

Project: Weld

Site: State 8-60 16-1H

Well: State 8-60 16-1H

Wellbore: State 8-60 16-1H

Design: Design #1

PROJECT DETAILS: Weld

Geodetic System: US State Plane 1927 (Exact solution)

Datum: NAD 1927 (NADCON CONUS)

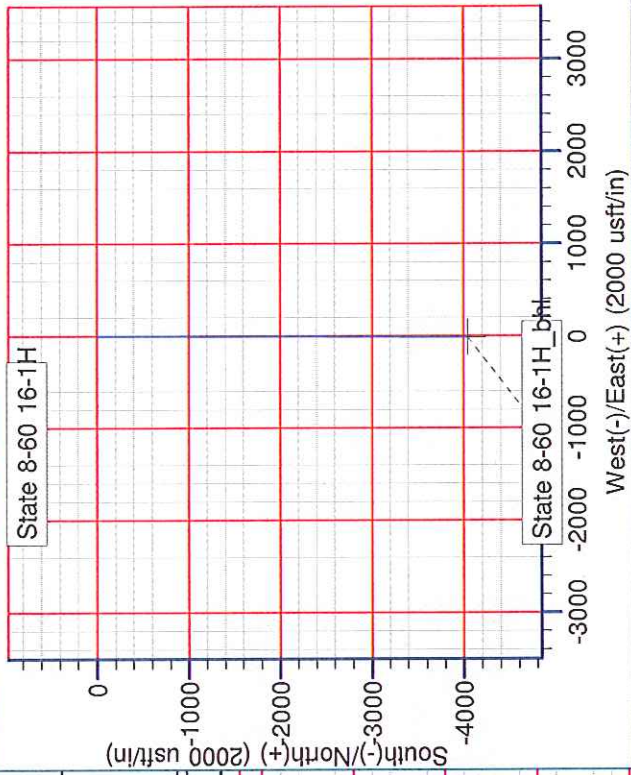
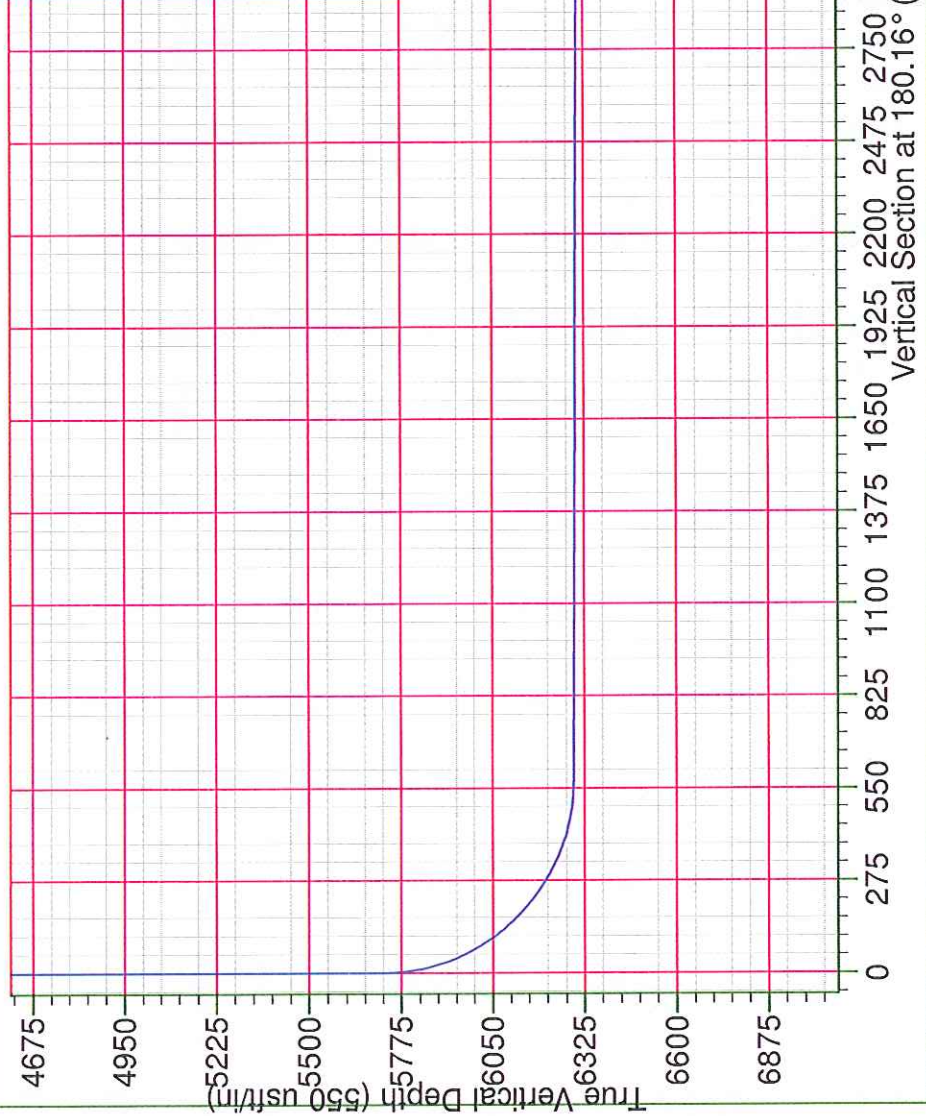
Ellipsoid: Clarke 1866

