

BILL BARRETT CORP

GARFIELD COUNTY, COLORADO NAD 1983

Miller Pad #4

Miller 32A-31-691

Wellbore #1

Plan: Design #1

Standard Planning Report

16 August, 2011

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Miller 32A-31-691
Company:	BILL BARRETT CORP	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	GARFIELD COUNTY, COLORADO NAD 1983	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Miller Pad #4	North Reference:	True
Well:	Miller 32A-31-691	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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

Site Miller Pad #4			
Site Position:		Northing:	1,608,716.958 ft
From:	Lat/Long	Easting:	2,409,880.228 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	39° 29' 9.805 N
		Longitude:	107° 35' 27.6936 W
		Grid Convergence:	-1.32 °

Well Miller 32A-31-691						
Well Position	+N-S	279.00 ft	Northing:	1,608,996.181 ft	Latitude:	39° 29' 12.563 N
	+E/-W	-12.98 ft	Easting:	2,409,873.670 ft	Longitude:	107° 35' 27.8592 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	0.00 ft

Wellbore Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	10.34	65.86	52,521

Design Design #1				
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	227.00

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,606.75	20.17	227.00	1,590.19	-95.84	-102.78	2.50	2.50	0.00	227.00	
3,901.27	20.17	227.00	3,744.02	-635.38	-681.37	0.00	0.00	0.00	0.00	
5,245.85	0.00	0.00	5,061.00	-795.11	-852.67	1.50	-1.50	0.00	180.00	
7,245.85	0.00	0.00	7,061.00	-795.11	-852.67	0.00	0.00	0.00	0.00	Miller 32A-31-691 T

