

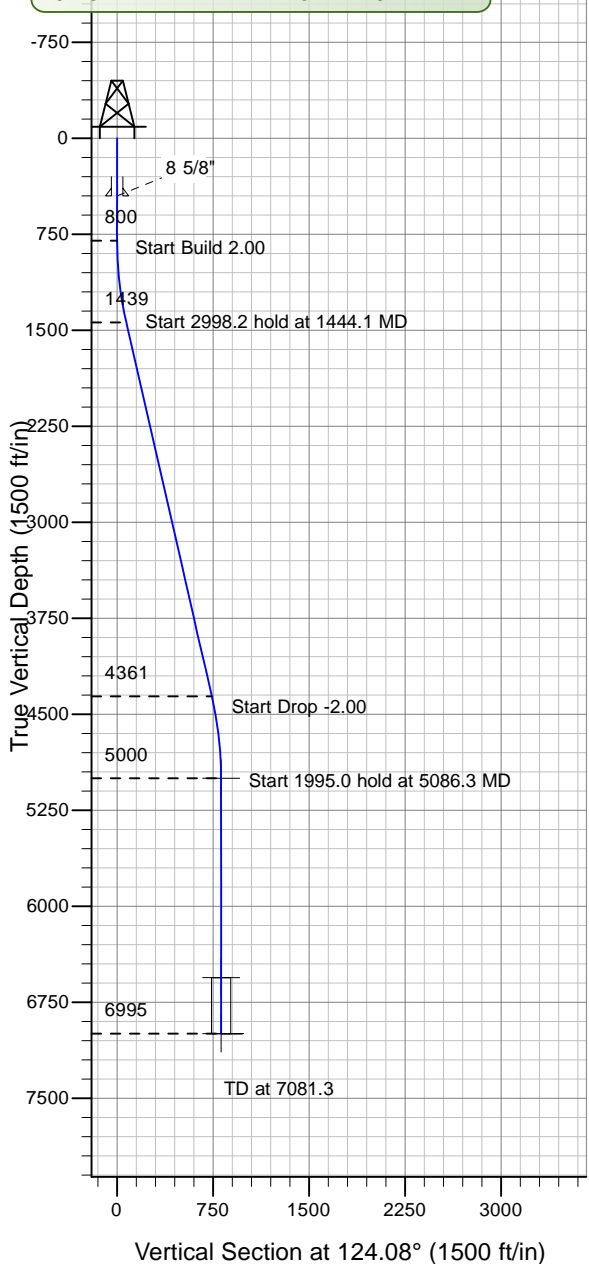
Well Name: Dinnel C27-29D

Surface Location: Dinnel C27-29D Pad Sec.22-T4N-R64W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4677.0

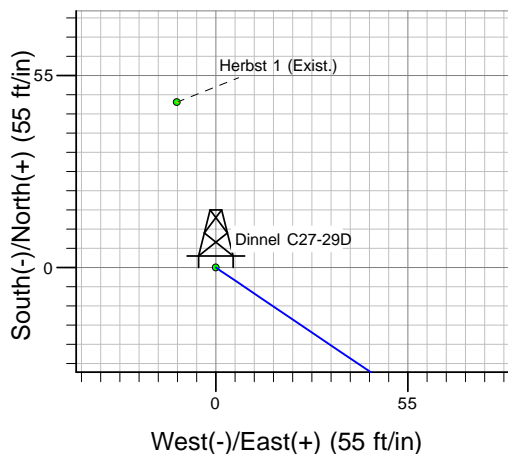
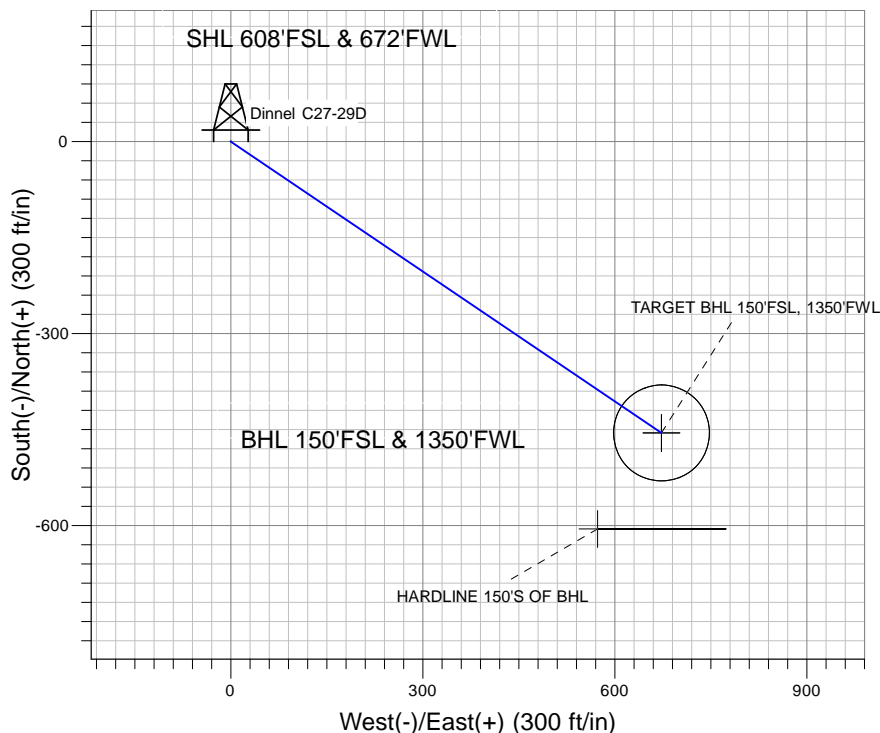
+N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1350778.13 3266673.56 40° 17' 32.424 N 104° 32' 38.400 W
 Original Well Elev WELL @ 4690.0ft (Original Well Elev)

