

BILL BARRETT CORP

WELD COUNTY, COLORADO

Merritt 6-66-9 Pad

Merritt 6-66-9-0659CDH

Wellbore #1

Plan: Design #1

Standard Planning Report

18 June, 2013



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 Merritt 6-66-9-0659CDH, True North
Vertical (TVD) Reference: KB @ 4845.0ft (Original Well Elev)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: KB @ 4845.0ft (Original Well Elev)
Calculation Method: Minimum Curvature

WELL DETAILS: Merritt 6-66-9-0659CDH

+N/-S +E/-W Northing Easting Latitude Longitude
0.0 0.0 1429196.14 3199898.8240° 30' 33.552 N 104° 46' 51.924 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	1253.5	3.80	44.78	1253.3	6.0	5.9	1.50	44.78	-5.6	
4	6038.5	3.80	44.78	6027.8	231.2	229.5	0.00	0.00	-217.2	
5	6292.0	0.00	0.00	6281.1	237.2	235.4	1.50	180.00	-222.8	
6	6792.0	0.00	0.00	6781.1	237.2	235.4	0.00	0.00	-222.8	
7	7614.3	90.45	179.59	7302.0	-287.7	239.1	11.00	179.59	301.5	M 0659CDH LP
8	11842.6	90.45	179.59	7268.7	-4515.8	269.2	0.00	0.00	4523.8	

