



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 Pappenheim 6-62-27-4841BH2, True North
Vertical (TVD) Reference: KB @ 4741.0ft (Original Well Elev)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: KB @ 4741.0ft (Original Well Elev)
Calculation Method: Minimum Curvature

WELL DETAILS: Pappenheim 6-62-27-4841BH2

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1410623.18	3329049.87	40° 27' 16.344 N	104° 19' 3.180 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	1388.7	7.77	341.97	1387.5	25.0	-8.1	2.00	341.97	-6.4	
4	5321.4	7.77	341.97	5284.1	530.9	-172.8	0.00	0.00	-136.3	
5	5710.1	0.00	89.39	5671.6	555.9	-181.0	2.00	180.00	-142.7	
6	5960.1	0.00	89.39	5921.6	555.9	-181.0	0.00	89.39	-142.7	
7	6714.1	90.49	89.39	6399.0	561.0	300.5	12.00	89.39	338.0	P 27-4841BH2 LP
8	16118.1	90.49	89.39	6319.0	661.3	9703.6	0.00	0.00	9726.1	P 27-4841BH2 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

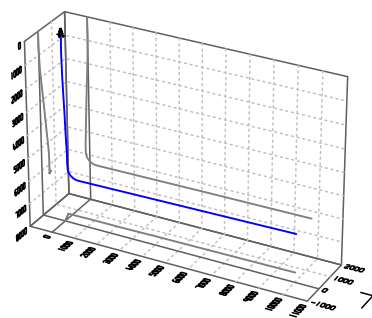
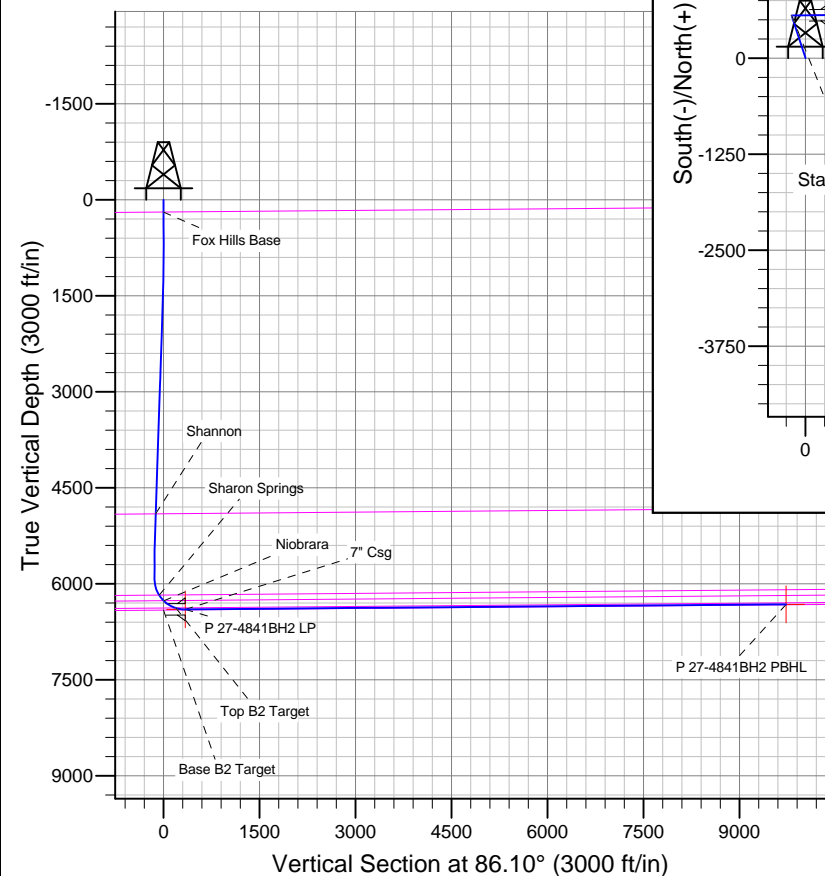
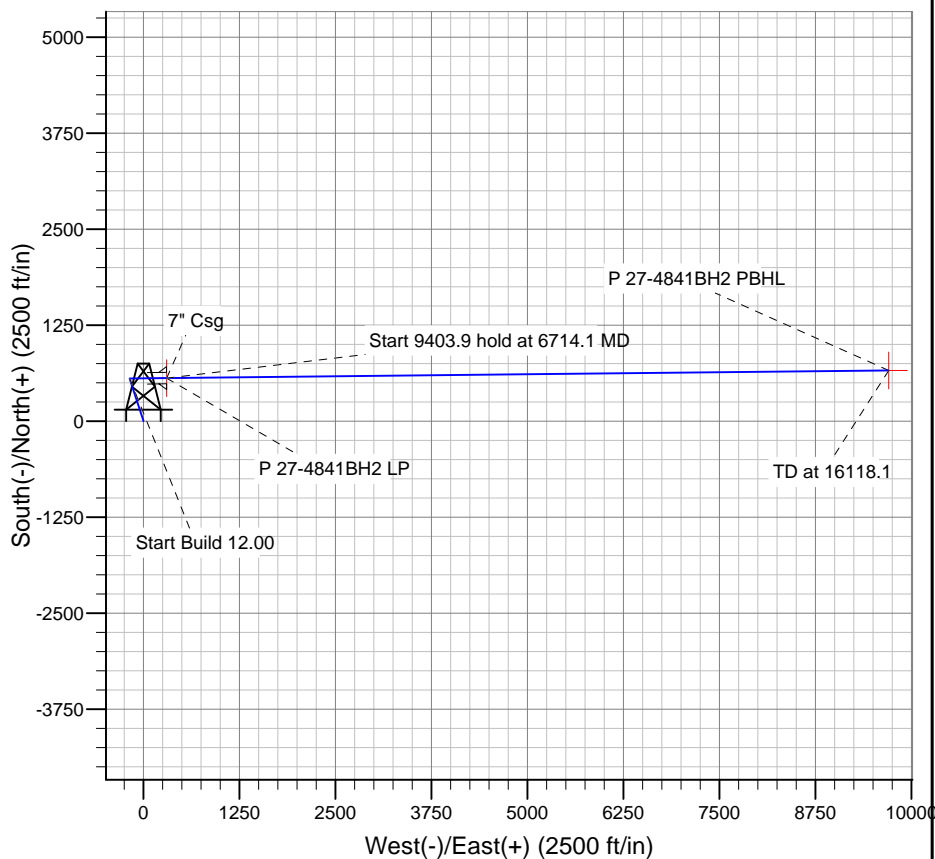
TVDPath	MDPath	Formation
191.0	191.0	Base B2 Target
4905.3	4939.1	Fox Hills Base
6175.9	6228.3	Shannon
6263.3	6340.9	Sharon Springs
6376.6	6563.3	Niobrara
		Top B2 Target