APPROVED

By Ryan Calhoun at 1:31 pm, May 26, 2010



NOBLE ENERGY INC WELD COUNTY CO



Dinnel C27-29D Pad Sec.22-T4N-R64W
 Dinnel C27-29D
 Noble Dinnel C27-29D Plan #2 (05-10-10)
 15:50, May 10 2010



Azimuths to True North
 Magnetic North: 8.89°

Magnetic Field
 Strength: 53221.9snT
 Dip Angle: 67.04°
 Date: 4/20/2010
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 150'FSL, 1350'FWL	5000.0	-455.3	673.0	40° 17' 27.924 N	104° 32' 29.715 W	Point
TARGET CIRCLE 150'FSL, 1350'FWL	6558.0	-455.3	673.0	40° 17' 27.925 N	104° 32' 29.715 W	Circle (Radius: 75.0)
HARDLINE 150'S OF BHL	6995.0	-605.3	573.0	40° 17' 26.442 N	104° 32' 31.006 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	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1444.1	12.88	124.08	1438.6	-40.4	59.7	2.00	124.08	72.1	
4	4442.2	12.88	124.08	4361.4	-414.9	613.3	0.00	0.00	740.5	
5	5086.3	0.00	0.00	5000.0	-455.3	673.0	2.00	180.00	812.6	TARGET BHL 150'FSL, 1350'FWL
6	7081.3	0.00	0.00	6995.0	-455.3	673.0	0.00	0.00	812.6	



NOBLE ENERGY INC WELD COUNTY CO

SEC.22-T4N-R64W

Dinnel C27-29D Pad Sec.22-T4N-R64W

Dinnel C27-29D

Wellbore #1

Plan: Noble Dinnel C27-29D Plan #2 (05-10-10)

Standard Planning Report

10 May, 2010



Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Dinnel C27-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4690.0ft (Original Well Elev)
Project:	SEC.22-T4N-R64W	MD Reference:	WELL @ 4690.0ft (Original Well Elev)
Site:	Dinnel C27-29D Pad Sec.22-T4N-R64W	North Reference:	True
Well:	Dinnel C27-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dinnel C27-29D Plan #2 (05-10-10)		

Project	SEC.22-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						Dinnel C27-29D Pad Sec.22-T4N-R64W											
Site Position:						Northing:			1,350,778.14 ft			Latitude:			40° 17' 32.424 N		
From:			Lat/Long			Easting:			3,266,673.56 ft			Longitude:			104° 32' 38.400 W		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.62 °		

Well	Dinnel C27-29D					
Well Position	+N-S	0.0 ft	Northing:	1,350,778.13 ft	Latitude:	40° 17' 32.424 N
	+E-W	0.0 ft	Easting:	3,266,673.56 ft	Longitude:	104° 32' 38.400 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,677.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/20/2010	8.89	67.04	53,222

Design	Noble Dinnel C27-29D Plan #2 (05-10-10)			
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	124.08

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	
1,444.1	12.88	124.08	1,438.6	-40.4	59.7	2.00	2.00	0.00	124.08	
4,442.2	12.88	124.08	4,361.4	-414.9	613.3	0.00	0.00	0.00	0.00	
5,086.3	0.00	0.00	5,000.0	-455.3	673.0	2.00	-2.00	0.00	180.00	TARGET BHL 150'I
7,081.3	0.00	0.00	6,995.0	-455.3	673.0	0.00	0.00	0.00	0.00	

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Dinnel C27-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4690.0ft (Original Well Elev)
Project:	SEC.22-T4N-R64W	MD Reference:	WELL @ 4690.0ft (Original Well Elev)
Site:	Dinnel C27-29D Pad Sec.22-T4N-R64W	North Reference:	True
Well:	Dinnel C27-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dinnel C27-29D Plan #2 (05-10-10)		

