

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	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1427.2	12.54	122.14	1422.2	-36.4	57.9	2.00	122.14	68.4	
4	4455.1	12.54	122.14	4377.8	-386.2	614.8	0.00	0.00	726.0	
5	5082.3	0.00	0.00	5000.0	-422.6	672.7	2.00	180.00	794.4	TARGET BHL 2500'FNL, 100'FWL
6	7959.3	0.00	0.00	7877.0	-422.6	672.7	0.00	0.00	794.4	



Directional

**NOBLE ENERGY INC WELD
COUNTY CO**

SEC.5-T3N-R67W

Camenish P04-32D Pad Sec.5-T3N-R67W

Camenish P04-32D

Wellbore #1

Plan: Noble Camenish P04-32D Plan #1 (9-16-10)

Standard Planning Report

24 September, 2010



Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.5-T3N-R67W
Site: Camenish P04-32D Pad Sec.5-T3N-R67W
Well: Camenish P04-32D
Wellbore: Wellbore #1
Design: Noble Camenish P04-32D Plan #1 (9-16-10)

Local Co-ordinate Reference: Well Camenish P04-32D
TVD Reference: WELL @ 4911.0ft (Original Well Elev)
MD Reference: WELL @ 4911.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project	SEC.5-T3N-R67W, 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	Camenish P04-32D Pad Sec.5-T3N-R67W				
Site Position:		Northing:	1,336,874.49 ft	Latitude:	40° 15' 23.760 N
From:	Lat/Long	Easting:	3,165,521.50 ft	Longitude:	104° 54' 24.984 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.38 °

Well	Camenish P04-32D					
Well Position	+N/-S	0.0 ft	Northing:	1,336,874.48 ft	Latitude:	40° 15' 23.760 N
	+E/-W	0.0 ft	Easting:	3,165,521.50 ft	Longitude:	104° 54' 24.984 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,898.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/24/2010	9.02	66.94	53,116

Design	Noble Camenish P04-32D Plan #1 (9-16-10)				
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	122.14	

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	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,427.2	12.54	122.14	1,422.2	-36.4	57.9	2.00	2.00	0.00	122.14	
4,455.1	12.54	122.14	4,377.8	-386.2	614.8	0.00	0.00	0.00	0.00	
5,082.3	0.00	0.00	5,000.0	-422.6	672.7	2.00	-2.00	0.00	180.00	TARGET BHL 250C
7,959.3	0.00	0.00	7,877.0	-422.6	672.7	0.00	0.00	0.00	0.00	

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MD Reference: WELL @ 4911.0ft (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)
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
550.0	0.00	0.00	550.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
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	0.80	122.14	840.0	-0.1	0.2	0.3	2.00	2.00	0.00
880.0	1.60	122.14	880.0	-0.6	0.9	1.1	2.00	2.00	0.00
920.0	2.40	122.14	920.0	-1.3	2.1	2.5	2.00	2.00	0.00
960.0	3.20	122.14	959.9	-2.4	3.8	4.5	2.00	2.00	0.00
1,000.0	4.00	122.14	999.8	-3.7	5.9	7.0	2.00	2.00	0.00
1,040.0	4.80	122.14	1,039.7	-5.3	8.5	10.0	2.00	2.00	0.00
1,080.0	5.60	122.14	1,079.6	-7.3	11.6	13.7	2.00	2.00	0.00
1,120.0	6.40	122.14	1,119.3	-9.5	15.1	17.9	2.00	2.00	0.00
1,160.0	7.20	122.14	1,159.1	-12.0	19.1	22.6	2.00	2.00	0.00
1,200.0	8.00	122.14	1,198.7	-14.8	23.6	27.9	2.00	2.00	0.00
1,240.0	8.80	122.14	1,238.3	-17.9	28.6	33.7	2.00	2.00	0.00
1,280.0	9.60	122.14	1,277.8	-21.3	34.0	40.1	2.00	2.00	0.00
1,320.0	10.40	122.14	1,317.1	-25.0	39.9	47.1	2.00	2.00	0.00
1,360.0	11.20	122.14	1,356.4	-29.0	46.2	54.6	2.00	2.00	0.00
1,400.0	12.00	122.14	1,395.6	-33.3	53.0	62.6	2.00	2.00	0.00
1,427.2	12.54	122.14	1,422.2	-36.4	57.9	68.4	2.00	2.00	0.00
1,440.0	12.54	122.14	1,434.7	-37.9	60.3	71.2	0.00	0.00	0.00
1,480.0	12.54	122.14	1,473.7	-42.5	67.6	79.9	0.00	0.00	0.00
1,520.0	12.54	122.14	1,512.8	-47.1	75.0	88.5	0.00	0.00	0.00
1,560.0	12.54	122.14	1,551.8	-51.7	82.3	97.2	0.00	0.00	0.00
1,600.0	12.54	122.14	1,590.9	-56.3	89.7	105.9	0.00	0.00	0.00
1,640.0	12.54	122.14	1,629.9	-61.0	97.0	114.6	0.00	0.00	0.00
1,680.0	12.54	122.14	1,669.0	-65.6	104.4	123.3	0.00	0.00	0.00
1,720.0	12.54	122.14	1,708.0	-70.2	111.8	132.0	0.00	0.00	0.00
1,760.0	12.54	122.14	1,747.1	-74.8	119.1	140.7	0.00	0.00	0.00
1,800.0	12.54	122.14	1,786.1	-79.4	126.5	149.4	0.00	0.00	0.00
1,840.0	12.54	122.14	1,825.1	-84.1	133.8	158.0	0.00	0.00	0.00
1,880.0	12.54	122.14	1,864.2	-88.7	141.2	166.7	0.00	0.00	0.00
1,920.0	12.54	122.14	1,903.2	-93.3	148.5	175.4	0.00	0.00	0.00
1,960.0	12.54	122.14	1,942.3	-97.9	155.9	184.1	0.00	0.00	0.00
2,000.0	12.54	122.14	1,981.3	-102.6	163.3	192.8	0.00	0.00	0.00

