

# **BILL BARRETT CORP**

**WELD COUNTY, COLORADO**

**4-63-3**

**70 Ranch 4-63-3-3225CDH**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**17 June, 2013**



**Bill Barrett Corporation**

**SITE DETAILS:** 4-63-3  
Wattenberg

**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

Site Latitude: 40° 20' 22.092 N  
Site Longitude: 104° 25' 58.044 W

Positional Uncertainty: 0.0  
Convergence: 0.69  
Local North: True

**WELL DETAILS:** 70 Ranch 4-63-3-3225CDH

Ground Level: 4559.0  
Northing: 1368299.78 Easting: 3297487.24 Latitude: 40° 20' 22.092 N Longitude: 104° 25' 58.044 W Slot

**WELLBORE TARGET DETAILS (LAT/LONG)**

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
70 Ranch 4-63-3-3225CDH PBHL	6510.0	1056.9	4554.7	40° 20' 32.532 N	104° 24' 59.220 W	Point
70 Ranch 4-63-3-3225CDH LP	6523.0	1147.6	407.0	40° 20' 33.432 N	104° 25' 52.788 W	Point

**SECTION DETAILS**

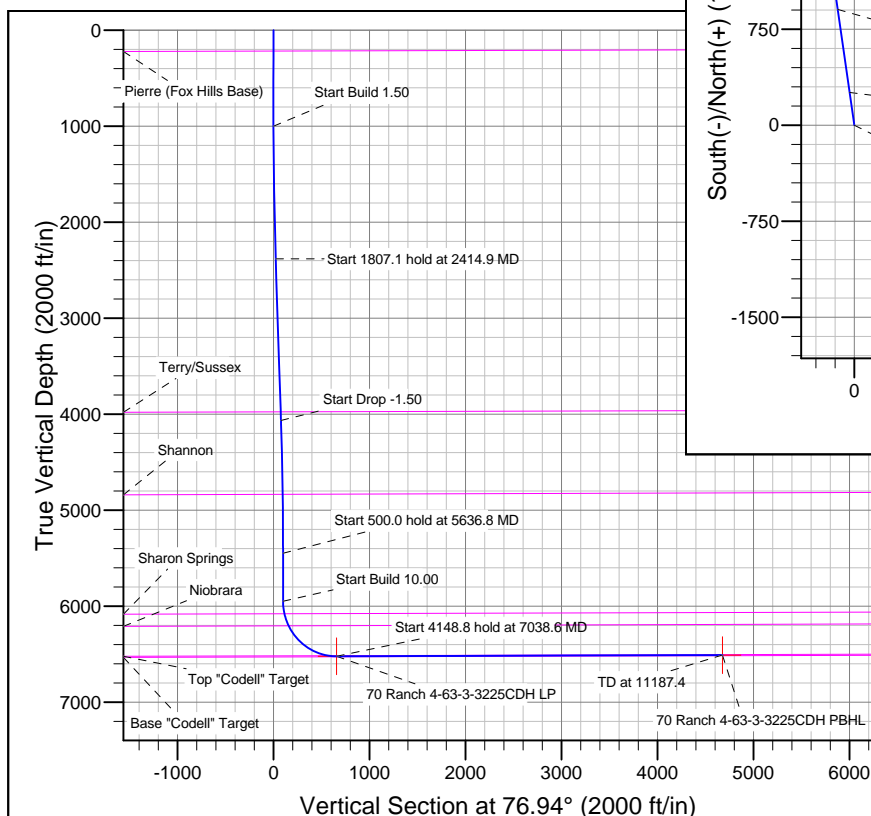
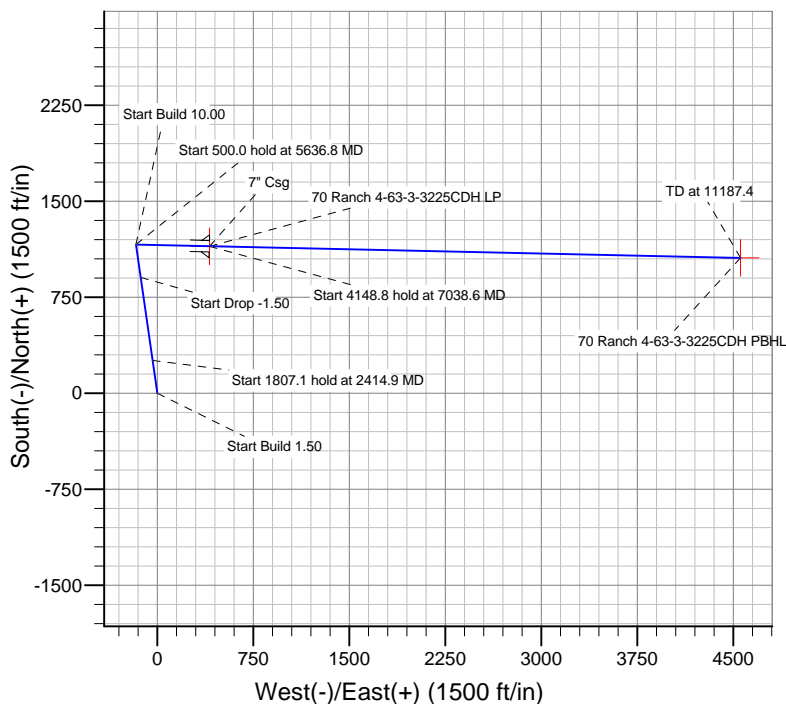
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	2414.9	21.22	351.78	2382.7	256.4	-37.0	1.50	351.78	21.9	
4	4222.0	21.22	351.78	4067.3	903.8	-130.6	0.00	0.00	77.1	
5	5636.8	0.00	0.00	5450.0	1160.2	-167.7	1.50	180.00	98.9	
6	6136.8	0.00	0.00	5950.0	1160.2	-167.7	0.00	0.00	98.9	
7	7038.6	90.18	91.25	6523.0	1147.6	407.0	10.00	91.25	655.8	
8	11187.4	90.18	91.25	6510.0	1056.8	4554.8	0.00	0.00	4675.8	70 Ranch 4-63-3-3225CDH PBHL

