

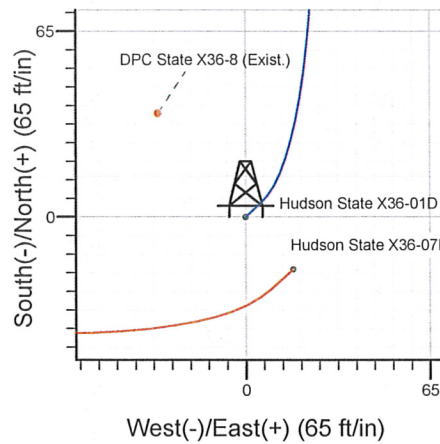
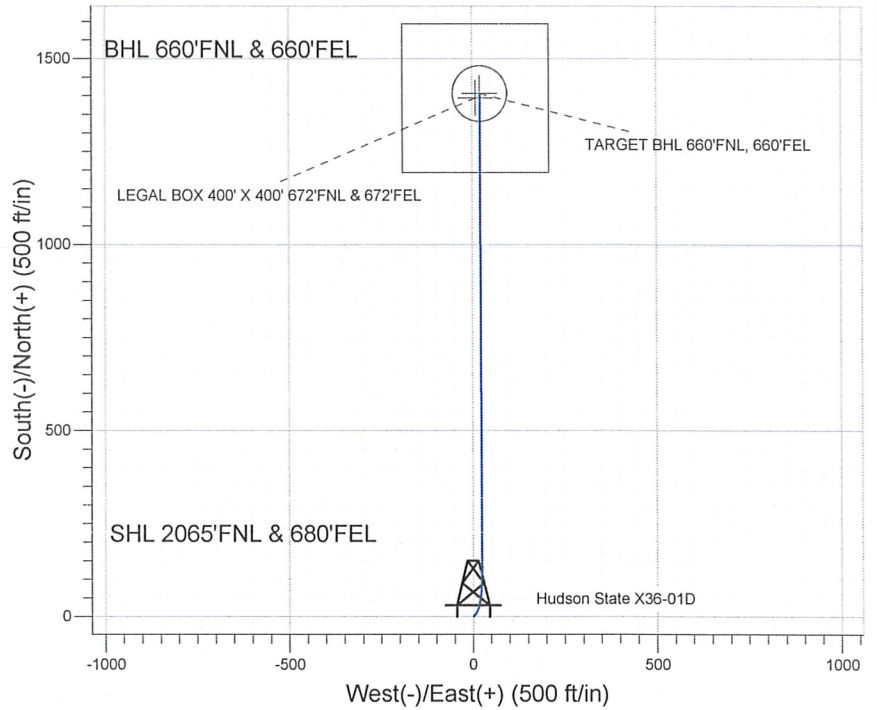
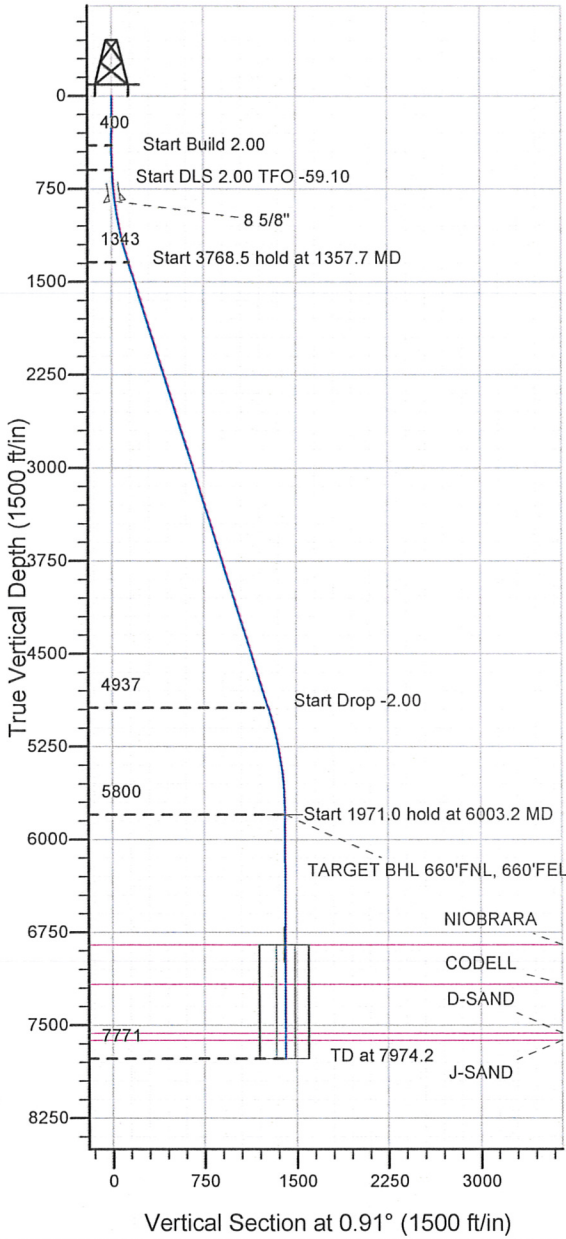
Well Name: Hudson State X36-01D

