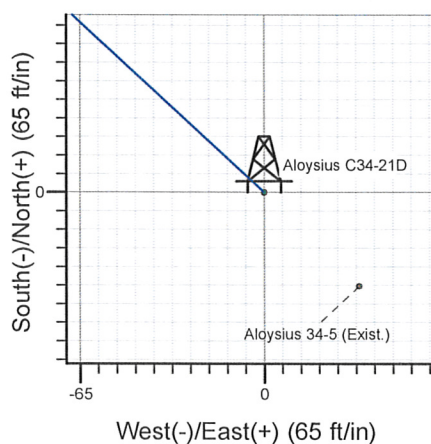
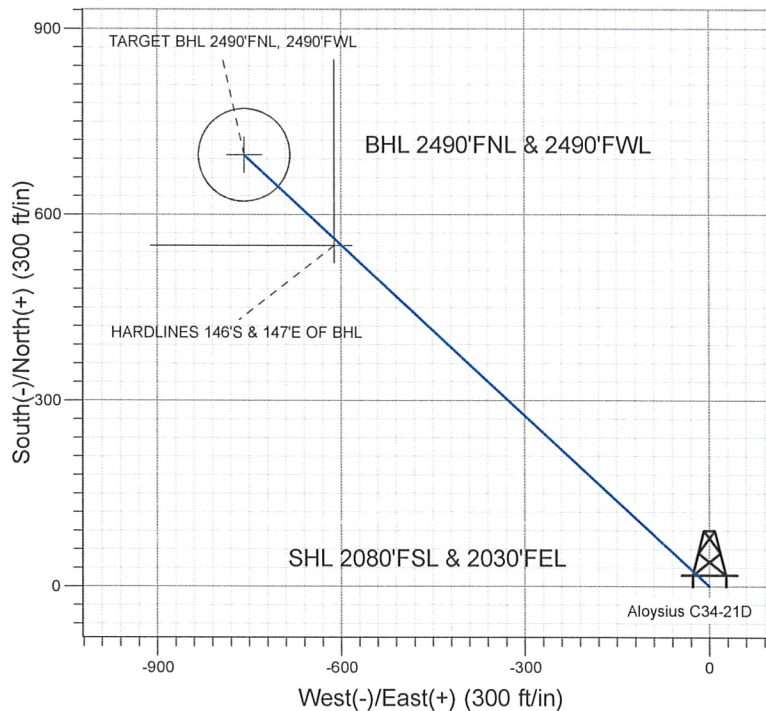
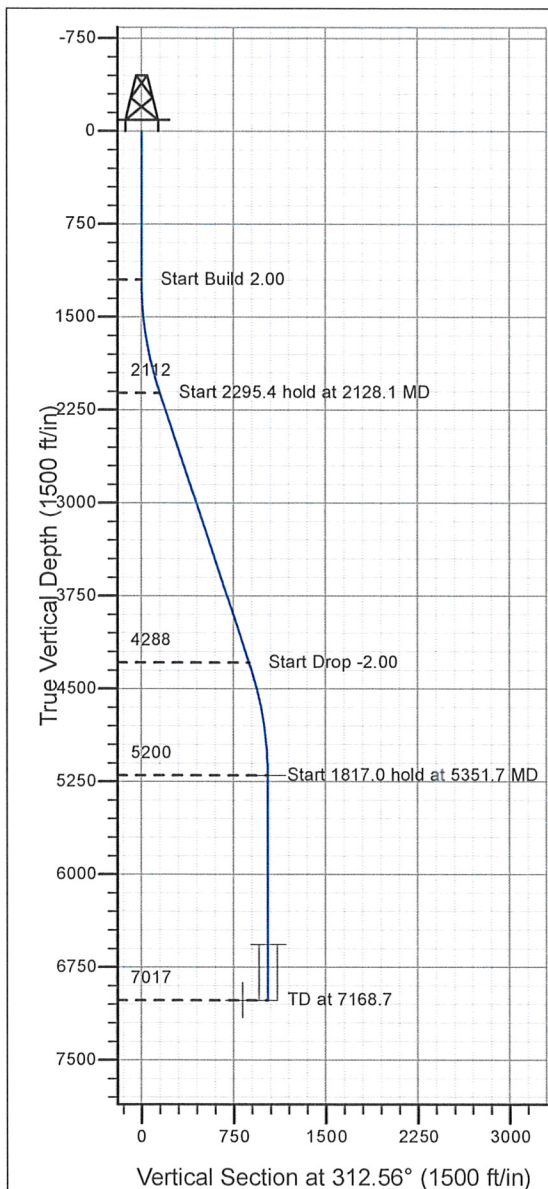


