

BILL BARRETT CORP

Weld County, CO

State of Colorado 1S-66-36 Pad

STATE OF COLORADO 1S-66-36 1609 CDH

Wellbore #1

Plan: Design #1

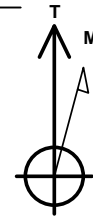
Standard Planning Report

15 October, 2013

BILL BARRETT CORP
 STATE OF COLORADO 1S-66-36 1609 CDH
 Weld County, CO

Geodetic System: US State Plane 1983
 Zone: Colorado Northern Zone
 WELL @ 5200.0usft (Original Well Elev)
 Ground Level: 5180.0
 Latitude: 39° 55' 30.112 N
 Longitude: 104° 43' 56.690 W

Magnetic North is 8.49° East of True North (Magnetic Declination)



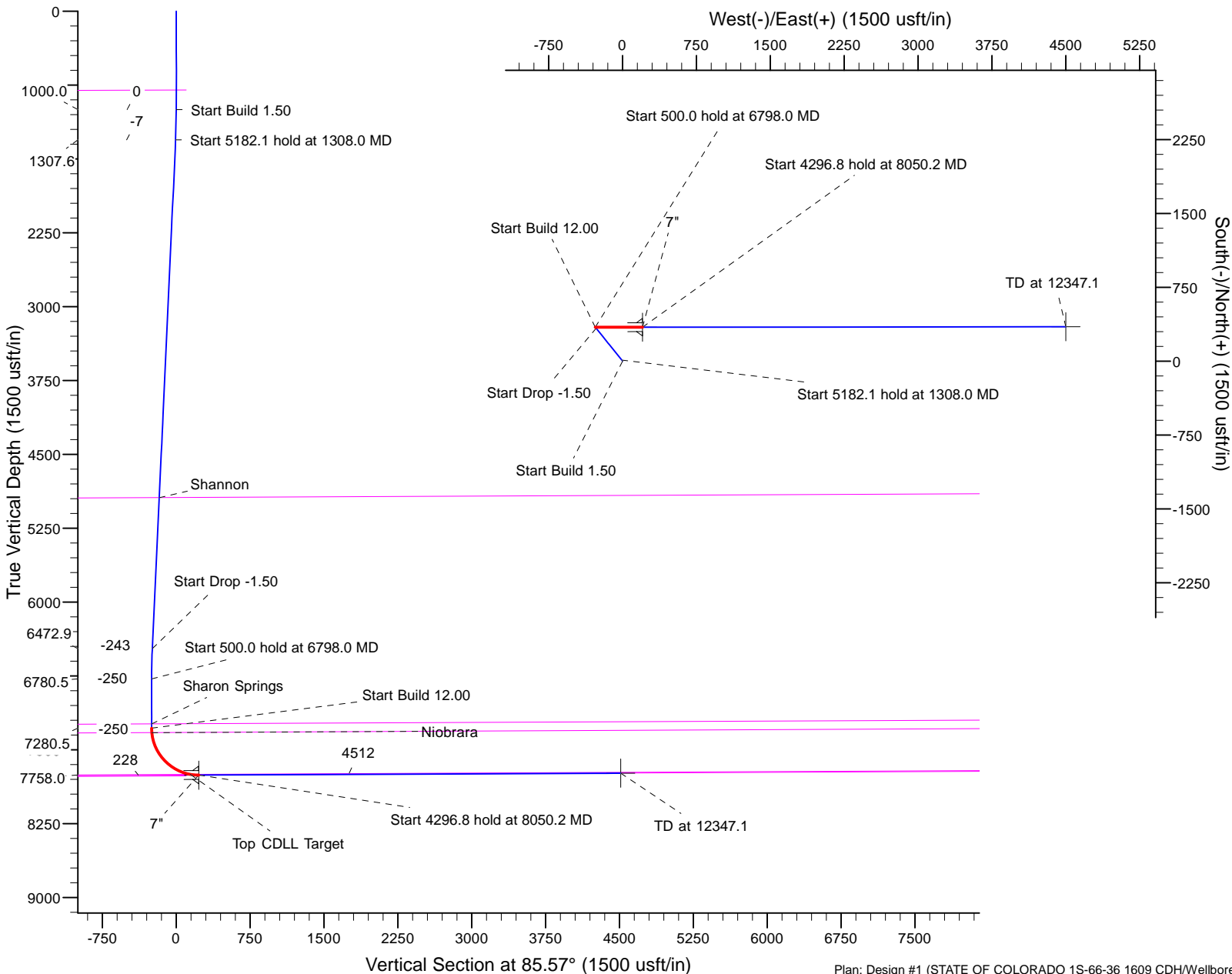
Azimuths to True North
 Magnetic North: 8.49°