**FORMATION TOP DETAILS**

TVDPath	MDPath	Formation
219.0	219.0	Base "Codell" Target
3977.5	4125.6	Pierre (Fox Hills Base)
4836.6	5020.7	Terry/Sussex
6081.6	6269.6	Shannon
6206.4	6402.7	Sharon Springs
6518.0	6961.7	Niobrara
		Top "Codell" Target

**CASING DETAILS**

TVD	MD	Name	Size
6523.0	7038.6	7" Csg	7



Azimuths to True North  
Magnetic North: 8.46°

Magnetic Field  
Strength: 52965.8snT  
Dip Angle: 67.00°  
Date: 1/28/2013  
Model: IGRF2010

# Bill Barrett Corp

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 4-63-3-3225CDH
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4574.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4574.0ft (Original Well Elev)
<b>Site:</b>	4-63-3	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 4-63-3-3225CDH	<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	4-63-3				
Site Position:		Northing:	1,368,299.81 ft	Latitude:	40° 20' 22.092 N
From:	Lat/Long	Easting:	3,297,487.24 ft	Longitude:	104° 25' 58.044 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.69 °

Well	70 Ranch 4-63-3-3225CDH					
Well Position	+N/-S	0.0 ft	Northing:	1,368,299.78 ft	Latitude:	40° 20' 22.092 N
	+E/-W	0.0 ft	Easting:	3,297,487.24 ft	Longitude:	104° 25' 58.044 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,559.0 ft

<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	1/28/2013	8.46	67.00	52,966

<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	76.94

<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	
2,414.9	21.22	351.78	2,382.7	256.4	-37.0	1.50	1.50	0.00	351.78	
4,222.0	21.22	351.78	4,067.3	903.8	-130.6	0.00	0.00	0.00	0.00	
5,636.8	0.00	0.00	5,450.0	1,160.2	-167.7	1.50	-1.50	0.00	180.00	
6,136.8	0.00	0.00	5,950.0	1,160.2	-167.7	0.00	0.00	0.00	0.00	
7,038.6	90.18	91.25	6,523.0	1,147.6	407.0	10.00	10.00	0.00	91.25	
11,187.4	90.18	91.25	6,510.0	1,056.8	4,554.8	0.00	0.00	0.00	0.00	70 Ranch 4-63-3-322!