Well Name: Aloysius C34-21D

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
 -S+E/W Northing Easting Latitude Longitude S
 0.0 1341742.65 3269307.73 40° 16' 2.856 N 104° 32' 5.676 W
 Original Well Elev WELL @ 4707.0ft (Original Well Elev)

+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 Elev	WELL @ 4707.0ft	(Original Well Elev)	

NOBLE ENERGY INC WELD COUNTY CO



Aloysius C34-21D Pad Sec.34-T4N-R64W
Aloysius C34-21D
Noble Aloysius C34-21D Plan #1 11-12-09
13:27, November 12 2009



Azimuths to True North
Magnetic North: 8.91°

Magnetic Field
Strength: 53274.1nT
Dip Angle: 67.04°
Date: 11/12/2009
Model: IGRF200510

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 2490'FNL, 2490'FWL	5200.0	695.9	-757.8	40° 16' 9.732 N	104° 32' 15.452 W	Point
TARGET CIRCLE 2490'FNL, 2490'FWL	6567.0	695.9	-757.8	40° 16' 9.733 N	104° 32' 15.452 W	Circle (Radius: 75.0)
HARDLINES 146'S & 147'E OF BHL	7017.0	549.9	-610.8	40° 16' 8.290 N	104° 32' 13.556 W	Polygon

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	2128.1	18.56	312.56	2112.0	100.8	-109.8	2.00	312.56	149.0	
4	4423.6	18.56	312.56	4288.0	595.0	-648.0	0.00	0.00	879.8	
5	5351.7	0.00	0.00	5200.0	695.9	-757.8	2.00	180.00	1028.8	TARGET BHL 2490'FNL, 2490'FWL
6	7168.7	0.00	0.00	7017.0	695.9	-757.8	0.00	0.00	1028.8	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.34-T4N-R64W

Aloysius C34-21D Pad Sec.34-T4N-R64W

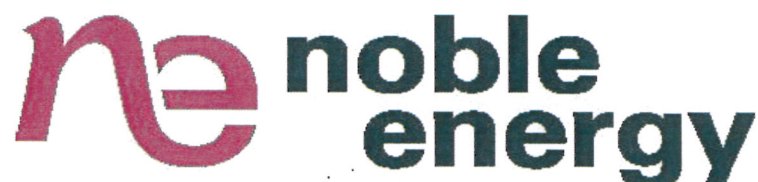
Aloysius C34-21D

Wellbore #1

Plan: Noble Aloysius C34-21D Plan #1 11-12-09

Standard Planning Report

12 November, 2009



Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Aloysius C34-21D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4707.0ft (Original Well Elev)
Project:	SEC.34-T4N-R64W	MD Reference:	WELL @ 4707.0ft (Original Well Elev)
Site:	Aloysius C34-21D Pad Sec.34-T4N-R64W	North Reference:	True
Well:	Aloysius C34-21D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Aloysius C34-21D Plan #1 11-12-09		

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				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/12/2009	8.91	67.04	53,274

Design	Noble Aloysius C34-21D Plan #1 11-12-09				
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Audit Notes:

Version: Phase: PROTOTYPE Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	312.56

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,128.1	18.56	312.56	2,112.0	100.8	-109.8	2.00	2.00	0.00	312.56	
4,423.6	18.56	312.56	4,288.0	595.0	-648.0	0.00	0.00	0.00	0.00	
5,351.7	0.00	0.00	5,200.0	695.9	-757.8	2.00	-2.00	0.00	180.00	TARGET BHL 249C
7,168.7	0.00	0.00	7,017.0	695.9	-757.8	0.00	0.00	0.00	0.00	

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Aloysius C34-21D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4707.0ft (Original Well Elev)
Project:	SEC.34-T4N-R64W	MD Reference:	WELL @ 4707.0ft (Original Well Elev)
Site:	Aloysius C34-21D Pad Sec.34-T4N-R64W	North Reference:	True
Well:	Aloysius C34-21D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Aloysius C34-21D Plan #1 11-12-09		