Surface Location: Hudson State X36-01D Pad Sec.36-T2N-R65W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4918.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1279266.40	3250356.00	40.096510	-104.605080	

Original Well Elev WELL @ 4931.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO



Hudson State X36-01D Pad Sec.36-T2N-R65W
 Hudson State X36-01D
 Noble Hudson State X36-01D Plan #1 (4-06-11)
 14:15, April 12 2011



Azimuths to True North
 Magnetic North: 8.77°

Magnetic Field
 Strength: 53006.7snT
 Dip Angle: 66.84°
 Date: 4/12/2011
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 660'FNL, 660'FEL	5800.0	1406.2	22.4	40.100370	-104.605000	Point
LEGAL BOX 400' X 400' 672'FNL & 672'FEL	6852.0	1394.2	10.4	40.100337	-104.605043	Rectangle (Sides: L400.0 W400.0)
TARGET CIRCLE 660'FNL, 660'FEL	6852.0	1406.2	22.4	40.100370	-104.605000	Circle (Radius: 75.0)

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	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	600.0	4.00	48.00	599.8	4.7	5.2	2.00	48.00	4.8	
4	1357.7	17.54	359.89	1343.4	137.3	24.7	2.00	-59.10	137.7	
5	5126.2	17.54	359.89	4936.6	1273.0	22.6	0.00	0.00	1273.2	
6	6003.2	0.00	0.00	5800.0	1406.2	22.4	2.00	180.00	1406.4	TARGET BHL 660'FNL, 660'FEL
7	7974.2	0.00	0.00	7771.0	1406.2	22.4	0.00	0.00	1406.4	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.36-T2N-R65W

Hudson State X36-01D Pad Sec.36-T2N-R65W

Hudson State X36-01D

Wellbore #1

Plan: Noble Hudson State X36-01D Plan #1 (4-06-11)

Standard Planning Report

12 April, 2011



Database:	Landmark	Local Co-ordinate Reference:	Well Hudson State X36-01D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4931.0ft (Original Well Elev)
Project:	SEC.36-T2N-R65W	MD Reference:	WELL @ 4931.0ft (Original Well Elev)
Site:	Hudson State X36-01D Pad Sec.36-T2N-R65W	North Reference:	True
Well:	Hudson State X36-01D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Hudson State X36-01D Plan #1 (4-06-11)		

Project	SEC.36-T2N-R65W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Hudson State X36-01D Pad Sec.36-T2N-R65W				
Site Position:		Northing:	1,279,266.41 ft	Latitude:	40.096510
From:	Lat/Long	Easting:	3,250,356.00 ft	Longitude:	-104.605080
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.58 °