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
P 27-4841BH2 PBHL	6319.0	661.3	9703.6	Point
P 27-4841BH2 LP	6399.0	561.0	300.5	Point

CASING DETAILS

TVD	MD	Name	Size
6399.0	6714.1	7" Csg	7



Azimuths to True North
Magnetic North: 8.26°

Magnetic Field
Strength: 52920.7snT
Dip Angle: 67.07°
Date: 3/3/2014
Model: IGRF2010

BILL BARRETT CORP

**WELD COUNTY, COLORADO
Pappenheim 6-62-27 SW Pad
Pappenheim 6-62-27-4841BH2**

Wellbore #1

Plan: Design #1

Standard Planning Report

03 March, 2014

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Pappenheim 6-62-27-4841BH2
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4741.0ft (Original Well Elev)
Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4741.0ft (Original Well Elev)
Site:	Pappenheim 6-62-27 SW Pad	North Reference:	True
Well:	Pappenheim 6-62-27-4841BH2	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		Pappenheim 6-62-27 SW Pad				
Site Position:		Northing:	1,410,623.18ft	Latitude:	40° 27' 16.344 N	
From:	Lat/Long	Easting:	3,329,049.87ft	Longitude:	104° 19' 3.180 W	
Position Uncertainty:		0.0 ft	Slot Radius:	"	Grid Convergence:	0.76 °

Well	Pappenheim 6-62-27-4841BH2					
Well Position	+N-S	0.0 ft	Northing:	1,410,623.18 ft	Latitude:	40° 27' 16.344 N
	+E-W	0.0 ft	Easting:	3,329,049.87 ft	Longitude:	104° 19' 3.180 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,725.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/3/2014	8.26	67.07	52,921