Planned 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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,240.0	0.80	312.56	1,240.0	0.2	-0.2	0.3	2.00	2.00	0.00
1,280.0	1.60	312.56	1,280.0	0.8	-0.8	1.1	2.00	2.00	0.00
1,320.0	2.40	312.56	1,320.0	1.7	-1.9	2.5	2.00	2.00	0.00
1,360.0	3.20	312.56	1,359.9	3.0	-3.3	4.5	2.00	2.00	0.00
1,400.0	4.00	312.56	1,399.8	4.7	-5.1	7.0	2.00	2.00	0.00
1,440.0	4.80	312.56	1,439.7	6.8	-7.4	10.0	2.00	2.00	0.00
1,480.0	5.60	312.56	1,479.6	9.2	-10.1	13.7	2.00	2.00	0.00
1,520.0	6.40	312.56	1,519.3	12.1	-13.2	17.9	2.00	2.00	0.00
1,560.0	7.20	312.56	1,559.1	15.3	-16.6	22.6	2.00	2.00	0.00
1,600.0	8.00	312.56	1,598.7	18.9	-20.5	27.9	2.00	2.00	0.00
1,640.0	8.80	312.56	1,638.3	22.8	-24.8	33.7	2.00	2.00	0.00
1,680.0	9.60	312.56	1,677.8	27.1	-29.5	40.1	2.00	2.00	0.00
1,720.0	10.40	312.56	1,717.1	31.8	-34.7	47.1	2.00	2.00	0.00
1,760.0	11.20	312.56	1,756.4	36.9	-40.2	54.6	2.00	2.00	0.00
1,800.0	12.00	312.56	1,795.6	42.3	-46.1	62.6	2.00	2.00	0.00
1,840.0	12.80	312.56	1,834.7	48.2	-52.4	71.2	2.00	2.00	0.00
1,880.0	13.60	312.56	1,873.6	54.3	-59.2	80.3	2.00	2.00	0.00
1,920.0	14.40	312.56	1,912.4	60.9	-66.3	90.0	2.00	2.00	0.00
1,960.0	15.20	312.56	1,951.1	67.8	-73.8	100.2	2.00	2.00	0.00
2,000.0	16.00	312.56	1,989.6	75.1	-81.7	111.0	2.00	2.00	0.00
2,040.0	16.80	312.56	2,028.0	82.7	-90.1	122.3	2.00	2.00	0.00
2,080.0	17.60	312.56	2,066.2	90.7	-98.8	134.1	2.00	2.00	0.00
2,120.0	18.40	312.56	2,104.3	99.1	-107.9	146.5	2.00	2.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Aloysius C34-21D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4707.0ft (Original Well Elev)
Project:	SEC.34-T4N-R64W	MD Reference:	WELL @ 4707.0ft (Original Well Elev)
Site:	Aloysius C34-21D Pad Sec.34-T4N-R64W	North Reference:	True
Well:	Aloysius C34-21D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Aloysius C34-21D Plan #1 11-12-09		