Well	Hudson State X36-01D					
Well Position	+N/-S	0.0 ft	Northing:	1,279,266.40 ft	Latitude:	40.096510
	+E/-W	0.0 ft	Easting:	3,250,356.00 ft	Longitude:	-104.605080
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,918.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/12/2011	8.78	66.84	53,007

Design	Noble Hudson State X36-01D Plan #1 (4-06-11)			
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	0.91

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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
600.0	4.00	48.00	599.8	4.7	5.2	2.00	2.00	0.00	48.00	
1,357.7	17.54	359.89	1,343.4	137.3	24.7	2.00	1.79	-6.35	-59.10	
5,126.2	17.54	359.89	4,936.6	1,273.0	22.6	0.00	0.00	0.00	0.00	
6,003.2	0.00	0.00	5,800.0	1,406.2	22.4	2.00	-2.00	0.00	180.00	TARGET BHL 660'I
7,974.2	0.00	0.00	7,771.0	1,406.2	22.4	0.00	0.00	0.00	0.00	

Database: Landmark
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.36-T2N-R65W
 Site: Hudson State X36-01D Pad
 Sec.36-T2N-R65W
 Well: Hudson State X36-01D
 Wellbore: Wellbore #1
 Design: Noble Hudson State X36-01D Plan #1 (4-06-11)

Local Co-ordinate Reference: Well Hudson State X36-01D
 TVD Reference: WELL @ 4931.0ft (Original Well Elev)
 MD Reference: WELL @ 4931.0ft (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	0.80	48.00	440.0	0.2	0.2	0.2	2.00	2.00	0.00
480.0	1.60	48.00	480.0	0.7	0.8	0.8	2.00	2.00	0.00
520.0	2.40	48.00	520.0	1.7	1.9	1.7	2.00	2.00	0.00
560.0	3.20	48.00	559.9	3.0	3.3	3.0	2.00	2.00	0.00
600.0	4.00	48.00	599.8	4.7	5.2	4.8	2.00	2.00	0.00
640.0	4.46	39.14	639.7	6.8	7.2	6.9	2.00	1.16	-22.14
680.0	5.01	32.09	679.6	9.5	9.1	9.6	2.00	1.37	-17.65
720.0	5.62	26.48	719.4	12.7	10.9	12.9	2.00	1.52	-14.01
760.0	6.27	22.01	759.2	16.5	12.6	16.7	2.00	1.63	-11.19
800.0	6.96	18.39	798.9	20.8	14.2	21.1	2.00	1.71	-9.05
840.0	7.66	15.42	838.6	25.7	15.7	26.0	2.00	1.76	-7.41
851.5	7.87	14.67	850.0	27.2	16.1	27.5	2.00	1.79	-6.56
8 5/8"									
880.0	8.39	12.96	878.2	31.1	17.0	31.4	2.00	1.81	-6.00
920.0	9.12	10.89	917.8	37.1	18.3	37.4	2.00	1.84	-5.18
960.0	9.87	9.12	957.2	43.6	19.4	43.9	2.00	1.86	-4.41
1,000.0	10.62	7.61	996.6	50.6	20.5	50.9	2.00	1.88	-3.79
1,040.0	11.38	6.29	1,035.8	58.2	21.4	58.5	2.00	1.90	-3.29
1,080.0	12.14	5.14	1,075.0	66.3	22.2	66.6	2.00	1.91	-2.88
1,120.0	12.91	4.12	1,114.0	75.0	22.9	75.3	2.00	1.92	-2.55
1,160.0	13.69	3.21	1,153.0	84.1	23.5	84.5	2.00	1.93	-2.26
1,200.0	14.46	2.40	1,191.8	93.8	23.9	94.2	2.00	1.94	-2.03
1,240.0	15.24	1.67	1,230.4	104.1	24.3	104.5	2.00	1.94	-1.82
1,280.0	16.02	1.01	1,269.0	114.9	24.6	115.2	2.00	1.95	-1.65
1,320.0	16.80	0.41	1,307.3	126.2	24.7	126.5	2.00	1.95	-1.50
1,357.7	17.54	359.89	1,343.4	137.3	24.7	137.7	2.00	1.96	-1.37
1,360.0	17.54	359.89	1,345.5	138.0	24.7	138.4	0.00	0.00	0.00
1,400.0	17.54	359.89	1,383.7	150.0	24.7	150.4	0.00	0.00	0.00
1,440.0	17.54	359.89	1,421.8	162.1	24.7	162.5	0.00	0.00	0.00
1,480.0	17.54	359.89	1,460.0	174.2	24.7	174.5	0.00	0.00	0.00
1,520.0	17.54	359.89	1,498.1	186.2	24.6	186.6	0.00	0.00	0.00
1,560.0	17.54	359.89	1,536.2	198.3	24.6	198.6	0.00	0.00	0.00
1,600.0	17.54	359.89	1,574.4	210.3	24.6	210.7	0.00	0.00	0.00
1,640.0	17.54	359.89	1,612.5	222.4	24.6	222.7	0.00	0.00	0.00
1,680.0	17.54	359.89	1,650.7	234.4	24.5	234.8	0.00	0.00	0.00
1,720.0	17.54	359.89	1,688.8	246.5	24.5	246.8	0.00	0.00	0.00
1,760.0	17.54	359.89	1,726.9	258.5	24.5	258.9	0.00	0.00	0.00
1,800.0	17.54	359.89	1,765.1	270.6	24.5	270.9	0.00	0.00	0.00
1,840.0	17.54	359.89	1,803.2	282.6	24.5	283.0	0.00	0.00	0.00
1,880.0	17.54	359.89	1,841.4	294.7	24.4	295.0	0.00	0.00	0.00
1,920.0	17.54	359.89	1,879.5	306.8	24.4	307.1	0.00	0.00	0.00
1,960.0	17.54	359.89	1,917.6	318.8	24.4	319.2	0.00	0.00	0.00