Zone: Colorado North 501

System Datum: Mean Sea Level

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5718.8	0.00	0.00	5718.8	0.0	0.0	0.00	0.00	0.0	
3	6615.8	89.70	180.16	6291.8	-570.0	-1.6	10.00	180.16	570.0	State 8-60 16-1H_bhl
4	10092.7	89.70	180.16	6310.0	-4046.8	-11.0	0.00	0.00	4046.8	State 8-60 16-1H_bhl



# **Chesapeake -Rockies District**

**Weld**

**State 8-60 16-1H**

**State 8-60 16-1H**

**State 8-60 16-1H**

**Plan: Design #1**

## **Standard Planning Report**

**19 November, 2010**



# Chesapeake Energy Corporation

## Planning Report

<b>Database:</b>	Drilling Database	<b>Local Co-ordinate Reference:</b>	Site State 8-60 16-1H
<b>Company:</b>	Chesapeake -Rockies District	<b>TVD Reference:</b>	RKBL @ 4926.4usft (Original Well Elev)
<b>Project:</b>	Weld	<b>MD Reference:</b>	RKBL @ 4926.4usft (Original Well Elev)
<b>Site:</b>	State 8-60 16-1H	<b>North Reference:</b>	Grid
<b>Well:</b>	State 8-60 16-1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	State 8-60 16-1H		
<b>Design:</b>	Design #1		

<b>Project</b>	Weld		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Colorado North 501		

<b>Site</b>	State 8-60 16-1H		
<b>Site Position:</b>		<b>Northing:</b>	489,249.47 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,390,128.94 ft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	0.000 in
		<b>Latitude:</b>	40° 40' 4.48680000 N
		<b>Longitude:</b>	104° 5' 37.20480000 W
		<b>Grid Convergence:</b>	0.91 °

<b>Well</b>	State 8-60 16-1H		
<b>Well Position</b>	+N/-S	0.0 usft	<b>Northing:</b> 489,249.47 ft
	+E/-W	0.0 usft	<b>Easting:</b> 2,390,128.94 ft
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>
			<b>Ground Level:</b> 4,907.4 usft

<b>Wellbore</b>	State 8-60 16-1H		
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>
	IGRF200510	11/19/2010	8.55
			<b>Dip Angle (°)</b>
			67.40
			<b>Field Strength (nT)</b>
			53,421

<b>Design</b>	Design #1		
<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>
	0.0	0.0	0.0
			<b>Direction (°)</b>
			180.16

