

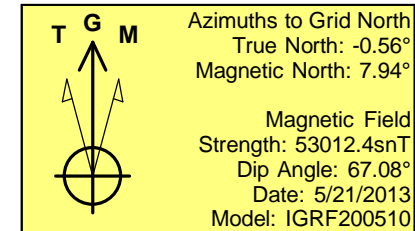
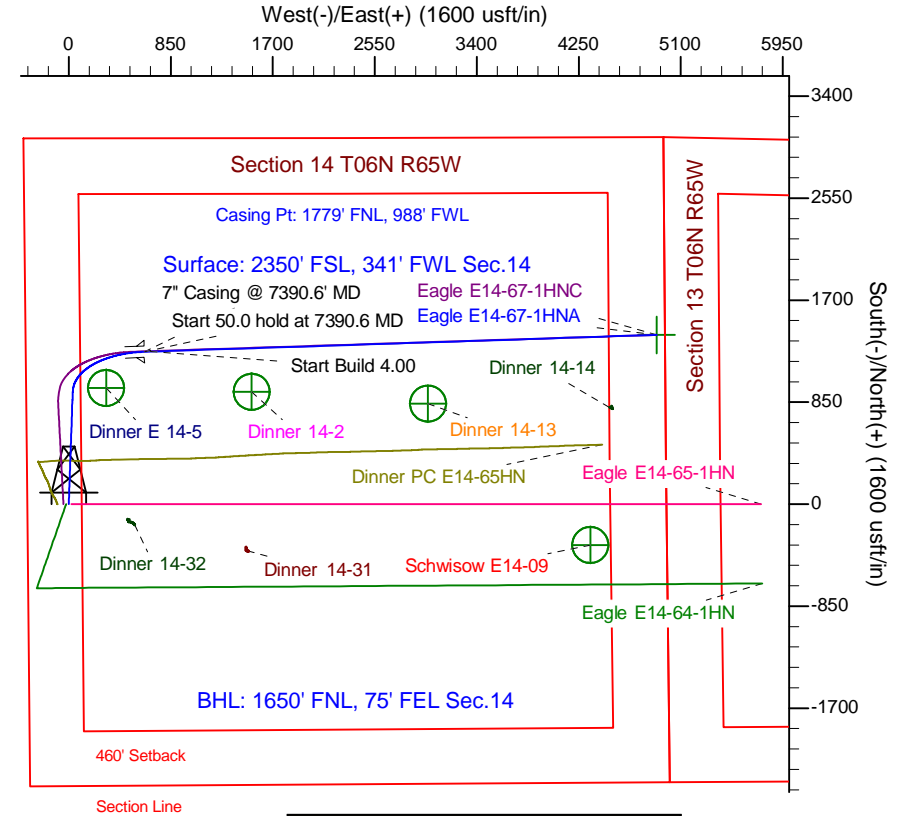
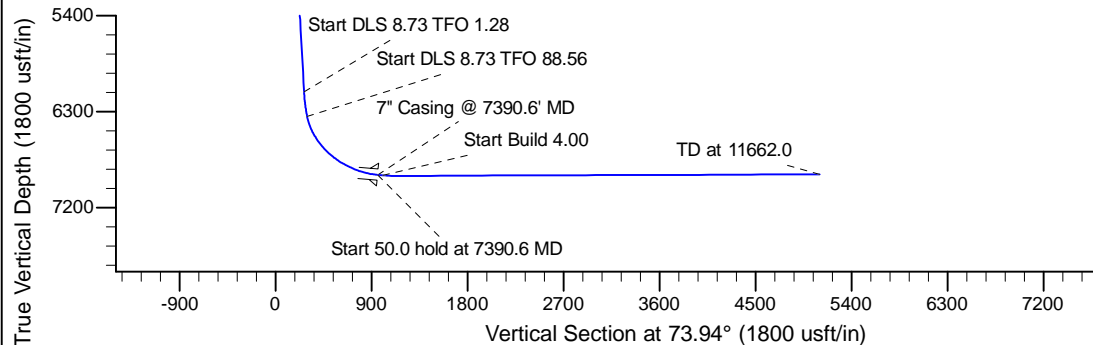
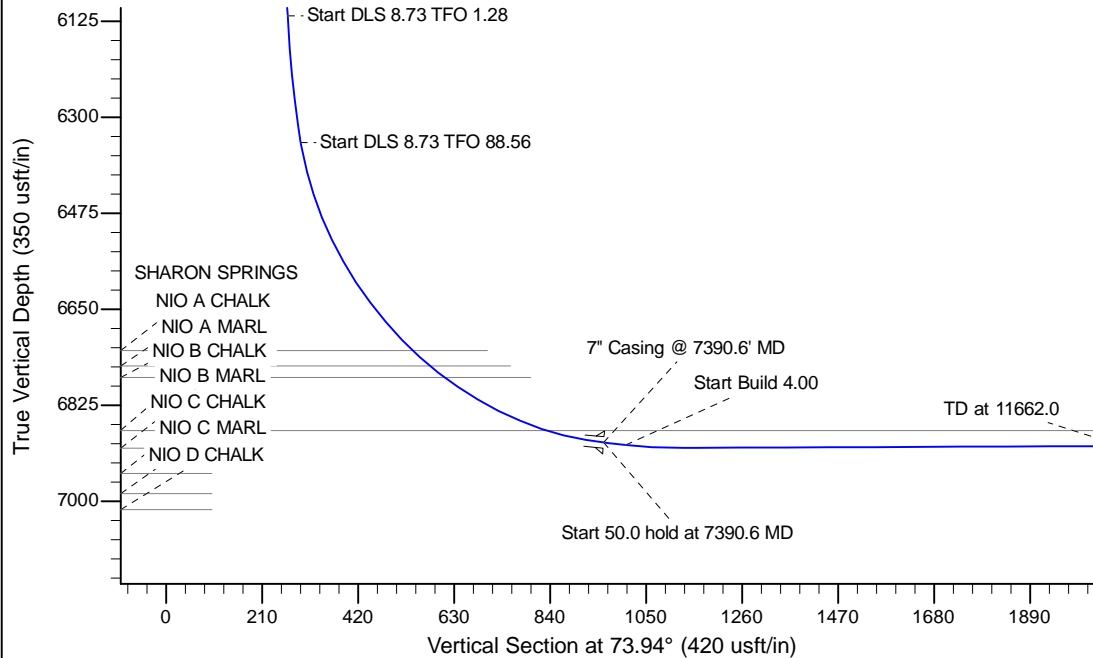
Project: Wattenberg Field  
Site: E (Sec.14-T06N-R65W) Weld County, CO  
Well: Eagle E14-67-1HNA  
Wellbore: Original Drilling  
Design: APD - Rev 0