Database: Landmark
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.36-T2N-R65W
Site: Hudson State X36-01D Pad
 Sec.36-T2N-R65W
Well: Hudson State X36-01D
Wellbore: Wellbore #1
Design: Noble Hudson State X36-01D Plan #1 (4-06-11)

Local Co-ordinate Reference: Well Hudson State X36-01D
TVD Reference: WELL @ 4931.0ft (Original Well Elev)
MD Reference: WELL @ 4931.0ft (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)
2,000.0	17.54	359.89	1,955.8	330.9	24.4	331.2	0.00	0.00	0.00
2,040.0	17.54	359.89	1,993.9	342.9	24.3	343.3	0.00	0.00	0.00
2,080.0	17.54	359.89	2,032.1	355.0	24.3	355.3	0.00	0.00	0.00
2,120.0	17.54	359.89	2,070.2	367.0	24.3	367.4	0.00	0.00	0.00
2,160.0	17.54	359.89	2,108.3	379.1	24.3	379.4	0.00	0.00	0.00
2,200.0	17.54	359.89	2,146.5	391.1	24.3	391.5	0.00	0.00	0.00
2,240.0	17.54	359.89	2,184.6	403.2	24.2	403.5	0.00	0.00	0.00
2,280.0	17.54	359.89	2,222.8	415.2	24.2	415.6	0.00	0.00	0.00
2,320.0	17.54	359.89	2,260.9	427.3	24.2	427.6	0.00	0.00	0.00
2,360.0	17.54	359.89	2,299.0	439.4	24.2	439.7	0.00	0.00	0.00
2,400.0	17.54	359.89	2,337.2	451.4	24.1	451.7	0.00	0.00	0.00
2,440.0	17.54	359.89	2,375.3	463.5	24.1	463.8	0.00	0.00	0.00
2,480.0	17.54	359.89	2,413.5	475.5	24.1	475.8	0.00	0.00	0.00
2,520.0	17.54	359.89	2,451.6	487.6	24.1	487.9	0.00	0.00	0.00
2,560.0	17.54	359.89	2,489.7	499.6	24.1	499.9	0.00	0.00	0.00
2,600.0	17.54	359.89	2,527.9	511.7	24.0	512.0	0.00	0.00	0.00
2,640.0	17.54	359.89	2,566.0	523.7	24.0	524.1	0.00	0.00	0.00
2,680.0	17.54	359.89	2,604.2	535.8	24.0	536.1	0.00	0.00	0.00
2,720.0	17.54	359.89	2,642.3	547.8	24.0	548.2	0.00	0.00	0.00
2,760.0	17.54	359.89	2,680.4	559.9	23.9	560.2	0.00	0.00	0.00
2,800.0	17.54	359.89	2,718.6	572.0	23.9	572.3	0.00	0.00	0.00
2,840.0	17.54	359.89	2,756.7	584.0	23.9	584.3	0.00	0.00	0.00
2,880.0	17.54	359.89	2,794.9	596.1	23.9	596.4	0.00	0.00	0.00
2,920.0	17.54	359.89	2,833.0	608.1	23.9	608.4	0.00	0.00	0.00
2,960.0	17.54	359.89	2,871.1	620.2	23.8	620.5	0.00	0.00	0.00
3,000.0	17.54	359.89	2,909.3	632.2	23.8	632.5	0.00	0.00	0.00