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Bulld 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	
5,718.8	0.00	0.00	5,718.8	0.0	0.0	0.00	0.00	0.00	0.00	
6,615.8	89.70	180.16	6,291.8	-570.0	-1.6	10.00	10.00	0.00	180.16	
10,092.7	89.70	180.16	6,310.0	-4,046.8	-11.0	0.00	0.00	0.00	0.00	State 8-60 16-1H_bhl

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## Planning Report

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Company:	Chesapeake -Rockies District	TVD Reference:	RKBL @ 4926.4usft (Original Well Elev)
Project:	Weld	MD Reference:	RKBL @ 4926.4usft (Original Well Elev)
Site:	State 8-60 16-1H	North Reference:	Grid
Well:	State 8-60 16-1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	State 8-60 16-1H		
Design:	Design #1		

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
100.0	0.00	0.00	100.0	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
300.0	0.00	0.00	300.0	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
500.0	0.00	0.00	500.0	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
700.0	0.00	0.00	700.0	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
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00



# Chesapeake Energy Corporation

## Planning Report

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Project:	Weld	MD Reference:	RKBL @ 4926.4usft (Original Well Elev)
Site:	State 8-60 16-1H	North Reference:	Grid
Well:	State 8-60 16-1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	State 8-60 16-1H		
Design:	Design #1		

