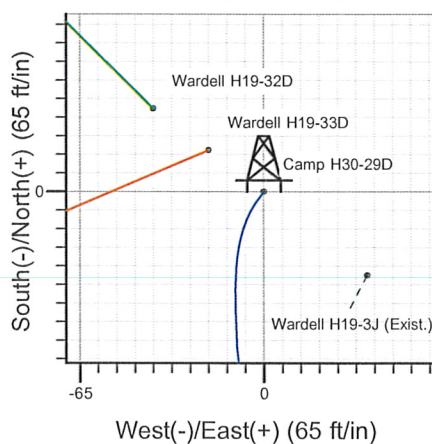
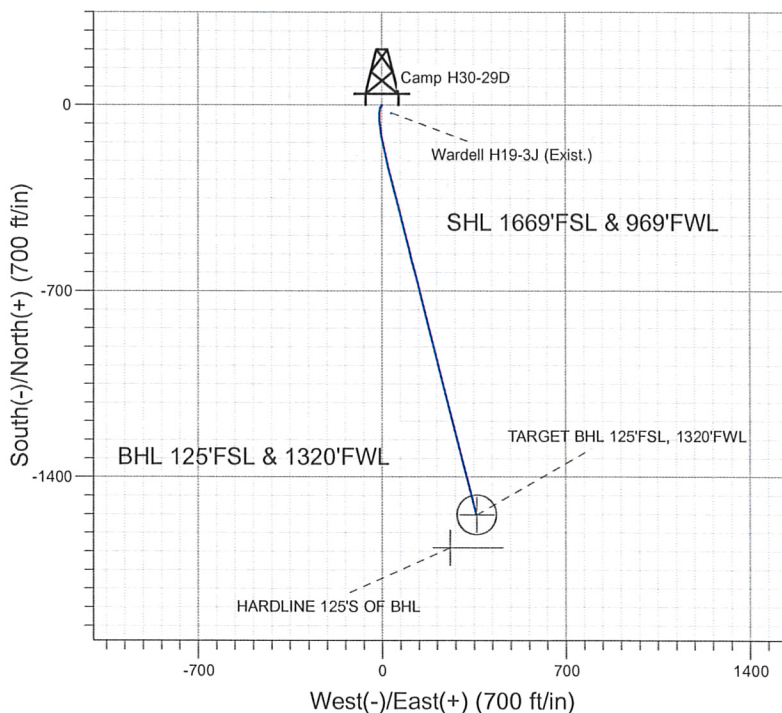
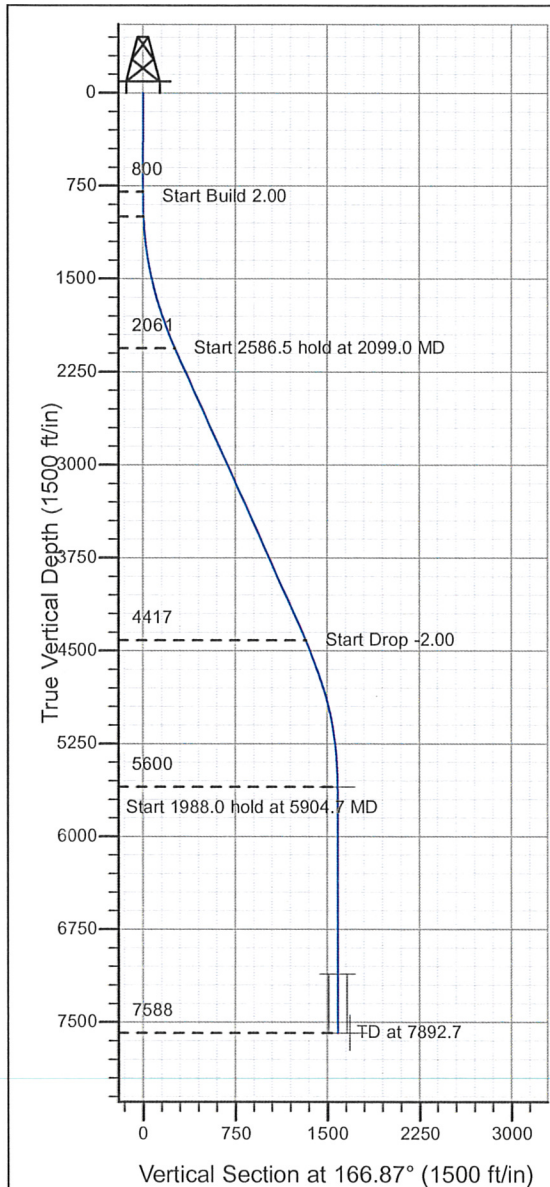