Planned 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)	
2,128.1	18.56	312.56	2,112.0	100.8	-109.8	149.0	2.00	2.00	0.00	
2,160.0	18.56	312.56	2,142.2	107.7	-117.2	159.2	0.00	0.00	0.00	
2,200.0	18.56	312.56	2,180.1	116.3	-126.6	171.9	0.00	0.00	0.00	
2,240.0	18.56	312.56	2,218.0	124.9	-136.0	184.6	0.00	0.00	0.00	
2,280.0	18.56	312.56	2,255.9	133.5	-145.4	197.4	0.00	0.00	0.00	
2,320.0	18.56	312.56	2,293.9	142.1	-154.8	210.1	0.00	0.00	0.00	
2,360.0	18.56	312.56	2,331.8	150.7	-164.1	222.9	0.00	0.00	0.00	
2,400.0	18.56	312.56	2,369.7	159.3	-173.5	235.6	0.00	0.00	0.00	
2,440.0	18.56	312.56	2,407.6	168.0	-182.9	248.3	0.00	0.00	0.00	
2,480.0	18.56	312.56	2,445.5	176.6	-192.3	261.1	0.00	0.00	0.00	
2,520.0	18.56	312.56	2,483.5	185.2	-201.7	273.8	0.00	0.00	0.00	
2,560.0	18.56	312.56	2,521.4	193.8	-211.0	286.5	0.00	0.00	0.00	
2,600.0	18.56	312.56	2,559.3	202.4	-220.4	299.3	0.00	0.00	0.00	
2,640.0	18.56	312.56	2,597.2	211.0	-229.8	312.0	0.00	0.00	0.00	
2,680.0	18.56	312.56	2,635.1	219.6	-239.2	324.7	0.00	0.00	0.00	
2,720.0	18.56	312.56	2,673.1	228.2	-248.6	337.5	0.00	0.00	0.00	
2,760.0	18.56	312.56	2,711.0	236.9	-257.9	350.2	0.00	0.00	0.00	
2,800.0	18.56	312.56	2,748.9	245.5	-267.3	362.9	0.00	0.00	0.00	
2,840.0	18.56	312.56	2,786.8	254.1	-276.7	375.7	0.00	0.00	0.00	
2,880.0	18.56	312.56	2,824.7	262.7	-286.1	388.4	0.00	0.00	0.00	
2,920.0	18.56	312.56	2,862.7	271.3	-295.5	401.1	0.00	0.00	0.00	
2,960.0	18.56	312.56	2,900.6	279.9	-304.8	413.9	0.00	0.00	0.00	
3,000.0	18.56	312.56	2,938.5	288.5	-314.2	426.6	0.00	0.00	0.00	
3,040.0	18.56	312.56	2,976.4	297.1	-323.6	439.3	0.00	0.00	0.00	
3,080.0	18.56	312.56	3,014.3	305.8	-333.0	452.1	0.00	0.00	0.00	
3,120.0	18.56	312.56	3,052.2	314.4	-342.4	464.8	0.00	0.00	0.00	
3,160.0	18.56	312.56	3,090.2	323.0	-351.7	477.5	0.00	0.00	0.00	
3,200.0	18.56	312.56	3,128.1	331.6	-361.1	490.3	0.00	0.00	0.00	
3,240.0	18.56	312.56	3,166.0	340.2	-370.5	503.0	0.00	0.00	0.00	
3,280.0	18.56	312.56	3,203.9	348.8	-379.9	515.7	0.00	0.00	0.00	
3,320.0	18.56	312.56	3,241.8	357.4	-389.2	528.5	0.00	0.00	0.00	
3,360.0	18.56	312.56	3,279.8	366.0	-398.6	541.2	0.00	0.00	0.00	
3,400.0	18.56	312.56	3,317.7	374.7	-408.0	553.9	0.00	0.00	0.00	
3,440.0	18.56	312.56	3,355.6	383.3	-417.4	566.7	0.00	0.00	0.00	
3,480.0	18.56	312.56	3,393.5	391.9	-426.8	579.4	0.00	0.00	0.00	
3,520.0	18.56	312.56	3,431.4	400.5	-436.1	592.1	0.00	0.00	0.00	
3,560.0	18.56	312.56	3,469.4	409.1	-445.5	604.9	0.00	0.00	0.00	
3,600.0	18.56	312.56	3,507.3	417.7	-454.9	617.6	0.00	0.00	0.00	
3,640.0	18.56	312.56	3,545.2	426.3	-464.3	630.3	0.00	0.00	0.00	
3,680.0	18.56	312.56	3,583.1	434.9	-473.7	643.1	0.00	0.00	0.00	
3,720.0	18.56	312.56	3,621.0	443.6	-483.0	655.8	0.00	0.00	0.00	
3,760.0	18.56	312.56	3,659.0	452.2	-492.4	668.5	0.00	0.00	0.00	
3,800.0	18.56	312.56	3,696.9	460.8	-501.8	681.3	0.00	0.00	0.00	
3,840.0	18.56	312.56	3,734.8	469.4	-511.2	694.0	0.00	0.00	0.00	
3,880.0	18.56	312.56	3,772.7	478.0	-520.6	706.7	0.00	0.00	0.00	
3,920.0	18.56	312.56	3,810.6	486.6	-529.9	719.5	0.00	0.00	0.00	
3,960.0	18.56	312.56	3,848.5	495.2	-539.3	732.2	0.00	0.00	0.00	
4,000.0	18.56	312.56	3,886.5	503.8	-548.7	744.9	0.00	0.00	0.00	
4,040.0	18.56	312.56	3,924.4	512.5	-558.1	757.7	0.00	0.00	0.00	
4,080.0	18.56	312.56	3,962.3	521.1	-567.5	770.4	0.00	0.00	0.00	
4,120.0	18.56	312.56	4,000.2	529.7	-576.8	783.1	0.00	0.00	0.00	
4,160.0	18.56	312.56	4,038.1	538.3	-586.2	795.9	0.00	0.00	0.00	
4,200.0	18.56	312.56	4,076.1	546.9	-595.6	808.6	0.00	0.00	0.00	
4,240.0	18.56	312.56	4,114.0	555.5	-605.0	821.3	0.00	0.00	0.00	