# Northern Region Drilling

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone  
System Datum: Mean Sea Level

## 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	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1500.0	10.00	2.00	1497.5	43.5	1.5	2.00	2.00	13.5	
4	6188.8	10.00	2.00	6115.0	857.2	29.9	0.00	0.00	266.0	
5	6437.2	31.69	2.90	6345.8	945.0	34.0	8.73	1.28	294.2	
6	7390.6	85.00	88.11	6892.7	1270.0	630.0	8.73	88.56	956.8	
7	7440.6	85.00	88.11	6897.1	1271.6	679.8	0.00	0.00	1005.1	
8	7570.6	90.20	88.11	6902.5	1275.9	809.6	4.00	0.00	1131.0	
9	11662.0	90.20	88.11	6888.2	1410.7	4898.7	0.00	84.06	5097.8	Eagle E14-67-1HNA BHL 1650'FNL, 75'FEL



WELL DETAILS: Eagle E14-67-1HNA				
Ground Level: 4718.0				
0.0	0.0	Northing	Easting	Latitude
		1420783.73	3239533.79	40.485260
				Longitude
				-104.638850
Plan: APD - Rev 0 (Eagle E14-67-1HNA/Original Drilling)				
Created By: Shailey Jewell		Date: 13:02, May 22 2013		
Checked: _____		Date: _____		
Reviewed: _____		Date: _____		
Approved: _____		Date: _____		

# **Northern Region Drilling**

**Wattenberg Field**

**E (06N-65W)**

**Eagle E14-67-1HNA**

**Original Drilling**

**Plan: APD - Rev 0**

## **Standard Planning Report**

**22 May, 2013**

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Eagle E14-67-1HNA
<b>Company:</b>	Northern Region Drilling	<b>TVD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Site:</b>	E (06N-65W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Eagle E14-67-1HNA	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

<b>Project</b>	Wattenberg Field, Weld County CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		E (06N-65W)			
Site Position:		Northing:	1,417,105.06 usft	Latitude:	40.475150
From:	Lat/Long	Easting:	3,240,006.32 usft	Longitude:	-104.637280
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.56 °

Well	Eagle E14-67-1HNA					
Well Position	+N/-S	3,678.8 usft	Northing:	1,420,783.73 usft	Latitude:	40.485260
	+E/-W	-472.5 usft	Easting:	3,239,533.79 usft	Longitude:	-104.638850
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	4,718.0 usft

<b>Wellbore</b>	Original Drilling				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	5/21/2013	8.49	67.08	53,012

<b>Design</b>	APD - Rev 0			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	73.94

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	10.00	2.00	1,497.5	43.5	1.5	2.00	2.00	0.00	2.00	
6,188.8	10.00	2.00	6,115.0	857.2	29.9	0.00	0.00	0.00	0.00	
6,437.2	31.69	2.90	6,345.8	945.0	34.0	8.73	8.73	0.36	1.28	
7,390.6	85.00	88.11	6,892.7	1,270.0	630.0	8.73	5.59	8.94	88.56	
7,440.6	85.00	88.11	6,897.1	1,271.6	679.8	0.00	0.00	0.00	0.00	
7,570.6	90.20	88.11	6,902.5	1,275.9	809.6	4.00	4.00	0.00	0.00	
11,662.0	90.20	88.11	6,888.2	1,410.7	4,898.7	0.00	0.00	0.00	84.06	Eagle E14-67-1HNA E

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Eagle E14-67-1HNA
<b>Company:</b>	Northern Region Drilling	<b>TVD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Site:</b>	E (06N-65W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Eagle E14-67-1HNA	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
50.0	0.00	0.00	50.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
150.0	0.00	0.00	150.0	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
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
350.0	0.00	0.00	350.0	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
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	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
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
650.0	0.00	0.00	650.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
750.0	0.00	0.00	750.0	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
850.0	0.00	0.00	850.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
950.0	0.00	0.00	950.0	0.0	0.0	0.0	0.00	0.00	0.00
994.0	0.00	0.00	994.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>PIERRE</b>									
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP - Start Build 2.00</b>									
1,050.0	1.00	2.00	1,050.0	0.4	0.0	0.1	2.00	2.00	0.00
1,100.0	2.00	2.00	1,100.0	1.7	0.1	0.5	2.00	2.00	0.00
1,150.0	3.00	2.00	1,149.9	3.9	0.1	1.2	2.00	2.00	0.00
1,200.0	4.00	2.00	1,199.8	7.0	0.2	2.2	2.00	2.00	0.00
1,250.0	5.00	2.00	1,249.7	10.9	0.4	3.4	2.00	2.00	0.00
1,300.0	6.00	2.00	1,299.5	15.7	0.5	4.9	2.00	2.00	0.00
1,350.0	7.00	2.00	1,349.1	21.3	0.7	6.6	2.00	2.00	0.00
1,400.0	8.00	2.00	1,398.7	27.9	1.0	8.6	2.00	2.00	0.00
1,450.0	9.00	2.00	1,448.2	35.2	1.2	10.9	2.00	2.00	0.00
1,500.0	10.00	2.00	1,497.5	43.5	1.5	13.5	2.00	2.00	0.00
<b>Start 4688.8 hold at 1500.0 MD</b>									
1,550.0	10.00	2.00	1,546.7	52.2	1.8	16.2	0.00	0.00	0.00
1,600.0	10.00	2.00	1,595.9	60.9	2.1	18.9	0.00	0.00	0.00
1,650.0	10.00	2.00	1,645.2	69.5	2.4	21.6	0.00	0.00	0.00
1,700.0	10.00	2.00	1,694.4	78.2	2.7	24.3	0.00	0.00	0.00
1,750.0	10.00	2.00	1,743.7	86.9	3.0	27.0	0.00	0.00	0.00
1,800.0	10.00	2.00	1,792.9	95.6	3.3	29.7	0.00	0.00	0.00
1,850.0	10.00	2.00	1,842.1	104.2	3.6	32.3	0.00	0.00	0.00
1,900.0	10.00	2.00	1,891.4	112.9	3.9	35.0	0.00	0.00	0.00
1,950.0	10.00	2.00	1,940.6	121.6	4.2	37.7	0.00	0.00	0.00
2,000.0	10.00	2.00	1,989.9	130.3	4.5	40.4	0.00	0.00	0.00
2,050.0	10.00	2.00	2,039.1	138.9	4.9	43.1	0.00	0.00	0.00
2,100.0	10.00	2.00	2,088.4	147.6	5.2	45.8	0.00	0.00	0.00
2,150.0	10.00	2.00	2,137.6	156.3	5.5	48.5	0.00	0.00	0.00
2,200.0	10.00	2.00	2,186.8	165.0	5.8	51.2	0.00	0.00	0.00
2,250.0	10.00	2.00	2,236.1	173.7	6.1	53.9	0.00	0.00	0.00
2,300.0	10.00	2.00	2,285.3	182.3	6.4	56.6	0.00	0.00	0.00
2,350.0	10.00	2.00	2,334.6	191.0	6.7	59.3	0.00	0.00	0.00
2,400.0	10.00	2.00	2,383.8	199.7	7.0	62.0	0.00	0.00	0.00

