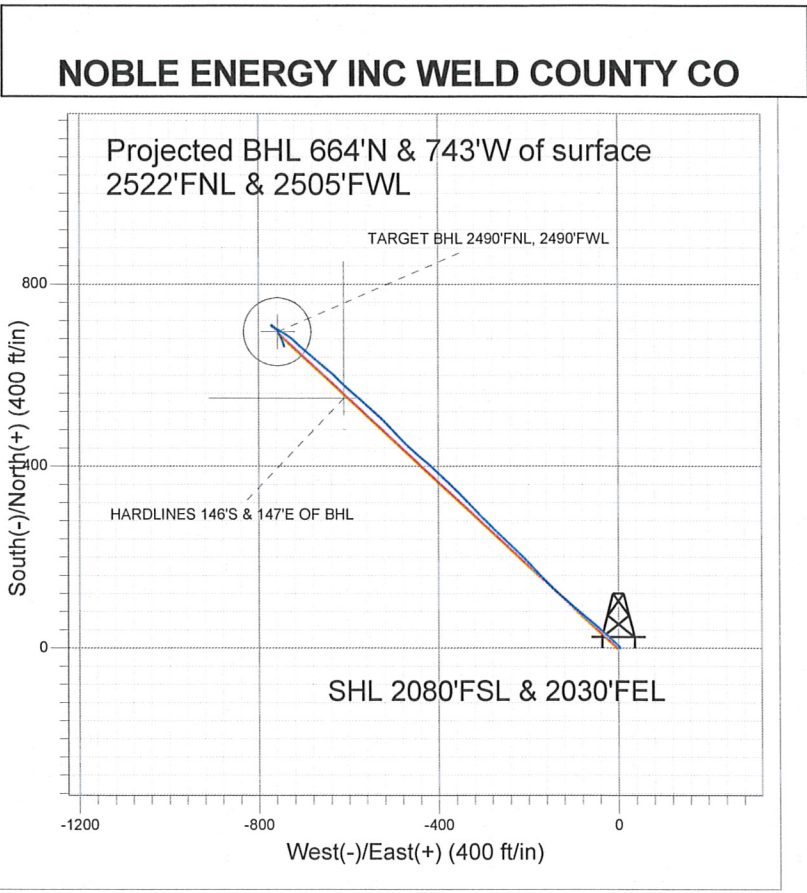
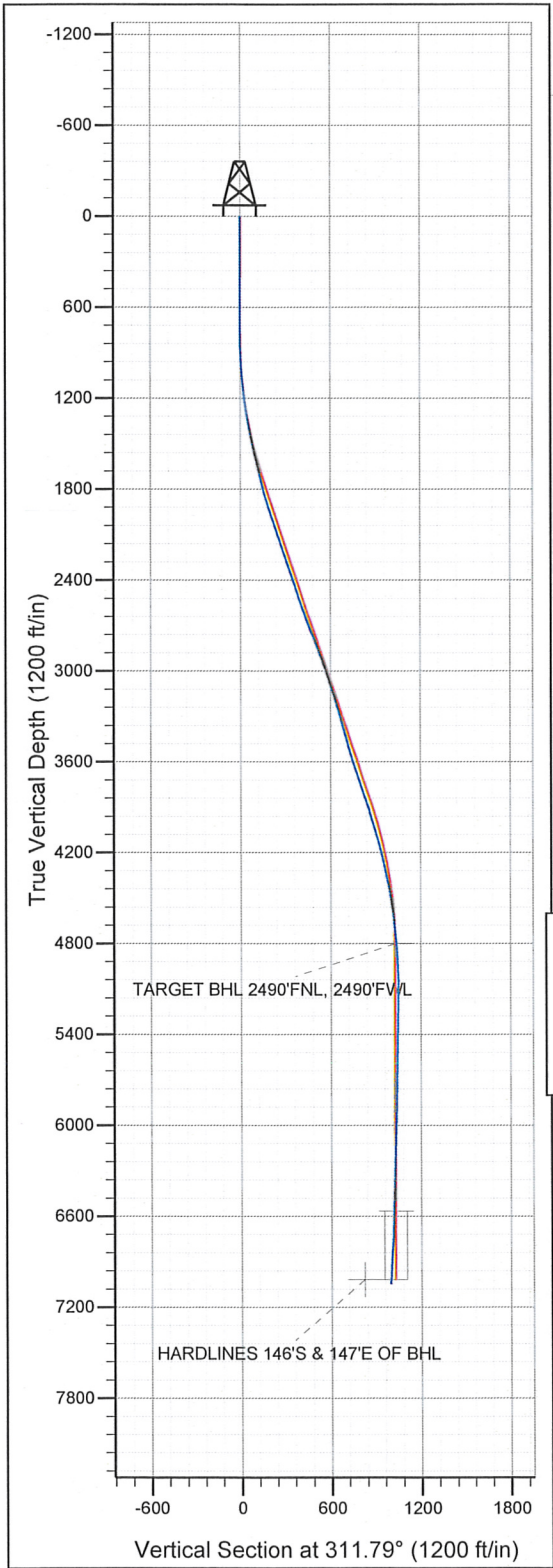