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<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4574.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4574.0ft (Original Well Elev)
<b>Site:</b>	4-63-3	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 4-63-3-3225CDH	<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
219.0	0.00	0.00	219.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Pierre (Fox Hills Base)</b>									
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
<b>Start Build 1.50</b>									
1,100.0	1.50	351.78	1,100.0	1.3	-0.2	0.1	1.50	1.50	0.00
1,200.0	3.00	351.78	1,199.9	5.2	-0.7	0.4	1.50	1.50	0.00
1,300.0	4.50	351.78	1,299.7	11.7	-1.7	1.0	1.50	1.50	0.00
1,400.0	6.00	351.78	1,399.3	20.7	-3.0	1.8	1.50	1.50	0.00
1,500.0	7.50	351.78	1,498.6	32.3	-4.7	2.8	1.50	1.50	0.00
1,600.0	9.00	351.78	1,597.5	46.5	-6.7	4.0	1.50	1.50	0.00
1,700.0	10.50	351.78	1,696.1	63.3	-9.1	5.4	1.50	1.50	0.00
1,800.0	12.00	351.78	1,794.2	82.6	-11.9	7.0	1.50	1.50	0.00
1,900.0	13.50	351.78	1,891.7	104.5	-15.1	8.9	1.50	1.50	0.00
2,000.0	15.00	351.78	1,988.6	128.8	-18.6	11.0	1.50	1.50	0.00
2,100.0	16.50	351.78	2,084.9	155.7	-22.5	13.3	1.50	1.50	0.00
2,200.0	18.00	351.78	2,180.4	185.0	-26.7	15.8	1.50	1.50	0.00
2,300.0	19.50	351.78	2,275.0	216.8	-31.3	18.5	1.50	1.50	0.00
2,400.0	21.00	351.78	2,368.9	251.1	-36.3	21.4	1.50	1.50	0.00
2,414.9	21.22	351.78	2,382.7	256.4	-37.0	21.9	1.50	1.50	0.00
<b>Start 1807.1 hold at 2414.9 MD</b>									
2,500.0	21.22	351.78	2,462.1	286.9	-41.5	24.5	0.00	0.00	0.00
2,600.0	21.22	351.78	2,555.3	322.7	-46.6	27.5	0.00	0.00	0.00
2,700.0	21.22	351.78	2,648.5	358.6	-51.8	30.6	0.00	0.00	0.00
2,800.0	21.22	351.78	2,741.7	394.4	-57.0	33.6	0.00	0.00	0.00
2,900.0	21.22	351.78	2,835.0	430.2	-62.2	36.7	0.00	0.00	0.00
3,000.0	21.22	351.78	2,928.2	466.0	-67.3	39.7	0.00	0.00	0.00
3,100.0	21.22	351.78	3,021.4	501.9	-72.5	42.8	0.00	0.00	0.00
3,200.0	21.22	351.78	3,114.6	537.7	-77.7	45.8	0.00	0.00	0.00
3,300.0	21.22	351.78	3,207.8	573.5	-82.9	48.9	0.00	0.00	0.00
3,400.0	21.22	351.78	3,301.1	609.3	-88.0	52.0	0.00	0.00	0.00
3,500.0	21.22	351.78	3,394.3	645.2	-93.2	55.0	0.00	0.00	0.00
3,600.0	21.22	351.78	3,487.5	681.0	-98.4	58.1	0.00	0.00	0.00
3,700.0	21.22	351.78	3,580.7	716.8	-103.6	61.1	0.00	0.00	0.00
3,800.0	21.22	351.78	3,673.9	752.7	-108.8	64.2	0.00	0.00	0.00
3,900.0	21.22	351.78	3,767.1	788.5	-113.9	67.2	0.00	0.00	0.00
4,000.0	21.22	351.78	3,860.4	824.3	-119.1	70.3	0.00	0.00	0.00
4,100.0	21.22	351.78	3,953.6	860.1	-124.3	73.3	0.00	0.00	0.00
4,125.6	21.22	351.78	3,977.5	869.3	-125.6	74.1	0.00	0.00	0.00
<b>Terry/Sussex</b>									
4,200.0	21.22	351.78	4,046.8	896.0	-129.5	76.4	0.00	0.00	0.00
4,222.0	21.22	351.78	4,067.3	903.8	-130.6	77.1	0.00	0.00	0.00
<b>Start Drop -1.50</b>									
4,300.0	20.05	351.78	4,140.3	931.1	-134.5	79.4	1.50	-1.50	0.00
4,400.0	18.55	351.78	4,234.7	963.8	-139.3	82.2	1.50	-1.50	0.00