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	86.10	

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	
1,388.7	7.77	341.97	1,387.5	25.0	-8.1	2.00	2.00	0.00	341.97	
5,321.4	7.77	341.97	5,284.1	530.9	-172.8	0.00	0.00	0.00	0.00	
5,710.1	0.00	89.39	5,671.6	555.9	-181.0	2.00	-2.00	0.00	180.00	
5,960.1	0.00	89.39	5,921.6	555.9	-181.0	0.00	0.00	0.00	89.39	
6,714.1	90.49	89.39	6,399.0	561.0	300.5	12.00	12.00	0.00	89.39	P 27-4841BH2 LP
16,118.1	90.49	89.39	6,319.0	661.3	9,703.6	0.00	0.00	0.00	0.00	P 27-4841BH2 PB

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Pappenheim 6-62-27-4841BH2
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4741.0ft (Original Well Elev)
Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4741.0ft (Original Well Elev)
Site:	Pappenheim 6-62-27 SW Pad	North Reference:	True
Well:	Pappenheim 6-62-27-4841BH2	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
191.0	0.00	0.00	191.0	0.0	0.0	0.0	0.00	0.00	0.00
Fox Hills Base									
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	2.00	341.97	1,100.0	1.7	-0.5	-0.4	2.00	2.00	0.00
1,200.0	4.00	341.97	1,199.8	6.6	-2.2	-1.7	2.00	2.00	0.00
1,300.0	6.00	341.97	1,299.5	14.9	-4.9	-3.8	2.00	2.00	0.00
1,388.7	7.77	341.97	1,387.5	25.0	-8.1	-6.4	2.00	2.00	0.00
1,400.0	7.77	341.97	1,398.7	26.5	-8.6	-6.8	0.00	0.00	0.00
1,500.0	7.77	341.97	1,497.8	39.4	-12.8	-10.1	0.00	0.00	0.00
1,600.0	7.77	341.97	1,596.9	52.2	-17.0	-13.4	0.00	0.00	0.00
1,700.0	7.77	341.97	1,695.9	65.1	-21.2	-16.7	0.00	0.00	0.00
1,800.0	7.77	341.97	1,795.0	77.9	-25.4	-20.0	0.00	0.00	0.00
1,900.0	7.77	341.97	1,894.1	90.8	-29.6	-23.3	0.00	0.00	0.00
2,000.0	7.77	341.97	1,993.2	103.7	-33.7	-26.6	0.00	0.00	0.00
2,100.0	7.77	341.97	2,092.3	116.5	-37.9	-29.9	0.00	0.00	0.00
2,200.0	7.77	341.97	2,191.4	129.4	-42.1	-33.2	0.00	0.00	0.00
2,300.0	7.77	341.97	2,290.4	142.2	-46.3	-36.5	0.00	0.00	0.00
2,400.0	7.77	341.97	2,389.5	155.1	-50.5	-39.8	0.00	0.00	0.00
2,500.0	7.77	341.97	2,488.6	168.0	-54.7	-43.1	0.00	0.00	0.00
2,600.0	7.77	341.97	2,587.7	180.8	-58.9	-46.4	0.00	0.00	0.00
2,700.0	7.77	341.97	2,686.8	193.7	-63.1	-49.7	0.00	0.00	0.00
2,800.0	7.77	341.97	2,785.8	206.6	-67.2	-53.0	0.00	0.00	0.00
2,900.0	7.77	341.97	2,884.9	219.4	-71.4	-56.3	0.00	0.00	0.00
3,000.0	7.77	341.97	2,984.0	232.3	-75.6	-59.6	0.00	0.00	0.00
3,100.0	7.77	341.97	3,083.1	245.1	-79.8	-62.9	0.00	0.00	0.00
3,200.0	7.77	341.97	3,182.2	258.0	-84.0	-66.3	0.00	0.00	0.00
3,300.0	7.77	341.97	3,281.2	270.9	-88.2	-69.6	0.00	0.00	0.00
3,400.0	7.77	341.97	3,380.3	283.7	-92.4	-72.9	0.00	0.00	0.00
3,500.0	7.77	341.97	3,479.4	296.6	-96.5	-76.2	0.00	0.00	0.00
3,600.0	7.77	341.97	3,578.5	309.5	-100.7	-79.5	0.00	0.00	0.00
3,700.0	7.77	341.97	3,677.6	322.3	-104.9	-82.8	0.00	0.00	0.00
3,800.0	7.77	341.97	3,776.6	335.2	-109.1	-86.1	0.00	0.00	0.00
3,900.0	7.77	341.97	3,875.7	348.0	-113.3	-89.4	0.00	0.00	0.00
4,000.0	7.77	341.97	3,974.8	360.9	-117.5	-92.7	0.00	0.00	0.00
4,100.0	7.77	341.97	4,073.9	373.8	-121.7	-96.0	0.00	0.00	0.00
4,200.0	7.77	341.97	4,173.0	386.6	-125.9	-99.3	0.00	0.00	0.00
4,300.0	7.77	341.97	4,272.1	399.5	-130.0	-102.6	0.00	0.00	0.00
4,400.0	7.77	341.97	4,371.1	412.3	-134.2	-105.9	0.00	0.00	0.00
4,500.0	7.77	341.97	4,470.2	425.2	-138.4	-109.2	0.00	0.00	0.00
4,600.0	7.77	341.97	4,569.3	438.1	-142.6	-112.5	0.00	0.00	0.00
4,700.0	7.77	341.97	4,668.4	450.9	-146.8	-115.8	0.00	0.00	0.00
4,800.0	7.77	341.97	4,767.5	463.8	-151.0	-119.1	0.00	0.00	0.00
4,900.0	7.77	341.97	4,866.5	476.7	-155.2	-122.4	0.00	0.00	0.00
4,939.1	7.77	341.97	4,905.3	481.7	-156.8	-123.7	0.00	0.00	0.00