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
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
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	0.80	124.08	840.0	-0.2	0.2	0.3	2.00	2.00	0.00
880.0	1.60	124.08	880.0	-0.6	0.9	1.1	2.00	2.00	0.00
920.0	2.40	124.08	920.0	-1.4	2.1	2.5	2.00	2.00	0.00
960.0	3.20	124.08	959.9	-2.5	3.7	4.5	2.00	2.00	0.00
1,000.0	4.00	124.08	999.8	-3.9	5.8	7.0	2.00	2.00	0.00
1,040.0	4.80	124.08	1,039.7	-5.6	8.3	10.0	2.00	2.00	0.00
1,080.0	5.60	124.08	1,079.6	-7.7	11.3	13.7	2.00	2.00	0.00
1,120.0	6.40	124.08	1,119.3	-10.0	14.8	17.9	2.00	2.00	0.00
1,160.0	7.20	124.08	1,159.1	-12.7	18.7	22.6	2.00	2.00	0.00
1,200.0	8.00	124.08	1,198.7	-15.6	23.1	27.9	2.00	2.00	0.00
1,240.0	8.80	124.08	1,238.3	-18.9	27.9	33.7	2.00	2.00	0.00
1,280.0	9.60	124.08	1,277.8	-22.5	33.2	40.1	2.00	2.00	0.00
1,320.0	10.40	124.08	1,317.1	-26.4	39.0	47.1	2.00	2.00	0.00
1,360.0	11.20	124.08	1,356.4	-30.6	45.2	54.6	2.00	2.00	0.00
1,400.0	12.00	124.08	1,395.6	-35.1	51.9	62.6	2.00	2.00	0.00
1,440.0	12.80	124.08	1,434.7	-39.9	59.0	71.2	2.00	2.00	0.00
1,444.1	12.88	124.08	1,438.6	-40.4	59.7	72.1	2.00	2.00	0.00
1,480.0	12.88	124.08	1,473.7	-44.9	66.3	80.1	0.00	0.00	0.00
1,520.0	12.88	124.08	1,512.7	-49.9	73.7	89.0	0.00	0.00	0.00
1,560.0	12.88	124.08	1,551.7	-54.9	81.1	97.9	0.00	0.00	0.00
1,600.0	12.88	124.08	1,590.7	-59.9	88.5	106.9	0.00	0.00	0.00
1,640.0	12.88	124.08	1,629.7	-64.9	95.9	115.8	0.00	0.00	0.00
1,680.0	12.88	124.08	1,668.7	-69.9	103.3	124.7	0.00	0.00	0.00
1,720.0	12.88	124.08	1,707.6	-74.9	110.7	133.6	0.00	0.00	0.00
1,760.0	12.88	124.08	1,746.6	-79.9	118.0	142.5	0.00	0.00	0.00
1,800.0	12.88	124.08	1,785.6	-84.9	125.4	151.4	0.00	0.00	0.00
1,840.0	12.88	124.08	1,824.6	-89.9	132.8	160.4	0.00	0.00	0.00
1,880.0	12.88	124.08	1,863.6	-94.9	140.2	169.3	0.00	0.00	0.00
1,920.0	12.88	124.08	1,902.6	-99.9	147.6	178.2	0.00	0.00	0.00
1,960.0	12.88	124.08	1,941.6	-104.8	155.0	187.1	0.00	0.00	0.00
2,000.0	12.88	124.08	1,980.6	-109.8	162.4	196.0	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Dinnel C27-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4690.0ft (Original Well Elev)
Project:	SEC.22-T4N-R64W	MD Reference:	WELL @ 4690.0ft (Original Well Elev)
Site:	Dinnel C27-29D Pad Sec.22-T4N-R64W	North Reference:	True
Well:	Dinnel C27-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dinnel C27-29D Plan #2 (05-10-10)		

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	12.88	124.08	2,019.6	-114.8	169.7	204.9	0.00	0.00	0.00
2,080.0	12.88	124.08	2,058.6	-119.8	177.1	213.9	0.00	0.00	0.00
2,120.0	12.88	124.08	2,097.6	-124.8	184.5	222.8	0.00	0.00	0.00
2,160.0	12.88	124.08	2,136.6	-129.8	191.9	231.7	0.00	0.00	0.00
2,200.0	12.88	124.08	2,175.6	-134.8	199.3	240.6	0.00	0.00	0.00
2,240.0	12.88	124.08	2,214.6	-139.8	206.7	249.5	0.00	0.00	0.00
2,280.0	12.88	124.08	2,253.6	-144.8	214.1	258.4	0.00	0.00	0.00
2,320.0	12.88	124.08	2,292.5	-149.8	221.4	267.4	0.00	0.00	0.00
2,360.0	12.88	124.08	2,331.5	-154.8	228.8	276.3	0.00	0.00	0.00
2,400.0	12.88	124.08	2,370.5	-159.8	236.2	285.2	0.00	0.00	0.00
2,440.0	12.88	124.08	2,409.5	-164.8	243.6	294.1	0.00	0.00	0.00
2,480.0	12.88	124.08	2,448.5	-169.8	251.0	303.0	0.00	0.00	0.00
2,520.0	12.88	124.08	2,487.5	-174.8	258.4	312.0	0.00	0.00	0.00
2,560.0	12.88	124.08	2,526.5	-179.8	265.8	320.9	0.00	0.00	0.00
2,600.0	12.88	124.08	2,565.5	-184.8	273.1	329.8	0.00	0.00	0.00
2,640.0	12.88	124.08	2,604.5	-189.8	280.5	338.7	0.00	0.00	0.00
2,680.0	12.88	124.08	2,643.5	-194.8	287.9	347.6	0.00	0.00	0.00
2,720.0	12.88	124.08	2,682.5	-199.8	295.3	356.5	0.00	0.00	0.00
2,760.0	12.88	124.08	2,721.5	-204.8	302.7	365.5	0.00	0.00	0.00
2,800.0	12.88	124.08	2,760.5	-209.8	310.1	374.4	0.00	0.00	0.00
2,840.0	12.88	124.08	2,799.5	-214.8	317.5	383.3	0.00	0.00	0.00
2,880.0	12.88	124.08	2,838.5	-219.8	324.8	392.2	0.00	0.00	0.00
2,920.0	12.88	124.08	2,877.4	-224.8	332.2	401.1	0.00	0.00	0.00
2,960.0	12.88	124.08	2,916.4	-229.8	339.6	410.0	0.00	0.00	0.00
3,000.0	12.88	124.08	2,955.4	-234.8	347.0	419.0	0.00	0.00	0.00
3,040.0	12.88	124.08	2,994.4	-239.8	354.4	427.9	0.00	0.00	0.00
3,080.0	12.88	124.08	3,033.4	-244.8	361.8	436.8	0.00	0.00	0.00
3,120.0	12.88	124.08	3,072.4	-249.8	369.2	445.7	0.00	0.00	0.00
3,160.0	12.88	124.08	3,111.4	-254.7	376.5	454.6	0.00	0.00	0.00
3,200.0	12.88	124.08	3,150.4	-259.7	383.9	463.5	0.00	0.00	0.00
3,240.0	12.88	124.08	3,189.4	-264.7	391.3	472.5	0.00	0.00	0.00
3,280.0	12.88	124.08	3,228.4	-269.7	398.7	481.4	0.00	0.00	0.00
3,320.0	12.88	124.08	3,267.4	-274.7	406.1	490.3	0.00	0.00	0.00
3,360.0	12.88	124.08	3,306.4	-279.7	413.5	499.2	0.00	0.00	0.00
3,400.0	12.88	124.08	3,345.4	-284.7	420.9	508.1	0.00	0.00	0.00
3,440.0	12.88	124.08	3,384.4	-289.7	428.2	517.0	0.00	0.00	0.00
3,480.0	12.88	124.08	3,423.4	-294.7	435.6	526.0	0.00	0.00	0.00
3,520.0	12.88	124.08	3,462.3	-299.7	443.0	534.9	0.00	0.00	0.00
3,560.0	12.88	124.08	3,501.3	-304.7	450.4	543.8	0.00	0.00	0.00
3,600.0	12.88	124.08	3,540.3	-309.7	457.8	552.7	0.00	0.00	0.00
3,640.0	12.88	124.08	3,579.3	-314.7	465.2	561.6	0.00	0.00	0.00
3,680.0	12.88	124.08	3,618.3	-319.7	472.6	570.5	0.00	0.00	0.00
3,720.0	12.88	124.08	3,657.3	-324.7	479.9	579.5	0.00	0.00	0.00
3,760.0	12.88	124.08	3,696.3	-329.7	487.3	588.4	0.00	0.00	0.00
3,800.0	12.88	124.08	3,735.3	-334.7	494.7	597.3	0.00	0.00	0.00
3,840.0	12.88	124.08	3,774.3	-339.7	502.1	606.2	0.00	0.00	0.00
3,880.0	12.88	124.08	3,813.3	-344.7	509.5	615.1	0.00	0.00	0.00
3,920.0	12.88	124.08	3,852.3	-349.7	516.9	624.1	0.00	0.00	0.00
3,960.0	12.88	124.08	3,891.3	-354.7	524.3	633.0	0.00	0.00	0.00
4,000.0	12.88	124.08	3,930.3	-359.7	531.6	641.9	0.00	0.00	0.00
4,040.0	12.88	124.08	3,969.3	-364.7	539.0	650.8	0.00	0.00	0.00
4,080.0	12.88	124.08	4,008.3	-369.7	546.4	659.7	0.00	0.00	0.00
4,120.0	12.88	124.08	4,047.2	-374.7	553.8	668.6	0.00	0.00	0.00
4,160.0	12.88	124.08	4,086.2	-379.7	561.2	677.6	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Dinnel C27-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4690.0ft (Original Well Elev)
Project:	SEC.22-T4N-R64W	MD Reference:	WELL @ 4690.0ft (Original Well Elev)
Site:	Dinnel C27-29D Pad Sec.22-T4N-R64W	North Reference:	True
Well:	Dinnel C27-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dinnel C27-29D Plan #2 (05-10-10)		