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

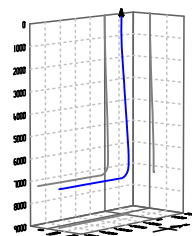
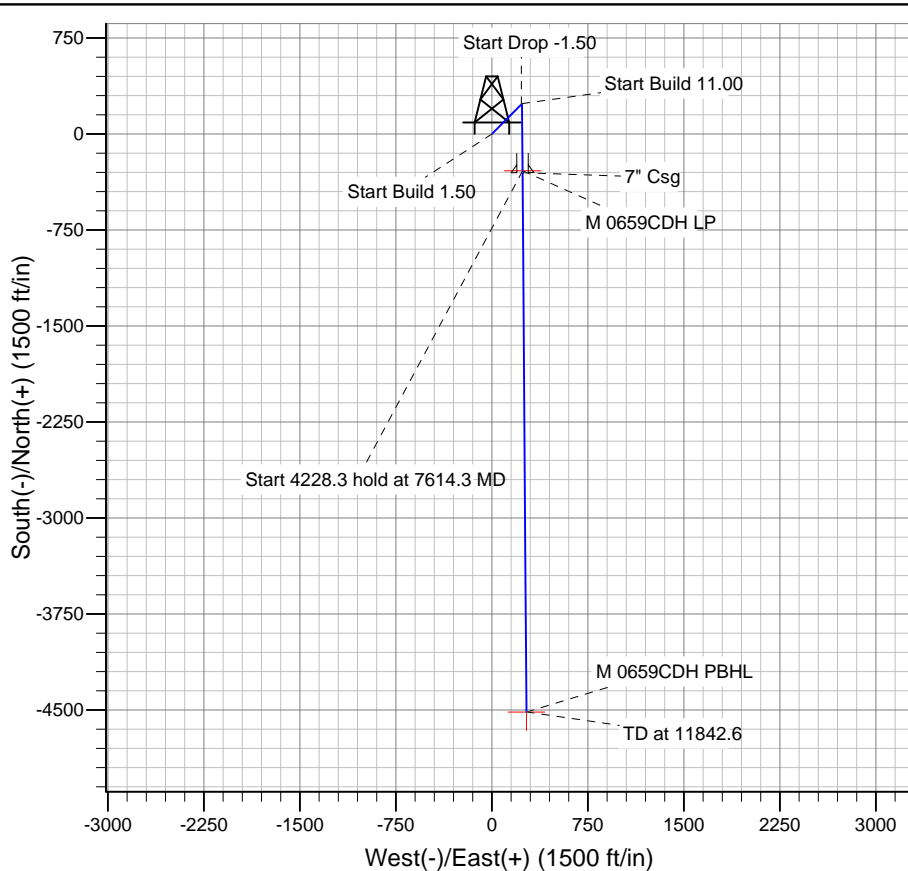
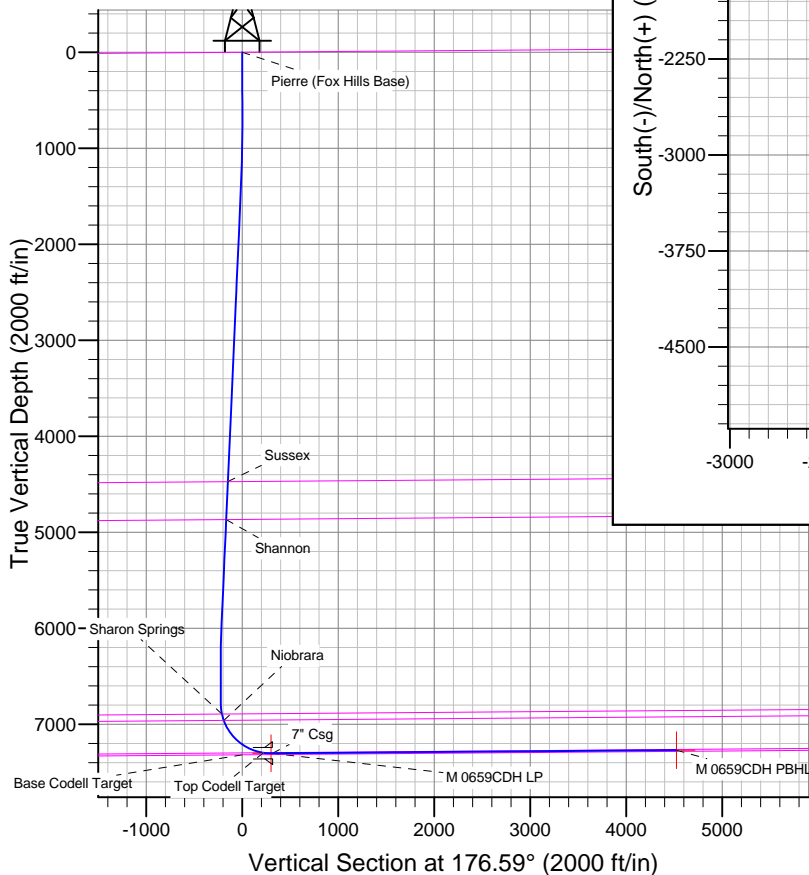
TVDPath	MDPath	Formation
		Base Codell Target
		Pierre (Fox Hills Base)
4472.2	4479.5	Sussex
4867.4	4875.5	Shannon
6892.8	6904.5	Sharon Springs
6959.6	6974.2	Niobrara
7296.4	7533.6	Top Codell Target

CASING DETAILS

TVD	MD	Name	Size
7301.8	7630.0	7" Csg	7

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
M 0659CDH PBHL	7269.0	-4517.4	269.8	Point
M 0659CDH LP	7302.0	-287.8	239.1	Point



Azimuths to True North
Magnetic North: 8.61°

Magnetic Field
Strength: 52975.1snT
Dip Angle: 67.07°
Date: 6/18/2013
Model: IGRF2010

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Merritt 6-66-9-0659CDH
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4845.0ft (Original Well Elev)
Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4845.0ft (Original Well Elev)
Site:	Merritt 6-66-9 Pad	North Reference:	True
Well:	Merritt 6-66-9-0659CDH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	WELD COUNTY, COLORADO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Merritt 6-66-9 Pad				
Site Position:		Northing:	1,429,195.92 ft	Latitude:	40° 30' 33.552 N	
From:	Lat/Long	Easting:	3,199,871.01 ft	Longitude:	104° 46' 52.284 W	
Position Uncertainty:		0.0 ft	Slot Radius:	"	Grid Convergence:	0.46 °

Well	Merritt 6-66-9-0659CDH					
Well Position	+N-S	0.0 ft	Northing:	1,429,196.14 ft	Latitude:	40° 30' 33.552 N
	+E-W	27.8 ft	Easting:	3,199,898.82 ft	Longitude:	104° 46' 51.924 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,822.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/18/2013	8.61	67.07	52,975