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Aloysius C34-21D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4707.0ft (Original Well Elev)
Project:	SEC.34-T4N-R64W	MD Reference:	WELL @ 4707.0ft (Original Well Elev)
Site:	Aloysius C34-21D Pad Sec.34-T4N-R64W	North Reference:	True
Well:	Aloysius C34-21D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Aloysius C34-21D Plan #1 11-12-09		

Planned 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)
4,280.0	18.56	312.56	4,151.9	564.1	-614.4	834.1	0.00	0.00	0.00
4,320.0	18.56	312.56	4,189.8	572.7	-623.7	846.8	0.00	0.00	0.00
4,360.0	18.56	312.56	4,227.7	581.4	-633.1	859.5	0.00	0.00	0.00
4,400.0	18.56	312.56	4,265.7	590.0	-642.5	872.3	0.00	0.00	0.00
4,423.6	18.56	312.56	4,288.0	595.0	-648.0	879.8	0.00	0.00	0.00
4,440.0	18.23	312.56	4,303.6	598.6	-651.8	885.0	2.00	-2.00	0.00
4,480.0	17.43	312.56	4,341.7	606.8	-660.9	897.2	2.00	-2.00	0.00
4,520.0	16.63	312.56	4,379.9	614.8	-669.5	908.9	2.00	-2.00	0.00
4,560.0	15.83	312.56	4,418.3	622.3	-677.7	920.1	2.00	-2.00	0.00
4,600.0	15.03	312.56	4,456.9	629.5	-685.6	930.8	2.00	-2.00	0.00
4,640.0	14.23	312.56	4,495.6	636.4	-693.0	940.9	2.00	-2.00	0.00
4,680.0	13.43	312.56	4,534.4	642.8	-700.1	950.4	2.00	-2.00	0.00
4,720.0	12.63	312.56	4,573.4	648.9	-706.7	959.5	2.00	-2.00	0.00
4,760.0	11.83	312.56	4,612.5	654.7	-712.9	967.9	2.00	-2.00	0.00
4,800.0	11.03	312.56	4,651.7	660.0	-718.8	975.9	2.00	-2.00	0.00
4,840.0	10.23	312.56	4,691.0	665.0	-724.2	983.2	2.00	-2.00	0.00
4,880.0	9.43	312.56	4,730.4	669.6	-729.3	990.1	2.00	-2.00	0.00
4,920.0	8.63	312.56	4,769.9	673.9	-733.9	996.4	2.00	-2.00	0.00
4,960.0	7.83	312.56	4,809.5	677.8	-738.1	1,002.1	2.00	-2.00	0.00
5,000.0	7.03	312.56	4,849.2	681.3	-741.9	1,007.3	2.00	-2.00	0.00
5,040.0	6.23	312.56	4,888.9	684.4	-745.3	1,011.9	2.00	-2.00	0.00
5,080.0	5.43	312.56	4,928.7	687.1	-748.3	1,015.9	2.00	-2.00	0.00
5,120.0	4.63	312.56	4,968.5	689.5	-750.9	1,019.5	2.00	-2.00	0.00
5,160.0	3.83	312.56	5,008.4	691.5	-753.1	1,022.4	2.00	-2.00	0.00
5,200.0	3.03	312.56	5,048.3	693.1	-754.8	1,024.8	2.00	-2.00	0.00
5,240.0	2.23	312.56	5,088.3	694.4	-756.2	1,026.6	2.00	-2.00	0.00
5,280.0	1.43	312.56	5,128.3	695.2	-757.1	1,027.9	2.00	-2.00	0.00
5,320.0	0.63	312.56	5,168.3	695.7	-757.7	1,028.6	2.00	-2.00	0.00
5,351.7	0.00	0.00	5,200.0	695.9	-757.8	1,028.8	2.00	-2.00	0.00
TARGET BHL 2490'FNL, 2490'FWL									
5,360.0	0.00	0.00	5,208.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,400.0	0.00	0.00	5,248.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,440.0	0.00	0.00	5,288.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,480.0	0.00	0.00	5,328.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,520.0	0.00	0.00	5,368.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,560.0	0.00	0.00	5,408.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,600.0	0.00	0.00	5,448.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,640.0	0.00	0.00	5,488.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,680.0	0.00	0.00	5,528.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,720.0	0.00	0.00	5,568.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,760.0	0.00	0.00	5,608.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,800.0	0.00	0.00	5,648.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,840.0	0.00	0.00	5,688.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,880.0	0.00	0.00	5,728.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,920.0	0.00	0.00	5,768.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
5,960.0	0.00	0.00	5,808.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,000.0	0.00	0.00	5,848.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,040.0	0.00	0.00	5,888.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,080.0	0.00	0.00	5,928.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,120.0	0.00	0.00	5,968.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,160.0	0.00	0.00	6,008.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,200.0	0.00	0.00	6,048.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,240.0	0.00	0.00	6,088.3	695.9	-757.8	1,028.8	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
 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: Noble Aloysius C34-21D Plan #1 11-12-09