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<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4574.0ft (Original Well Elev)
<b>Site:</b>	4-63-3	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 4-63-3-3225CDH	<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)
4,500.0	17.05	351.78	4,329.9	994.0	-143.6	84.8	1.50	-1.50	0.00
4,600.0	15.55	351.78	4,425.9	1,021.8	-147.6	87.1	1.50	-1.50	0.00
4,700.0	14.05	351.78	4,522.5	1,047.1	-151.3	89.3	1.50	-1.50	0.00
4,800.0	12.55	351.78	4,619.9	1,069.9	-154.6	91.2	1.50	-1.50	0.00
4,900.0	11.05	351.78	4,717.7	1,090.1	-157.5	92.9	1.50	-1.50	0.00
5,000.0	9.55	351.78	4,816.1	1,107.8	-160.1	94.5	1.50	-1.50	0.00
5,020.7	9.24	351.78	4,836.6	1,111.2	-160.6	94.7	1.50	-1.50	0.00
Shannon									
5,100.0	8.05	351.78	4,914.9	1,123.0	-162.3	95.7	1.50	-1.50	0.00
5,200.0	6.55	351.78	5,014.1	1,135.5	-164.1	96.8	1.50	-1.50	0.00
5,300.0	5.05	351.78	5,113.6	1,145.5	-165.5	97.7	1.50	-1.50	0.00
5,400.0	3.55	351.78	5,213.3	1,153.0	-166.6	98.3	1.50	-1.50	0.00
5,500.0	2.05	351.78	5,313.2	1,157.8	-167.3	98.7	1.50	-1.50	0.00
5,600.0	0.55	351.78	5,413.2	1,160.1	-167.6	98.9	1.50	-1.50	0.00
5,636.8	0.00	0.00	5,450.0	1,160.2	-167.7	98.9	1.50	-1.50	0.00
Start 500.0 hold at 5636.8 MD									
5,700.0	0.00	0.00	5,513.2	1,160.2	-167.7	98.9	0.00	0.00	0.00
5,800.0	0.00	0.00	5,613.2	1,160.2	-167.7	98.9	0.00	0.00	0.00
5,900.0	0.00	0.00	5,713.2	1,160.2	-167.7	98.9	0.00	0.00	0.00
6,000.0	0.00	0.00	5,813.2	1,160.2	-167.7	98.9	0.00	0.00	0.00
6,100.0	0.00	0.00	5,913.2	1,160.2	-167.7	98.9	0.00	0.00	0.00
6,136.8	0.00	0.00	5,950.0	1,160.2	-167.7	98.9	0.00	0.00	0.00
Start Build 10.00									
6,200.0	6.32	91.25	6,013.0	1,160.2	-164.2	102.3	10.00	10.00	0.00
6,269.6	13.27	91.25	6,081.6	1,159.9	-152.3	113.8	10.00	10.00	0.00
Sharon Springs									
6,300.0	16.32	91.25	6,111.0	1,159.7	-144.6	121.3	10.00	10.00	0.00
6,400.0	26.32	91.25	6,204.0	1,158.9	-108.3	156.5	10.00	10.00	0.00
6,402.7	26.59	91.25	6,206.4	1,158.9	-107.1	157.6	10.00	10.00	0.00
Niobrara									
6,500.0	36.32	91.25	6,289.3	1,157.8	-56.4	206.8	10.00	10.00	0.00
6,600.0	46.32	91.25	6,364.4	1,156.3	9.5	270.7	10.00	10.00	0.00
6,700.0	56.32	91.25	6,426.8	1,154.6	87.5	346.2	10.00	10.00	0.00
6,800.0	66.32	91.25	6,474.7	1,152.7	175.1	431.1	10.00	10.00	0.00
6,900.0	76.32	91.25	6,506.7	1,150.7	269.7	522.8	10.00	10.00	0.00
6,961.7	82.49	91.25	6,518.0	1,149.3	330.3	581.5	10.00	10.00	0.00
Top "Codell" Target									
7,000.0	86.32	91.25	6,521.8	1,148.5	368.4	618.4	10.00	10.00	0.00
7,038.6	90.18	91.25	6,523.0	1,147.6	406.9	655.8	10.00	10.00	0.00
Start 4148.8 hold at 7038.6 MD - 7" Csg									
7,100.0	90.18	91.25	6,522.8	1,146.3	468.3	715.3	0.00	0.00	0.00
7,200.0	90.18	91.25	6,522.5	1,144.1	568.3	812.2	0.00	0.00	0.00
7,300.0	90.18	91.25	6,522.1	1,141.9	668.3	909.1	0.00	0.00	0.00
7,400.0	90.18	91.25	6,521.8	1,139.7	768.3	1,006.0	0.00	0.00	0.00
7,500.0	90.18	91.25	6,521.5	1,137.5	868.2	1,102.9	0.00	0.00	0.00
7,600.0	90.18	91.25	6,521.2	1,135.4	968.2	1,199.8	0.00	0.00	0.00
7,700.0	90.18	91.25	6,520.9	1,133.2	1,068.2	1,296.7	0.00	0.00	0.00
7,800.0	90.18	91.25	6,520.6	1,131.0	1,168.2	1,393.6	0.00	0.00	0.00
7,900.0	90.18	91.25	6,520.3	1,128.8	1,268.1	1,490.4	0.00	0.00	0.00
8,000.0	90.18	91.25	6,520.0	1,126.6	1,368.1	1,587.3	0.00	0.00	0.00
8,100.0	90.18	91.25	6,519.6	1,124.4	1,468.1	1,684.2	0.00	0.00	0.00
8,200.0	90.18	91.25	6,519.3	1,122.2	1,568.1	1,781.1	0.00	0.00	0.00
8,300.0	90.18	91.25	6,519.0	1,120.0	1,668.0	1,878.0	0.00	0.00	0.00