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	176.59

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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,253.5	3.80	44.78	1,253.3	6.0	5.9	1.50	1.50	0.00	44.78	
6,038.5	3.80	44.78	6,027.8	231.2	229.5	0.00	0.00	0.00	0.00	
6,292.0	0.00	0.00	6,281.1	237.2	235.4	1.50	-1.50	0.00	180.00	
6,792.0	0.00	0.00	6,781.1	237.2	235.4	0.00	0.00	0.00	0.00	
7,614.3	90.45	179.59	7,302.0	-287.7	239.1	11.00	11.00	0.00	179.59	M 0659CDH LP
11,842.6	90.45	179.59	7,268.7	-4,515.8	269.2	0.00	0.00	0.00	0.00	

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Planning Report

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Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4845.0ft (Original Well Elev)
Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4845.0ft (Original Well Elev)
Site:	Merritt 6-66-9 Pad	North Reference:	True
Well:	Merritt 6-66-9-0659CDH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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
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	1.50	44.78	1,100.0	0.9	0.9	-0.9	1.50	1.50	0.00
1,200.0	3.00	44.78	1,199.9	3.7	3.7	-3.5	1.50	1.50	0.00
1,253.5	3.80	44.78	1,253.3	6.0	5.9	-5.6	1.50	1.50	0.00
1,300.0	3.80	44.78	1,299.7	8.2	8.1	-7.7	0.00	0.00	0.00
1,400.0	3.80	44.78	1,399.5	12.9	12.8	-12.1	0.00	0.00	0.00
1,500.0	3.80	44.78	1,499.3	17.6	17.4	-16.5	0.00	0.00	0.00
1,600.0	3.80	44.78	1,599.1	22.3	22.1	-20.9	0.00	0.00	0.00
1,700.0	3.80	44.78	1,698.8	27.0	26.8	-25.3	0.00	0.00	0.00
1,800.0	3.80	44.78	1,798.6	31.7	31.5	-29.8	0.00	0.00	0.00
1,900.0	3.80	44.78	1,898.4	36.4	36.1	-34.2	0.00	0.00	0.00
2,000.0	3.80	44.78	1,998.2	41.1	40.8	-38.6	0.00	0.00	0.00
2,100.0	3.80	44.78	2,098.0	45.8	45.5	-43.0	0.00	0.00	0.00
2,200.0	3.80	44.78	2,197.7	50.5	50.1	-47.5	0.00	0.00	0.00
2,300.0	3.80	44.78	2,297.5	55.2	54.8	-51.9	0.00	0.00	0.00
2,400.0	3.80	44.78	2,397.3	59.9	59.5	-56.3	0.00	0.00	0.00
2,500.0	3.80	44.78	2,497.1	64.6	64.2	-60.7	0.00	0.00	0.00
2,600.0	3.80	44.78	2,596.8	69.4	68.8	-65.1	0.00	0.00	0.00
2,700.0	3.80	44.78	2,696.6	74.1	73.5	-69.6	0.00	0.00	0.00
2,800.0	3.80	44.78	2,796.4	78.8	78.2	-74.0	0.00	0.00	0.00
2,900.0	3.80	44.78	2,896.2	83.5	82.8	-78.4	0.00	0.00	0.00
3,000.0	3.80	44.78	2,996.0	88.2	87.5	-82.8	0.00	0.00	0.00
3,100.0	3.80	44.78	3,095.7	92.9	92.2	-87.2	0.00	0.00	0.00
3,200.0	3.80	44.78	3,195.5	97.6	96.9	-91.7	0.00	0.00	0.00
3,300.0	3.80	44.78	3,295.3	102.3	101.5	-96.1	0.00	0.00	0.00
3,400.0	3.80	44.78	3,395.1	107.0	106.2	-100.5	0.00	0.00	0.00
3,500.0	3.80	44.78	3,494.9	111.7	110.9	-104.9	0.00	0.00	0.00
3,600.0	3.80	44.78	3,594.6	116.4	115.6	-109.4	0.00	0.00	0.00
3,700.0	3.80	44.78	3,694.4	121.1	120.2	-113.8	0.00	0.00	0.00
3,800.0	3.80	44.78	3,794.2	125.8	124.9	-118.2	0.00	0.00	0.00
3,900.0	3.80	44.78	3,894.0	130.6	129.6	-122.6	0.00	0.00	0.00
4,000.0	3.80	44.78	3,993.8	135.3	134.2	-127.0	0.00	0.00	0.00
4,100.0	3.80	44.78	4,093.5	140.0	138.9	-131.5	0.00	0.00	0.00
4,200.0	3.80	44.78	4,193.3	144.7	143.6	-135.9	0.00	0.00	0.00
4,300.0	3.80	44.78	4,293.1	149.4	148.3	-140.3	0.00	0.00	0.00
4,400.0	3.80	44.78	4,392.9	154.1	152.9	-144.7	0.00	0.00	0.00
4,479.5	3.80	44.78	4,472.2	157.8	156.6	-148.2	0.00	0.00	0.00
Sussex									
4,500.0	3.80	44.78	4,492.7	158.8	157.6	-149.1	0.00	0.00	0.00
4,600.0	3.80	44.78	4,592.4	163.5	162.3	-153.6	0.00	0.00	0.00
4,700.0	3.80	44.78	4,692.2	168.2	166.9	-158.0	0.00	0.00	0.00
4,800.0	3.80	44.78	4,792.0	172.9	171.6	-162.4	0.00	0.00	0.00
4,875.5	3.80	44.78	4,867.4	176.5	175.1	-165.7	0.00	0.00	0.00
Shannon									