Well Name: Camp H30-29D

Surface Location: Wardell H19-32D Pad Sec.19-T3N-R65W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4990.0
 +N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1319681.36 3220008.63 40° 12' 29.664 N 104° 42' 44.172 W
 Original Well Elev WELL @ 5003.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO



Wardell H19-32D Pad Sec.19-T3N-R65W
 Camp H30-29D
 Noble Camp H30-29D P1an #1 (01-07-10)
 12:13, January 08 2010



Azimuths to True North
 Magnetic North: 8.98°
 Magnetic Field
 Strength: 53207.6snT
 Dip Angle: 66.96°
 Date: 12/31/2009
 Model: IGRF200510

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 125'FSL, 1320'FWL	5600.0	-1541.9	359.8	40° 12' 14.427 N	104° 42' 39.535 W	Point
TARGET CIRCLE 125'FSL, 1320'FWL	7113.0	-1541.9	359.8	40° 12' 14.427 N	104° 42' 39.535 W	Circle (Radius: 75.0)
HARDLINE 125'S OF BHL	7588.0	-1666.9	259.8	40° 12' 13.192 N	104° 42' 40.824 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	1000.0	4.00	215.00	999.8	-5.7	-4.0	2.00	215.00	4.7	
4	2099.0	24.38	165.61	2061.5	-260.0	30.8	2.00	-56.87	260.2	
5	4685.4	24.38	165.61	4417.2	-1294.3	296.3	0.00	0.00	1327.8	
6	5904.7	0.00	0.00	5600.0	-1541.9	359.8	2.00	180.00	1583.3	TARGET BHL 125'FSL, 1320'FWL
7	7892.7	0.00	0.00	7588.0	-1541.9	359.8	0.00	0.00	1583.3	

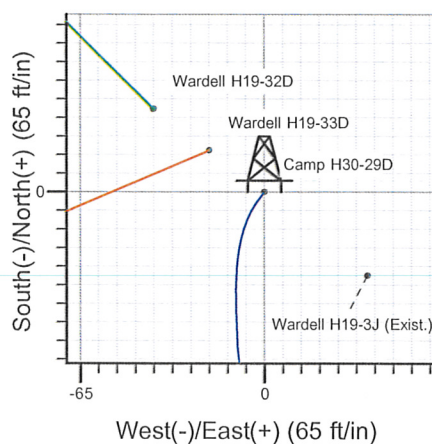
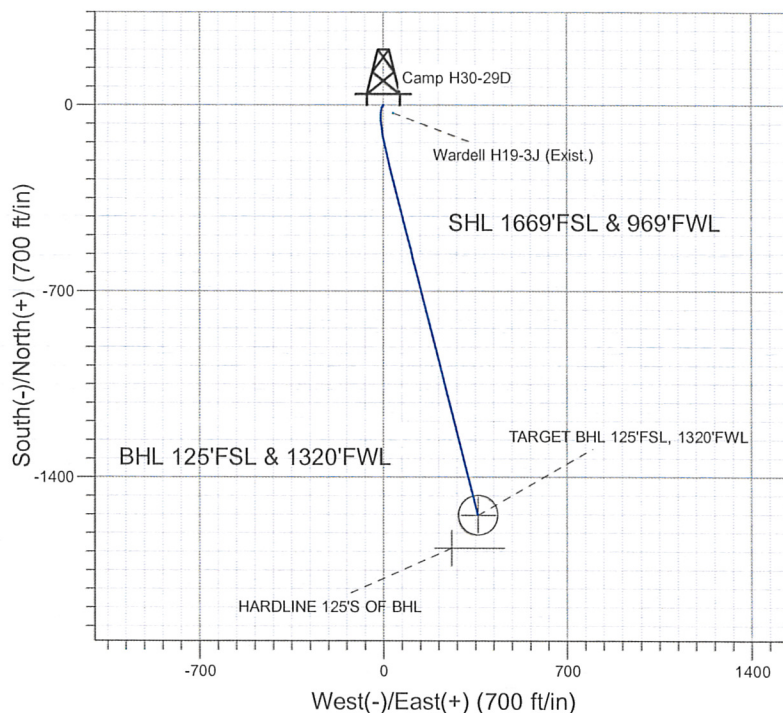
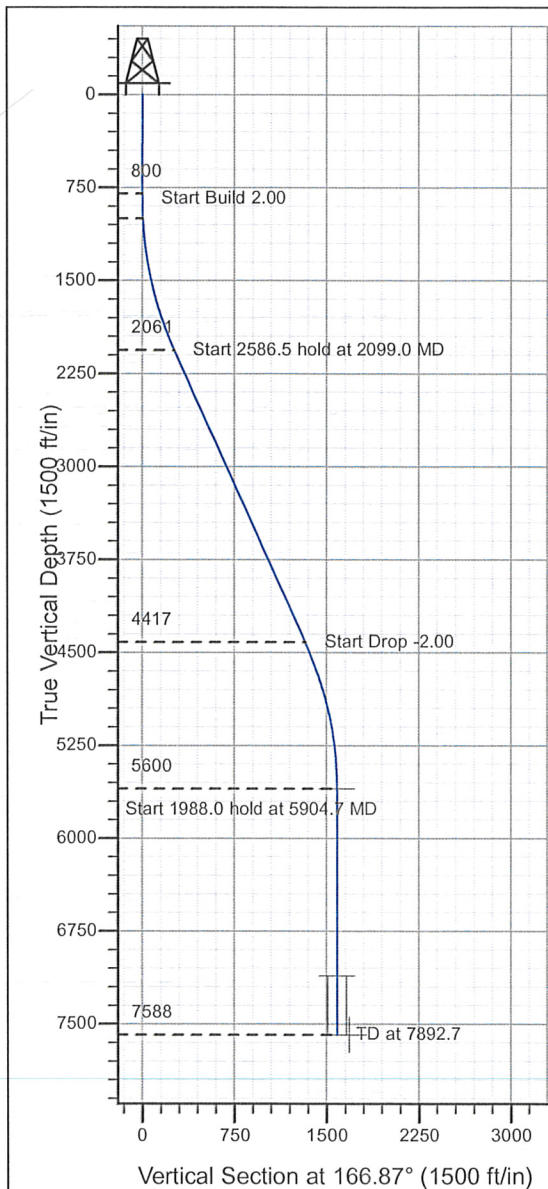
ENSIGN