Well Name: **Aloysius C34-21D**
 Surface Location: Aloysius C34-21D Pad Sec.34-T4N-R64W
 North American Datum 1983 , US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4694.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1341742.65	3269307.73	40° 16' 2.856 N	104° 32' 5.676 W	

 Original Well EleWELL @ 4707.0ft (Original Well Elev)



LEGEND

- Aloysius C34-21D, Wellbore #1, Noble Aloysius C34-21D Plan #2 (9-02-10) V0
- Wellbore #1

Final Survey Plot

Projected Final Survey -
 7195'MD & 7043'TVD @ 996' VS
 4.1 deg Inc 159.2 deg AZ

Project: SEC.34-T4N-R64W
 Site: Aloysius C34-21D Pad Sec.34-T4N-R64W
 Well: Aloysius C34-21D
 Plan: Wellbore #1

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.34-T4N-R64W
Site: Aloysius C34-21D Pad Sec.34-T4N-R64W
Well: Aloysius C34-21D
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Aloysius C34-21D
TVD Reference: WELL @ 4707.0ft (Original Well Elev)
MD Reference: WELL @ 4707.0ft (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 C34-21D Pad Sec.34-T4N-R64W				
Site Position:		Northing:	1,341,742.66 ft	Latitude:	40° 16' 2.856 N
From:	Lat/Long	Easting:	3,269,307.73 ft	Longitude:	104° 32' 5.676 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.62 °

Well	Aloysius C34-21D					
Well Position	+N/-S	0.0 ft	Northing:	1,341,742.65 ft	Latitude:	40° 16' 2.856 N
	+E/-W	0.0 ft	Easting:	3,269,307.73 ft	Longitude:	104° 32' 5.676 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,694.0 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/1/2010	8.84	67.01	53,171

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	311.79	

Survey Program	Date 9/14/2010				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
737.0	7,195.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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
737.0	0.50	83.00	737.0	0.4	3.2	-2.1	0.07	0.07	0.00
823.0	0.90	337.80	823.0	1.1	3.3	-1.8	1.32	0.47	-122.33
908.0	2.70	323.50	907.9	3.3	1.9	0.8	2.17	2.12	-16.82
994.0	4.30	314.40	993.8	7.2	-1.6	6.0	1.96	1.86	-10.58
1,079.0	5.80	310.40	1,078.4	12.2	-7.2	13.5	1.81	1.76	-4.71
1,165.0	7.10	309.90	1,163.9	18.4	-14.6	23.1	1.51	1.51	-0.58
1,250.0	8.70	315.70	1,248.1	26.4	-23.1	34.8	2.10	1.88	6.82
1,336.0	9.80	310.70	1,333.0	35.8	-33.2	48.6	1.58	1.28	-5.81
1,421.0	11.10	310.40	1,416.6	45.8	-44.9	64.0	1.53	1.53	-0.35
1,506.0	11.50	310.00	1,499.9	56.6	-57.6	80.7	0.48	0.47	-0.47
1,592.0	12.30	310.60	1,584.1	68.1	-71.2	98.4	0.94	0.93	0.70
1,677.0	14.40	309.50	1,666.8	80.7	-86.2	118.0	2.49	2.47	-1.29