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Planning Report

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Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4845.0ft (Original Well Elev)
Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4845.0ft (Original Well Elev)
Site:	Merritt 6-66-9 Pad	North Reference:	True
Well:	Merritt 6-66-9-0659CDH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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)
4,900.0	3.80	44.78	4,891.8	177.6	176.3	-166.8	0.00	0.00	0.00
5,000.0	3.80	44.78	4,991.6	182.3	181.0	-171.2	0.00	0.00	0.00
5,100.0	3.80	44.78	5,091.3	187.0	185.6	-175.7	0.00	0.00	0.00
5,200.0	3.80	44.78	5,191.1	191.8	190.3	-180.1	0.00	0.00	0.00
5,300.0	3.80	44.78	5,290.9	196.5	195.0	-184.5	0.00	0.00	0.00
5,400.0	3.80	44.78	5,390.7	201.2	199.6	-188.9	0.00	0.00	0.00
5,500.0	3.80	44.78	5,490.5	205.9	204.3	-193.4	0.00	0.00	0.00
5,600.0	3.80	44.78	5,590.2	210.6	209.0	-197.8	0.00	0.00	0.00
5,700.0	3.80	44.78	5,690.0	215.3	213.7	-202.2	0.00	0.00	0.00
5,800.0	3.80	44.78	5,789.8	220.0	218.3	-206.6	0.00	0.00	0.00
5,900.0	3.80	44.78	5,889.6	224.7	223.0	-211.0	0.00	0.00	0.00
6,000.0	3.80	44.78	5,989.4	229.4	227.7	-215.5	0.00	0.00	0.00
6,038.5	3.80	44.78	6,027.8	231.2	229.5	-217.2	0.00	0.00	0.00
6,100.0	2.88	44.78	6,089.2	233.8	232.0	-219.6	1.50	-1.50	0.00
6,200.0	1.38	44.78	6,189.1	236.4	234.6	-222.0	1.50	-1.50	0.00
6,292.0	0.00	0.00	6,281.1	237.2	235.4	-222.8	1.50	-1.50	0.00
6,300.0	0.00	0.00	6,289.1	237.2	235.4	-222.8	0.00	0.00	0.00
6,400.0	0.00	0.00	6,389.1	237.2	235.4	-222.8	0.00	0.00	0.00
6,500.0	0.00	0.00	6,489.1	237.2	235.4	-222.8	0.00	0.00	0.00
6,600.0	0.00	0.00	6,589.1	237.2	235.4	-222.8	0.00	0.00	0.00
6,700.0	0.00	0.00	6,689.1	237.2	235.4	-222.8	0.00	0.00	0.00
6,792.0	0.00	0.00	6,781.1	237.2	235.4	-222.8	0.00	0.00	0.00
6,800.0	0.88	179.59	6,789.1	237.1	235.4	-222.7	11.00	11.00	0.00
6,900.0	11.88	179.59	6,888.3	226.0	235.5	-211.6	11.00	11.00	0.00
6,904.5	12.38	179.59	6,892.8	225.1	235.5	-210.7	11.00	11.00	0.00
Sharon Springs									
6,974.2	20.04	179.59	6,959.6	205.7	235.6	-191.3	11.00	11.00	0.00
Niobrara									
7,000.0	22.88	179.59	6,983.6	196.2	235.7	-181.8	11.00	11.00	0.00
7,100.0	33.88	179.59	7,071.5	148.8	236.0	-134.5	11.00	11.00	0.00
7,200.0	44.88	179.59	7,148.6	85.4	236.5	-71.2	11.00	11.00	0.00
7,300.0	55.88	179.59	7,212.3	8.5	237.0	5.6	11.00	11.00	0.00
7,400.0	66.88	179.59	7,260.1	-79.1	237.7	93.1	11.00	11.00	0.00
7,500.0	77.88	179.59	7,290.4	-174.3	238.3	188.2	11.00	11.00	0.00
7,533.6	81.58	179.59	7,296.4	-207.4	238.6	221.2	11.00	11.00	0.00
Top Codell Target									
7,600.0	88.88	179.59	7,301.9	-273.5	239.0	287.2	11.00	11.00	0.00
7,614.3	90.45	179.59	7,302.0	-287.8	239.1	301.5	10.97	10.97	0.00
M 0659CDH LP									
7,630.0	90.45	179.59	7,301.8	-303.5	239.2	317.2	0.00	0.00	0.00
7" Csg									
7,700.0	90.45	179.59	7,301.3	-373.5	239.7	387.1	0.00	0.00	0.00
7,800.0	90.45	179.59	7,300.5	-473.5	240.5	486.9	0.00	0.00	0.00
7,900.0	90.45	179.59	7,299.7	-573.5	241.2	586.8	0.00	0.00	0.00
8,000.0	90.45	179.59	7,298.9	-673.4	241.9	686.6	0.00	0.00	0.00
8,100.0	90.45	179.59	7,298.1	-773.4	242.6	786.5	0.00	0.00	0.00
8,200.0	90.45	179.59	7,297.4	-873.4	243.3	886.4	0.00	0.00	0.00
8,300.0	90.45	179.59	7,296.6	-973.4	244.0	986.2	0.00	0.00	0.00
8,400.0	90.45	179.59	7,295.8	-1,073.4	244.7	1,086.1	0.00	0.00	0.00
8,500.0	90.45	179.59	7,295.0	-1,173.4	245.4	1,185.9	0.00	0.00	0.00
8,600.0	90.45	179.59	7,294.2	-1,273.4	246.1	1,285.8	0.00	0.00	0.00
8,700.0	90.45	179.59	7,293.4	-1,373.4	246.9	1,385.7	0.00	0.00	0.00
8,800.0	90.45	179.59	7,292.6	-1,473.4	247.6	1,485.5	0.00	0.00	0.00