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

Planned 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)
6,280.0	0.00	0.00	6,128.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,320.0	0.00	0.00	6,168.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,360.0	0.00	0.00	6,208.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,400.0	0.00	0.00	6,248.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,440.0	0.00	0.00	6,288.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,480.0	0.00	0.00	6,328.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,520.0	0.00	0.00	6,368.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,560.0	0.00	0.00	6,408.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,600.0	0.00	0.00	6,448.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,640.0	0.00	0.00	6,488.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,680.0	0.00	0.00	6,528.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,718.7	0.00	0.00	6,567.0	695.9	-757.8	1,028.8	0.00	0.00	0.00
NIOBRARA - TARGET CIRCLE 2490'FNL, 2490'FWL									
6,720.0	0.00	0.00	6,568.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,760.0	0.00	0.00	6,608.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,800.0	0.00	0.00	6,648.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,840.0	0.00	0.00	6,688.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,880.0	0.00	0.00	6,728.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,920.0	0.00	0.00	6,768.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
6,960.0	0.00	0.00	6,808.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
7,000.0	0.00	0.00	6,848.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
7,018.7	0.00	0.00	6,867.0	695.9	-757.8	1,028.8	0.00	0.00	0.00
CODELL									
7,040.0	0.00	0.00	6,888.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
7,080.0	0.00	0.00	6,928.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
7,120.0	0.00	0.00	6,968.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
7,160.0	0.00	0.00	7,008.3	695.9	-757.8	1,028.8	0.00	0.00	0.00
7,168.7	0.00	0.00	7,017.0	695.9	-757.8	1,028.8	0.00	0.00	0.00
HARDLINES 146'S & 147'E OF BHL									

Targets
Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
TARGET BHL 2490'F	0.00	0.00	5,200.0	695.9	-757.8	1,342,430.18	3,268,542.44	40° 16' 9.732 N	104° 32' 15.452 W
- plan hits target center									
- Point									
HARDLINES 146'S &	0.00	0.00	7,017.0	549.9	-610.8	1,342,285.84	3,268,691.01	40° 16' 8.290 N	104° 32' 13.556 W
- plan misses target center by 207.1ft at 7168.7ft MD (7017.0 TVD, 695.9 N, -757.8 E)									
- Polygon									
Point 1			7,017.0	0.0	0.0	1,342,285.84	3,268,691.01		
Point 2			7,017.0	0.0	-300.0	1,342,282.58	3,268,391.04		
Point 3			7,017.0	0.0	0.0	1,342,285.84	3,268,691.01		
Point 4			7,017.0	300.0	0.0	1,342,585.81	3,268,687.75		
TARGET CIRCLE 2490'F	0.00	0.00	6,567.0	695.9	-757.8	1,342,430.23	3,268,542.44	40° 16' 9.733 N	104° 32' 15.452 W
- plan hits target center									
- Circle (radius 75.0)									

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Aloysius C34-21D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4707.0ft (Original Well Elev)
Project:	SEC.34-T4N-R64W	MD Reference:	WELL @ 4707.0ft (Original Well Elev)
Site:	Aloysius C34-21D Pad Sec.34-T4N-R64W	North Reference:	True
Well:	Aloysius C34-21D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Aloysius C34-21D Plan #1 11-12-09		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,718.7	6,567.0	NIOBRARA		0.00	
7,018.7	6,867.0	CODELL		0.00	