Magnetic Field
 Strength: 52635.9nT
 Dip Angle: 66.59°
 Date: 10/15/2013
 Model: IGRF2010

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0
1308.0	4.62	321.10	1307.6	9.7	-7.8	1.50	321.10	-7.0
6490.0	4.62	321.10	6472.9	334.4	-269.9	0.00	0.00	-243.3
6798.0	0.00	0.00	6780.5	344.1	-277.7	1.50	180.00	-250.3
7298.0	0.00	0.00	7280.5	344.1	-277.7	0.00	0.00	-250.3
8050.2	90.27	89.95	7758.0	344.5	202.0	12.00	89.95	228.0
12347.0	90.27	89.95	7738.0	348.5	4498.8	0.00	0.00	4512.2

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
800.0	800.0	Base Fox Hills
4939.9	4952.1	Shannon
7238.3	7255.8	Sharon Springs
7326.3	7343.9	Niobrara
7750.5	7963.2	Top CDLL Target
7757.2	8020.7	Landing Point



Plan: Design #1 (STATE OF COLORADO 1S-66-36 1609 CDH/Wellbore #

Created By: Mike Kirby
 Checked: _____
 Reviewed: _____
 Approved: x

Date: 14:10, October 15 2013
 Date: _____
 Date: _____
 Date: x

Planning Report

Database:	Rocky Mountain R5000 Database	Local Co-ordinate Reference:	Well STATE OF COLORADO 1S-66-36 1609 CDH
Company:	BILL BARRETT CORP	TVD Reference:	WELL @ 5200.0usft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	WELL @ 5200.0usft (Original Well Elev)
Site:	State of Colorado 1S-66-36 Pad	North Reference:	True
Well:	STATE OF COLORADO 1S-66-36 1609 CDH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	State of Colorado 1S-66-36 Pad			
Site Position:		Northing:	1,216,469.41 usft	Latitude: 39° 55' 30.112 N
From:	Lat/Long	Easting:	3,215,275.68 usft	Longitude: 104° 43' 56.690 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.50 °

Well	STATE OF COLORADO 1S-66-36 1609 CDH			
Well Position	+N/-S	104.9 usft	Northing:	1,216,574.30 usft
	+E/-W	0.3 usft	Easting:	3,215,275.10 usft
Position Uncertainty	0.0 usft		Wellhead Elevation:	Ground Level: 5,180.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/15/2013	8.49	66.59	52,636

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	85.57

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build 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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,308.0	4.62	321.10	1,307.6	9.7	-7.8	1.50	1.50	0.00	321.10	
6,490.0	4.62	321.10	6,472.9	334.4	-269.9	0.00	0.00	0.00	0.00	
6,798.0	0.00	0.00	6,780.5	344.1	-277.7	1.50	-1.50	0.00	180.00	
7,298.0	0.00	0.00	7,280.5	344.1	-277.7	0.00	0.00	0.00	0.00	
8,050.2	90.27	89.95	7,758.0	344.5	202.0	12.00	12.00	0.00	89.95	
12,347.0	90.27	89.95	7,738.0	348.5	4,498.8	0.00	0.00	0.00	0.00	SOC 1609CDH PBHL

