

# **BILL BARRETT CORP**

**WELD COUNTY, COLORADO**

**Heath 6-62-15\_22 NENE**

**Heath 6-62-15-0758CDH**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**27 August, 2014**



**Bill Barrett Corporation**

## COMPANY DETAILS: BILL BARRETT CORP

Calculation Method: Minimum Curvature  
Error System: ISCWSA  
Scan Method: Closest Approach 3D  
Error Surface: Elliptical Conic  
Warning Method: Error Ratio

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Heath 6-62-15-0758CDH, True North  
Vertical (TVD) Reference: KB @ 4754.0ft (Original Well Elev)  
Section (VS) Reference: Slot - (0.0N, 0.0E)  
Measured Depth Reference: KB @ 4754.0ft (Original Well Elev)  
Calculation Method: Minimum Curvature

## WELL DETAILS: Heath 6-62-15-0758CDH

+N/-S +E/-W Northing Easting Latitude Longitude  
0.0 0.0 1424919.83 3333103.24 40° 29' 37.071 N 104° 18' 8.251 W

## 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	1253.2	5.06	46.63	1252.9	7.7	8.1	2.00	46.63	-7.5	
4	5607.0	5.06	46.63	5589.7	271.5	287.5	0.00	0.00	-263.8	
5	5860.2	0.00	180.23	5842.5	279.2	295.6	2.00	180.00	-271.3	
6	6110.2	0.00	180.23	6092.5	279.2	295.6	0.00	0.00	-271.3	
7	6862.3	90.25	180.23	6570.0	-200.4	293.7	12.00	0.00	208.1	H 15-0758CDH2 LP
8	16335.5	90.25	180.23	6528.0	-9673.4	256.0	0.00	0.00	9676.8	H 15-0758CDH2 PBHL