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	12.88	124.08	4,125.2	-384.7	568.6	686.5	0.00	0.00	0.00
4,240.0	12.88	124.08	4,164.2	-389.7	576.0	695.4	0.00	0.00	0.00
4,280.0	12.88	124.08	4,203.2	-394.7	583.3	704.3	0.00	0.00	0.00
4,320.0	12.88	124.08	4,242.2	-399.7	590.7	713.2	0.00	0.00	0.00
4,360.0	12.88	124.08	4,281.2	-404.7	598.1	722.1	0.00	0.00	0.00
4,400.0	12.88	124.08	4,320.2	-409.6	605.5	731.1	0.00	0.00	0.00
4,440.0	12.88	124.08	4,359.2	-414.6	612.9	740.0	0.00	0.00	0.00
4,442.2	12.88	124.08	4,361.4	-414.9	613.3	740.5	0.00	0.00	0.00
4,480.0	12.13	124.08	4,398.2	-419.5	620.1	748.6	2.00	-2.00	0.00
4,520.0	11.33	124.08	4,437.4	-424.1	626.8	756.8	2.00	-2.00	0.00
4,560.0	10.53	124.08	4,476.7	-428.3	633.1	764.4	2.00	-2.00	0.00
4,600.0	9.73	124.08	4,516.1	-432.2	638.9	771.4	2.00	-2.00	0.00
4,640.0	8.93	124.08	4,555.5	-435.9	644.3	777.9	2.00	-2.00	0.00
4,680.0	8.13	124.08	4,595.1	-439.2	649.2	783.8	2.00	-2.00	0.00
4,720.0	7.33	124.08	4,634.7	-442.2	653.6	789.2	2.00	-2.00	0.00
4,760.0	6.53	124.08	4,674.4	-444.9	657.6	794.0	2.00	-2.00	0.00
4,800.0	5.73	124.08	4,714.2	-447.3	661.2	798.3	2.00	-2.00	0.00
4,840.0	4.93	124.08	4,754.0	-449.4	664.2	802.0	2.00	-2.00	0.00
4,880.0	4.13	124.08	4,793.9	-451.2	666.9	805.1	2.00	-2.00	0.00
4,920.0	3.33	124.08	4,833.8	-452.6	669.0	807.7	2.00	-2.00	0.00
4,960.0	2.53	124.08	4,873.8	-453.8	670.7	809.8	2.00	-2.00	0.00
5,000.0	1.73	124.08	4,913.7	-454.6	671.9	811.3	2.00	-2.00	0.00
5,040.0	0.93	124.08	4,953.7	-455.1	672.7	812.2	2.00	-2.00	0.00
5,080.0	0.13	124.08	4,993.7	-455.3	673.0	812.6	2.00	-2.00	0.00
5,086.3	0.00	0.00	5,000.0	-455.3	673.0	812.6	2.00	-2.00	-1,978.20
TARGET BHL 150'FSL, 1350'FWL									
5,120.0	0.00	0.00	5,033.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,160.0	0.00	0.00	5,073.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,200.0	0.00	0.00	5,113.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,240.0	0.00	0.00	5,153.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,280.0	0.00	0.00	5,193.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,320.0	0.00	0.00	5,233.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,360.0	0.00	0.00	5,273.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,400.0	0.00	0.00	5,313.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,440.0	0.00	0.00	5,353.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,480.0	0.00	0.00	5,393.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,520.0	0.00	0.00	5,433.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,560.0	0.00	0.00	5,473.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,600.0	0.00	0.00	5,513.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,640.0	0.00	0.00	5,553.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,680.0	0.00	0.00	5,593.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,720.0	0.00	0.00	5,633.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,760.0	0.00	0.00	5,673.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,800.0	0.00	0.00	5,713.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,840.0	0.00	0.00	5,753.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,880.0	0.00	0.00	5,793.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,920.0	0.00	0.00	5,833.7	-455.3	673.0	812.6	0.00	0.00	0.00
5,960.0	0.00	0.00	5,873.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,000.0	0.00	0.00	5,913.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,040.0	0.00	0.00	5,953.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,080.0	0.00	0.00	5,993.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,120.0	0.00	0.00	6,033.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,160.0	0.00	0.00	6,073.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,200.0	0.00	0.00	6,113.7	-455.3	673.0	812.6	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Dinnel C27-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4690.0ft (Original Well Elev)
Project:	SEC.22-T4N-R64W	MD Reference:	WELL @ 4690.0ft (Original Well Elev)
Site:	Dinnel C27-29D Pad Sec.22-T4N-R64W	North Reference:	True
Well:	Dinnel C27-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dinnel C27-29D Plan #2 (05-10-10)		