Planning Report

Database:	Rocky Mountain R5000 Database	Local Co-ordinate Reference:	Well STATE OF COLORADO 1S-66-36 1609 CDH
Company:	BILL BARRETT CORP	TVD Reference:	WELL @ 5200.0usft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	WELL @ 5200.0usft (Original Well Elev)
Site:	State of Colorado 1S-66-36 Pad	North Reference:	True
Well:	STATE OF COLORADO 1S-66-36 1609 CDH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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
Base Fox Hills									
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	321.10	1,100.0	1.0	-0.8	-0.7	1.50	1.50	0.00
1,200.0	3.00	321.10	1,199.9	4.1	-3.3	-3.0	1.50	1.50	0.00
1,300.0	4.50	321.10	1,299.7	9.2	-7.4	-6.7	1.50	1.50	0.00
1,308.0	4.62	321.10	1,307.6	9.7	-7.8	-7.0	1.50	1.50	0.00
1,400.0	4.62	321.10	1,399.4	15.4	-12.4	-11.2	0.00	0.00	0.00
1,500.0	4.62	321.10	1,499.0	21.7	-17.5	-15.8	0.00	0.00	0.00
1,600.0	4.62	321.10	1,598.7	28.0	-22.6	-20.3	0.00	0.00	0.00
1,700.0	4.62	321.10	1,698.4	34.2	-27.6	-24.9	0.00	0.00	0.00
1,800.0	4.62	321.10	1,798.1	40.5	-32.7	-29.5	0.00	0.00	0.00
1,900.0	4.62	321.10	1,897.7	46.8	-37.7	-34.0	0.00	0.00	0.00
2,000.0	4.62	321.10	1,997.4	53.0	-42.8	-38.6	0.00	0.00	0.00
2,100.0	4.62	321.10	2,097.1	59.3	-47.9	-43.1	0.00	0.00	0.00
2,200.0	4.62	321.10	2,196.8	65.6	-52.9	-47.7	0.00	0.00	0.00
2,300.0	4.62	321.10	2,296.4	71.8	-58.0	-52.2	0.00	0.00	0.00
2,400.0	4.62	321.10	2,396.1	78.1	-63.0	-56.8	0.00	0.00	0.00
2,500.0	4.62	321.10	2,495.8	84.4	-68.1	-61.4	0.00	0.00	0.00
2,600.0	4.62	321.10	2,595.5	90.6	-73.1	-65.9	0.00	0.00	0.00
2,700.0	4.62	321.10	2,695.1	96.9	-78.2	-70.5	0.00	0.00	0.00
2,800.0	4.62	321.10	2,794.8	103.2	-83.3	-75.0	0.00	0.00	0.00
2,900.0	4.62	321.10	2,894.5	109.4	-88.3	-79.6	0.00	0.00	0.00
3,000.0	4.62	321.10	2,994.2	115.7	-93.4	-84.2	0.00	0.00	0.00
3,100.0	4.62	321.10	3,093.8	122.0	-98.4	-88.7	0.00	0.00	0.00
3,200.0	4.62	321.10	3,193.5	128.2	-103.5	-93.3	0.00	0.00	0.00
3,300.0	4.62	321.10	3,293.2	134.5	-108.6	-97.8	0.00	0.00	0.00
3,400.0	4.62	321.10	3,392.9	140.8	-113.6	-102.4	0.00	0.00	0.00
3,500.0	4.62	321.10	3,492.5	147.0	-118.7	-107.0	0.00	0.00	0.00
3,600.0	4.62	321.10	3,592.2	153.3	-123.7	-111.5	0.00	0.00	0.00
3,700.0	4.62	321.10	3,691.9	159.6	-128.8	-116.1	0.00	0.00	0.00
3,800.0	4.62	321.10	3,791.6	165.8	-133.8	-120.6	0.00	0.00	0.00
3,900.0	4.62	321.10	3,891.2	172.1	-138.9	-125.2	0.00	0.00	0.00
4,000.0	4.62	321.10	3,990.9	178.4	-144.0	-129.8	0.00	0.00	0.00
4,100.0	4.62	321.10	4,090.6	184.6	-149.0	-134.3	0.00	0.00	0.00
4,200.0	4.62	321.10	4,190.3	190.9	-154.1	-138.9	0.00	0.00	0.00
4,300.0	4.62	321.10	4,289.9	197.2	-159.1	-143.4	0.00	0.00	0.00
4,400.0	4.62	321.10	4,389.6	203.5	-164.2	-148.0	0.00	0.00	0.00
4,500.0	4.62	321.10	4,489.3	209.7	-169.2	-152.5	0.00	0.00	0.00
4,600.0	4.62	321.10	4,589.0	216.0	-174.3	-157.1	0.00	0.00	0.00
4,700.0	4.62	321.10	4,688.6	222.3	-179.4	-161.7	0.00	0.00	0.00
4,800.0	4.62	321.10	4,788.3	228.5	-184.4	-166.2	0.00	0.00	0.00
4,900.0	4.62	321.10	4,888.0	234.8	-189.5	-170.8	0.00	0.00	0.00
4,952.1	4.62	321.10	4,939.9	238.1	-192.1	-173.2	0.00	0.00	0.00