## PROJECT DETAILS: WELD COUNTY, COLORADO

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

## FORMATION TOP DETAILS

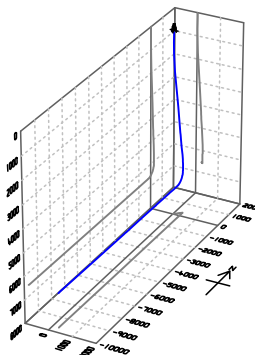
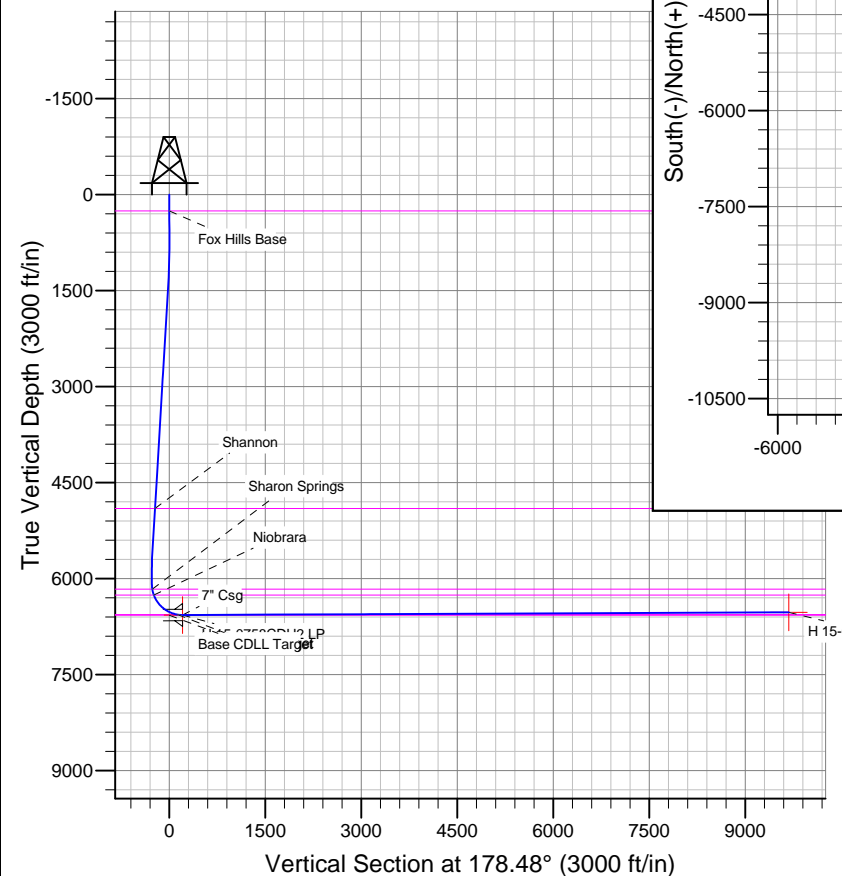
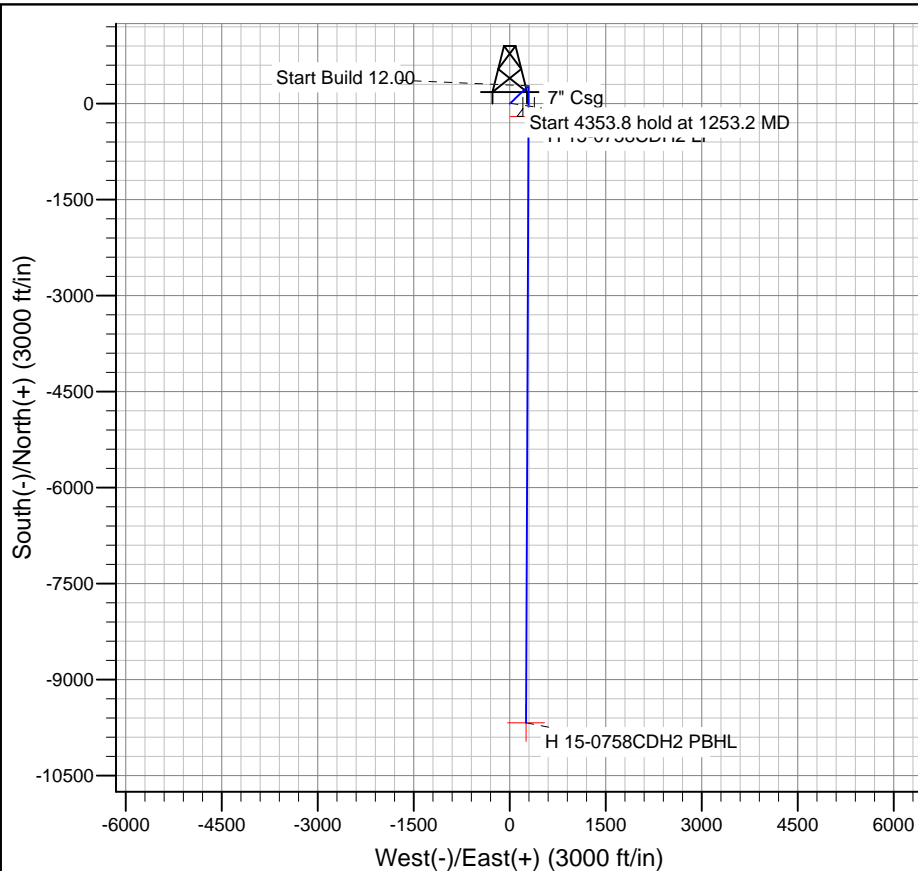
TVDPath	MDPath	Formation
254.0	254.0	Base CDLL Target
4905.0	4919.6	Fox Hills Base
6165.0	6182.9	Shannon
6258.0	6279.2	Sharon Springs
6564.0	6784.4	Niobrara
		Top CDLL Target

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
H 15-0758CDH2 PBHL	6528.0	-9673.4	256.0	Point
H 15-0758CDH2 LP	6570.0	-200.4	293.7	Point