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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)
2,040.0	12.54	122.14	2,020.4	-107.2	170.6	201.5	0.00	0.00	0.00
2,080.0	12.54	122.14	2,059.4	-111.8	178.0	210.2	0.00	0.00	0.00
2,120.0	12.54	122.14	2,098.5	-116.4	185.3	218.9	0.00	0.00	0.00
2,160.0	12.54	122.14	2,137.5	-121.0	192.7	227.5	0.00	0.00	0.00
2,200.0	12.54	122.14	2,176.6	-125.7	200.0	236.2	0.00	0.00	0.00
2,240.0	12.54	122.14	2,215.6	-130.3	207.4	244.9	0.00	0.00	0.00
2,280.0	12.54	122.14	2,254.6	-134.9	214.7	253.6	0.00	0.00	0.00
2,320.0	12.54	122.14	2,293.7	-139.5	222.1	262.3	0.00	0.00	0.00
2,360.0	12.54	122.14	2,332.7	-144.1	229.5	271.0	0.00	0.00	0.00
2,400.0	12.54	122.14	2,371.8	-148.8	236.8	279.7	0.00	0.00	0.00
2,440.0	12.54	122.14	2,410.8	-153.4	244.2	288.4	0.00	0.00	0.00
2,480.0	12.54	122.14	2,449.9	-158.0	251.5	297.0	0.00	0.00	0.00
2,520.0	12.54	122.14	2,488.9	-162.6	258.9	305.7	0.00	0.00	0.00
2,560.0	12.54	122.14	2,528.0	-167.3	266.2	314.4	0.00	0.00	0.00
2,600.0	12.54	122.14	2,567.0	-171.9	273.6	323.1	0.00	0.00	0.00
2,640.0	12.54	122.14	2,606.1	-176.5	281.0	331.8	0.00	0.00	0.00
2,680.0	12.54	122.14	2,645.1	-181.1	288.3	340.5	0.00	0.00	0.00
2,720.0	12.54	122.14	2,684.1	-185.7	295.7	349.2	0.00	0.00	0.00
2,760.0	12.54	122.14	2,723.2	-190.4	303.0	357.9	0.00	0.00	0.00
2,800.0	12.54	122.14	2,762.2	-195.0	310.4	366.5	0.00	0.00	0.00
2,840.0	12.54	122.14	2,801.3	-199.6	317.7	375.2	0.00	0.00	0.00
2,880.0	12.54	122.14	2,840.3	-204.2	325.1	383.9	0.00	0.00	0.00
2,920.0	12.54	122.14	2,879.4	-208.8	332.4	392.6	0.00	0.00	0.00
2,960.0	12.54	122.14	2,918.4	-213.5	339.8	401.3	0.00	0.00	0.00
3,000.0	12.54	122.14	2,957.5	-218.1	347.2	410.0	0.00	0.00	0.00
3,040.0	12.54	122.14	2,996.5	-222.7	354.5	418.7	0.00	0.00	0.00
3,080.0	12.54	122.14	3,035.5	-227.3	361.9	427.4	0.00	0.00	0.00
3,120.0	12.54	122.14	3,074.6	-231.9	369.2	436.0	0.00	0.00	0.00
3,160.0	12.54	122.14	3,113.6	-236.6	376.6	444.7	0.00	0.00	0.00
3,200.0	12.54	122.14	3,152.7	-241.2	383.9	453.4	0.00	0.00	0.00
3,240.0	12.54	122.14	3,191.7	-245.8	391.3	462.1	0.00	0.00	0.00
3,280.0	12.54	122.14	3,230.8	-250.4	398.7	470.8	0.00	0.00	0.00
3,320.0	12.54	122.14	3,269.8	-255.1	406.0	479.5	0.00	0.00	0.00
3,360.0	12.54	122.14	3,308.9	-259.7	413.4	488.2	0.00	0.00	0.00
3,400.0	12.54	122.14	3,347.9	-264.3	420.7	496.9	0.00	0.00	0.00
3,440.0	12.54	122.14	3,387.0	-268.9	428.1	505.5	0.00	0.00	0.00
3,480.0	12.54	122.14	3,426.0	-273.5	435.4	514.2	0.00	0.00	0.00
3,520.0	12.54	122.14	3,465.0	-278.2	442.8	522.9	0.00	0.00	0.00
3,560.0	12.54	122.14	3,504.1	-282.8	450.2	531.6	0.00	0.00	0.00
3,600.0	12.54	122.14	3,543.1	-287.4	457.5	540.3	0.00	0.00	0.00
3,640.0	12.54	122.14	3,582.2	-292.0	464.9	549.0	0.00	0.00	0.00
3,680.0	12.54	122.14	3,621.2	-296.6	472.2	557.7	0.00	0.00	0.00
3,720.0	12.54	122.14	3,660.3	-301.3	479.6	566.4	0.00	0.00	0.00
3,760.0	12.54	122.14	3,699.3	-305.9	486.9	575.0	0.00	0.00	0.00
3,800.0	12.54	122.14	3,738.4	-310.5	494.3	583.7	0.00	0.00	0.00
3,840.0	12.54	122.14	3,777.4	-315.1	501.6	592.4	0.00	0.00	0.00
3,880.0	12.54	122.14	3,816.5	-319.8	509.0	601.1	0.00	0.00	0.00
3,920.0	12.54	122.14	3,855.5	-324.4	516.4	609.8	0.00	0.00	0.00
3,960.0	12.54	122.14	3,894.5	-329.0	523.7	618.5	0.00	0.00	0.00
4,000.0	12.54	122.14	3,933.6	-333.6	531.1	627.2	0.00	0.00	0.00
4,040.0	12.54	122.14	3,972.6	-338.2	538.4	635.9	0.00	0.00	0.00
4,080.0	12.54	122.14	4,011.7	-342.9	545.8	644.5	0.00	0.00	0.00
4,120.0	12.54	122.14	4,050.7	-347.5	553.1	653.2	0.00	0.00	0.00
4,160.0	12.54	122.14	4,089.8	-352.1	560.5	661.9	0.00	0.00	0.00