Directional

Well Name: Camp H30-29D

Surface Location: Wardell H19-32D Pad Sec.19-T3N-R65W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4990.0
 +N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1319681.36 3220008.63 40° 12' 29.664 N 104° 42' 44.172 W
 Original Well Elev WELL @ 5003.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO



Wardell H19-32D Pad Sec.19-T3N-R65W
 Camp H30-29D
 Noble Camp H30-29D Plan #1 (01-07-10)
 12:13, January 08 2010



Azimuths to True North
 Magnetic North: 8.98°
 Magnetic Field
 Strength: 53207.6snT
 Dip Angle: 66.96°
 Date: 12/31/2009
 Model: IGRF200510

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 125'FSL, 1320'FWL	5600.0	-1541.9	359.8	40° 12' 14.427 N	104° 42' 39.535 W	Point
TARGET CIRCLE 125'FSL, 1320'FWL	7113.0	-1541.9	359.8	40° 12' 14.427 N	104° 42' 39.535 W	Circle (Radius: 75.0)
HARDLINE 125'S OF BHL	7588.0	-1666.9	259.8	40° 12' 13.192 N	104° 42' 40.824 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	1000.0	4.00	215.00	999.8	-5.7	-4.0	2.00	215.00	4.7	
4	2099.0	24.38	165.61	2061.5	-260.0	30.8	2.00	-56.87	260.2	
5	4685.4	24.38	165.61	4417.2	-1294.3	296.3	0.00	0.00	1327.8	
6	5904.7	0.00	0.00	5600.0	-1541.9	359.8	2.00	180.00	1583.3	TARGET BHL 125'FSL, 1320'FWL
7	7892.7	0.00	0.00	7588.0	-1541.9	359.8	0.00	0.00	1583.3	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.19-T3N-R65W

Wardell H19-32D Pad Sec.19-T3N-R65W

Camp H30-29D

Wellbore #1

Plan: Noble Camp H30-29D PPlan #1 (01-07-10)

Standard Planning Report

08 January, 2010



Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Camp H30-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Project:	SEC.19-T3N-R65W	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site:	Wardell H19-32D Pad Sec.19-T3N-R65W	North Reference:	True
Well:	Camp H30-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Camp H30-29D Plan #1 (01-07-10)		