## CASING DETAILS

TVD	MD	Name	Size
6570.0	6862.3	7" Csg	7



Azimuths to True North  
Magnetic North: 8.19°

Magnetic Field  
Strength: 52891.2snT  
Dip Angle: 67.09°  
Date: 8/27/2014  
Model: IGRF2010

# Bill Barrett Corp

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Heath 6-62-15-0758CDH
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4754.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4754.0ft (Original Well Elev)
<b>Site:</b>	Heath 6-62-15_22 NENE	<b>North Reference:</b>	True
<b>Well:</b>	Heath 6-62-15-0758CDH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	WELD COUNTY, COLORADO		
<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		

Site		Heath 6-62-15_22 NENE				
Site Position:		Northing:	1,424,920.16ft	Latitude:	40° 29' 37.079 N	
From:	Lat/Long	Easting:	3,333,073.20ft	Longitude:	104° 18' 8.640 W	
Position Uncertainty:		0.0 ft	Slot Radius:	"	Grid Convergence:	0.77 °

Well	Heath 6-62-15-0758CDH					
Well Position	+N-S	-0.7 ft	Northing:	1,424,919.83 ft	Latitude:	40° 29' 37.071 N
	+E-W	30.0 ft	Easting:	3,333,103.24 ft	Longitude:	104° 18' 8.251 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,732.0ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	8/27/2014	8.19	67.09	52,891

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	178.48

<b>Plan Sections</b>										
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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,253.2	5.06	46.63	1,252.9	7.7	8.1	2.00	2.00	0.00	46.63	
5,607.0	5.06	46.63	5,589.7	271.5	287.5	0.00	0.00	0.00	0.00	
5,860.2	0.00	180.23	5,842.5	279.2	295.6	2.00	-2.00	0.00	180.00	
6,110.2	0.00	180.23	6,092.5	279.2	295.6	0.00	0.00	0.00	0.00	
6,862.3	90.25	180.23	6,570.0	-200.4	293.7	12.00	12.00	0.00	0.00	H 15-0758CDH2 LF
16,335.5	90.25	180.23	6,528.0	-9,673.4	256.0	0.00	0.00	0.00	0.00	H 15-0758CDH2 PE