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Eagle E14-67-1HNA
<b>Company:</b>	Northern Region Drilling	<b>TVD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Site:</b>	E (06N-65W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Eagle E14-67-1HNA	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,450.0	10.00	2.00	2,433.0	208.4	7.3	64.7	0.00	0.00	0.00
2,500.0	10.00	2.00	2,482.3	217.0	7.6	67.3	0.00	0.00	0.00
2,550.0	10.00	2.00	2,531.5	225.7	7.9	70.0	0.00	0.00	0.00
2,600.0	10.00	2.00	2,580.8	234.4	8.2	72.7	0.00	0.00	0.00
2,650.0	10.00	2.00	2,630.0	243.1	8.5	75.4	0.00	0.00	0.00
2,700.0	10.00	2.00	2,679.2	251.7	8.8	78.1	0.00	0.00	0.00
2,750.0	10.00	2.00	2,728.5	260.4	9.1	80.8	0.00	0.00	0.00
2,800.0	10.00	2.00	2,777.7	269.1	9.4	83.5	0.00	0.00	0.00
2,850.0	10.00	2.00	2,827.0	277.8	9.7	86.2	0.00	0.00	0.00
2,900.0	10.00	2.00	2,876.2	286.5	10.0	88.9	0.00	0.00	0.00
2,950.0	10.00	2.00	2,925.4	295.1	10.3	91.6	0.00	0.00	0.00
3,000.0	10.00	2.00	2,974.7	303.8	10.6	94.3	0.00	0.00	0.00
3,050.0	10.00	2.00	3,023.9	312.5	10.9	97.0	0.00	0.00	0.00
3,100.0	10.00	2.00	3,073.2	321.2	11.2	99.7	0.00	0.00	0.00
3,150.0	10.00	2.00	3,122.4	329.8	11.5	102.3	0.00	0.00	0.00
3,200.0	10.00	2.00	3,171.6	338.5	11.8	105.0	0.00	0.00	0.00
3,250.0	10.00	2.00	3,220.9	347.2	12.1	107.7	0.00	0.00	0.00
3,300.0	10.00	2.00	3,270.1	355.9	12.4	110.4	0.00	0.00	0.00
3,350.0	10.00	2.00	3,319.4	364.5	12.7	113.1	0.00	0.00	0.00
3,400.0	10.00	2.00	3,368.6	373.2	13.0	115.8	0.00	0.00	0.00
3,450.0	10.00	2.00	3,417.8	381.9	13.3	118.5	0.00	0.00	0.00
3,500.0	10.00	2.00	3,467.1	390.6	13.6	121.2	0.00	0.00	0.00
3,550.0	10.00	2.00	3,516.3	399.3	13.9	123.9	0.00	0.00	0.00
3,600.0	10.00	2.00	3,565.6	407.9	14.2	126.6	0.00	0.00	0.00
3,646.1	10.00	2.00	3,611.0	415.9	14.5	129.1	0.00	0.00	0.00
<b>PARKMAN</b>									
3,650.0	10.00	2.00	3,614.8	416.6	14.5	129.3	0.00	0.00	0.00
3,700.0	10.00	2.00	3,664.0	425.3	14.9	132.0	0.00	0.00	0.00
3,750.0	10.00	2.00	3,713.3	434.0	15.2	134.7	0.00	0.00	0.00
3,800.0	10.00	2.00	3,762.5	442.6	15.5	137.3	0.00	0.00	0.00
3,850.0	10.00	2.00	3,811.8	451.3	15.8	140.0	0.00	0.00	0.00
3,900.0	10.00	2.00	3,861.0	460.0	16.1	142.7	0.00	0.00	0.00
3,950.0	10.00	2.00	3,910.2	468.7	16.4	145.4	0.00	0.00	0.00
4,000.0	10.00	2.00	3,959.5	477.4	16.7	148.1	0.00	0.00	0.00
4,050.0	10.00	2.00	4,008.7	486.0	17.0	150.8	0.00	0.00	0.00
4,100.0	10.00	2.00	4,058.0	494.7	17.3	153.5	0.00	0.00	0.00
4,150.0	10.00	2.00	4,107.2	503.4	17.6	156.2	0.00	0.00	0.00
4,200.0	10.00	2.00	4,156.4	512.1	17.9	158.9	0.00	0.00	0.00
4,216.8	10.00	2.00	4,173.0	515.0	18.0	159.8	0.00	0.00	0.00
<b>SUSSEX</b>									
4,250.0	10.00	2.00	4,205.7	520.7	18.2	161.6	0.00	0.00	0.00
4,300.0	10.00	2.00	4,254.9	529.4	18.5	164.3	0.00	0.00	0.00
4,350.0	10.00	2.00	4,304.2	538.1	18.8	167.0	0.00	0.00	0.00
4,400.0	10.00	2.00	4,353.4	546.8	19.1	169.7	0.00	0.00	0.00
4,450.0	10.00	2.00	4,402.6	555.4	19.4	172.3	0.00	0.00	0.00
4,500.0	10.00	2.00	4,451.9	564.1	19.7	175.0	0.00	0.00	0.00
4,550.0	10.00	2.00	4,501.1	572.8	20.0	177.7	0.00	0.00	0.00
4,600.0	10.00	2.00	4,550.4	581.5	20.3	180.4	0.00	0.00	0.00
4,650.0	10.00	2.00	4,599.6	590.2	20.6	183.1	0.00	0.00	0.00
4,700.0	10.00	2.00	4,648.9	598.8	20.9	185.8	0.00	0.00	0.00
4,750.0	10.00	2.00	4,698.1	607.5	21.2	188.5	0.00	0.00	0.00
4,800.0	10.00	2.00	4,747.3	616.2	21.5	191.2	0.00	0.00	0.00
4,850.0	10.00	2.00	4,796.6	624.9	21.8	193.9	0.00	0.00	0.00
4,900.0	10.00	2.00	4,845.8	633.5	22.1	196.6	0.00	0.00	0.00