Project	SEC.19-T3N-R65W, 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		Wardell H19-32D Pad Sec.19-T3N-R65W			
Site Position:		Northing:	1,319,655.62 ft	Latitude:	40° 12' 29.412 N
From:	Lat/Long	Easting:	3,219,980.93 ft	Longitude:	104° 42' 44.532 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.51 °

Well	Camp H30-29D					
Well Position	+N/-S	25.5 ft	Northing:	1,319,681.36 ft	Latitude:	40° 12' 29.664 N
	+E/-W	27.9 ft	Easting:	3,220,008.63 ft	Longitude:	104° 42' 44.172 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,990.0 ft

Wellbore	Wellbore #1				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	8.98	66.96	53,208

Design	Noble Camp H30-29D Plan #1 (01-07-10)				
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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	166.87

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	
1,000.0	4.00	215.00	999.8	-5.7	-4.0	2.00	2.00	0.00	215.00	
2,099.0	24.38	165.61	2,061.5	-260.0	30.8	2.00	1.85	-4.49	-56.87	
4,685.4	24.38	165.61	4,417.2	-1,294.3	296.3	0.00	0.00	0.00	0.00	
5,904.7	0.00	0.00	5,600.0	-1,541.9	359.8	2.00	-2.00	0.00	180.00	TARGET BHL 125'
7,892.7	0.00	0.00	7,588.0	-1,541.9	359.8	0.00	0.00	0.00	0.00	

Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.19-T3N-R65W
 Site: Wardell H19-32D Pad Sec.19-T3N-R65W
 Well: Camp H30-29D
 Wellbore: Wellbore #1
 Design: Noble Camp H30-29D PPlan #1 (01-07-10)

Local Co-ordinate Reference: Well Camp H30-29D
 TVD Reference: WELL @ 5003.0ft (Original Well Elev)
 MD Reference: WELL @ 5003.0ft (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
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	215.00	840.0	-0.2	-0.2	0.2	2.00	2.00	0.00
880.0	1.60	215.00	880.0	-0.9	-0.6	0.7	2.00	2.00	0.00
920.0	2.40	215.00	920.0	-2.1	-1.4	1.7	2.00	2.00	0.00
960.0	3.20	215.00	959.9	-3.7	-2.6	3.0	2.00	2.00	0.00
1,000.0	4.00	215.00	999.8	-5.7	-4.0	4.7	2.00	2.00	0.00
1,040.0	4.49	206.41	1,039.7	-8.3	-5.5	6.8	2.00	1.22	-21.49
1,080.0	5.05	199.61	1,079.6	-11.3	-6.8	9.5	2.00	1.42	-16.99
1,120.0	5.68	194.24	1,119.4	-14.9	-7.9	12.7	2.00	1.56	-13.42
1,160.0	6.34	189.96	1,159.2	-19.0	-8.7	16.5	2.00	1.66	-10.70
1,200.0	7.03	186.50	1,198.9	-23.6	-9.4	20.9	2.00	1.73	-8.64
1,240.0	7.75	183.67	1,238.6	-28.7	-9.8	25.7	2.00	1.78	-7.08
1,280.0	8.47	181.32	1,278.2	-34.4	-10.1	31.2	2.00	1.82	-5.88
1,320.0	9.21	179.34	1,317.7	-40.5	-10.1	37.2	2.00	1.85	-4.95
1,360.0	9.96	177.65	1,357.2	-47.2	-9.9	43.7	2.00	1.87	-4.22
1,400.0	10.72	176.20	1,396.5	-54.3	-9.5	50.7	2.00	1.89	-3.63
1,440.0	11.48	174.93	1,435.8	-62.0	-8.9	58.4	2.00	1.91	-3.16
1,480.0	12.25	173.83	1,474.9	-70.2	-8.1	66.5	2.00	1.92	-2.77
1,520.0	13.02	172.85	1,513.9	-78.9	-7.1	75.2	2.00	1.93	-2.44
1,560.0	13.79	171.98	1,552.8	-88.1	-5.9	84.4	2.00	1.94	-2.18
1,600.0	14.57	171.20	1,591.6	-97.8	-4.5	94.2	2.00	1.94	-1.95
1,640.0	15.35	170.50	1,630.3	-108.0	-2.8	104.5	2.00	1.95	-1.75
1,680.0	16.13	169.86	1,668.8	-118.7	-1.0	115.3	2.00	1.95	-1.59
1,720.0	16.91	169.29	1,707.1	-129.9	1.1	126.7	2.00	1.96	-1.45
1,760.0	17.70	168.76	1,745.3	-141.5	3.4	138.6	2.00	1.96	-1.32
1,800.0	18.48	168.27	1,783.3	-153.7	5.8	151.0	2.00	1.96	-1.21
1,840.0	19.27	167.83	1,821.2	-166.4	8.5	163.9	2.00	1.97	-1.12
1,880.0	20.06	167.41	1,858.8	-179.5	11.4	177.4	2.00	1.97	-1.03
1,920.0	20.85	167.03	1,896.3	-193.1	14.5	191.4	2.00	1.97	-0.96
1,960.0	21.64	166.67	1,933.6	-207.3	17.8	205.9	2.00	1.97	-0.89
2,000.0	22.43	166.34	1,970.7	-221.8	21.3	220.9	2.00	1.98	-0.83
2,040.0	23.22	166.03	2,007.5	-236.9	25.0	236.4	2.00	1.98	-0.78
2,080.0	24.01	165.74	2,044.2	-252.4	28.9	252.4	2.00	1.98	-0.73
2,099.0	24.38	165.61	2,061.5	-260.0	30.8	260.2	2.00	1.98	-0.70

Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.19-T3N-R65W
 Site: Wardell H19-32D Pad Sec.19-T3N-R65W
 Well: Camp H30-29D
 Wellbore: Wellbore #1
 Design: Noble Camp H30-29D PAn #1 (01-07-10)

Local Co-ordinate Reference: Well Camp H30-29D
 TVD Reference: WELL @ 5003.0ft (Original Well Elev)
 MD Reference: WELL @ 5003.0ft (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)
2,120.0	24.38	165.61	2,080.7	-268.4	33.0	268.9	0.00	0.00	0.00
2,160.0	24.38	165.61	2,117.1	-284.4	37.1	285.4	0.00	0.00	0.00
2,200.0	24.38	165.61	2,153.5	-300.4	41.2	301.9	0.00	0.00	0.00
2,240.0	24.38	165.61	2,190.0	-316.4	45.3	318.4	0.00	0.00	0.00
2,280.0	24.38	165.61	2,226.4	-332.4	49.4	334.9	0.00	0.00	0.00
2,320.0	24.38	165.61	2,262.8	-348.4	53.5	351.4	0.00	0.00	0.00
2,360.0	24.38	165.61	2,299.2	-364.4	57.6	367.9	0.00	0.00	0.00
2,400.0	24.38	165.61	2,335.7	-380.4	61.7	384.4	0.00	0.00	0.00
2,440.0	24.38	165.61	2,372.1	-396.4	65.8	401.0	0.00	0.00	0.00
2,480.0	24.38	165.61	2,408.5	-412.4	69.9	417.5	0.00	0.00	0.00
2,520.0	24.38	165.61	2,445.0	-428.4	74.0	434.0	0.00	0.00	0.00
2,560.0	24.38	165.61	2,481.4	-444.4	78.1	450.5	0.00	0.00	0.00
2,600.0	24.38	165.61	2,517.8	-460.3	82.3	467.0	0.00	0.00	0.00
2,640.0	24.38	165.61	2,554.3	-476.3	86.4	483.5	0.00	0.00	0.00
2,680.0	24.38	165.61	2,590.7	-492.3	90.5	500.0	0.00	0.00	0.00
2,720.0	24.38	165.61	2,627.1	-508.3	94.6	516.5	0.00	0.00	0.00
2,760.0	24.38	165.61	2,663.6	-524.3	98.7	533.0	0.00	0.00	0.00
2,800.0	24.38	165.61	2,700.0	-540.3	102.8	549.5	0.00	0.00	0.00
2,840.0	24.38	165.61	2,736.4	-556.3	106.9	566.1	0.00	0.00	0.00
2,880.0	24.38	165.61	2,772.9	-572.3	111.0	582.6	0.00	0.00	0.00
2,920.0	24.38	165.61	2,809.3	-588.3	115.1	599.1	0.00	0.00	0.00
2,960.0	24.38	165.61	2,845.7	-604.3	119.2	615.6	0.00	0.00	0.00
3,000.0	24.38	165.61	2,882.2	-620.3	123.3	632.1	0.00	0.00	0.00
3,040.0	24.38	165.61	2,918.6	-636.3	127.4	648.6	0.00	0.00	0.00
3,080.0	24.38	165.61	2,955.0	-652.3	131.5	665.1	0.00	0.00	0.00
3,120.0	24.38	165.61	2,991.4	-668.3	135.6	681.6	0.00	0.00	0.00
3,160.0	24.38	165.61	3,027.9	-684.3	139.7	698.1	0.00	0.00	0.00