3,040.0	17.54	359.89	2,947.4	644.3	23.8	644.6	0.00	0.00	0.00
3,080.0	17.54	359.89	2,985.6	656.3	23.8	656.6	0.00	0.00	0.00
3,120.0	17.54	359.89	3,023.7	668.4	23.7	668.7	0.00	0.00	0.00
3,160.0	17.54	359.89	3,061.9	680.4	23.7	680.7	0.00	0.00	0.00
3,200.0	17.54	359.89	3,100.0	692.5	23.7	692.8	0.00	0.00	0.00
3,240.0	17.54	359.89	3,138.1	704.6	23.7	704.8	0.00	0.00	0.00
3,280.0	17.54	359.89	3,176.3	716.6	23.7	716.9	0.00	0.00	0.00
3,320.0	17.54	359.89	3,214.4	728.7	23.6	728.9	0.00	0.00	0.00
3,360.0	17.54	359.89	3,252.6	740.7	23.6	741.0	0.00	0.00	0.00
3,400.0	17.54	359.89	3,290.7	752.8	23.6	753.1	0.00	0.00	0.00
3,440.0	17.54	359.89	3,328.8	764.8	23.6	765.1	0.00	0.00	0.00
3,480.0	17.54	359.89	3,367.0	776.9	23.5	777.2	0.00	0.00	0.00
3,520.0	17.54	359.89	3,405.1	788.9	23.5	789.2	0.00	0.00	0.00
3,560.0	17.54	359.89	3,443.3	801.0	23.5	801.3	0.00	0.00	0.00
3,600.0	17.54	359.89	3,481.4	813.0	23.5	813.3	0.00	0.00	0.00
3,640.0	17.54	359.89	3,519.5	825.1	23.5	825.4	0.00	0.00	0.00
3,680.0	17.54	359.89	3,557.7	837.2	23.4	837.4	0.00	0.00	0.00
3,720.0	17.54	359.89	3,595.8	849.2	23.4	849.5	0.00	0.00	0.00
3,760.0	17.54	359.89	3,634.0	861.3	23.4	861.5	0.00	0.00	0.00
3,800.0	17.54	359.89	3,672.1	873.3	23.4	873.6	0.00	0.00	0.00
3,840.0	17.54	359.89	3,710.2	885.4	23.3	885.6	0.00	0.00	0.00
3,880.0	17.54	359.89	3,748.4	897.4	23.3	897.7	0.00	0.00	0.00
3,920.0	17.54	359.89	3,786.5	909.5	23.3	909.7	0.00	0.00	0.00
3,960.0	17.54	359.89	3,824.7	921.5	23.3	921.8	0.00	0.00	0.00
4,000.0	17.54	359.89	3,862.8	933.6	23.3	933.8	0.00	0.00	0.00
4,040.0	17.54	359.89	3,900.9	945.6	23.2	945.9	0.00	0.00	0.00
4,080.0	17.54	359.89	3,939.1	957.7	23.2	957.9	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Hudson State X36-01D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4931.0ft (Original Well Elev)
Project:	SEC.36-T2N-R65W	MD Reference:	WELL @ 4931.0ft (Original Well Elev)
Site:	Hudson State X36-01D Pad Sec.36-T2N-R65W	North Reference:	True
Well:	Hudson State X36-01D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Hudson State X36-01D Plan #1 (4-06-11)		