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## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Heath 6-62-15-0758CDH
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4754.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4754.0ft (Original Well Elev)
<b>Site:</b>	Heath 6-62-15_22 NENE	<b>North Reference:</b>	True
<b>Well:</b>	Heath 6-62-15-0758CDH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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
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
254.0	0.00	0.00	254.0	0.0	0.0	0.0	0.00	0.00	0.00
Fox Hills Base									
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	2.00	46.63	1,100.0	1.2	1.3	-1.2	2.00	2.00	0.00
1,200.0	4.00	46.63	1,199.8	4.8	5.1	-4.7	2.00	2.00	0.00
1,253.2	5.06	46.63	1,252.9	7.7	8.1	-7.5	2.00	2.00	0.00
1,300.0	5.06	46.63	1,299.5	10.5	11.1	-10.2	0.00	0.00	0.00
1,400.0	5.06	46.63	1,399.1	16.6	17.5	-16.1	0.00	0.00	0.00
1,500.0	5.06	46.63	1,498.7	22.6	24.0	-22.0	0.00	0.00	0.00
1,600.0	5.06	46.63	1,598.3	28.7	30.4	-27.9	0.00	0.00	0.00
1,700.0	5.06	46.63	1,697.9	34.8	36.8	-33.8	0.00	0.00	0.00
1,800.0	5.06	46.63	1,797.5	40.8	43.2	-39.7	0.00	0.00	0.00
1,900.0	5.06	46.63	1,897.1	46.9	49.6	-45.5	0.00	0.00	0.00
2,000.0	5.06	46.63	1,996.8	52.9	56.0	-51.4	0.00	0.00	0.00
2,100.0	5.06	46.63	2,096.4	59.0	62.5	-57.3	0.00	0.00	0.00
2,200.0	5.06	46.63	2,196.0	65.1	68.9	-63.2	0.00	0.00	0.00
2,300.0	5.06	46.63	2,295.6	71.1	75.3	-69.1	0.00	0.00	0.00
2,400.0	5.06	46.63	2,395.2	77.2	81.7	-75.0	0.00	0.00	0.00
2,500.0	5.06	46.63	2,494.8	83.2	88.1	-80.9	0.00	0.00	0.00
2,600.0	5.06	46.63	2,594.4	89.3	94.5	-86.8	0.00	0.00	0.00
2,700.0	5.06	46.63	2,694.0	95.4	101.0	-92.7	0.00	0.00	0.00
2,800.0	5.06	46.63	2,793.6	101.4	107.4	-98.5	0.00	0.00	0.00
2,900.0	5.06	46.63	2,893.2	107.5	113.8	-104.4	0.00	0.00	0.00
3,000.0	5.06	46.63	2,992.9	113.5	120.2	-110.3	0.00	0.00	0.00
3,100.0	5.06	46.63	3,092.5	119.6	126.6	-116.2	0.00	0.00	0.00
3,200.0	5.06	46.63	3,192.1	125.7	133.0	-122.1	0.00	0.00	0.00
3,300.0	5.06	46.63	3,291.7	131.7	139.5	-128.0	0.00	0.00	0.00
3,400.0	5.06	46.63	3,391.3	137.8	145.9	-133.9	0.00	0.00	0.00
3,500.0	5.06	46.63	3,490.9	143.8	152.3	-139.8	0.00	0.00	0.00
3,600.0	5.06	46.63	3,590.5	149.9	158.7	-145.7	0.00	0.00	0.00
3,700.0	5.06	46.63	3,690.1	156.0	165.1	-151.5	0.00	0.00	0.00
3,800.0	5.06	46.63	3,789.7	162.0	171.5	-157.4	0.00	0.00	0.00
3,900.0	5.06	46.63	3,889.3	168.1	178.0	-163.3	0.00	0.00	0.00
4,000.0	5.06	46.63	3,989.0	174.1	184.4	-169.2	0.00	0.00	0.00
4,100.0	5.06	46.63	4,088.6	180.2	190.8	-175.1	0.00	0.00	0.00
4,200.0	5.06	46.63	4,188.2	186.3	197.2	-181.0	0.00	0.00	0.00
4,300.0	5.06	46.63	4,287.8	192.3	203.6	-186.9	0.00	0.00	0.00
4,400.0	5.06	46.63	4,387.4	198.4	210.0	-192.8	0.00	0.00	0.00
4,500.0	5.06	46.63	4,487.0	204.5	216.5	-198.7	0.00	0.00	0.00
4,600.0	5.06	46.63	4,586.6	210.5	222.9	-204.5	0.00	0.00	0.00
4,700.0	5.06	46.63	4,686.2	216.6	229.3	-210.4	0.00	0.00	0.00
4,800.0	5.06	46.63	4,785.8	222.6	235.7	-216.3	0.00	0.00	0.00
4,900.0	5.06	46.63	4,885.4	228.7	242.1	-222.2	0.00	0.00	0.00
4,919.6	5.06	46.63	4,905.0	229.9	243.4	-223.4	0.00	0.00	0.00