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Pappenheim 6-62-27-4841BH2
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4741.0ft (Original Well Elev)
Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4741.0ft (Original Well Elev)
Site:	Pappenheim 6-62-27 SW Pad	North Reference:	True
Well:	Pappenheim 6-62-27-4841BH2	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)
Shannon									
5,000.0	7.77	341.97	4,965.6	489.5	-159.4	-125.7	0.00	0.00	0.00
5,100.0	7.77	341.97	5,064.7	502.4	-163.5	-129.0	0.00	0.00	0.00
5,200.0	7.77	341.97	5,163.8	515.2	-167.7	-132.3	0.00	0.00	0.00
5,300.0	7.77	341.97	5,262.9	528.1	-171.9	-135.6	0.00	0.00	0.00
5,321.4	7.77	341.97	5,284.1	530.9	-172.8	-136.3	0.00	0.00	0.00
5,400.0	6.20	341.97	5,362.1	540.0	-175.8	-138.6	2.00	-2.00	0.00
5,500.0	4.20	341.97	5,461.7	548.6	-178.6	-140.9	2.00	-2.00	0.00
5,600.0	2.20	341.97	5,561.5	553.9	-180.3	-142.2	2.00	-2.00	0.00
5,700.0	0.20	341.97	5,661.5	555.9	-181.0	-142.7	2.00	-2.00	0.00
5,710.1	0.00	89.39	5,671.6	555.9	-181.0	-142.7	2.00	-2.00	0.00
5,800.0	0.00	89.39	5,761.5	555.9	-181.0	-142.7	0.00	0.00	0.00
5,900.0	0.00	89.39	5,861.5	555.9	-181.0	-142.7	0.00	0.00	0.00
5,960.1	0.00	89.39	5,921.6	555.9	-181.0	-142.7	0.00	0.00	0.00
6,000.0	4.79	89.39	5,961.4	555.9	-179.3	-141.1	12.00	12.00	0.00
6,100.0	16.79	89.39	6,059.5	556.1	-160.6	-122.4	12.00	12.00	0.00
6,200.0	28.79	89.39	6,151.5	556.5	-121.9	-83.8	12.00	12.00	0.00
6,228.3	32.18	89.39	6,175.9	556.7	-107.6	-69.5	12.00	12.00	0.00
Sharon Springs									
6,300.0	40.79	89.39	6,233.5	557.1	-65.0	-27.0	12.00	12.00	0.00
6,340.9	45.70	89.39	6,263.3	557.4	-37.0	1.0	12.00	12.00	0.00
Niobrara									
6,400.0	52.79	89.39	6,301.8	557.9	7.8	45.7	12.00	12.00	0.00
6,500.0	64.79	89.39	6,353.5	558.8	93.1	130.9	12.00	12.00	0.00
6,563.3	72.39	89.39	6,376.6	559.4	152.1	189.7	12.00	12.00	0.00
Top B2 Target									
6,600.0	76.79	89.39	6,386.4	559.8	187.4	225.0	12.00	12.00	0.00
6,700.0	88.79	89.39	6,398.9	560.9	286.4	323.9	12.00	12.00	0.00
6,714.1	90.48	89.39	6,399.0	561.0	300.5	338.0	11.97	11.97	0.00
7" Csg - P 27-4841BH2 LP									
6,800.0	90.49	89.39	6,398.3	561.9	386.4	423.7	0.01	0.01	0.00
6,900.0	90.49	89.39	6,397.4	563.0	486.4	523.5	0.00	0.00	0.00
7,000.0	90.49	89.39	6,396.6	564.1	586.4	623.4	0.00	0.00	0.00
7,100.0	90.49	89.39	6,395.7	565.1	686.4	723.2	0.00	0.00	0.00
7,200.0	90.49	89.39	6,394.9	566.2	786.4	823.0	0.00	0.00	0.00
7,300.0	90.49	89.39	6,394.0	567.3	886.3	922.9	0.00	0.00	0.00
7,400.0	90.49	89.39	6,393.2	568.3	986.3	1,022.7	0.00	0.00	0.00
7,500.0	90.49	89.39	6,392.3	569.4	1,086.3	1,122.5	0.00	0.00	0.00
7,600.0	90.49	89.39	6,391.5	570.5	1,186.3	1,222.4	0.00	0.00	0.00
7,700.0	90.49	89.39	6,390.6	571.5	1,286.3	1,322.2	0.00	0.00	0.00
7,800.0	90.49	89.39	6,389.8	572.6	1,386.3	1,422.0	0.00	0.00	0.00
7,900.0	90.49	89.39	6,388.9	573.7	1,486.3	1,521.9	0.00	0.00	0.00
8,000.0	90.49	89.39	6,388.1	574.7	1,586.3	1,621.7	0.00	0.00	0.00
8,100.0	90.49	89.39	6,387.2	575.8	1,686.3	1,721.5	0.00	0.00	0.00
8,200.0	90.49	89.39	6,386.4	576.9	1,786.3	1,821.4	0.00	0.00	0.00
8,300.0	90.49	89.39	6,385.5	577.9	1,886.3	1,921.2	0.00	0.00	0.00
8,400.0	90.49	89.39	6,384.7	579.0	1,986.2	2,021.0	0.00	0.00	0.00
8,500.0	90.49	89.39	6,383.8	580.1	2,086.2	2,120.8	0.00	0.00	0.00
8,600.0	90.49	89.39	6,383.0	581.1	2,186.2	2,220.7	0.00	0.00	0.00
8,700.0	90.49	89.39	6,382.1	582.2	2,286.2	2,320.5	0.00	0.00	0.00
8,800.0	90.49	89.39	6,381.3	583.3	2,386.2	2,420.3	0.00	0.00	0.00
8,900.0	90.49	89.39	6,380.4	584.3	2,486.2	2,520.2	0.00	0.00	0.00
9,000.0	90.49	89.39	6,379.6	585.4	2,586.2	2,620.0	0.00	0.00	0.00