Planning Report

Database:	Rocky Mountain R5000 Database	Local Co-ordinate Reference:	Well STATE OF COLORADO 1S-66-36 1609 CDH
Company:	BILL BARRETT CORP	TVD Reference:	WELL @ 5200.0usft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	WELL @ 5200.0usft (Original Well Elev)
Site:	State of Colorado 1S-66-36 Pad	North Reference:	True
Well:	STATE OF COLORADO 1S-66-36 1609 CDH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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)
Shannon									
5,000.0	4.62	321.10	4,987.7	241.1	-194.5	-175.3	0.00	0.00	0.00
5,100.0	4.62	321.10	5,087.3	247.3	-199.6	-179.9	0.00	0.00	0.00
5,200.0	4.62	321.10	5,187.0	253.6	-204.7	-184.5	0.00	0.00	0.00
5,300.0	4.62	321.10	5,286.7	259.9	-209.7	-189.0	0.00	0.00	0.00
5,400.0	4.62	321.10	5,386.4	266.1	-214.8	-193.6	0.00	0.00	0.00
5,500.0	4.62	321.10	5,486.0	272.4	-219.8	-198.1	0.00	0.00	0.00
5,600.0	4.62	321.10	5,585.7	278.7	-224.9	-202.7	0.00	0.00	0.00
5,700.0	4.62	321.10	5,685.4	284.9	-229.9	-207.3	0.00	0.00	0.00
5,800.0	4.62	321.10	5,785.1	291.2	-235.0	-211.8	0.00	0.00	0.00
5,900.0	4.62	321.10	5,884.7	297.5	-240.1	-216.4	0.00	0.00	0.00
6,000.0	4.62	321.10	5,984.4	303.7	-245.1	-220.9	0.00	0.00	0.00
6,100.0	4.62	321.10	6,084.1	310.0	-250.2	-225.5	0.00	0.00	0.00
6,200.0	4.62	321.10	6,183.8	316.3	-255.2	-230.0	0.00	0.00	0.00
6,300.0	4.62	321.10	6,283.4	322.5	-260.3	-234.6	0.00	0.00	0.00
6,400.0	4.62	321.10	6,383.1	328.8	-265.4	-239.2	0.00	0.00	0.00
6,490.0	4.62	321.10	6,472.9	334.4	-269.9	-243.3	0.00	0.00	0.00
6,500.0	4.47	321.10	6,482.8	335.1	-270.4	-243.7	1.50	-1.50	0.00
6,600.0	2.97	321.10	6,582.6	340.1	-274.5	-247.4	1.50	-1.50	0.00
6,700.0	1.47	321.10	6,682.5	343.1	-276.9	-249.6	1.50	-1.50	0.00
6,798.0	0.00	0.00	6,780.5	344.1	-277.7	-250.3	1.50	-1.50	0.00
6,800.0	0.00	0.00	6,782.5	344.1	-277.7	-250.3	0.00	0.00	0.00
6,900.0	0.00	0.00	6,882.5	344.1	-277.7	-250.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,982.5	344.1	-277.7	-250.3	0.00	0.00	0.00
7,100.0	0.00	0.00	7,082.5	344.1	-277.7	-250.3	0.00	0.00	0.00
7,200.0	0.00	0.00	7,182.5	344.1	-277.7	-250.3	0.00	0.00	0.00
7,255.8	0.00	0.00	7,238.3	344.1	-277.7	-250.3	0.00	0.00	0.00
Sharon Springs									
7,298.0	0.00	0.00	7,280.5	344.1	-277.7	-250.3	0.00	0.00	0.00
7,300.0	0.24	89.95	7,282.5	344.1	-277.7	-250.3	12.00	12.00	0.00
7,343.9	5.50	89.95	7,326.3	344.1	-275.5	-248.1	12.00	12.00	0.00
Niobrara									
7,400.0	12.24	89.95	7,381.7	344.1	-266.8	-239.5	12.00	12.00	0.00
7,500.0	24.24	89.95	7,476.5	344.1	-235.6	-208.3	12.00	12.00	0.00
7,600.0	36.24	89.95	7,562.8	344.2	-185.3	-158.2	12.00	12.00	0.00
7,700.0	48.24	89.95	7,636.7	344.2	-118.2	-91.3	12.00	12.00	0.00
7,800.0	60.24	89.95	7,695.0	344.3	-37.2	-10.5	12.00	12.00	0.00
7,900.0	72.24	89.95	7,735.2	344.4	54.1	80.6	12.00	12.00	0.00
7,963.2	79.82	89.95	7,750.5	344.5	115.4	141.7	12.00	12.00	0.00
Top CDLL Target									
8,000.0	84.24	89.95	7,755.6	344.5	151.8	178.0	12.00	12.00	0.00
8,020.7	86.73	89.95	7,757.2	344.5	172.5	198.6	12.00	12.00	0.00
Landing Point									
8,050.2	90.26	89.95	7,758.0	344.5	202.0	228.0	12.00	12.00	0.00
7"									
8,100.0	90.27	89.95	7,757.7	344.6	251.8	277.6	0.00	0.00	0.00
8,200.0	90.27	89.95	7,757.3	344.7	351.8	377.3	0.00	0.00	0.00
8,300.0	90.27	89.95	7,756.8	344.8	451.8	477.0	0.00	0.00	0.00
8,400.0	90.27	89.95	7,756.3	344.9	551.8	576.7	0.00	0.00	0.00
8,500.0	90.27	89.95	7,755.9	345.0	651.8	676.5	0.00	0.00	0.00
8,600.0	90.27	89.95	7,755.4	345.1	751.8	776.2	0.00	0.00	0.00
8,700.0	90.27	89.95	7,754.9	345.1	851.8	875.9	0.00	0.00	0.00