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## Planning Report

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<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4754.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4754.0ft (Original Well Elev)
<b>Site:</b>	Heath 6-62-15_22 NENE	<b>North Reference:</b>	True
<b>Well:</b>	Heath 6-62-15-0758CDH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)
<b>Shannon</b>									
5,000.0	5.06	46.63	4,985.0	234.8	248.5	-228.1	0.00	0.00	0.00
5,100.0	5.06	46.63	5,084.7	240.8	255.0	-234.0	0.00	0.00	0.00
5,200.0	5.06	46.63	5,184.3	246.9	261.4	-239.9	0.00	0.00	0.00
5,300.0	5.06	46.63	5,283.9	252.9	267.8	-245.8	0.00	0.00	0.00
5,400.0	5.06	46.63	5,383.5	259.0	274.2	-251.7	0.00	0.00	0.00
5,500.0	5.06	46.63	5,483.1	265.1	280.6	-257.5	0.00	0.00	0.00
5,600.0	5.06	46.63	5,582.7	271.1	287.0	-263.4	0.00	0.00	0.00
5,607.0	5.06	46.63	5,589.7	271.5	287.5	-263.8	0.00	0.00	0.00
5,700.0	3.20	46.63	5,682.4	276.1	292.4	-268.3	2.00	-2.00	0.00
5,800.0	1.20	46.63	5,782.4	278.8	295.2	-270.9	2.00	-2.00	0.00
5,860.2	0.00	180.23	5,842.5	279.2	295.6	-271.3	2.00	-2.00	0.00
5,900.0	0.00	180.23	5,882.3	279.2	295.6	-271.3	0.00	0.00	0.00
6,000.0	0.00	180.23	5,982.3	279.2	295.6	-271.3	0.00	0.00	0.00
6,100.0	0.00	180.23	6,082.3	279.2	295.6	-271.3	0.00	0.00	0.00
6,110.2	0.00	180.23	6,092.5	279.2	295.6	-271.3	0.00	0.00	0.00
6,182.9	8.73	180.23	6,165.0	273.7	295.6	-265.8	12.00	12.00	0.00
<b>Sharon Springs</b>									
6,200.0	10.78	180.23	6,181.8	270.8	295.6	-262.9	12.00	12.00	0.00
6,279.2	20.28	180.23	6,258.0	249.6	295.5	-241.7	12.00	12.00	0.00
<b>Niobrara</b>									
6,300.0	22.78	180.23	6,277.4	242.0	295.5	-234.1	12.00	12.00	0.00
6,400.0	34.78	180.23	6,364.9	193.9	295.3	-186.1	12.00	12.00	0.00
6,500.0	46.78	180.23	6,440.5	128.7	295.0	-120.9	12.00	12.00	0.00
6,600.0	58.78	180.23	6,500.8	49.3	294.7	-41.4	12.00	12.00	0.00
6,700.0	70.78	180.23	6,543.4	-41.0	294.3	48.8	12.00	12.00	0.00
6,784.4	80.90	180.23	6,564.0	-122.8	294.0	130.5	12.00	12.00	0.00
<b>Top CDLL Target</b>									
6,800.0	82.78	180.23	6,566.2	-138.2	294.0	145.9	12.00	12.00	0.00
6,862.3	90.25	180.23	6,570.0	-200.4	293.7	208.1	12.00	12.00	0.00
<b>7" Csg - H 15-0758CDH2 LP</b>									
6,900.0	90.25	180.23	6,569.8	-238.0	293.6	245.7	0.00	0.00	0.00
7,000.0	90.25	180.23	6,569.4	-338.0	293.2	345.7	0.00	0.00	0.00
7,100.0	90.25	180.23	6,568.9	-438.0	292.8	445.6	0.00	0.00	0.00
7,200.0	90.25	180.23	6,568.5	-538.0	292.4	545.6	0.00	0.00	0.00
7,300.0	90.25	180.23	6,568.1	-638.0	292.0	645.5	0.00	0.00	0.00
7,400.0	90.25	180.23	6,567.6	-738.0	291.6	745.5	0.00	0.00	0.00
7,500.0	90.25	180.23	6,567.2	-838.0	291.2	845.4	0.00	0.00	0.00
7,600.0	90.25	180.23	6,566.7	-938.0	290.8	945.4	0.00	0.00	0.00
7,700.0	90.25	180.23	6,566.3	-1,038.0	290.4	1,045.4	0.00	0.00	0.00
7,800.0	90.25	180.23	6,565.8	-1,138.0	290.0	1,145.3	0.00	0.00	0.00
7,900.0	90.25	180.23	6,565.4	-1,238.0	289.6	1,245.3	0.00	0.00	0.00
8,000.0	90.25	180.23	6,565.0	-1,338.0	289.2	1,345.2	0.00	0.00	0.00
8,100.0	90.25	180.23	6,564.5	-1,438.0	288.8	1,445.2	0.00	0.00	0.00
8,200.0	90.25	180.23	6,564.1	-1,538.0	288.4	1,545.1	0.00	0.00	0.00
8,300.0	90.25	180.23	6,563.6	-1,638.0	288.0	1,645.1	0.00	0.00	0.00
8,400.0	90.25	180.23	6,563.2	-1,738.0	287.6	1,745.0	0.00	0.00	0.00
8,500.0	90.25	180.23	6,562.7	-1,838.0	287.2	1,845.0	0.00	0.00	0.00
8,600.0	90.25	180.23	6,562.3	-1,938.0	286.8	1,944.9	0.00	0.00	0.00
8,700.0	90.25	180.23	6,561.9	-2,038.0	286.4	2,044.9	0.00	0.00	0.00
8,800.0	90.25	180.23	6,561.4	-2,138.0	286.0	2,144.8	0.00	0.00	0.00
8,900.0	90.25	180.23	6,561.0	-2,238.0	285.6	2,244.8	0.00	0.00	0.00
9,000.0	90.25	180.23	6,560.5	-2,338.0	285.2	2,344.7	0.00	0.00	0.00