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Eagle E14-67-1HNA
<b>Company:</b>	Northern Region Drilling	<b>TVD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Site:</b>	E (06N-65W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Eagle E14-67-1HNA	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,950.0	10.00	2.00	4,895.1	642.2	22.4	199.3	0.00	0.00	0.00
4,986.5	10.00	2.00	4,931.0	648.6	22.6	201.2	0.00	0.00	0.00
<b>SHANNON</b>									
5,000.0	10.00	2.00	4,944.3	650.9	22.7	202.0	0.00	0.00	0.00
5,050.0	10.00	2.00	4,993.5	659.6	23.0	204.7	0.00	0.00	0.00
5,100.0	10.00	2.00	5,042.8	668.2	23.3	207.3	0.00	0.00	0.00
5,150.0	10.00	2.00	5,092.0	676.9	23.6	210.0	0.00	0.00	0.00
5,200.0	10.00	2.00	5,141.3	685.6	23.9	212.7	0.00	0.00	0.00
5,250.0	10.00	2.00	5,190.5	694.3	24.2	215.4	0.00	0.00	0.00
5,300.0	10.00	2.00	5,239.7	703.0	24.5	218.1	0.00	0.00	0.00
5,350.0	10.00	2.00	5,289.0	711.6	24.9	220.8	0.00	0.00	0.00
5,400.0	10.00	2.00	5,338.2	720.3	25.2	223.5	0.00	0.00	0.00
5,450.0	10.00	2.00	5,387.5	729.0	25.5	226.2	0.00	0.00	0.00
5,500.0	10.00	2.00	5,436.7	737.7	25.8	228.9	0.00	0.00	0.00
5,550.0	10.00	2.00	5,485.9	746.3	26.1	231.6	0.00	0.00	0.00
5,600.0	10.00	2.00	5,535.2	755.0	26.4	234.3	0.00	0.00	0.00
5,650.0	10.00	2.00	5,584.4	763.7	26.7	237.0	0.00	0.00	0.00
5,700.0	10.00	2.00	5,633.7	772.4	27.0	239.7	0.00	0.00	0.00
5,750.0	10.00	2.00	5,682.9	781.1	27.3	242.3	0.00	0.00	0.00
5,800.0	10.00	2.00	5,732.1	789.7	27.6	245.0	0.00	0.00	0.00
5,850.0	10.00	2.00	5,781.4	798.4	27.9	247.7	0.00	0.00	0.00
5,900.0	10.00	2.00	5,830.6	807.1	28.2	250.4	0.00	0.00	0.00
5,950.0	10.00	2.00	5,879.9	815.8	28.5	253.1	0.00	0.00	0.00
6,000.0	10.00	2.00	5,929.1	824.4	28.8	255.8	0.00	0.00	0.00
6,050.0	10.00	2.00	5,978.3	833.1	29.1	258.5	0.00	0.00	0.00
6,081.1	10.00	2.00	6,009.0	838.5	29.3	260.2	0.00	0.00	0.00
<b>TEEPEE BUTTES</b>									
6,100.0	10.00	2.00	6,027.6	841.8	29.4	261.2	0.00	0.00	0.00
6,150.0	10.00	2.00	6,076.8	850.5	29.7	263.9	0.00	0.00	0.00
6,188.8	10.00	2.00	6,115.0	857.2	29.9	266.0	0.00	0.00	0.00
<b>Start DLS 8.73 TFO 1.28</b>									
6,200.0	10.98	2.12	6,126.0	859.2	30.0	266.6	8.73	8.73	1.02
6,250.0	15.34	2.45	6,174.7	870.6	30.5	270.2	8.73	8.73	0.67
6,300.0	19.71	2.64	6,222.4	885.7	31.1	275.0	8.73	8.73	0.38
6,350.0	24.07	2.76	6,268.8	904.3	32.0	281.0	8.73	8.73	0.25
6,400.0	28.44	2.85	6,313.6	926.4	33.1	288.2	8.73	8.73	0.17
6,437.2	31.69	2.90	6,345.8	945.0	34.0	294.2	8.73	8.73	0.14
<b>Start DLS 8.73 TFO 88.56</b>									
6,450.0	31.74	5.02	6,356.7	951.7	34.5	296.5	8.73	0.36	16.60
6,500.0	32.25	13.21	6,399.1	977.8	38.7	307.8	8.73	1.02	16.38
6,550.0	33.27	21.06	6,441.2	1,003.6	46.7	322.6	8.73	2.04	15.70
6,600.0	34.75	28.40	6,482.6	1,028.9	58.4	340.8	8.73	2.97	14.69
6,650.0	36.64	35.15	6,523.3	1,053.7	73.8	362.5	8.73	3.78	13.49
6,700.0	38.88	41.27	6,562.8	1,077.7	92.7	387.3	8.73	4.48	12.25
6,750.0	41.41	46.80	6,601.0	1,100.8	115.1	415.3	8.73	5.05	11.05
6,800.0	44.17	51.77	6,637.7	1,122.9	140.9	446.1	8.73	5.53	9.95
6,850.0	47.13	56.26	6,672.7	1,143.9	169.8	479.7	8.73	5.92	8.98
6,900.0	50.25	60.33	6,705.7	1,163.6	201.8	515.9	8.73	6.24	8.13
6,930.8	52.24	62.66	6,725.0	1,175.1	222.9	539.4	8.73	6.45	7.54
<b>SHARON SPRINGS</b>									
6,950.0	53.50	64.04	6,736.6	1,181.9	236.6	554.4	8.73	6.57	7.21
6,978.3	55.39	66.00	6,753.0	1,191.6	257.4	577.1	8.73	6.67	6.93
<b>NIO A CHALK</b>									