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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)
4,200.0	12.54	122.14	4,128.8	-356.7	567.9	670.6	0.00	0.00	0.00
4,240.0	12.54	122.14	4,167.9	-361.3	575.2	679.3	0.00	0.00	0.00
4,280.0	12.54	122.14	4,206.9	-366.0	582.6	688.0	0.00	0.00	0.00
4,320.0	12.54	122.14	4,245.9	-370.6	589.9	696.7	0.00	0.00	0.00
4,360.0	12.54	122.14	4,285.0	-375.2	597.3	705.4	0.00	0.00	0.00
4,400.0	12.54	122.14	4,324.0	-379.8	604.6	714.0	0.00	0.00	0.00
4,440.0	12.54	122.14	4,363.1	-384.5	612.0	722.7	0.00	0.00	0.00
4,455.1	12.54	122.14	4,377.8	-386.2	614.8	726.0	0.00	0.00	0.00
4,480.0	12.05	122.14	4,402.2	-389.0	619.3	731.3	2.00	-2.00	0.00
4,520.0	11.25	122.14	4,441.3	-393.3	626.1	739.4	2.00	-2.00	0.00
4,560.0	10.45	122.14	4,480.6	-397.3	632.5	746.9	2.00	-2.00	0.00
4,600.0	9.65	122.14	4,520.0	-401.0	638.4	753.9	2.00	-2.00	0.00
4,640.0	8.85	122.14	4,559.5	-404.4	643.8	760.3	2.00	-2.00	0.00
4,680.0	8.05	122.14	4,599.0	-407.6	648.8	766.2	2.00	-2.00	0.00
4,720.0	7.25	122.14	4,638.7	-410.4	653.3	771.5	2.00	-2.00	0.00
4,760.0	6.45	122.14	4,678.4	-412.9	657.3	776.3	2.00	-2.00	0.00
4,800.0	5.65	122.14	4,718.2	-415.2	660.9	780.5	2.00	-2.00	0.00
4,840.0	4.85	122.14	4,758.0	-417.1	664.0	784.1	2.00	-2.00	0.00
4,880.0	4.05	122.14	4,797.9	-418.8	666.6	787.3	2.00	-2.00	0.00
4,920.0	3.25	122.14	4,837.8	-420.1	668.8	789.8	2.00	-2.00	0.00
4,960.0	2.45	122.14	4,877.8	-421.2	670.5	791.8	2.00	-2.00	0.00
5,000.0	1.65	122.14	4,917.7	-421.9	671.7	793.2	2.00	-2.00	0.00
5,040.0	0.85	122.14	4,957.7	-422.4	672.4	794.1	2.00	-2.00	0.00
5,080.0	0.05	122.14	4,997.7	-422.6	672.7	794.4	2.00	-2.00	0.00
5,082.3	0.00	0.00	5,000.0	-422.6	672.7	794.4	2.00	-2.00	-5,372.09
TARGET BHL 2500'FNL, 100'FWL									
5,120.0	0.00	0.00	5,037.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,160.0	0.00	0.00	5,077.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,200.0	0.00	0.00	5,117.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,240.0	0.00	0.00	5,157.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,280.0	0.00	0.00	5,197.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,320.0	0.00	0.00	5,237.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,360.0	0.00	0.00	5,277.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,400.0	0.00	0.00	5,317.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,440.0	0.00	0.00	5,357.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,480.0	0.00	0.00	5,397.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,520.0	0.00	0.00	5,437.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,560.0	0.00	0.00	5,477.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,600.0	0.00	0.00	5,517.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,640.0	0.00	0.00	5,557.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,680.0	0.00	0.00	5,597.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,720.0	0.00	0.00	5,637.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,760.0	0.00	0.00	5,677.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,800.0	0.00	0.00	5,717.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,840.0	0.00	0.00	5,757.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,880.0	0.00	0.00	5,797.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,920.0	0.00	0.00	5,837.7	-422.6	672.7	794.4	0.00	0.00	0.00
5,960.0	0.00	0.00	5,877.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,000.0	0.00	0.00	5,917.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,040.0	0.00	0.00	5,957.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,080.0	0.00	0.00	5,997.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,120.0	0.00	0.00	6,037.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,160.0	0.00	0.00	6,077.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,200.0	0.00	0.00	6,117.7	-422.6	672.7	794.4	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.5-T3N-R67W
Site: Camenish P04-32D Pad Sec.5-T3N-R67W
Well: Camenish P04-32D
Wellbore: Wellbore #1
Design: Noble Camenish P04-32D Plan #1 (9-16-10)