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	6,153.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,280.0	0.00	0.00	6,193.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,320.0	0.00	0.00	6,233.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,360.0	0.00	0.00	6,273.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,400.0	0.00	0.00	6,313.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,440.0	0.00	0.00	6,353.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,480.0	0.00	0.00	6,393.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,520.0	0.00	0.00	6,433.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,560.0	0.00	0.00	6,473.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,600.0	0.00	0.00	6,513.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,640.0	0.00	0.00	6,553.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,644.3	0.00	0.00	6,558.0	-455.3	673.0	812.6	0.00	0.00	0.00
NIORARA - TARGET CIRCLE 150'FSL, 1350'FWL									
6,680.0	0.00	0.00	6,593.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,720.0	0.00	0.00	6,633.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,760.0	0.00	0.00	6,673.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,800.0	0.00	0.00	6,713.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,840.0	0.00	0.00	6,753.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,880.0	0.00	0.00	6,793.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,920.0	0.00	0.00	6,833.7	-455.3	673.0	812.6	0.00	0.00	0.00
6,931.3	0.00	0.00	6,845.0	-455.3	673.0	812.6	0.00	0.00	0.00
CODELL									
6,960.0	0.00	0.00	6,873.7	-455.3	673.0	812.6	0.00	0.00	0.00
7,000.0	0.00	0.00	6,913.7	-455.3	673.0	812.6	0.00	0.00	0.00
7,040.0	0.00	0.00	6,953.7	-455.3	673.0	812.6	0.00	0.00	0.00
7,080.0	0.00	0.00	6,993.7	-455.3	673.0	812.6	0.00	0.00	0.00
7,081.3	0.00	0.00	6,995.0	-455.3	673.0	812.6	0.00	0.00	0.00
HARDLINE 150'S OF BHL									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
HARDLINE 150'S OF	0.00	0.00	6,995.0	-605.3	573.0	1,350,179.07	3,267,253.03	40° 17' 26.442 N	104° 32' 31.006 W
- plan misses target center by 180.3ft at 7081.3ft MD (6995.0 TVD, -455.3 N, 673.0 E)									
- Polygon									
Point 1			6,995.0	0.0	0.0	1,350,179.07	3,267,253.03		
Point 2			6,995.0	0.0	200.0	1,350,181.23	3,267,453.01		
TARGET CIRCLE 150'	0.00	0.00	6,558.0	-455.3	673.0	1,350,330.13	3,267,351.40	40° 17' 27.925 N	104° 32' 29.715 W
- plan hits target center									
- Circle (radius 75.0)									
TARGET BHL 150'FS	0.00	0.00	5,000.0	-455.3	673.0	1,350,330.12	3,267,351.41	40° 17' 27.924 N	104° 32' 29.715 W
- plan hits target center									
- Point									

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Dinnel C27-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4690.0ft (Original Well Elev)
Project:	SEC.22-T4N-R64W	MD Reference:	WELL @ 4690.0ft (Original Well Elev)
Site:	Dinnel C27-29D Pad Sec.22-T4N-R64W	North Reference:	True
Well:	Dinnel C27-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dinnel C27-29D Plan #2 (05-10-10)		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
450.0	450.0	8 5/8"	8-5/8	12-1/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,644.3	6,558.0	NIOBRARA		0.00		
6,931.3	6,845.0	CODELL		0.00		
	7,254.0	D-SAND		0.00		
	7,316.0	J-SAND		0.00		



NOBLE ENERGY INC WELD COUNTY CO

SEC.22-T4N-R64W

Dinnel C27-29D Pad Sec.22-T4N-R64W

Dinnel C27-29D

Wellbore #1

Noble Dinnel C27-29D Plan #2 (05-10-10)

Anticollision Report

10 May, 2010



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Dinnel C27-29D
Project:	SEC.22-T4N-R64W	TVD Reference:	WELL @ 4690.0ft (Original Well Elev)
Reference Site:	Dinnel C27-29D Pad Sec.22-T4N-R64W	MD Reference:	WELL @ 4690.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dinnel C27-29D	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Noble Dinnel C27-29D Plan #2 (05-10-10)	Offset TVD Reference:	Offset Datum