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.34-T4N-R64W
Site: Aloysius C34-21D Pad Sec.34-T4N-R64W
Well: Aloysius C34-21D
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Aloysius C34-21D
TVD Reference: WELL @ 4707.0ft (Original Well Elev)
MD Reference: WELL @ 4707.0ft (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)
1,763.0	15.00	311.00	1,749.9	94.8	-102.8	139.8	0.83	0.70	1.74
1,848.0	16.90	308.90	1,831.7	109.8	-120.8	163.2	2.34	2.24	-2.47
1,934.0	17.10	313.80	1,913.9	126.4	-139.6	188.3	1.68	0.23	5.70
2,019.0	18.40	315.40	1,994.9	144.6	-158.0	214.2	1.63	1.53	1.88
2,105.0	19.50	316.80	2,076.2	164.7	-177.4	242.0	1.38	1.28	1.63
2,190.0	19.40	316.40	2,156.4	185.2	-196.8	270.2	0.20	-0.12	-0.47
2,275.0	18.40	314.60	2,236.8	204.9	-216.1	297.7	1.36	-1.18	-2.12
2,361.0	18.30	312.40	2,318.4	223.5	-235.8	324.7	0.81	-0.12	-2.56
2,446.0	18.90	312.10	2,399.0	241.8	-255.8	351.9	0.71	0.71	-0.35
2,532.0	18.30	315.00	2,480.5	260.6	-275.7	379.3	1.28	-0.70	3.37
2,618.0	19.80	315.70	2,561.8	280.6	-295.4	407.3	1.76	1.74	0.81
2,703.0	20.50	315.30	2,641.6	301.5	-316.0	436.5	0.84	0.82	-0.47
2,788.0	21.00	316.20	2,721.0	323.1	-337.0	466.5	0.70	0.59	1.06
2,874.0	21.10	314.70	2,801.3	345.1	-358.6	497.4	0.64	0.12	-1.74
2,959.0	20.70	313.60	2,880.7	366.2	-380.4	527.7	0.66	-0.47	-1.29
3,045.0	18.20	313.30	2,961.8	385.9	-401.2	556.3	2.91	-2.91	-0.35
3,130.0	18.80	311.20	3,042.4	404.0	-421.2	583.3	1.05	0.71	-2.47
3,216.0	18.20	309.70	3,124.0	421.7	-441.9	610.5	0.89	-0.70	-1.74
3,301.0	16.50	311.90	3,205.1	438.3	-461.1	635.9	2.14	-2.00	2.59
3,387.0	16.80	315.30	3,287.5	455.3	-478.9	660.5	1.19	0.35	3.95
3,473.0	15.90	317.40	3,370.0	472.8	-495.7	684.6	1.25	-1.05	2.44
3,558.0	15.00	316.40	3,451.9	489.3	-511.1	707.2	1.10	-1.06	-1.18
3,643.0	16.60	313.00	3,533.7	505.6	-527.6	730.3	2.17	1.88	-4.00
3,729.0	17.40	310.80	3,616.0	522.3	-546.3	755.4	1.19	0.93	-2.56
3,814.0	19.00	310.70	3,696.7	539.7	-566.4	782.0	1.88	1.88	-0.12
3,900.0	19.30	310.20	3,778.0	558.0	-587.9	810.2	0.40	0.35	-0.58
3,985.0	18.80	312.50	3,858.3	576.3	-608.7	837.9	1.06	-0.59	2.71
4,071.0	16.50	314.70	3,940.3	594.2	-627.6	864.0	2.78	-2.67	2.56
4,157.0	17.30	310.20	4,022.5	611.1	-646.1	888.9	1.78	0.93	-5.23
4,242.0	16.10	309.70	4,104.0	626.8	-664.8	913.3	1.42	-1.41	-0.59