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## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Heath 6-62-15-0758CDH
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4754.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4754.0ft (Original Well Elev)
<b>Site:</b>	Heath 6-62-15_22 NENE	<b>North Reference:</b>	True
<b>Well:</b>	Heath 6-62-15-0758CDH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)
9,100.0	90.25	180.23	6,560.1	-2,438.0	284.8	2,444.7	0.00	0.00	0.00
9,200.0	90.25	180.23	6,559.6	-2,538.0	284.4	2,544.6	0.00	0.00	0.00
9,300.0	90.25	180.23	6,559.2	-2,638.0	284.0	2,644.6	0.00	0.00	0.00
9,400.0	90.25	180.23	6,558.7	-2,738.0	283.6	2,744.5	0.00	0.00	0.00
9,500.0	90.25	180.23	6,558.3	-2,838.0	283.2	2,844.5	0.00	0.00	0.00
9,600.0	90.25	180.23	6,557.9	-2,938.0	282.8	2,944.5	0.00	0.00	0.00
9,700.0	90.25	180.23	6,557.4	-3,038.0	282.4	3,044.4	0.00	0.00	0.00
9,800.0	90.25	180.23	6,557.0	-3,138.0	282.0	3,144.4	0.00	0.00	0.00
9,900.0	90.25	180.23	6,556.5	-3,238.0	281.6	3,244.3	0.00	0.00	0.00
10,000.0	90.25	180.23	6,556.1	-3,338.0	281.2	3,344.3	0.00	0.00	0.00
10,100.0	90.25	180.23	6,555.6	-3,438.0	280.8	3,444.2	0.00	0.00	0.00
10,200.0	90.25	180.23	6,555.2	-3,538.0	280.4	3,544.2	0.00	0.00	0.00
10,300.0	90.25	180.23	6,554.8	-3,638.0	280.0	3,644.1	0.00	0.00	0.00
10,400.0	90.25	180.23	6,554.3	-3,738.0	279.6	3,744.1	0.00	0.00	0.00
10,500.0	90.25	180.23	6,553.9	-3,838.0	279.2	3,844.0	0.00	0.00	0.00
10,600.0	90.25	180.23	6,553.4	-3,938.0	278.8	3,944.0	0.00	0.00	0.00
10,700.0	90.25	180.23	6,553.0	-4,038.0	278.4	4,043.9	0.00	0.00	0.00
10,800.0	90.25	180.23	6,552.5	-4,138.0	278.0	4,143.9	0.00	0.00	0.00
10,900.0	90.25	180.23	6,552.1	-4,238.0	277.6	4,243.8	0.00	0.00	0.00
11,000.0	90.25	180.23	6,551.7	-4,338.0	277.2	4,343.8	0.00	0.00	0.00
11,100.0	90.25	180.23	6,551.2	-4,438.0	276.8	4,443.7	0.00	0.00	0.00
11,200.0	90.25	180.23	6,550.8	-4,538.0	276.4	4,543.7	0.00	0.00	0.00
11,300.0	90.25	180.23	6,550.3	-4,638.0	276.0	4,643.7	0.00	0.00	0.00
11,400.0	90.25	180.23	6,549.9	-4,738.0	275.6	4,743.6	0.00	0.00	0.00