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Pappenheim 6-62-27-4841BH2
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4741.0ft (Original Well Elev)
Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4741.0ft (Original Well Elev)
Site:	Pappenheim 6-62-27 SW Pad	North Reference:	True
Well:	Pappenheim 6-62-27-4841BH2	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)
9,100.0	90.49	89.39	6,378.7	586.5	2,686.2	2,719.8	0.00	0.00	0.00
9,200.0	90.49	89.39	6,377.9	587.5	2,786.2	2,819.7	0.00	0.00	0.00
9,300.0	90.49	89.39	6,377.0	588.6	2,886.2	2,919.5	0.00	0.00	0.00
9,400.0	90.49	89.39	6,376.2	589.7	2,986.2	3,019.3	0.00	0.00	0.00
9,500.0	90.49	89.39	6,375.3	590.7	3,086.1	3,119.2	0.00	0.00	0.00
9,600.0	90.49	89.39	6,374.4	591.8	3,186.1	3,219.0	0.00	0.00	0.00
9,700.0	90.49	89.39	6,373.6	592.9	3,286.1	3,318.8	0.00	0.00	0.00
9,800.0	90.49	89.39	6,372.7	593.9	3,386.1	3,418.7	0.00	0.00	0.00
9,900.0	90.49	89.39	6,371.9	595.0	3,486.1	3,518.5	0.00	0.00	0.00
10,000.0	90.49	89.39	6,371.0	596.1	3,586.1	3,618.3	0.00	0.00	0.00
10,100.0	90.49	89.39	6,370.2	597.1	3,686.1	3,718.2	0.00	0.00	0.00
10,200.0	90.49	89.39	6,369.3	598.2	3,786.1	3,818.0	0.00	0.00	0.00
10,300.0	90.49	89.39	6,368.5	599.3	3,886.1	3,917.8	0.00	0.00	0.00
10,400.0	90.49	89.39	6,367.6	600.3	3,986.1	4,017.7	0.00	0.00	0.00
10,500.0	90.49	89.39	6,366.8	601.4	4,086.1	4,117.5	0.00	0.00	0.00
10,600.0	90.49	89.39	6,365.9	602.5	4,186.0	4,217.3	0.00	0.00	0.00
10,700.0	90.49	89.39	6,365.1	603.5	4,286.0	4,317.1	0.00	0.00	0.00
10,800.0	90.49	89.39	6,364.2	604.6	4,386.0	4,417.0	0.00	0.00	0.00
10,900.0	90.49	89.39	6,363.4	605.7	4,486.0	4,516.8	0.00	0.00	0.00
11,000.0	90.49	89.39	6,362.5	606.7	4,586.0	4,616.6	0.00	0.00	0.00
11,100.0	90.49	89.39	6,361.7	607.8	4,686.0	4,716.5	0.00	0.00	0.00
11,200.0	90.49	89.39	6,360.8	608.9	4,786.0	4,816.3	0.00	0.00	0.00
11,300.0	90.49	89.39	6,360.0	609.9	4,886.0	4,916.1	0.00	0.00	0.00
11,400.0	90.49	89.39	6,359.1	611.0	4,986.0	5,016.0	0.00	0.00	0.00
11,500.0	90.49	89.39	6,358.3	612.1	5,086.0	5,115.8	0.00	0.00	0.00
11,600.0	90.49	89.39	6,357.4	613.1	5,185.9	5,215.6	0.00	0.00	0.00
11,700.0	90.49	89.39	6,356.6	614.2	5,285.9	5,315.5	0.00	0.00	0.00
11,800.0	90.49	89.39	6,355.7	615.3	5,385.9	5,415.3	0.00	0.00	0.00
11,900.0	90.49	89.39	6,354.9	616.3	5,485.9	5,515.1	0.00	0.00	0.00
12,000.0	90.49	89.39	6,354.0	617.4	5,585.9	5,615.0	0.00	0.00	0.00
12,100.0	90.49	89.39	6,353.2	618.5	5,685.9	5,714.8	0.00	0.00	0.00
12,200.0	90.49	89.39	6,352.3	619.5	5,785.9	5,814.6	0.00	0.00	0.00
12,300.0	90.49	89.39	6,351.5	620.6	5,885.9	5,914.5	0.00	0.00	0.00
12,400.0	90.49	89.39	6,350.6	621.7	5,985.9	6,014.3	0.00	0.00	0.00
12,500.0	90.49	89.39	6,349.8	622.7	6,085.9	6,114.1	0.00	0.00	0.00
12,600.0	90.49	89.39	6,348.9	623.8	6,185.9	6,214.0	0.00	0.00	0.00
12,700.0	90.49	89.39	6,348.1	624.9	6,285.8	6,313.8	0.00	0.00	0.00
12,800.0	90.49	89.39	6,347.2	625.9	6,385.8	6,413.6	0.00	0.00	0.00
12,900.0	90.49	89.39	6,346.4	627.0	6,485.8	6,513.4	0.00	0.00	0.00
13,000.0	90.49	89.39	6,345.5	628.0	6,585.8	6,613.3	0.00	0.00	0.00
13,100.0	90.49	89.39	6,344.7	629.1	6,685.8	6,713.1	0.00	0.00	0.00
13,200.0	90.49	89.39	6,343.8	630.2	6,785.8	6,812.9	0.00	0.00	0.00
13,300.0	90.49	89.39	6,343.0	631.2	6,885.8	6,912.8	0.00	0.00	0.00
13,400.0	90.49	89.39	6,342.1	632.3	6,985.8	7,012.6	0.00	0.00	0.00
13,500.0	90.49	89.39	6,341.3	633.4	7,085.8	7,112.4	0.00	0.00	0.00
13,600.0	90.49	89.39	6,340.4	634.4	7,185.8	7,212.3	0.00	0.00	0.00
13,700.0	90.49	89.39	6,339.6	635.5	7,285.8	7,312.1	0.00	0.00	0.00
13,800.0	90.49	89.39	6,338.7	636.6	7,385.7	7,411.9	0.00	0.00	0.00
13,900.0	90.49	89.39	6,337.9	637.6	7,485.7	7,511.8	0.00	0.00	0.00
14,000.0	90.49	89.39	6,337.0	638.7	7,585.7	7,611.6	0.00	0.00	0.00
14,100.0	90.49	89.39	6,336.2	639.8	7,685.7	7,711.4	0.00	0.00	0.00
14,200.0	90.49	89.39	6,335.3	640.8	7,785.7	7,811.3	0.00	0.00	0.00
14,300.0	90.49	89.39	6,334.5	641.9	7,885.7	7,911.1	0.00	0.00	0.00
14,400.0	90.49	89.39	6,333.6	643.0	7,985.7	8,010.9	0.00	0.00	0.00