Planning Report

Database:	Rocky Mountain R5000 Database	Local Co-ordinate Reference:	Well STATE OF COLORADO 1S-66-36 1609 CDH
Company:	BILL BARRETT CORP	TVD Reference:	WELL @ 5200.0usft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	WELL @ 5200.0usft (Original Well Elev)
Site:	State of Colorado 1S-66-36 Pad	North Reference:	True
Well:	STATE OF COLORADO 1S-66-36 1609 CDH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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)	
8,800.0	90.27	89.95	7,754.5	345.2	951.8	975.6	0.00	0.00	0.00	
8,900.0	90.27	89.95	7,754.0	345.3	1,051.8	1,075.3	0.00	0.00	0.00	
9,000.0	90.27	89.95	7,753.6	345.4	1,151.8	1,175.0	0.00	0.00	0.00	
9,100.0	90.27	89.95	7,753.1	345.5	1,251.8	1,274.7	0.00	0.00	0.00	
9,200.0	90.27	89.95	7,752.6	345.6	1,351.8	1,374.4	0.00	0.00	0.00	
9,300.0	90.27	89.95	7,752.2	345.7	1,451.7	1,474.1	0.00	0.00	0.00	
9,400.0	90.27	89.95	7,751.7	345.8	1,551.7	1,573.8	0.00	0.00	0.00	
9,500.0	90.27	89.95	7,751.2	345.9	1,651.7	1,673.5	0.00	0.00	0.00	
9,600.0	90.27	89.95	7,750.8	346.0	1,751.7	1,773.2	0.00	0.00	0.00	
9,700.0	90.27	89.95	7,750.3	346.1	1,851.7	1,872.9	0.00	0.00	0.00	
9,800.0	90.27	89.95	7,749.8	346.2	1,951.7	1,972.6	0.00	0.00	0.00	
9,900.0	90.27	89.95	7,749.4	346.3	2,051.7	2,072.4	0.00	0.00	0.00	
10,000.0	90.27	89.95	7,748.9	346.3	2,151.7	2,172.1	0.00	0.00	0.00	
10,100.0	90.27	89.95	7,748.4	346.4	2,251.7	2,271.8	0.00	0.00	0.00	
10,200.0	90.27	89.95	7,748.0	346.5	2,351.7	2,371.5	0.00	0.00	0.00	
10,300.0	90.27	89.95	7,747.5	346.6	2,451.7	2,471.2	0.00	0.00	0.00	
10,400.0	90.27	89.95	7,747.1	346.7	2,551.7	2,570.9	0.00	0.00	0.00	
10,500.0	90.27	89.95	7,746.6	346.8	2,651.7	2,670.6	0.00	0.00	0.00	
10,600.0	90.27	89.95	7,746.1	346.9	2,751.7	2,770.3	0.00	0.00	0.00	
10,700.0	90.27	89.95	7,745.7	347.0	2,851.7	2,870.0	0.00	0.00	0.00	
10,800.0	90.27	89.95	7,745.2	347.1	2,951.7	2,969.7	0.00	0.00	0.00	
10,900.0	90.27	89.95	7,744.7	347.2	3,051.7	3,069.4	0.00	0.00	0.00	
11,000.0	90.27	89.95	7,744.3	347.3	3,151.7	3,169.1	0.00	0.00	0.00	
11,100.0	90.27	89.95	7,743.8	347.4	3,251.7	3,268.8	0.00	0.00	0.00	
11,200.0	90.27	89.95	7,743.3	347.5	3,351.7	3,368.6	0.00	0.00	0.00	