4,328.0	13.90	310.60	4,187.0	641.1	-681.8	935.6	2.57	-2.56	1.05
4,413.0	13.10	310.80	4,269.7	654.1	-696.9	955.4	0.94	-0.94	0.24
4,499.0	12.50	310.70	4,353.5	666.5	-711.3	974.5	0.70	-0.70	-0.12
4,584.0	10.80	313.60	4,436.8	678.0	-724.0	991.6	2.11	-2.00	3.41
4,670.0	8.60	304.10	4,521.5	687.1	-735.2	1,006.1	3.16	-2.56	-11.05
4,755.0	7.60	302.60	4,605.7	693.7	-745.2	1,017.9	1.20	-1.18	-1.76
4,842.0	6.20	302.10	4,692.1	699.3	-754.0	1,028.2	1.61	-1.61	-0.57
4,927.0	4.60	300.90	4,776.7	703.5	-760.8	1,036.1	1.89	-1.88	-1.41
4,949.8	4.28	300.31	4,799.4	704.4	-762.4	1,037.8	1.41	-1.40	-2.59
TARGET BHL 2490'FNL, 2490'FWL									
5,013.0	3.40	298.10	4,862.5	706.5	-766.0	1,042.0	1.41	-1.39	-3.50
5,098.0	2.90	311.80	4,947.3	709.1	-769.9	1,046.6	1.06	-0.59	16.12
5,184.0	1.00	303.60	5,033.3	711.0	-772.1	1,049.5	2.23	-2.21	-9.53
5,269.0	0.60	151.00	5,118.3	711.0	-772.5	1,049.8	1.83	-0.47	-179.53
5,440.0	1.20	145.50	5,289.3	708.7	-771.1	1,047.2	0.35	0.35	-3.22
5,611.0	0.40	122.60	5,460.3	706.9	-769.6	1,044.9	0.49	-0.47	-13.39
5,782.0	0.60	111.10	5,631.2	706.3	-768.2	1,043.5	0.13	0.12	-6.73
5,953.0	1.10	111.30	5,802.2	705.4	-765.9	1,041.1	0.29	0.29	0.12
6,125.0	1.80	133.70	5,974.2	702.9	-762.4	1,036.8	0.52	0.41	13.02
6,295.0	1.40	131.80	6,144.1	699.7	-758.9	1,032.1	0.24	-0.24	-1.12
6,466.0	2.30	157.10	6,315.0	695.1	-756.0	1,026.9	0.70	0.53	14.80
6,635.0	1.60	160.40	6,483.9	689.8	-753.9	1,021.8	0.42	-0.41	1.95
6,717.8	1.88	154.59	6,566.7	687.5	-752.9	1,019.5	0.40	0.34	-7.01
TARGET CIRCLE 2490'FNL, 2490'FWL									

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.34-T4N-R64W
Site: Aloysius C34-21D Pad Sec.34-T4N-R64W
Well: Aloysius C34-21D
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Aloysius C34-21D
TVD Reference: WELL @ 4707.0ft (Original Well Elev)
MD Reference: WELL @ 4707.0ft (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)
6,806.0	2.20	150.10	6,654.8	684.7	-751.4	1,016.5	0.40	0.36	-5.10
6,977.0	3.40	157.30	6,825.6	677.2	-747.8	1,008.9	0.73	0.70	4.21
7,151.0	4.10	159.20	6,999.2	666.6	-743.6	998.7	0.41	0.40	1.09
7,179.9	4.10	159.20	7,028.1	664.7	-742.9	996.8	0.00	0.00	0.00
HARDLINES 146°S & 147°E OF BHL									
7,195.0	4.10	159.20	7,043.1	663.7	-742.5	995.9	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____