Local Co-ordinate Reference: Well Camenish P04-32D
TVD Reference: WELL @ 4911.0ft (Original Well Elev)
MD Reference: WELL @ 4911.0ft (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)
6,240.0	0.00	0.00	6,157.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,280.0	0.00	0.00	6,197.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,320.0	0.00	0.00	6,237.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,360.0	0.00	0.00	6,277.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,400.0	0.00	0.00	6,317.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,440.0	0.00	0.00	6,357.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,480.0	0.00	0.00	6,397.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,520.0	0.00	0.00	6,437.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,560.0	0.00	0.00	6,477.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,600.0	0.00	0.00	6,517.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,640.0	0.00	0.00	6,557.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,680.0	0.00	0.00	6,597.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,720.0	0.00	0.00	6,637.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,760.0	0.00	0.00	6,677.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,800.0	0.00	0.00	6,717.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,840.0	0.00	0.00	6,757.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,880.0	0.00	0.00	6,797.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,920.0	0.00	0.00	6,837.7	-422.6	672.7	794.4	0.00	0.00	0.00
6,960.0	0.00	0.00	6,877.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,000.0	0.00	0.00	6,917.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,008.3	0.00	0.00	6,926.0	-422.6	672.7	794.4	0.00	0.00	0.00
NIOBRARA - TARGET CIRCLE BHL 2500'FNL, 100'FWL									
7,040.0	0.00	0.00	6,957.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,080.0	0.00	0.00	6,997.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,120.0	0.00	0.00	7,037.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,160.0	0.00	0.00	7,077.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,200.0	0.00	0.00	7,117.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,240.0	0.00	0.00	7,157.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,280.0	0.00	0.00	7,197.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,309.3	0.00	0.00	7,227.0	-422.6	672.7	794.4	0.00	0.00	0.00
CODELL									
7,320.0	0.00	0.00	7,237.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,360.0	0.00	0.00	7,277.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,400.0	0.00	0.00	7,317.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,440.0	0.00	0.00	7,357.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,480.0	0.00	0.00	7,397.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,520.0	0.00	0.00	7,437.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,560.0	0.00	0.00	7,477.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,600.0	0.00	0.00	7,517.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,640.0	0.00	0.00	7,557.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,680.0	0.00	0.00	7,597.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,699.3	0.00	0.00	7,617.0	-422.6	672.7	794.4	0.00	0.00	0.00
D-SAND									
7,720.0	0.00	0.00	7,637.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,759.3	0.00	0.00	7,677.0	-422.6	672.7	794.4	0.00	0.00	0.00
J-SAND									
7,760.0	0.00	0.00	7,677.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,800.0	0.00	0.00	7,717.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,840.0	0.00	0.00	7,757.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,880.0	0.00	0.00	7,797.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,920.0	0.00	0.00	7,837.7	-422.6	672.7	794.4	0.00	0.00	0.00
7,959.3	0.00	0.00	7,877.0	-422.6	672.7	794.4	0.00	0.00	0.00
HARD LINES 192'S, 100'W OF BHL									