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Eagle E14-67-1HNA
<b>Company:</b>	Northern Region Drilling	<b>TVD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Site:</b>	E (06N-65W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Eagle E14-67-1HNA	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,000.0	56.85	67.44	6,765.1	1,198.7	274.0	595.0	8.73	6.76	6.65
7,016.5	57.98	68.51	6,774.0	1,204.0	286.9	608.8	8.73	6.83	6.46
NIO A MARL									
7,050.0	60.29	70.59	6,791.2	1,214.0	313.8	637.5	8.73	6.91	6.22
7,077.9	62.25	72.26	6,804.6	1,221.8	337.0	662.0	8.73	6.99	5.96
Dinner E 14-5 BHL									
7,100.0	63.80	73.53	6,814.6	1,227.6	355.8	681.6	8.73	7.05	5.77
7,150.0	67.37	76.30	6,835.3	1,239.4	399.8	727.1	8.73	7.13	5.53
7,200.0	70.98	78.92	6,853.1	1,249.4	445.4	773.8	8.73	7.22	5.25
7,250.0	74.63	81.44	6,867.8	1,257.6	492.5	821.2	8.73	7.29	5.03
7,262.3	75.52	82.04	6,871.0	1,259.3	504.2	833.0	8.73	7.33	4.91
NIO B CHALK									
7,300.0	78.30	83.86	6,879.5	1,263.8	540.7	869.3	8.73	7.35	4.83
7,350.0	81.99	86.22	6,888.1	1,268.0	589.7	917.6	8.73	7.39	4.72
7,390.6	85.00	88.11	6,892.7	1,270.0	630.0	956.9	8.73	7.41	4.64
Start 50.0 hold at 7390.6 MD - 7" Casing @ 7390.6' MD									
7,400.0	85.00	88.11	6,893.5	1,270.3	639.4	965.9	0.00	0.00	0.00
7,440.6	85.00	88.11	6,897.1	1,271.6	679.8	1,005.1	0.00	0.00	0.00
Start Build 4.00									
7,450.0	85.38	88.11	6,897.8	1,272.0	689.2	1,014.2	4.00	4.00	0.00
7,500.0	87.38	88.11	6,901.0	1,273.6	739.0	1,062.6	4.00	4.00	0.00
7,550.0	89.38	88.11	6,902.4	1,275.2	789.0	1,111.1	4.00	4.00	0.00
7,570.6	90.20	88.11	6,902.5	1,275.9	809.6	1,131.0	4.00	4.00	0.00
7,600.0	90.20	88.11	6,902.4	1,276.9	839.0	1,159.5	0.00	0.00	0.00
7,650.0	90.20	88.11	6,902.2	1,278.5	888.9	1,208.0	0.00	0.00	0.00
7,700.0	90.20	88.11	6,902.0	1,280.2	938.9	1,256.5	0.00	0.00	0.00
7,750.0	90.20	88.11	6,901.9	1,281.8	988.9	1,305.0	0.00	0.00	0.00
7,800.0	90.20	88.11	6,901.7	1,283.5	1,038.8	1,353.4	0.00	0.00	0.00
7,850.0	90.20	88.11	6,901.5	1,285.1	1,088.8	1,401.9	0.00	0.00	0.00
7,900.0	90.20	88.11	6,901.3	1,286.8	1,138.8	1,450.4	0.00	0.00	0.00
7,950.0	90.20	88.11	6,901.2	1,288.4	1,188.8	1,498.9	0.00	0.00	0.00
8,000.0	90.20	88.11	6,901.0	1,290.1	1,238.7	1,547.4	0.00	0.00	0.00
8,050.0	90.20	88.11	6,900.8	1,291.7	1,288.7	1,595.8	0.00	0.00	0.00
8,100.0	90.20	88.11	6,900.7	1,293.4	1,338.7	1,644.3	0.00	0.00	0.00
8,150.0	90.20	88.11	6,900.5	1,295.0	1,388.7	1,692.8	0.00	0.00	0.00
8,200.0	90.20	88.11	6,900.3	1,296.7	1,438.6	1,741.3	0.00	0.00	0.00
8,250.0	90.20	88.11	6,900.1	1,298.3	1,488.6	1,789.7	0.00	0.00	0.00
8,272.8	90.20	88.11	6,900.0	1,299.1	1,511.3	1,811.8	0.00	0.00	0.00
Dinner 14-2 BHL									
8,300.0	90.20	88.11	6,900.0	1,300.0	1,538.6	1,838.2	0.00	0.00	0.00
8,350.0	90.20	88.11	6,899.8	1,301.6	1,588.5	1,886.7	0.00	0.00	0.00
8,400.0	90.20	88.11	6,899.6	1,303.3	1,638.5	1,935.2	0.00	0.00	0.00
8,450.0	90.20	88.11	6,899.4	1,304.9	1,688.5	1,983.7	0.00	0.00	0.00
8,500.0	90.20	88.11	6,899.3	1,306.6	1,738.5	2,032.1	0.00	0.00	0.00
8,550.0	90.20	88.11	6,899.1	1,308.2	1,788.4	2,080.6	0.00	0.00	0.00
8,600.0	90.20	88.11	6,898.9	1,309.9	1,838.4	2,129.1	0.00	0.00	0.00
8,650.0	90.20	88.11	6,898.7	1,311.5	1,888.4	2,177.6	0.00	0.00	0.00
8,700.0	90.20	88.11	6,898.6	1,313.2	1,938.3	2,226.0	0.00	0.00	0.00
8,750.0	90.20	88.11	6,898.4	1,314.8	1,988.3	2,274.5	0.00	0.00	0.00
8,800.0	90.20	88.11	6,898.2	1,316.5	2,038.3	2,323.0	0.00	0.00	0.00
8,850.0	90.20	88.11	6,898.0	1,318.1	2,088.3	2,371.5	0.00	0.00	0.00
8,900.0	90.20	88.11	6,897.9	1,319.8	2,138.2	2,419.9	0.00	0.00	0.00
8,950.0	90.20	88.11	6,897.7	1,321.4	2,188.2	2,468.4	0.00	0.00	0.00