11,500.0	90.25	180.23	6,549.4	-4,838.0	275.2	4,843.6	0.00	0.00	0.00
11,600.0	90.25	180.23	6,549.0	-4,938.0	274.8	4,943.5	0.00	0.00	0.00
11,700.0	90.25	180.23	6,548.6	-5,038.0	274.4	5,043.5	0.00	0.00	0.00
11,800.0	90.25	180.23	6,548.1	-5,138.0	274.0	5,143.4	0.00	0.00	0.00
11,900.0	90.25	180.23	6,547.7	-5,238.0	273.6	5,243.4	0.00	0.00	0.00
12,000.0	90.25	180.23	6,547.2	-5,338.0	273.2	5,343.3	0.00	0.00	0.00
12,100.0	90.25	180.23	6,546.8	-5,438.0	272.8	5,443.3	0.00	0.00	0.00
12,200.0	90.25	180.23	6,546.3	-5,538.0	272.4	5,543.2	0.00	0.00	0.00
12,300.0	90.25	180.23	6,545.9	-5,638.0	272.0	5,643.2	0.00	0.00	0.00
12,400.0	90.25	180.23	6,545.4	-5,738.0	271.6	5,743.1	0.00	0.00	0.00
12,500.0	90.25	180.23	6,545.0	-5,838.0	271.3	5,843.1	0.00	0.00	0.00
12,600.0	90.25	180.23	6,544.6	-5,937.9	270.9	5,943.0	0.00	0.00	0.00
12,700.0	90.25	180.23	6,544.1	-6,037.9	270.5	6,043.0	0.00	0.00	0.00
12,800.0	90.25	180.23	6,543.7	-6,137.9	270.1	6,142.9	0.00	0.00	0.00
12,900.0	90.25	180.23	6,543.2	-6,237.9	269.7	6,242.9	0.00	0.00	0.00
13,000.0	90.25	180.23	6,542.8	-6,337.9	269.3	6,342.8	0.00	0.00	0.00
13,100.0	90.25	180.23	6,542.3	-6,437.9	268.9	6,442.8	0.00	0.00	0.00
13,200.0	90.25	180.23	6,541.9	-6,537.9	268.5	6,542.8	0.00	0.00	0.00
13,300.0	90.25	180.23	6,541.5	-6,637.9	268.1	6,642.7	0.00	0.00	0.00
13,400.0	90.25	180.23	6,541.0	-6,737.9	267.7	6,742.7	0.00	0.00	0.00
13,500.0	90.25	180.23	6,540.6	-6,837.9	267.3	6,842.6	0.00	0.00	0.00
13,600.0	90.25	180.23	6,540.1	-6,937.9	266.9	6,942.6	0.00	0.00	0.00
13,700.0	90.25	180.23	6,539.7	-7,037.9	266.5	7,042.5	0.00	0.00	0.00
13,800.0	90.25	180.23	6,539.2	-7,137.9	266.1	7,142.5	0.00	0.00	0.00
13,900.0	90.25	180.23	6,538.8	-7,237.9	265.7	7,242.4	0.00	0.00	0.00
14,000.0	90.25	180.23	6,538.4	-7,337.9	265.3	7,342.4	0.00	0.00	0.00
14,100.0	90.25	180.23	6,537.9	-7,437.9	264.9	7,442.3	0.00	0.00	0.00
14,200.0	90.25	180.23	6,537.5	-7,537.9	264.5	7,542.3	0.00	0.00	0.00
14,300.0	90.25	180.23	6,537.0	-7,637.9	264.1	7,642.2	0.00	0.00	0.00
14,400.0	90.25	180.23	6,536.6	-7,737.9	263.7	7,742.2	0.00	0.00	0.00