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)
4,120.0	17.54	359.89	3,977.2	969.8	23.2	970.0	0.00	0.00	0.00
4,160.0	17.54	359.89	4,015.4	981.8	23.2	982.1	0.00	0.00	0.00
4,200.0	17.54	359.89	4,053.5	993.9	23.1	994.1	0.00	0.00	0.00
4,240.0	17.54	359.89	4,091.6	1,005.9	23.1	1,006.2	0.00	0.00	0.00
4,280.0	17.54	359.89	4,129.8	1,018.0	23.1	1,018.2	0.00	0.00	0.00
4,320.0	17.54	359.89	4,167.9	1,030.0	23.1	1,030.3	0.00	0.00	0.00
4,360.0	17.54	359.89	4,206.1	1,042.1	23.1	1,042.3	0.00	0.00	0.00
4,400.0	17.54	359.89	4,244.2	1,054.1	23.0	1,054.4	0.00	0.00	0.00
4,440.0	17.54	359.89	4,282.3	1,066.2	23.0	1,066.4	0.00	0.00	0.00
4,480.0	17.54	359.89	4,320.5	1,078.2	23.0	1,078.5	0.00	0.00	0.00
4,520.0	17.54	359.89	4,358.6	1,090.3	23.0	1,090.5	0.00	0.00	0.00
4,560.0	17.54	359.89	4,396.8	1,102.4	22.9	1,102.6	0.00	0.00	0.00
4,600.0	17.54	359.89	4,434.9	1,114.4	22.9	1,114.6	0.00	0.00	0.00
4,640.0	17.54	359.89	4,473.0	1,126.5	22.9	1,126.7	0.00	0.00	0.00
4,680.0	17.54	359.89	4,511.2	1,138.5	22.9	1,138.7	0.00	0.00	0.00
4,720.0	17.54	359.89	4,549.3	1,150.6	22.9	1,150.8	0.00	0.00	0.00
4,760.0	17.54	359.89	4,587.5	1,162.6	22.8	1,162.8	0.00	0.00	0.00
4,800.0	17.54	359.89	4,625.6	1,174.7	22.8	1,174.9	0.00	0.00	0.00
4,840.0	17.54	359.89	4,663.7	1,186.7	22.8	1,187.0	0.00	0.00	0.00
4,880.0	17.54	359.89	4,701.9	1,198.8	22.8	1,199.0	0.00	0.00	0.00
4,920.0	17.54	359.89	4,740.0	1,210.8	22.7	1,211.1	0.00	0.00	0.00
4,960.0	17.54	359.89	4,778.2	1,222.9	22.7	1,223.1	0.00	0.00	0.00
5,000.0	17.54	359.89	4,816.3	1,235.0	22.7	1,235.2	0.00	0.00	0.00
5,040.0	17.54	359.89	4,854.4	1,247.0	22.7	1,247.2	0.00	0.00	0.00
5,080.0	17.54	359.89	4,892.6	1,259.1	22.7	1,259.3	0.00	0.00	0.00
5,120.0	17.54	359.89	4,930.7	1,271.1	22.6	1,271.3	0.00	0.00	0.00
5,126.2	17.54	359.89	4,936.6	1,273.0	22.6	1,273.2	0.00	0.00	0.00
5,160.0	16.86	359.89	4,968.9	1,283.0	22.6	1,283.2	2.00	-2.00	0.00
5,200.0	16.06	359.89	5,007.3	1,294.3	22.6	1,294.5	2.00	-2.00	0.00
5,240.0	15.26	359.89	5,045.8	1,305.1	22.6	1,305.3	2.00	-2.00	0.00
5,280.0	14.46	359.89	5,084.5	1,315.4	22.5	1,315.6	2.00	-2.00	0.00
5,320.0	13.66	359.89	5,123.3	1,325.1	22.5	1,325.3	2.00	-2.00	0.00
5,360.0	12.86	359.89	5,162.2	1,334.3	22.5	1,334.5	2.00	-2.00	0.00
5,400.0	12.06	359.89	5,201.3	1,342.9	22.5	1,343.1	2.00	-2.00	0.00
5,440.0	11.26	359.89	5,240.4	1,351.0	22.5	1,351.2	2.00	-2.00	0.00
5,480.0	10.46	359.89	5,279.7	1,358.5	22.5	1,358.7	2.00	-2.00	0.00
5,520.0	9.66	359.89	5,319.1	1,365.5	22.5	1,365.7	2.00	-2.00	0.00
5,560.0	8.86	359.89	5,358.6	1,372.0	22.4	1,372.1	2.00	-2.00	0.00
5,600.0	8.06	359.89	5,398.1	1,377.9	22.4	1,378.0	2.00	-2.00	0.00
5,640.0	7.26	359.89	5,437.8	1,383.2	22.4	1,383.4	2.00	-2.00	0.00
5,680.0	6.46	359.89	5,477.5	1,388.0	22.4	1,388.1	2.00	-2.00	0.00
5,720.0	5.66	359.89	5,517.3	1,392.2	22.4	1,392.4	2.00	-2.00	0.00
5,760.0	4.86	359.89	5,557.1	1,395.9	22.4	1,396.0	2.00	-2.00	0.00
5,800.0	4.06	359.89	5,597.0	1,399.0	22.4	1,399.2	2.00	-2.00	0.00
5,840.0	3.26	359.89	5,636.9	1,401.5	22.4	1,401.7	2.00	-2.00	0.00
5,880.0	2.46	359.89	5,676.8	1,403.5	22.4	1,403.7	2.00	-2.00	0.00
5,920.0	1.66	359.89	5,716.8	1,405.0	22.4	1,405.1	2.00	-2.00	0.00
5,960.0	0.86	359.89	5,756.8	1,405.9	22.4	1,406.0	2.00	-2.00	0.00
6,000.0	0.06	359.89	5,796.8	1,406.2	22.4	1,406.4	2.00	-2.00	0.00
6,003.2	0.00	0.00	5,800.0	1,406.2	22.4	1,406.4	2.00	-2.00	0.00
TARGET BHL 660'FNL, 660'FEL									
6,040.0	0.00	0.00	5,836.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,080.0	0.00	0.00	5,876.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Hudson State X36-01D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4931.0ft (Original Well Elev)
Project:	SEC.36-T2N-R65W	MD Reference:	WELL @ 4931.0ft (Original Well Elev)
Site:	Hudson State X36-01D Pad Sec.36-T2N-R65W	North Reference:	True
Well:	Hudson State X36-01D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Hudson State X36-01D Plan #1 (4-06-11)		