Reference	Noble Dinnel C27-29D Plan #2 (05-1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 2,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 5/10/2010			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	7,081.3	Noble Dinnel C27-29D Plan #2 (05-10-10)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Dinnel C27-29D Pad Sec.22-T4N-R64W						
Herbst 1 (Exist.) - Wellbore #1 - Design #1	800.0	800.0	48.7	45.3	14.558	CC, ES
Herbst 1 (Exist.) - Wellbore #1 - Design #1	1,000.0	999.8	54.0	49.8	12.901	SF

Offset Design Dinnel C27-29D Pad Sec.22-T4N-R64W - Herbst 1 (Exist.) - Wellbore #1 - Design #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance										
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-13.26	47.4	-11.2	48.7					
100.0	100.0	100.0	100.0	0.1	0.1	-13.26	47.4	-11.2	48.7	48.5	0.20	248.823		
200.0	200.0	200.0	200.0	0.3	0.3	-13.26	47.4	-11.2	48.7	48.0	0.65	75.427		
300.0	300.0	300.0	300.0	0.5	0.5	-13.26	47.4	-11.2	48.7	47.6	1.09	44.451		
400.0	400.0	400.0	400.0	0.8	0.8	-13.26	47.4	-11.2	48.7	47.1	1.54	31.510		
500.0	500.0	500.0	500.0	1.0	1.0	-13.26	47.4	-11.2	48.7	46.7	1.99	24.405		
600.0	600.0	600.0	600.0	1.2	1.2	-13.26	47.4	-11.2	48.7	46.2	2.44	19.915		
700.0	700.0	700.0	700.0	1.4	1.4	-13.26	47.4	-11.2	48.7	45.8	2.89	16.820		
800.0	800.0	800.0	800.0	1.7	1.7	-13.26	47.4	-11.2	48.7	45.3	3.34	14.558	CC, ES	
900.0	900.0	900.0	900.0	1.9	1.9	-138.68	47.4	-11.2	50.0	46.2	3.77	13.247		
1,000.0	999.8	999.8	999.8	2.1	2.1	-142.29	47.4	-11.2	54.0	49.8	4.19	12.901	SF	
1,100.0	1,099.5	1,099.5	1,099.5	2.3	2.3	-147.21	47.4	-11.2	61.1	56.5	4.61	13.270		
1,200.0	1,198.7	1,198.7	1,198.7	2.5	2.6	-152.39	47.4	-11.2	71.7	66.7	5.03	14.251		
1,300.0	1,297.5	1,297.5	1,297.5	2.8	2.8	-157.11	47.4	-11.2	85.9	80.4	5.45	15.744		
1,400.0	1,395.6	1,395.6	1,395.6	3.1	3.0	-161.09	47.4	-11.2	103.8	97.9	5.88	17.654		
1,500.0	1,493.2	1,493.2	1,493.2	3.5	3.2	-164.30	47.4	-11.2	124.8	118.5	6.31	19.771		
1,600.0	1,590.7	1,590.7	1,590.7	3.9	3.4	-166.66	47.4	-11.2	146.4	139.6	6.76	21.657		
1,700.0	1,688.1	1,688.1	1,688.1	4.3	3.7	-168.41	47.4	-11.2	168.2	161.0	7.21	23.317		
1,800.0	1,785.6	1,785.6	1,785.6	4.8	3.9	-169.76	47.4	-11.2	190.1	182.4	7.67	24.782		
1,900.0	1,883.1	1,883.1	1,883.1	5.2	4.1	-170.83	47.4	-11.2	212.1	204.0	8.13	26.081		
2,000.0	1,980.6	1,980.6	1,980.6	5.7	4.3	-171.70	47.4	-11.2	234.1	225.5	8.60	27.236		
2,100.0	2,078.1	2,078.1	2,078.1	6.1	4.5	-172.42	47.4	-11.2	256.2	247.2	9.06	28.270		
2,200.0	2,175.6	2,175.6	2,175.6	6.6	4.8	-173.02	47.4	-11.2	278.4	268.8	9.53	29.199		
2,300.0	2,273.0	2,273.0	2,273.0	7.1	5.0	-173.54	47.4	-11.2	300.5	290.5	10.00	30.037		
2,400.0	2,370.5	2,370.5	2,370.5	7.5	5.2	-173.98	47.4	-11.2	322.7	312.2	10.48	30.797		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Dinnel C27-29D
Project:	SEC.22-T4N-R64W	TVD Reference:	WELL @ 4690.0ft (Original Well Elev)
Reference Site:	Dinnel C27-29D Pad Sec.22-T4N-R64W	MD Reference:	WELL @ 4690.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dinnel C27-29D	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Noble Dinnel C27-29D Plan #2 (05-10-10)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0ft
Survey Program: 0-MWD												Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,500.0	2,468.0	2,468.0	2,468.0	8.0	5.4	-174.37	47.4	-11.2	344.9	333.9	10.95	31.488	
2,600.0	2,565.5	2,565.5	2,565.5	8.5	5.6	-174.71	47.4	-11.2	367.0	355.6	11.43	32.120	
2,700.0	2,663.0	2,663.0	2,663.0	9.0	5.9	-175.02	47.4	-11.2	389.3	377.4	11.90	32.698	
2,800.0	2,760.5	2,760.5	2,760.5	9.4	6.1	-175.29	47.4	-11.2	411.5	399.1	12.38	33.230	
2,900.0	2,857.9	2,857.9	2,857.9	9.9	6.3	-175.53	47.4	-11.2	433.7	420.8	12.86	33.721	