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Pappenheim 6-62-27-4841BH2
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 4741.0ft (Original Well Elev)
Project:	WELD COUNTY, COLORADO	MD Reference:	KB @ 4741.0ft (Original Well Elev)
Site:	Pappenheim 6-62-27 SW Pad	North Reference:	True
Well:	Pappenheim 6-62-27-4841BH2	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)	
14,500.0	90.49	89.39	6,332.8	644.0	8,085.7	8,110.8	0.00	0.00	0.00	
14,600.0	90.49	89.39	6,331.9	645.1	8,185.7	8,210.6	0.00	0.00	0.00	
14,700.0	90.49	89.39	6,331.1	646.2	8,285.7	8,310.4	0.00	0.00	0.00	
14,800.0	90.49	89.39	6,330.2	647.2	8,385.7	8,410.3	0.00	0.00	0.00	
14,900.0	90.49	89.39	6,329.4	648.3	8,485.6	8,510.1	0.00	0.00	0.00	
15,000.0	90.49	89.39	6,328.5	649.4	8,585.6	8,609.9	0.00	0.00	0.00	
15,100.0	90.49	89.39	6,327.7	650.4	8,685.6	8,709.7	0.00	0.00	0.00	
15,200.0	90.49	89.39	6,326.8	651.5	8,785.6	8,809.6	0.00	0.00	0.00	
15,300.0	90.49	89.39	6,326.0	652.6	8,885.6	8,909.4	0.00	0.00	0.00	
15,400.0	90.49	89.39	6,325.1	653.6	8,985.6	9,009.2	0.00	0.00	0.00	
15,500.0	90.49	89.39	6,324.3	654.7	9,085.6	9,109.1	0.00	0.00	0.00	
15,600.0	90.49	89.39	6,323.4	655.8	9,185.6	9,208.9	0.00	0.00	0.00	
15,700.0	90.49	89.39	6,322.6	656.8	9,285.6	9,308.7	0.00	0.00	0.00	
15,800.0	90.49	89.39	6,321.7	657.9	9,385.6	9,408.6	0.00	0.00	0.00	
15,900.0	90.49	89.39	6,320.9	659.0	9,485.5	9,508.4	0.00	0.00	0.00	
16,000.0	90.49	89.39	6,320.0	660.0	9,585.5	9,608.2	0.00	0.00	0.00	
16,100.0	90.49	89.39	6,319.2	661.1	9,685.5	9,708.1	0.00	0.00	0.00	
16,118.1	90.49	89.39	6,319.0	661.3	9,703.6	9,726.1	0.00	0.00	0.00	
P 27-4841BH2 PBHL										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
6,714.1	6,399.0	7" Csg	7	8-3/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
191.0	191.0	Fox Hills Base		-0.49	89.39	
4,939.1	4,904.0	Shannon		-0.49	89.39	
6,228.3	6,175.0	Sharon Springs		-0.49	89.39	
6,340.9	6,263.0	Niobrara		-0.49	89.39	
6,563.3	6,378.0	Top B2 Target		-0.49	89.39	
	6,409.0	Base B2 Target		-0.49	89.39	