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)
6,120.0	0.00	0.00	5,916.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,160.0	0.00	0.00	5,956.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,200.0	0.00	0.00	5,996.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,240.0	0.00	0.00	6,036.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,280.0	0.00	0.00	6,076.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,320.0	0.00	0.00	6,116.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,360.0	0.00	0.00	6,156.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,400.0	0.00	0.00	6,196.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,440.0	0.00	0.00	6,236.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,480.0	0.00	0.00	6,276.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,520.0	0.00	0.00	6,316.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,560.0	0.00	0.00	6,356.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,600.0	0.00	0.00	6,396.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,640.0	0.00	0.00	6,436.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,680.0	0.00	0.00	6,476.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,720.0	0.00	0.00	6,516.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,760.0	0.00	0.00	6,556.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,800.0	0.00	0.00	6,596.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,840.0	0.00	0.00	6,636.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,880.0	0.00	0.00	6,676.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,920.0	0.00	0.00	6,716.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
6,960.0	0.00	0.00	6,756.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,000.0	0.00	0.00	6,796.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,040.0	0.00	0.00	6,836.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,055.2	0.00	0.00	6,852.0	1,406.2	22.4	1,406.4	0.00	0.00	0.00
NIORARA - LEGAL BOX 400' X 400' 672'FNL & 672'FEL - TARGET CIRCLE 660'FNL, 660'FEL									
7,080.0	0.00	0.00	6,876.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,120.0	0.00	0.00	6,916.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,160.0	0.00	0.00	6,956.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,200.0	0.00	0.00	6,996.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,240.0	0.00	0.00	7,036.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,280.0	0.00	0.00	7,076.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,320.0	0.00	0.00	7,116.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,360.0	0.00	0.00	7,156.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,373.2	0.00	0.00	7,170.0	1,406.2	22.4	1,406.4	0.00	0.00	0.00
CODELL									
7,400.0	0.00	0.00	7,196.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,440.0	0.00	0.00	7,236.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,480.0	0.00	0.00	7,276.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,520.0	0.00	0.00	7,316.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,560.0	0.00	0.00	7,356.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,600.0	0.00	0.00	7,396.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,640.0	0.00	0.00	7,436.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,680.0	0.00	0.00	7,476.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,720.0	0.00	0.00	7,516.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,760.0	0.00	0.00	7,556.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,765.2	0.00	0.00	7,562.0	1,406.2	22.4	1,406.4	0.00	0.00	0.00
D-SAND									
7,800.0	0.00	0.00	7,596.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,824.2	0.00	0.00	7,621.0	1,406.2	22.4	1,406.4	0.00	0.00	0.00
J-SAND									
7,840.0	0.00	0.00	7,636.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00