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Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4845.0ft (Original Well Elev)
Site:	Merritt 6-66-9 Pad	North Reference:	True
Well:	Merritt 6-66-9-0659CDH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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)
8,900.0	90.45	179.59	7,291.9	-1,573.4	248.3	1,585.4	0.00	0.00	0.00
9,000.0	90.45	179.59	7,291.1	-1,673.4	249.0	1,685.2	0.00	0.00	0.00
9,100.0	90.45	179.59	7,290.3	-1,773.4	249.7	1,785.1	0.00	0.00	0.00
9,200.0	90.45	179.59	7,289.5	-1,873.4	250.4	1,885.0	0.00	0.00	0.00
9,300.0	90.45	179.59	7,288.7	-1,973.4	251.1	1,984.8	0.00	0.00	0.00
9,400.0	90.45	179.59	7,287.9	-2,073.4	251.8	2,084.7	0.00	0.00	0.00
9,500.0	90.45	179.59	7,287.1	-2,173.4	252.6	2,184.5	0.00	0.00	0.00
9,600.0	90.45	179.59	7,286.4	-2,273.4	253.3	2,284.4	0.00	0.00	0.00
9,700.0	90.45	179.59	7,285.6	-2,373.3	254.0	2,384.3	0.00	0.00	0.00
9,800.0	90.45	179.59	7,284.8	-2,473.3	254.7	2,484.1	0.00	0.00	0.00
9,900.0	90.45	179.59	7,284.0	-2,573.3	255.4	2,584.0	0.00	0.00	0.00
10,000.0	90.45	179.59	7,283.2	-2,673.3	256.1	2,683.8	0.00	0.00	0.00
10,100.0	90.45	179.59	7,282.4	-2,773.3	256.8	2,783.7	0.00	0.00	0.00
10,200.0	90.45	179.59	7,281.6	-2,873.3	257.5	2,883.6	0.00	0.00	0.00
10,300.0	90.45	179.59	7,280.9	-2,973.3	258.2	2,983.4	0.00	0.00	0.00
10,400.0	90.45	179.59	7,280.1	-3,073.3	259.0	3,083.3	0.00	0.00	0.00
10,500.0	90.45	179.59	7,279.3	-3,173.3	259.7	3,183.1	0.00	0.00	0.00
10,600.0	90.45	179.59	7,278.5	-3,273.3	260.4	3,283.0	0.00	0.00	0.00
10,700.0	90.45	179.59	7,277.7	-3,373.3	261.1	3,382.9	0.00	0.00	0.00
10,800.0	90.45	179.59	7,276.9	-3,473.3	261.8	3,482.7	0.00	0.00	0.00
10,900.0	90.45	179.59	7,276.2	-3,573.3	262.5	3,582.6	0.00	0.00	0.00
11,000.0	90.45	179.59	7,275.4	-3,673.3	263.2	3,682.4	0.00	0.00	0.00
11,100.0	90.45	179.59	7,274.6	-3,773.3	263.9	3,782.3	0.00	0.00	0.00
11,200.0	90.45	179.59	7,273.8	-3,873.3	264.7	3,882.2	0.00	0.00	0.00
11,300.0	90.45	179.59	7,273.0	-3,973.3	265.4	3,982.0	0.00	0.00	0.00
11,400.0	90.45	179.59	7,272.2	-4,073.3	266.1	4,081.9	0.00	0.00	0.00
11,500.0	90.45	179.59	7,271.4	-4,173.2	266.8	4,181.7	0.00	0.00	0.00
11,600.0	90.45	179.59	7,270.7	-4,273.2	267.5	4,281.6	0.00	0.00	0.00
11,700.0	90.45	179.59	7,269.9	-4,373.2	268.2	4,381.4	0.00	0.00	0.00
11,800.0	90.45	179.59	7,269.1	-4,473.2	268.9	4,481.3	0.00	0.00	0.00
11,842.6	90.45	179.59	7,268.7	-4,515.8	269.2	4,523.8	0.00	0.00	0.00
M 0659CDH PBHL									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,630.0	7,301.8	7" Csg	7	8-3/4

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Merritt 6-66-9-0659CDH
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4845.0ft (Original Well Elev)
Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4845.0ft (Original Well Elev)
Site:	Merritt 6-66-9 Pad	North Reference:	True
Well:	Merritt 6-66-9-0659CDH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	0.0	Pierre (Fox Hills Base)		-0.45	179.59	
4,479.5	4,471.0	Sussex		-0.45	179.59	
4,875.5	4,866.0	Shannon		-0.45	179.59	
6,904.5	6,891.0	Sharon Springs		-0.45	179.59	
6,974.2	6,958.0	Niobrara		-0.45	179.59	
7,533.6	7,298.0	Top Codell Target		-0.45	179.59	
	7,317.0	Base Codell Target		-0.45	179.59	