3,200.0	24.38	165.61	3,064.3	-700.3	143.8	714.7	0.00	0.00	0.00
3,240.0	24.38	165.61	3,100.7	-716.3	147.9	731.2	0.00	0.00	0.00
3,280.0	24.38	165.61	3,137.2	-732.3	152.0	747.7	0.00	0.00	0.00
3,320.0	24.38	165.61	3,173.6	-748.3	156.1	764.2	0.00	0.00	0.00
3,360.0	24.38	165.61	3,210.0	-764.3	160.2	780.7	0.00	0.00	0.00
3,400.0	24.38	165.61	3,246.5	-780.3	164.4	797.2	0.00	0.00	0.00
3,440.0	24.38	165.61	3,282.9	-796.3	168.5	813.7	0.00	0.00	0.00
3,480.0	24.38	165.61	3,319.3	-812.3	172.6	830.2	0.00	0.00	0.00
3,520.0	24.38	165.61	3,355.8	-828.3	176.7	846.7	0.00	0.00	0.00
3,560.0	24.38	165.61	3,392.2	-844.3	180.8	863.2	0.00	0.00	0.00
3,600.0	24.38	165.61	3,428.6	-860.3	184.9	879.8	0.00	0.00	0.00
3,640.0	24.38	165.61	3,465.1	-876.2	189.0	896.3	0.00	0.00	0.00
3,680.0	24.38	165.61	3,501.5	-892.2	193.1	912.8	0.00	0.00	0.00
3,720.0	24.38	165.61	3,537.9	-908.2	197.2	929.3	0.00	0.00	0.00
3,760.0	24.38	165.61	3,574.4	-924.2	201.3	945.8	0.00	0.00	0.00
3,800.0	24.38	165.61	3,610.8	-940.2	205.4	962.3	0.00	0.00	0.00
3,840.0	24.38	165.61	3,647.2	-956.2	209.5	978.8	0.00	0.00	0.00
3,880.0	24.38	165.61	3,683.7	-972.2	213.6	995.3	0.00	0.00	0.00
3,920.0	24.38	165.61	3,720.1	-988.2	217.7	1,011.8	0.00	0.00	0.00
3,960.0	24.38	165.61	3,756.5	-1,004.2	221.8	1,028.4	0.00	0.00	0.00
4,000.0	24.38	165.61	3,792.9	-1,020.2	225.9	1,044.9	0.00	0.00	0.00
4,040.0	24.38	165.61	3,829.4	-1,036.2	230.0	1,061.4	0.00	0.00	0.00
4,080.0	24.38	165.61	3,865.8	-1,052.2	234.1	1,077.9	0.00	0.00	0.00
4,120.0	24.38	165.61	3,902.2	-1,068.2	238.2	1,094.4	0.00	0.00	0.00
4,160.0	24.38	165.61	3,938.7	-1,084.2	242.3	1,110.9	0.00	0.00	0.00
4,200.0	24.38	165.61	3,975.1	-1,100.2	246.5	1,127.4	0.00	0.00	0.00
4,240.0	24.38	165.61	4,011.5	-1,116.2	250.6	1,143.9	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Camp H30-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Project:	SEC.19-T3N-R65W	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site:	Wardell H19-32D Pad Sec.19-T3N-R65W	North Reference:	True
Well:	Camp H30-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Camp H30-29D PAn #1 (01-07-10)		