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,718.8	0.00	0.00	5,718.8	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	8.12	180.16	5,799.7	-5.7	0.0	5.7	10.00	10.00	0.00
5,900.0	18.12	180.16	5,897.0	-28.4	-0.1	28.4	10.00	10.00	0.00
6,000.0	28.12	180.16	5,988.9	-67.6	-0.2	67.6	10.00	10.00	0.00
6,100.0	38.12	180.16	6,072.5	-122.2	-0.3	122.2	10.00	10.00	0.00
6,200.0	48.12	180.16	6,145.4	-190.4	-0.5	190.4	10.00	10.00	0.00
6,300.0	58.12	180.16	6,205.4	-270.3	-0.7	270.3	10.00	10.00	0.00
6,400.0	68.12	180.16	6,250.5	-359.4	-1.0	359.4	10.00	10.00	0.00
6,500.0	78.12	180.16	6,279.5	-455.0	-1.2	455.0	10.00	10.00	0.00
6,600.0	88.12	180.16	6,291.5	-554.1	-1.5	554.1	10.00	10.00	0.00
6,615.8	89.70	180.16	6,291.8	-570.0	-1.6	570.0	10.00	10.00	0.00
6,700.0	89.70	180.16	6,292.2	-654.1	-1.8	654.1	0.00	0.00	0.00
6,800.0	89.70	180.16	6,292.8	-754.1	-2.1	754.1	0.00	0.00	0.00
6,900.0	89.70	180.16	6,293.3	-854.1	-2.3	854.1	0.00	0.00	0.00
7,000.0	89.70	180.16	6,293.8	-954.1	-2.6	954.1	0.00	0.00	0.00
7,100.0	89.70	180.16	6,294.3	-1,054.1	-2.9	1,054.1	0.00	0.00	0.00
7,200.0	89.70	180.16	6,294.9	-1,154.1	-3.1	1,154.1	0.00	0.00	0.00
7,300.0	89.70	180.16	6,295.4	-1,254.1	-3.4	1,254.1	0.00	0.00	0.00
7,400.0	89.70	180.16	6,295.9	-1,354.1	-3.7	1,354.1	0.00	0.00	0.00
7,500.0	89.70	180.16	6,296.4	-1,454.1	-4.0	1,454.1	0.00	0.00	0.00
7,600.0	89.70	180.16	6,296.9	-1,554.1	-4.2	1,554.1	0.00	0.00	0.00
7,700.0	89.70	180.16	6,297.5	-1,654.1	-4.5	1,654.1	0.00	0.00	0.00
7,800.0	89.70	180.16	6,298.0	-1,754.1	-4.8	1,754.1	0.00	0.00	0.00
7,900.0	89.70	180.16	6,298.5	-1,854.1	-5.0	1,854.1	0.00	0.00	0.00
8,000.0	89.70	180.16	6,299.0	-1,954.1	-5.3	1,954.1	0.00	0.00	0.00
8,100.0	89.70	180.16	6,299.6	-2,054.1	-5.6	2,054.1	0.00	0.00	0.00
8,200.0	89.70	180.16	6,300.1	-2,154.1	-5.9	2,154.1	0.00	0.00	0.00
8,300.0	89.70	180.16	6,300.6	-2,254.1	-6.1	2,254.1	0.00	0.00	0.00
8,400.0	89.70	180.16	6,301.1	-2,354.1	-6.4	2,354.1	0.00	0.00	0.00
8,500.0	89.70	180.16	6,301.7	-2,454.1	-6.7	2,454.1	0.00	0.00	0.00
8,600.0	89.70	180.16	6,302.2	-2,554.1	-7.0	2,554.1	0.00	0.00	0.00
8,700.0	89.70	180.16	6,302.7	-2,654.1	-7.2	2,654.1	0.00	0.00	0.00
8,800.0	89.70	180.16	6,303.2	-2,754.1	-7.5	2,754.1	0.00	0.00	0.00
8,900.0	89.70	180.16	6,303.8	-2,854.1	-7.8	2,854.1	0.00	0.00	0.00
9,000.0	89.70	180.16	6,304.3	-2,954.1	-8.0	2,954.1	0.00	0.00	0.00
9,100.0	89.70	180.16	6,304.8	-3,054.1	-8.3	3,054.1	0.00	0.00	0.00
9,200.0	89.70	180.16	6,305.3	-3,154.1	-8.6	3,154.1	0.00	0.00	0.00
9,300.0	89.70	180.16	6,305.8	-3,254.1	-8.9	3,254.1	0.00	0.00	0.00
9,400.0	89.70	180.16	6,306.4	-3,354.1	-9.1	3,354.1	0.00	0.00	0.00
9,500.0	89.70	180.16	6,306.9	-3,454.1	-9.4	3,454.1	0.00	0.00	0.00
9,600.0	89.70	180.16	6,307.4	-3,554.1	-9.7	3,554.1	0.00	0.00	0.00
9,700.0	89.70	180.16	6,307.9	-3,654.1	-9.9	3,654.1	0.00	0.00	0.00
9,800.0	89.70	180.16	6,308.5	-3,754.1	-10.2	3,754.1	0.00	0.00	0.00
9,900.0	89.70	180.16	6,309.0	-3,854.1	-10.5	3,854.1	0.00	0.00	0.00
10,000.0	89.70	180.16	6,309.5	-3,954.1	-10.8	3,954.1	0.00	0.00	0.00
10,092.7	89.70	180.16	6,310.0	-4,046.8	-11.0	4,046.8	0.00	0.00	0.00

# Chesapeake Energy Corporation

## Planning Report

<b>Database:</b>	Drilling Database	<b>Local Co-ordinate Reference:</b>	Site State 8-60 16-1H
<b>Company:</b>	Chesapeake -Rockies District	<b>TVD Reference:</b>	RKBL @ 4926.4usft (Original Well Elev)
<b>Project:</b>	Weld	<b>MD Reference:</b>	RKBL @ 4926.4usft (Original Well Elev)
<b>Site:</b>	State 8-60 16-1H	<b>North Reference:</b>	Grid
<b>Well:</b>	State 8-60 16-1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	State 8-60 16-1H		
<b>Design:</b>	Design #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(ft)	(ft)		
State 8-60 16-1H_bhl	0.00	0.00	6,310.0	-4,046.8	-11.0	485,202.69	2,390,117.93	0° 39' 24.50515870 N	34° 5' 38.18040000 W
- plan hits target center									
- Point									