3,000.0	2,955.4	2,955.4	2,955.4	10.4	6.5	-175.75	47.4	-11.2	455.9	442.6	13.34	34.175	
3,100.0	3,052.9	3,052.9	3,052.9	10.9	6.7	-175.94	47.4	-11.2	478.2	464.3	13.82	34.596	
3,200.0	3,150.4	3,150.4	3,150.4	11.4	7.0	-176.12	47.4	-11.2	500.4	486.1	14.30	34.987	
3,300.0	3,247.9	3,247.9	3,247.9	11.9	7.2	-176.29	47.4	-11.2	522.7	507.9	14.78	35.352	
3,400.0	3,345.4	3,345.4	3,345.4	12.3	7.4	-176.44	47.4	-11.2	544.9	529.6	15.27	35.692	
3,500.0	3,442.9	3,442.9	3,442.9	12.8	7.6	-176.58	47.4	-11.2	567.2	551.4	15.75	36.011	
3,600.0	3,540.3	3,540.3	3,540.3	13.3	7.8	-176.71	47.4	-11.2	589.4	573.2	16.23	36.310	
3,700.0	3,637.8	3,637.8	3,637.8	13.8	8.0	-176.83	47.4	-11.2	611.7	595.0	16.72	36.591	
3,800.0	3,735.3	3,735.3	3,735.3	14.3	8.3	-176.94	47.4	-11.2	633.9	616.7	17.20	36.856	
3,900.0	3,832.8	3,832.8	3,832.8	14.8	8.5	-177.05	47.4	-11.2	656.2	638.5	17.69	37.105	
4,000.0	3,930.3	3,930.3	3,930.3	15.3	8.7	-177.14	47.4	-11.2	678.5	660.3	18.17	37.340	
4,100.0	4,027.8	4,027.8	4,027.8	15.8	8.9	-177.23	47.4	-11.2	700.7	682.1	18.65	37.563	
4,200.0	4,125.2	4,125.2	4,125.2	16.2	9.1	-177.32	47.4	-11.2	723.0	703.9	19.14	37.774	
4,300.0	4,222.7	4,222.7	4,222.7	16.7	9.4	-177.40	47.4	-11.2	745.3	725.6	19.63	37.974	
4,400.0	4,320.2	4,320.2	4,320.2	17.2	9.6	-177.47	47.4	-11.2	767.5	747.4	20.11	38.164	
4,500.0	4,417.8	4,417.8	4,417.8	17.7	9.8	-177.55	47.4	-11.2	789.2	768.6	20.63	38.263	
4,600.0	4,516.1	4,516.1	4,516.1	18.0	10.0	-177.63	47.4	-11.2	807.8	786.7	21.12	38.245	
4,700.0	4,614.9	4,614.9	4,614.9	18.3	10.2	-177.68	47.4	-11.2	823.0	801.4	21.59	38.120	
4,800.0	4,714.2	4,714.2	4,714.2	18.5	10.5	-177.72	47.4	-11.2	834.7	812.7	22.03	37.897	
4,900.0	4,813.9	4,813.9	4,813.9	18.7	10.7	-177.75	47.4	-11.2	842.9	820.5	22.43	37.581	
5,000.0	4,913.7	4,913.7	4,913.7	18.9	10.9	-177.77	47.4	-11.2	847.7	824.9	22.80	37.179	
5,100.0	5,013.7	5,013.7	5,013.7	19.0	11.1	-53.69	47.4	-11.2	849.0	825.8	23.16	36.664	
5,200.0	5,113.7	5,113.7	5,113.7	19.1	11.4	-53.69	47.4	-11.2	849.0	825.4	23.55	36.043	
5,300.0	5,213.7	5,213.7	5,213.7	19.2	11.6	-53.69	47.4	-11.2	849.0	825.0	23.96	35.440	
5,400.0	5,313.7	5,313.7	5,313.7	19.3	11.8	-53.69	47.4	-11.2	849.0	824.6	24.36	34.855	
5,500.0	5,413.7	5,413.7	5,413.7	19.5	12.0	-53.69	47.4	-11.2	849.0	824.2	24.76	34.286	
5,600.0	5,513.7	5,513.7	5,513.7	19.6	12.3	-53.69	47.4	-11.2	849.0	823.8	25.17	33.735	
5,700.0	5,613.7	5,613.7	5,613.7	19.7	12.5	-53.69	47.4	-11.2	849.0	823.4	25.57	33.198	
5,800.0	5,713.7	5,713.7	5,713.7	19.8	12.7	-53.69	47.4	-11.2	849.0	823.0	25.98	32.677	
5,900.0	5,813.7	5,813.7	5,813.7	20.0	12.9	-53.69	47.4	-11.2	849.0	822.6	26.39	32.171	
6,000.0	5,913.7	5,913.7	5,913.7	20.1	13.2	-53.69	47.4	-11.2	849.0	822.2	26.80	31.678	
6,100.0	6,013.7	6,013.7	6,013.7	20.2	13.4	-53.69	47.4	-11.2	849.0	821.8	27.21	31.199	
6,200.0	6,113.7	6,113.7	6,113.7	20.4	13.6	-53.69	47.4	-11.2	849.0	821.4	27.62	30.733	
6,300.0	6,213.7	6,213.7	6,213.7	20.5	13.8	-53.69	47.4	-11.2	849.0	820.9	28.04	30.280	
6,400.0	6,313.7	6,313.7	6,313.7	20.6	14.1	-53.69	47.4	-11.2	849.0	820.5	28.45	29.838	
6,500.0	6,413.7	6,413.7	6,413.7	20.8	14.3	-53.69	47.4	-11.2	849.0	820.1	28.87	29.409	
6,600.0	6,513.7	6,513.7	6,513.7	20.9	14.5	-53.69	47.4	-11.2	849.0	819.7	29.28	28.990	
6,700.0	6,613.7	6,613.7	6,613.7	21.0	14.7	-53.69	47.4	-11.2	849.0	819.3	29.70	28.583	
6,800.0	6,713.7	6,713.7	6,713.7	21.2	15.0	-53.69	47.4	-11.2	849.0	818.9	30.12	28.186	
6,900.0	6,813.7	6,813.7	6,813.7	21.3	15.2	-53.69	47.4	-11.2	849.0	818.4	30.54	27.799	
7,000.0	6,913.7	6,913.7	6,913.7	21.5	15.4	-53.69	47.4	-11.2	849.0	818.0	30.96	27.422	
7,081.3	6,995.0	6,995.0	6,995.0	21.6	15.6	-53.69	47.4	-11.2	849.0	817.7	31.30	27.122	