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<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 4-63-3-3225CDH
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4574.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4574.0ft (Original Well Elev)
<b>Site:</b>	4-63-3	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 4-63-3-3225CDH	<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)	
8,400.0	90.18	91.25	6,518.7	1,117.8	1,768.0	1,974.9	0.00	0.00	0.00	
8,500.0	90.18	91.25	6,518.4	1,115.7	1,868.0	2,071.8	0.00	0.00	0.00	
8,600.0	90.18	91.25	6,518.1	1,113.5	1,968.0	2,168.7	0.00	0.00	0.00	
8,700.0	90.18	91.25	6,517.8	1,111.3	2,067.9	2,265.6	0.00	0.00	0.00	
8,800.0	90.18	91.25	6,517.5	1,109.1	2,167.9	2,362.5	0.00	0.00	0.00	
8,900.0	90.18	91.25	6,517.1	1,106.9	2,267.9	2,459.4	0.00	0.00	0.00	
9,000.0	90.18	91.25	6,516.8	1,104.7	2,367.9	2,556.3	0.00	0.00	0.00	
9,100.0	90.18	91.25	6,516.5	1,102.5	2,467.8	2,653.2	0.00	0.00	0.00	
9,200.0	90.18	91.25	6,516.2	1,100.3	2,567.8	2,750.1	0.00	0.00	0.00	
9,300.0	90.18	91.25	6,515.9	1,098.1	2,667.8	2,847.0	0.00	0.00	0.00	
9,400.0	90.18	91.25	6,515.6	1,095.9	2,767.8	2,943.9	0.00	0.00	0.00	
9,500.0	90.18	91.25	6,515.3	1,093.8	2,867.7	3,040.7	0.00	0.00	0.00	
9,600.0	90.18	91.25	6,515.0	1,091.6	2,967.7	3,137.6	0.00	0.00	0.00	
9,700.0	90.18	91.25	6,514.6	1,089.4	3,067.7	3,234.5	0.00	0.00	0.00	
9,800.0	90.18	91.25	6,514.3	1,087.2	3,167.7	3,331.4	0.00	0.00	0.00	
9,900.0	90.18	91.25	6,514.0	1,085.0	3,267.6	3,428.3	0.00	0.00	0.00	
10,000.0	90.18	91.25	6,513.7	1,082.8	3,367.6	3,525.2	0.00	0.00	0.00	
10,100.0	90.18	91.25	6,513.4	1,080.6	3,467.6	3,622.1	0.00	0.00	0.00	
10,200.0	90.18	91.25	6,513.1	1,078.4	3,567.6	3,719.0	0.00	0.00	0.00	
10,300.0	90.18	91.25	6,512.8	1,076.2	3,667.5	3,815.9	0.00	0.00	0.00	
10,400.0	90.18	91.25	6,512.5	1,074.1	3,767.5	3,912.8	0.00	0.00	0.00	
10,500.0	90.18	91.25	6,512.1	1,071.9	3,867.5	4,009.7	0.00	0.00	0.00	
10,600.0	90.18	91.25	6,511.8	1,069.7	3,967.5	4,106.6	0.00	0.00	0.00	
10,700.0	90.18	91.25	6,511.5	1,067.5	4,067.4	4,203.5	0.00	0.00	0.00	
10,800.0	90.18	91.25	6,511.2	1,065.3	4,167.4	4,300.4	0.00	0.00	0.00	
10,900.0	90.18	91.25	6,510.9	1,063.1	4,267.4	4,397.3	0.00	0.00	0.00	
11,000.0	90.18	91.25	6,510.6	1,060.9	4,367.4	4,494.1	0.00	0.00	0.00	
11,100.0	90.18	91.25	6,510.3	1,058.7	4,467.4	4,591.0	0.00	0.00	0.00	
11,187.4	90.18	91.25	6,510.0	1,056.8	4,554.8	4,675.8	0.00	0.00	0.00	
TD at 11187.4										