11,300.0	90.27	89.95	7,742.9	347.5	3,451.7	3,468.3	0.00	0.00	0.00	
11,400.0	90.27	89.95	7,742.4	347.6	3,551.7	3,568.0	0.00	0.00	0.00	
11,500.0	90.27	89.95	7,741.9	347.7	3,651.7	3,667.7	0.00	0.00	0.00	
11,600.0	90.27	89.95	7,741.5	347.8	3,751.7	3,767.4	0.00	0.00	0.00	
11,700.0	90.27	89.95	7,741.0	347.9	3,851.7	3,867.1	0.00	0.00	0.00	
11,800.0	90.27	89.95	7,740.6	348.0	3,951.7	3,966.8	0.00	0.00	0.00	
11,900.0	90.27	89.95	7,740.1	348.1	4,051.7	4,066.5	0.00	0.00	0.00	
12,000.0	90.27	89.95	7,739.6	348.2	4,151.7	4,166.2	0.00	0.00	0.00	
12,100.0	90.27	89.95	7,739.2	348.3	4,251.7	4,265.9	0.00	0.00	0.00	
12,200.0	90.27	89.95	7,738.7	348.4	4,351.7	4,365.6	0.00	0.00	0.00	
12,300.0	90.27	89.95	7,738.2	348.5	4,451.7	4,465.3	0.00	0.00	0.00	
12,347.0	90.27	89.95	7,738.0	348.5	4,498.8	4,512.2	0.00	0.00	0.00	

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting		
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
SOC 1609CDH PBHL	0.00	0.00	7,738.0	348.5	4,498.8	1,216,961.70	3,219,770.70	39° 55' 34.588 N	104° 42' 58.939 W
- plan misses target center by 0.1usft at 12347.0usft MD (7738.0 TVD, 348.5 N, 4498.8 E)									
- Point									
SOC 1609CDH LP	0.00	0.00	7,758.0	344.5	202.0	1,216,920.53	3,215,474.11	39° 55' 34.553 N	104° 43' 54.093 W
- plan misses target center by 0.1usft at 8050.2usft MD (7758.0 TVD, 344.5 N, 202.0 E)									
- Point									

Planning Report

Database:	Rocky Mountain R5000 Database	Local Co-ordinate Reference:	Well STATE OF COLORADO 1S-66-36 1609 CDH
Company:	BILL BARRETT CORP	TVD Reference:	WELL @ 5200.0usft (Original Well Elev)
Project:	Weld County, CO	MD Reference:	WELL @ 5200.0usft (Original Well Elev)
Site:	State of Colorado 1S-66-36 Pad	North Reference:	True
Well:	STATE OF COLORADO 1S-66-36 1609 CDH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
8,050.2	7,758.0	7"	7	8-3/4	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
800.0	800.0	Base Fox Hills		-0.27	89.95
4,952.1	4,939.9	Shannon		-0.27	89.95
7,255.8	7,238.3	Sharon Springs		-0.27	89.95
7,343.9	7,326.3	Niobrara		-0.27	89.95
7,963.2	7,750.5	Top CDLL Target		-0.27	89.95
8,020.7	7,757.2	Landing Point		-0.27	89.95