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.22-T4N-R64W
Reference Site: Dinnel C27-29D Pad Sec.22-T4N-R64W
Site Error: 0.0ft
Reference Well: Dinnel C27-29D
Well Error: 0.0ft
Reference Wellbore: Wellbore #1
Reference Design: Noble Dinnel C27-29D Plan #2 (05-10-10)

Local Co-ordinate Reference: Well Dinnel C27-29D
TVD Reference: WELL @ 4690.0ft (Original Well Elev)
MD Reference: WELL @ 4690.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM den0-adp01 Server Data
Offset TVD Reference: Offset Datum

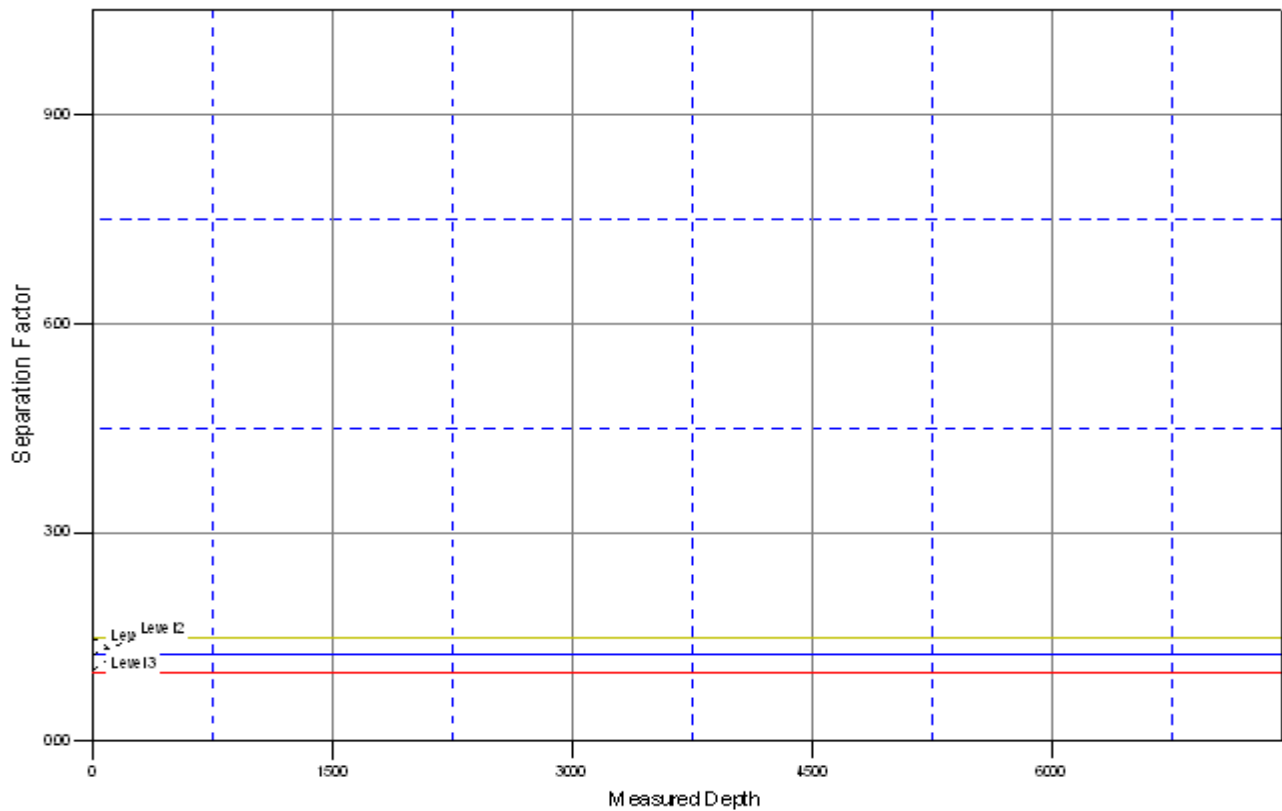
Reference Depths are relative to WELL @ 4690.0ft (Original Well Elev) Coordinates are relative to: Dinnel C27-29D
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.62°



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Dinnel C27-29D
Project:	SEC.22-T4N-R64W	TVD Reference:	WELL @ 4690.0ft (Original Well Elev)
Reference Site:	Dinnel C27-29D Pad Sec.22-T4N-R64W	MD Reference:	WELL @ 4690.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dinnel C27-29D	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Noble Dinnel C27-29D Plan #2 (05-10-10)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4690.0ft (Original Well Elev) Coordinates are relative to: Dinnel C27-29D
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.62°

Separation Factor Plot



LEGEND

—+— Herbst 1 (Exist), Wellbore #1, Design #1 \V0