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Eagle E14-67-1HNA
<b>Company:</b>	Northern Region Drilling	<b>TVD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Site:</b>	E (06N-65W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Eagle E14-67-1HNA	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,000.0	90.20	88.11	6,897.5	1,323.0	2,238.2	2,516.9	0.00	0.00	0.00	
9,050.0	90.20	88.11	6,897.3	1,324.7	2,288.2	2,565.4	0.00	0.00	0.00	
9,100.0	90.20	88.11	6,897.2	1,326.3	2,338.1	2,613.9	0.00	0.00	0.00	
9,150.0	90.20	88.11	6,897.0	1,328.0	2,388.1	2,662.3	0.00	0.00	0.00	
9,200.0	90.20	88.11	6,896.8	1,329.6	2,438.1	2,710.8	0.00	0.00	0.00	
9,250.0	90.20	88.11	6,896.6	1,331.3	2,488.0	2,759.3	0.00	0.00	0.00	
9,300.0	90.20	88.11	6,896.5	1,332.9	2,538.0	2,807.8	0.00	0.00	0.00	
9,350.0	90.20	88.11	6,896.3	1,334.6	2,588.0	2,856.2	0.00	0.00	0.00	
9,400.0	90.20	88.11	6,896.1	1,336.2	2,638.0	2,904.7	0.00	0.00	0.00	
9,450.0	90.20	88.11	6,895.9	1,337.9	2,687.9	2,953.2	0.00	0.00	0.00	
9,500.0	90.20	88.11	6,895.8	1,339.5	2,737.9	3,001.7	0.00	0.00	0.00	
9,550.0	90.20	88.11	6,895.6	1,341.2	2,787.9	3,050.1	0.00	0.00	0.00	
9,600.0	90.20	88.11	6,895.4	1,342.8	2,837.9	3,098.6	0.00	0.00	0.00	
9,650.0	90.20	88.11	6,895.2	1,344.5	2,887.8	3,147.1	0.00	0.00	0.00	
9,700.0	90.20	88.11	6,895.1	1,346.1	2,937.8	3,195.6	0.00	0.00	0.00	
9,738.4	90.20	88.11	6,894.9	1,347.4	2,976.2	3,232.8	0.00	0.00	0.00	
Dinner 14-13										
9,750.0	90.20	88.11	6,894.9	1,347.8	2,987.8	3,244.1	0.00	0.00	0.00	
9,800.0	90.20	88.11	6,894.7	1,349.4	3,037.7	3,292.5	0.00	0.00	0.00	
9,850.0	90.20	88.11	6,894.5	1,351.0	3,087.7	3,341.0	0.00	0.00	0.00	
9,900.0	90.20	88.11	6,894.4	1,352.7	3,137.7	3,389.5	0.00	0.00	0.00	
9,950.0	90.20	88.11	6,894.2	1,354.3	3,187.7	3,438.0	0.00	0.00	0.00	
10,000.0	90.20	88.11	6,894.0	1,356.0	3,237.6	3,486.4	0.00	0.00	0.00	
10,050.0	90.20	88.11	6,893.8	1,357.6	3,287.6	3,534.9	0.00	0.00	0.00	
10,100.0	90.20	88.11	6,893.7	1,359.3	3,337.6	3,583.4	0.00	0.00	0.00	
10,150.0	90.20	88.11	6,893.5	1,360.9	3,387.6	3,631.9	0.00	0.00	0.00	
10,200.0	90.20	88.11	6,893.3	1,362.6	3,437.5	3,680.3	0.00	0.00	0.00	
10,250.0	90.20	88.11	6,893.1	1,364.2	3,487.5	3,728.8	0.00	0.00	0.00	
10,300.0	90.20	88.11	6,893.0	1,365.9	3,537.5	3,777.3	0.00	0.00	0.00	
10,350.0	90.20	88.11	6,892.8	1,367.5	3,587.4	3,825.8	0.00	0.00	0.00	
10,400.0	90.20	88.11	6,892.6	1,369.2	3,637.4	3,874.3	0.00	0.00	0.00	
10,450.0	90.20	88.11	6,892.4	1,370.8	3,687.4	3,922.7	0.00	0.00	0.00	
10,500.0	90.20	88.11	6,892.3	1,372.5	3,737.4	3,971.2	0.00	0.00	0.00	
10,550.0	90.20	88.11	6,892.1	1,374.1	3,787.3	4,019.7	0.00	0.00	0.00	
10,600.0	90.20	88.11	6,891.9	1,375.7	3,837.3	4,068.2	0.00	0.00	0.00	
10,650.0	90.20	88.11	6,891.7	1,377.4	3,887.3	4,116.6	0.00	0.00	0.00	
10,700.0	90.20	88.11	6,891.6	1,379.0	3,937.3	4,165.1	0.00	0.00	0.00	
10,750.0	90.20	88.11	6,891.4	1,380.7	3,987.2	4,213.6	0.00	0.00	0.00	
10,800.0	90.20	88.11	6,891.2	1,382.3	4,037.2	4,262.1	0.00	0.00	0.00	
10,850.0	90.20	88.11	6,891.0	1,384.0	4,087.2	4,310.5	0.00	0.00	0.00	
10,900.0	90.20	88.11	6,890.9	1,385.6	4,137.1	4,359.0	0.00	0.00	0.00	
10,950.0	90.20	88.11	6,890.7	1,387.3	4,187.1	4,407.5	0.00	0.00	0.00	
11,000.0	90.20	88.11	6,890.5	1,388.9	4,237.1	4,456.0	0.00	0.00	0.00	
11,050.0	90.20	88.11	6,890.3	1,390.6	4,287.1	4,504.4	0.00	0.00	0.00	
11,051.4	90.20	88.11	6,890.3	1,390.6	4,288.4	4,505.8	0.00	0.00	0.00	
Schwisow E14-09 BHL										
11,100.0	90.20	88.11	6,890.2	1,392.2	4,337.0	4,552.9	0.00	0.00	0.00	
11,150.0	90.20	88.11	6,890.0	1,393.8	4,387.0	4,601.4	0.00	0.00	0.00	
11,200.0	90.20	88.11	6,889.8	1,395.5	4,437.0	4,649.9	0.00	0.00	0.00	
11,250.0	90.20	88.11	6,889.6	1,397.1	4,486.9	4,698.4	0.00	0.00	0.00	
11,300.0	90.20	88.11	6,889.5	1,398.8	4,536.9	4,746.8	0.00	0.00	0.00	
11,350.0	90.20	88.11	6,889.3	1,400.4	4,586.9	4,795.3	0.00	0.00	0.00	
11,400.0	90.20	88.11	6,889.1	1,402.1	4,636.9	4,843.8	0.00	0.00	0.00	
11,450.0	90.20	88.11	6,888.9	1,403.7	4,686.8	4,892.3	0.00	0.00	0.00	



# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Eagle E14-67-1HNA
<b>Company:</b>	Northern Region Drilling	<b>TVD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Site:</b>	E (06N-65W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Eagle E14-67-1HNA	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,500.0	90.20	88.11	6,888.8	1,405.4	4,736.8	4,940.7	0.00	0.00	0.00	
11,550.0	90.20	88.11	6,888.6	1,407.0	4,786.8	4,989.2	0.00	0.00	0.00	
11,600.0	90.20	88.11	6,888.4	1,408.6	4,836.8	5,037.7	0.00	0.00	0.00	
11,650.0	90.20	88.11	6,888.2	1,410.3	4,886.7	5,086.2	0.00	0.00	0.00	
11,662.0	90.20	88.11	6,888.2	1,410.7	4,898.7	5,097.8	0.00	0.00	0.00	
TD at 11662.0 - Eagle E14-67-1HNA BHL 1650'FNL, 75'FEL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Eagle E14-67-1HNA BH - hit/miss target - Shape - Point	0.00	0.00	6,888.2	1,410.7	4,898.7	1,422,194.38	3,244,432.36	40.489000	-104.621190	
Dinner 14-2 BHL - plan misses target center by 375.9usft at 8272.7usft MD (6900.0 TVD, 1299.1 N, 1511.3 E) - Circle (radius 150.0)	0.00	0.01	6,999.0	936.6	1,523.6	1,421,720.32	3,241,057.38	40.487790	-104.633340	
Schwisow E14-09 BHL - plan misses target center by 1734.9usft at 11051.4usft MD (6890.3 TVD, 1390.6 N, 4288.4 E) - Circle (radius 150.0)	0.00	0.00	6,999.0	-340.0	4,345.8	1,420,443.79	3,243,879.45	40.484210	-104.623240	
Dinner 14-13 - plan misses target center by 520.1usft at 9738.4usft MD (6894.9 TVD, 1347.4 N, 2976.2 E) - Circle (radius 150.0)	0.00	0.00	6,999.0	838.1	2,993.4	1,421,621.79	3,242,527.05	40.487480	-104.628060	
Dinner E 14-5 BHL - plan misses target center by 320.4usft at 7077.9usft MD (6804.6 TVD, 1221.8 N, 337.0 E) - Circle (radius 150.0)	0.00	0.00	6,999.0	968.5	310.5	1,421,752.21	3,239,844.28	40.487910	-104.637700	

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
7,390.6	6,892.7	7" Casing @ 7390.6' MD	7	8-3/4	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
994.0	994.0	PIERRE		0.00		
3,646.1	3,611.0	PARKMAN		0.00		
4,216.8	4,173.0	SUSSEX		0.00		
4,986.5	4,931.0	SHANNON		0.00		
6,081.1	6,009.0	TEEPEE BUTTES		0.00		
6,930.8	6,725.0	SHARON SPRINGS		0.00		
6,978.3	6,753.0	NIO A CHALK		0.00		
7,016.5	6,774.0	NIO A MARL		0.00		
7,262.3	6,871.0	NIO B CHALK		0.00		

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Eagle E14-67-1HNA
<b>Company:</b>	Northern Region Drilling	<b>TVD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Site:</b>	E (06N-65W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Eagle E14-67-1HNA	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,000.0	1,000.0	0.0	0.0	KOP - Start Build 2.00
1,500.0	1,497.5	43.5	1.5	Start 4688.8 hold at 1500.0 MD
6,188.8	6,115.0	857.2	29.9	Start DLS 8.73 TFO 1.28
6,437.2	6,345.8	945.0	34.0	Start DLS 8.73 TFO 88.56
7,390.6	6,892.7	1,270.0	630.0	Start 50.0 hold at 7390.6 MD
7,440.6	6,897.1	1,271.6	679.8	Start Build 4.00
11,662.0	6,888.2	1,275.9	809.6	TD at 11662.0

# **Northern Region Drilling**

**Wattenberg Field**

**E (06N-65W)**

**Eagle E14-67-1HNA**

**Original Drilling**

**APD - Rev 0**

## **Anticollision Summary Report**

**22 May, 2013**

**Noble Energy Inc**  
Anticollision Summary Report

<b>Company:</b>	Northern Region Drilling	<b>Local Co-ordinate Reference:</b>	Well Eagle E14-67-1HNA
<b>Project:</b>	Wattenberg Field	<b>TVD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Reference Site:</b>	E (06N-65W)	<b>MD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Eagle E14-67-1HNA	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.54 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	EDM Production
<b>Reference Design:</b>	APD - Rev 0	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	APD - Rev 0		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0 usft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	5/22/2013		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	11,662.0	APD - Rev 0 (Original Drilling)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
E (06N-65W)						
Dinner 14-13 - Original Drilling - Design #1	9,738.8	6,895.9	509.6	411.3	5.185	CC, ES
Dinner 14-13 - Original Drilling - Design #1	9,800.0	6,895.7	513.2	413.3	5.135	SF
Dinner 14-14 - Original Drilling - Design #1	11,253.2	6,902.6	596.3	457.2	4.287	CC, ES
Dinner 14-14 - Original Drilling - Design #1	11,300.0	6,901.3	598.1	457.7	4.260	SF
Dinner 14-2 - Original Drilling - Design #1	8,273.1	6,901.0	362.7	303.6	6.139	CC, ES
Dinner 14-2 - Original Drilling - Design #1	8,300.0	6,901.0	363.7	303.9	6.085	SF
Dinner 14-31 - Original Drilling - Original Drilling	754.2	755.5	1,520.2	1,516.9	459.143	CC
Dinner 14-31 - Original Drilling - Original Drilling	1,100.0	1,100.0	1,520.6	1,515.6	306.516	ES
Dinner 14-31 - Original Drilling - Original Drilling	9,600.0	6,903.9	2,192.4	2,099.1	23.515	SF
Dinner 14-32 - Original Drilling - Original Drilling	1,054.6	1,057.7	517.6	513.1	114.593	CC
Dinner 14-32 - Original Drilling - Original Drilling	1,100.0	1,103.2	517.7	512.9	109.549	ES
Dinner 14-32 - Original Drilling - Original Drilling	9,300.0	6,914.3	2,494.4	2,410.8	29.825	SF
Dinner E 14-5 - Original Drilling - Design #1	6,850.0	6,673.7	224.8	188.4	6.167	SF
Dinner E 14-5 - Original Drilling - Design #1	6,895.5	6,703.8	223.3	187.1	6.174	CC, ES
Dinner PC E14-65HN - Original Drilling - Original Drilling	624.3	636.3	91.8	89.8	46.715	CC
Dinner PC E14-65HN - Original Drilling - Original Drilling	700.0	711.5	92.0	89.7	40.505	ES
Dinner PC E14-65HN - Original Drilling - Original Drilling	11,300.0	11,330.0	909.3	625.0	3.199	SF
Eagle E14-64-1HN - Original Drilling - APD - Rev 0	1,000.0	1,000.0	22.3	18.0	5.247	CC
Eagle E14-64-1HN - Original Drilling - APD - Rev 0	1,100.0	1,100.0	22.4	17.7	4.776	ES
Eagle E14-64-1HN - Original Drilling - APD - Rev 0	1,200.0	1,199.8	23.6	18.5	4.596	SF
Eagle E14-65-1HN - Original Drilling - APD - Rev 0	1,075.6	1,075.6	22.2	17.7	4.854	CC
Eagle E14-65-1HN - Original Drilling - APD - Rev 0	1,100.0	1,100.0	22.2	17.6	4.743	ES
Eagle E14-65-1HN - Original Drilling - APD - Rev 0	1,200.0	1,199.8	23.0	17.9	4.481	SF
Eagle E14-67-1HNC - Original Drilling - APD - Rev 0	1,000.0	1,000.0	44.5	40.3	10.494	CC
Eagle E14-67-1HNC - Original Drilling - APD - Rev 0	11,662.0	11,850.7	68.9	-7.5	0.902	Level 1, ES, SF
Schwisow E14-09 - Original Drilling - Design #1	11,051.8	6,891.3	1,731.5	1,597.0	12.875	CC
Schwisow E14-09 - Original Drilling - Design #1	11,100.0	6,891.2	1,732.2	1,596.4	12.753	ES
Schwisow E14-09 - Original Drilling - Design #1	11,662.0	6,889.2	1,835.9	1,684.5	12.125	SF