# Bill Barrett Corp

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Heath 6-62-15-0758CDH
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4754.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4754.0ft (Original Well Elev)
<b>Site:</b>	Heath 6-62-15_22 NENE	<b>North Reference:</b>	True
<b>Well:</b>	Heath 6-62-15-0758CDH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)
14,500.0	90.25	180.23	6,536.1	-7,837.9	263.3	7,842.1	0.00	0.00	0.00
14,600.0	90.25	180.23	6,535.7	-7,937.9	262.9	7,942.1	0.00	0.00	0.00
14,700.0	90.25	180.23	6,535.3	-8,037.9	262.5	8,042.0	0.00	0.00	0.00
14,800.0	90.25	180.23	6,534.8	-8,137.9	262.1	8,142.0	0.00	0.00	0.00
14,900.0	90.25	180.23	6,534.4	-8,237.9	261.7	8,241.9	0.00	0.00	0.00
15,000.0	90.25	180.23	6,533.9	-8,337.9	261.3	8,341.9	0.00	0.00	0.00
15,100.0	90.25	180.23	6,533.5	-8,437.9	260.9	8,441.9	0.00	0.00	0.00
15,200.0	90.25	180.23	6,533.0	-8,537.9	260.5	8,541.8	0.00	0.00	0.00
15,300.0	90.25	180.23	6,532.6	-8,637.9	260.1	8,641.8	0.00	0.00	0.00
15,400.0	90.25	180.23	6,532.1	-8,737.9	259.7	8,741.7	0.00	0.00	0.00
15,500.0	90.25	180.23	6,531.7	-8,837.9	259.3	8,841.7	0.00	0.00	0.00
15,600.0	90.25	180.23	6,531.3	-8,937.9	258.9	8,941.6	0.00	0.00	0.00
15,700.0	90.25	180.23	6,530.8	-9,037.9	258.5	9,041.6	0.00	0.00	0.00
15,800.0	90.25	180.23	6,530.4	-9,137.9	258.1	9,141.5	0.00	0.00	0.00
15,900.0	90.25	180.23	6,529.9	-9,237.9	257.7	9,241.5	0.00	0.00	0.00
16,000.0	90.25	180.23	6,529.5	-9,337.9	257.3	9,341.4	0.00	0.00	0.00
16,100.0	90.25	180.23	6,529.0	-9,437.9	256.9	9,441.4	0.00	0.00	0.00
16,200.0	90.25	180.23	6,528.6	-9,537.9	256.5	9,541.3	0.00	0.00	0.00
16,300.0	90.25	180.23	6,528.2	-9,637.9	256.1	9,641.3	0.00	0.00	0.00
16,335.5	90.25	180.23	6,528.0	-9,673.4	256.0	9,676.8	0.00	0.00	0.00
H 15-0758CDH2 PBHL									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,862.3	6,570.0	7" Csg	7	8-3/4

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
254.0	254.0	Fox Hills Base		0.00	
4,919.6	4,905.0	Shannon		0.00	
6,182.9	6,165.0	Sharon Springs		0.00	
6,279.2	6,258.0	Niobrara		0.00	
6,784.4	6,564.0	Top CDLL Target		0.00	
	6,574.0	Base CDLL Target		0.00	