Database: Landmark
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.36-T2N-R65W
 Site: Hudson State X36-01D Pad
 Sec.36-T2N-R65W
 Well: Hudson State X36-01D
 Wellbore: Wellbore #1
 Design: Noble Hudson State X36-01D Plan #1 (4-06-11)

Local Co-ordinate Reference: Well Hudson State X36-01D
 TVD Reference: WELL @ 4931.0ft (Original Well Elev)
 MD Reference: WELL @ 4931.0ft (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)
7,880.0	0.00	0.00	7,676.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,920.0	0.00	0.00	7,716.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,960.0	0.00	0.00	7,756.8	1,406.2	22.4	1,406.4	0.00	0.00	0.00
7,974.2	0.00	0.00	7,771.0	1,406.2	22.4	1,406.4	0.00	0.00	0.00

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
LEGAL BOX 400' X 400' - plan misses target center by 16.9ft at 7055.2ft MD (6852.0 TVD, 1406.2 N, 22.4 E) - Rectangle (sides W400.0 H400.0 D919.0)	0.00	0.00	6,852.0	1,394.2	10.4	1,280,660.58	3,250,352.33	40.100337	-104.605043
TARGET CIRCLE 66' - plan hits target center - Circle (radius 75.0)	0.00	0.00	6,852.0	1,406.2	22.4	1,280,672.68	3,250,364.19	40.100370	-104.605000
TARGET BHL 660'FN - plan hits target center - Point	0.00	0.00	5,800.0	1,406.2	22.4	1,280,672.68	3,250,364.19	40.100370	-104.605000

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
851.5	850.0	8 5/8"	8-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,055.2	6,852.0	NIOBRARA		0.00	
7,373.2	7,170.0	CODELL		0.00	
7,765.2	7,562.0	D-SAND		0.00	
7,824.2	7,621.0	J-SAND		0.00	