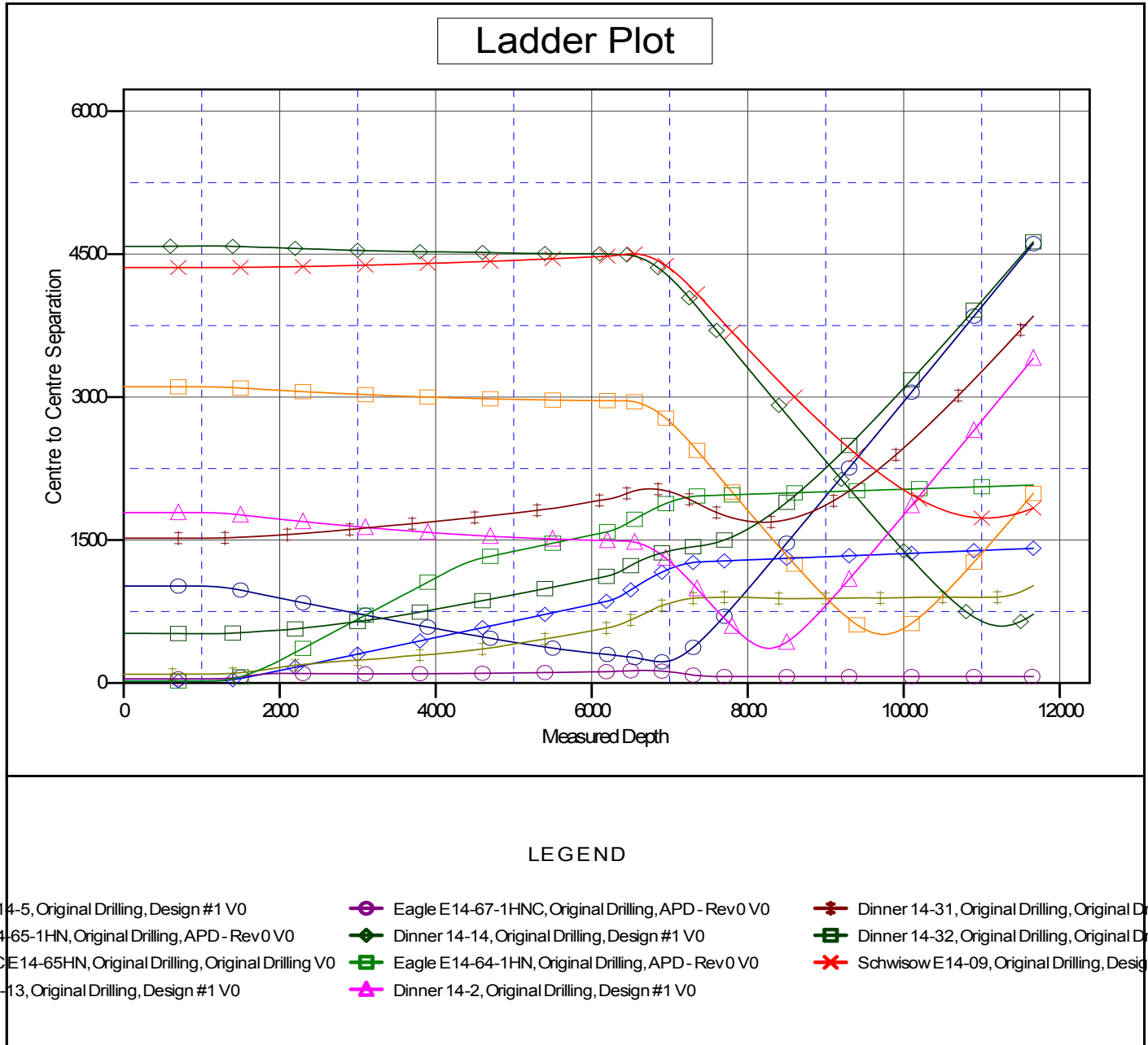
# Noble Energy Inc

## Anticollision Summary Report

<b>Company:</b>	Northern Region Drilling	<b>Local Co-ordinate Reference:</b>	Well Eagle E14-67-1HNA
<b>Project:</b>	Wattenberg Field	<b>TVD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Reference Site:</b>	E (06N-65W)	<b>MD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Eagle E14-67-1HNA	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.54 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	EDM Production
<b>Reference Design:</b>	APD - Rev 0	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4731.0usft (Original Well Ele  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: Eagle E14-67-1HNA  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.56°



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

**Noble Energy Inc**  
Anticollision Summary Report

<b>Company:</b>	Northern Region Drilling	<b>Local Co-ordinate Reference:</b>	Well Eagle E14-67-1HNA
<b>Project:</b>	Wattenberg Field	<b>TVD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Reference Site:</b>	E (06N-65W)	<b>MD Reference:</b>	WELL @ 4731.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Eagle E14-67-1HNA	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.54 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	EDM Production
<b>Reference Design:</b>	APD - Rev 0	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4731.0usft (Original Well Ele  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: Eagle E14-67-1HNA  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.56°