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)
4,280.0	24.38	165.61	4,048.0	-1,132.2	254.7	1,160.4	0.00	0.00	0.00
4,320.0	24.38	165.61	4,084.4	-1,148.2	258.8	1,176.9	0.00	0.00	0.00
4,360.0	24.38	165.61	4,120.8	-1,164.2	262.9	1,193.5	0.00	0.00	0.00
4,400.0	24.38	165.61	4,157.3	-1,180.2	267.0	1,210.0	0.00	0.00	0.00
4,440.0	24.38	165.61	4,193.7	-1,196.2	271.1	1,226.5	0.00	0.00	0.00
4,480.0	24.38	165.61	4,230.1	-1,212.2	275.2	1,243.0	0.00	0.00	0.00
4,520.0	24.38	165.61	4,266.6	-1,228.2	279.3	1,259.5	0.00	0.00	0.00
4,560.0	24.38	165.61	4,303.0	-1,244.2	283.4	1,276.0	0.00	0.00	0.00
4,600.0	24.38	165.61	4,339.4	-1,260.2	287.5	1,292.5	0.00	0.00	0.00
4,640.0	24.38	165.61	4,375.9	-1,276.2	291.6	1,309.0	0.00	0.00	0.00
4,680.0	24.38	165.61	4,412.3	-1,292.1	295.7	1,325.5	0.00	0.00	0.00
4,685.4	24.38	165.61	4,417.2	-1,294.3	296.3	1,327.8	0.00	0.00	0.00
4,720.0	23.69	165.61	4,448.8	-1,308.0	299.8	1,341.9	2.00	-2.00	0.00
4,760.0	22.89	165.61	4,485.5	-1,323.3	303.7	1,357.7	2.00	-2.00	0.00
4,800.0	22.09	165.61	4,522.5	-1,338.1	307.5	1,373.0	2.00	-2.00	0.00
4,840.0	21.29	165.61	4,559.7	-1,352.4	311.2	1,387.8	2.00	-2.00	0.00
4,880.0	20.49	165.61	4,597.0	-1,366.2	314.7	1,402.0	2.00	-2.00	0.00
4,920.0	19.69	165.61	4,634.6	-1,379.6	318.1	1,415.8	2.00	-2.00	0.00
4,960.0	18.89	165.61	4,672.4	-1,392.4	321.4	1,429.0	2.00	-2.00	0.00
5,000.0	18.09	165.61	4,710.3	-1,404.6	324.6	1,441.7	2.00	-2.00	0.00
5,040.0	17.29	165.61	4,748.4	-1,416.4	327.6	1,453.8	2.00	-2.00	0.00
5,080.0	16.49	165.61	4,786.7	-1,427.7	330.5	1,465.4	2.00	-2.00	0.00
5,120.0	15.69	165.61	4,825.1	-1,438.4	333.2	1,476.5	2.00	-2.00	0.00
5,160.0	14.89	165.61	4,863.7	-1,448.6	335.9	1,487.1	2.00	-2.00	0.00
5,200.0	14.09	165.61	4,902.4	-1,458.3	338.4	1,497.1	2.00	-2.00	0.00
5,240.0	13.29	165.61	4,941.3	-1,467.5	340.7	1,506.5	2.00	-2.00	0.00
5,280.0	12.49	165.61	4,980.3	-1,476.2	342.9	1,515.5	2.00	-2.00	0.00
5,320.0	11.69	165.61	5,019.4	-1,484.3	345.0	1,523.8	2.00	-2.00	0.00
5,360.0	10.89	165.61	5,058.6	-1,491.9	347.0	1,531.7	2.00	-2.00	0.00
5,400.0	10.09	165.61	5,097.9	-1,498.9	348.8	1,539.0	2.00	-2.00	0.00
5,440.0	9.29	165.61	5,137.4	-1,505.4	350.4	1,545.7	2.00	-2.00	0.00
5,480.0	8.49	165.61	5,176.9	-1,511.4	352.0	1,551.9	2.00	-2.00	0.00
5,520.0	7.69	165.61	5,216.5	-1,516.9	353.4	1,557.5	2.00	-2.00	0.00
5,560.0	6.89	165.61	5,256.2	-1,521.8	354.6	1,562.6	2.00	-2.00	0.00
5,600.0	6.09	165.61	5,295.9	-1,526.2	355.8	1,567.1	2.00	-2.00	0.00
5,640.0	5.29	165.61	5,335.7	-1,530.0	356.8	1,571.1	2.00	-2.00	0.00
5,680.0	4.49	165.61	5,375.6	-1,533.3	357.6	1,574.5	2.00	-2.00	0.00
5,720.0	3.69	165.61	5,415.5	-1,536.1	358.3	1,577.3	2.00	-2.00	0.00
5,760.0	2.89	165.61	5,455.4	-1,538.3	358.9	1,579.6	2.00	-2.00	0.00
5,800.0	2.09	165.61	5,495.4	-1,540.0	359.3	1,581.4	2.00	-2.00	0.00
5,840.0	1.29	165.61	5,535.3	-1,541.2	359.6	1,582.6	2.00	-2.00	0.00
5,880.0	0.49	165.61	5,575.3	-1,541.8	359.8	1,583.2	2.00	-2.00	0.00
5,904.7	0.00	0.00	5,600.0	-1,541.9	359.8	1,583.3	2.00	-2.00	0.00
TARGET BHL 125'FSL, 1320'FWL									
5,920.0	0.00	0.00	5,615.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
5,960.0	0.00	0.00	5,655.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,000.0	0.00	0.00	5,695.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,040.0	0.00	0.00	5,735.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,080.0	0.00	0.00	5,775.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,120.0	0.00	0.00	5,815.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,160.0	0.00	0.00	5,855.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,200.0	0.00	0.00	5,895.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,240.0	0.00	0.00	5,935.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Camp H30-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Project:	SEC.19-T3N-R65W	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site:	Wardell H19-32D Pad Sec.19-T3N-R65W	North Reference:	True
Well:	Camp H30-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Camp H30-29D PLAN #1 (01-07-10)		