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
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Site: Camenish P04-32D Pad Sec.5-T3N-R67W
Well: Camenish P04-32D
Wellbore: Wellbore #1
Design: Noble Camenish P04-32D Plan #1 (9-16-10)

Local Co-ordinate Reference: Well Camenish P04-32D
TVD Reference: WELL @ 4911.0ft (Original Well Elev)
MD Reference: WELL @ 4911.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
TARGET CIRCLE BH - plan hits target center - Circle (radius 75.0)	0.00	0.00	6,926.0	-422.6	672.7	1,336,456.44	3,166,196.95	40° 15' 19.584 N	104° 54' 16.308 W
HARD LINES 192'S, 1 - plan misses target center by 216.5ft at 7959.3ft MD (7877.0 TVD, -422.6 N, 672.7 E) - Polygon	0.00	0.00	7,877.0	-614.6	572.7	1,336,263.75	3,166,098.27	40° 15' 17.686 N	104° 54' 17.597 W
Point 1			7,877.0	0.0	0.0	1,336,263.75	3,166,098.27		
Point 2			7,877.0	300.0	0.0	1,336,563.73	3,166,096.26		
Point 3			7,877.0	0.0	0.0	1,336,263.75	3,166,098.27		
Point 4			7,877.0	0.0	200.0	1,336,265.09	3,166,298.26		
TARGET BHL 2500'F - plan hits target center - Point	0.00	0.00	5,000.0	-422.6	672.7	1,336,456.44	3,166,196.95	40° 15' 19.584 N	104° 54' 16.308 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
550.0	550.0	8 5/8"	8-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,008.3	6,926.0	NIOBRARA		0.00	
7,309.3	7,227.0	CODELL		0.00	
7,699.3	7,617.0	D-SAND		0.00	
7,759.3	7,677.0	J-SAND		0.00	