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
70 Ranch 4-63-3-3225C - hit/miss target - Shape - Point	0.00	0.00	6,510.0	1,056.9	4,554.7	1,369,411.41	3,302,028.92	40° 20' 32.532 N	104° 24' 59.220 W	
70 Ranch 4-63-3-3225C - plan misses by 0.1ft at 11187.4ft MD (6510.0 TVD, 1056.8 N, 4554.7 E) - Point	0.00	0.00	6,523.0	1,147.6	407.0	1,369,452.15	3,297,880.37	40° 20' 33.432 N	104° 25' 52.788 W	

# Bill Barrett Corp

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 4-63-3-3225CDH
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	KB @ 4574.0ft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB @ 4574.0ft (Original Well Elev)
<b>Site:</b>	4-63-3	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 4-63-3-3225CDH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
219.0	219.0	Pierre (Fox Hills Base)		-0.18	91.25	
4,125.6	3,977.0	Terry/Sussex		-0.18	91.25	
5,020.7	4,836.0	Shannon		-0.18	91.25	
6,269.6	6,081.0	Sharon Springs		-0.18	91.25	
6,402.7	6,206.0	Niobrara		-0.18	91.25	
6,961.7	6,519.0	Top "Codell" Target		-0.18	91.25	
	6,531.0	Base "Codell" Target		-0.18	91.25	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,000.0	1,000.0	0.0	0.0	Start Build 1.50	
2,414.9	2,382.7	256.4	-37.0	Start 1807.1 hold at 2414.9 MD	
4,222.0	4,067.3	903.8	-130.6	Start Drop -1.50	
5,636.8	5,450.0	1,160.2	-167.7	Start 500.0 hold at 5636.8 MD	
6,136.8	5,950.0	1,160.2	-167.7	Start Build 10.00	
7,038.6	6,523.0	1,147.6	407.0	Start 4148.8 hold at 7038.6 MD	
11,187.4	6,510.0	1,056.8	4,554.8	TD at 11187.4	