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)
6,280.0	0.00	0.00	5,975.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,320.0	0.00	0.00	6,015.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,360.0	0.00	0.00	6,055.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,400.0	0.00	0.00	6,095.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,440.0	0.00	0.00	6,135.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,480.0	0.00	0.00	6,175.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,520.0	0.00	0.00	6,215.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,560.0	0.00	0.00	6,255.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,600.0	0.00	0.00	6,295.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,640.0	0.00	0.00	6,335.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,680.0	0.00	0.00	6,375.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,720.0	0.00	0.00	6,415.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,760.0	0.00	0.00	6,455.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,800.0	0.00	0.00	6,495.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,840.0	0.00	0.00	6,535.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,880.0	0.00	0.00	6,575.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,920.0	0.00	0.00	6,615.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
6,960.0	0.00	0.00	6,655.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,695.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,040.0	0.00	0.00	6,735.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,080.0	0.00	0.00	6,775.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,120.0	0.00	0.00	6,815.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,160.0	0.00	0.00	6,855.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,200.0	0.00	0.00	6,895.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,240.0	0.00	0.00	6,935.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,280.0	0.00	0.00	6,975.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,320.0	0.00	0.00	7,015.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,360.0	0.00	0.00	7,055.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,400.0	0.00	0.00	7,095.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,417.7	0.00	0.00	7,113.0	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
NIOBRARAA - TARGET CIRCLE 125'FSL, 1320'FWL									
7,440.0	0.00	0.00	7,135.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,480.0	0.00	0.00	7,175.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,520.0	0.00	0.00	7,215.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,560.0	0.00	0.00	7,255.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,600.0	0.00	0.00	7,295.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,640.0	0.00	0.00	7,335.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,680.0	0.00	0.00	7,375.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,720.0	0.00	0.00	7,415.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,742.7	0.00	0.00	7,438.0	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
CODELL									
7,760.0	0.00	0.00	7,455.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,800.0	0.00	0.00	7,495.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,840.0	0.00	0.00	7,535.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,880.0	0.00	0.00	7,575.3	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
7,892.7	0.00	0.00	7,588.0	-1,541.9	359.8	1,583.3	0.00	0.00	0.00
HARDLINE 125'S OF BHL									

Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.19-T3N-R65W
 Site: Wardell H19-32D Pad Sec.19-T3N-R65W
 Well: Camp H30-29D
 Wellbore: Wellbore #1
 Design: Noble Camp H30-29D P1an #1 (01-07-10)

Local Co-ordinate Reference: Well Camp H30-29D
 TVD Reference: WELL @ 5003.0ft (Original Well Elev)
 MD Reference: WELL @ 5003.0ft (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 12'	0.00	0.00	7,113.0	-1,541.9	359.8	1,318,142.79	3,220,382.09	40° 12' 14.427 N	104° 42' 39.535 W
- plan hits target center									
- Circle (radius 75.0)									
HARDLINE 125'S OF	0.00	0.00	7,588.0	-1,666.9	259.8	1,318,016.91	3,220,283.21	40° 12' 13.192 N	104° 42' 40.824 W
- plan misses target center by 160.1ft at 7892.7ft MD (7588.0 TVD, -1541.9 N, 359.8 E)									
- Polygon									
Point 1			7,588.0	0.0	0.0	1,318,016.91	3,220,283.21		
Point 2			7,588.0	0.0	200.0	1,318,018.69	3,220,483.20		
TARGET BHL 125'FS	0.00	0.00	5,600.0	-1,541.9	359.8	1,318,142.83	3,220,382.09	40° 12' 14.427 N	104° 42' 39.535 W
- plan hits target center									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,417.7	7,113.0	NIOBRARAA		0.00	
7,742.7	7,438.0	CODELL		0.00	