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Project:	GARFIELD COUNTY, COLORADO NAD 1983	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Miller Pad #4	North Reference:	True
Well:	Miller 32A-31-691	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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	2.50	227.00	899.97	-1.49	-1.60	2.18	2.50	2.50	0.00
1,000.00	5.00	227.00	999.75	-5.95	-6.38	8.72	2.50	2.50	0.00
1,100.00	7.50	227.00	1,099.14	-13.37	-14.34	19.61	2.50	2.50	0.00
1,200.00	10.00	227.00	1,197.97	-23.75	-25.46	34.82	2.50	2.50	0.00
1,300.00	12.50	227.00	1,296.04	-37.05	-39.73	54.33	2.50	2.50	0.00
1,400.00	15.00	227.00	1,393.17	-53.26	-57.11	78.09	2.50	2.50	0.00
1,500.00	17.50	227.00	1,489.17	-72.34	-77.58	106.07	2.50	2.50	0.00
1,600.00	20.00	227.00	1,583.85	-94.26	-101.08	138.21	2.50	2.50	0.00
1,606.75	20.17	227.00	1,590.19	-95.84	-102.78	140.53	2.50	2.50	0.00
1,700.00	20.17	227.00	1,677.72	-117.77	-126.29	172.68	0.00	0.00	0.00
1,800.00	20.17	227.00	1,771.59	-141.28	-151.51	207.16	0.00	0.00	0.00
1,900.00	20.17	227.00	1,865.46	-164.80	-176.73	241.64	0.00	0.00	0.00
2,000.00	20.17	227.00	1,959.33	-188.31	-201.94	276.12	0.00	0.00	0.00
2,100.00	20.17	227.00	2,053.20	-211.82	-227.16	310.60	0.00	0.00	0.00
2,200.00	20.17	227.00	2,147.07	-235.34	-252.37	345.08	0.00	0.00	0.00
2,300.00	20.17	227.00	2,240.93	-258.85	-277.59	379.55	0.00	0.00	0.00
2,400.00	20.17	227.00	2,334.80	-282.37	-302.81	414.03	0.00	0.00	0.00
2,500.00	20.17	227.00	2,428.67	-305.88	-328.02	448.51	0.00	0.00	0.00
2,600.00	20.17	227.00	2,522.54	-329.39	-353.24	482.99	0.00	0.00	0.00
2,700.00	20.17	227.00	2,616.41	-352.91	-378.45	517.47	0.00	0.00	0.00
2,800.00	20.17	227.00	2,710.27	-376.42	-403.67	551.95	0.00	0.00	0.00
2,900.00	20.17	227.00	2,804.14	-399.94	-428.89	586.42	0.00	0.00	0.00
3,000.00	20.17	227.00	2,898.01	-423.45	-454.10	620.90	0.00	0.00	0.00
3,100.00	20.17	227.00	2,991.88	-446.97	-479.32	655.38	0.00	0.00	0.00
3,200.00	20.17	227.00	3,085.75	-470.48	-504.54	689.86	0.00	0.00	0.00
3,300.00	20.17	227.00	3,179.62	-493.99	-529.75	724.34	0.00	0.00	0.00
3,400.00	20.17	227.00	3,273.48	-517.51	-554.97	758.82	0.00	0.00	0.00
3,500.00	20.17	227.00	3,367.35	-541.02	-580.18	793.30	0.00	0.00	0.00
3,600.00	20.17	227.00	3,461.22	-564.54	-605.40	827.77	0.00	0.00	0.00
3,700.00	20.17	227.00	3,555.09	-588.05	-630.62	862.25	0.00	0.00	0.00
3,800.00	20.17	227.00	3,648.96	-611.56	-655.83	896.73	0.00	0.00	0.00
3,900.00	20.17	227.00	3,742.82	-635.08	-681.05	931.21	0.00	0.00	0.00
3,901.27	20.17	227.00	3,744.02	-635.38	-681.37	931.65	0.00	0.00	0.00
4,000.00	18.69	227.00	3,837.12	-657.77	-705.39	964.49	1.50	-1.50	0.00
4,100.00	17.19	227.00	3,932.26	-678.78	-727.91	995.28	1.50	-1.50	0.00
4,200.00	15.69	227.00	4,028.17	-698.07	-748.60	1,023.58	1.50	-1.50	0.00
4,300.00	14.19	227.00	4,124.79	-715.65	-767.46	1,049.36	1.50	-1.50	0.00
4,400.00	12.69	227.00	4,222.05	-731.50	-784.45	1,072.59	1.50	-1.50	0.00
4,500.00	11.19	227.00	4,319.88	-745.61	-799.58	1,093.28	1.50	-1.50	0.00
4,600.00	9.69	227.00	4,418.22	-757.96	-812.83	1,111.39	1.50	-1.50	0.00
4,700.00	8.19	227.00	4,517.01	-768.56	-824.19	1,126.93	1.50	-1.50	0.00
4,800.00	6.69	227.00	4,616.16	-777.39	-833.66	1,139.87	1.50	-1.50	0.00
4,900.00	5.19	227.00	4,715.62	-784.44	-841.22	1,150.22	1.50	-1.50	0.00
5,000.00	3.69	227.00	4,815.32	-789.72	-846.88	1,157.96	1.50	-1.50	0.00

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Well:	Miller 32A-31-691	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)	
5,100.00	2.19	227.00	4,915.19	-793.21	-850.63	1,163.08	1.50	-1.50	0.00	
5,200.00	0.69	227.00	5,015.15	-794.92	-852.47	1,165.59	1.50	-1.50	0.00	
5,245.85	0.00	0.00	5,061.00	-795.11	-852.67	1,165.87	1.50	-1.50	0.00	
5,300.00	0.00	0.00	5,115.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,215.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,315.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,415.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,515.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,615.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,715.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,815.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
6,100.00	0.00	0.00	5,915.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,015.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,115.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,215.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,315.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,415.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,515.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,615.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,715.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,815.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
7,100.00	0.00	0.00	6,915.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,015.15	-795.11	-852.67	1,165.87	0.00	0.00	0.00	
7,245.85	0.00	0.00	7,061.00	-795.11	-852.67	1,165.87	0.00	0.00	0.00	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
725.00	725.00	9 5/8"	9-5/8	12-1/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,285.50	3,166.00	Mesaverde		0.00		
4,145.70	3,976.00	Price Coal		0.00		
4,311.56	4,136.00	Top Gas		0.00		
6,945.85	6,761.00	Rollins		0.00		
	7,061.00	TD		0.00		

WELL DETAILS: Miller 32A-31-691

		Ground Level: 0.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot	
0.00	0.00	1608996.181	2409873.670	39° 29' 12.563 N	107° 35' 27.8592 W		

SECTION DETAILS

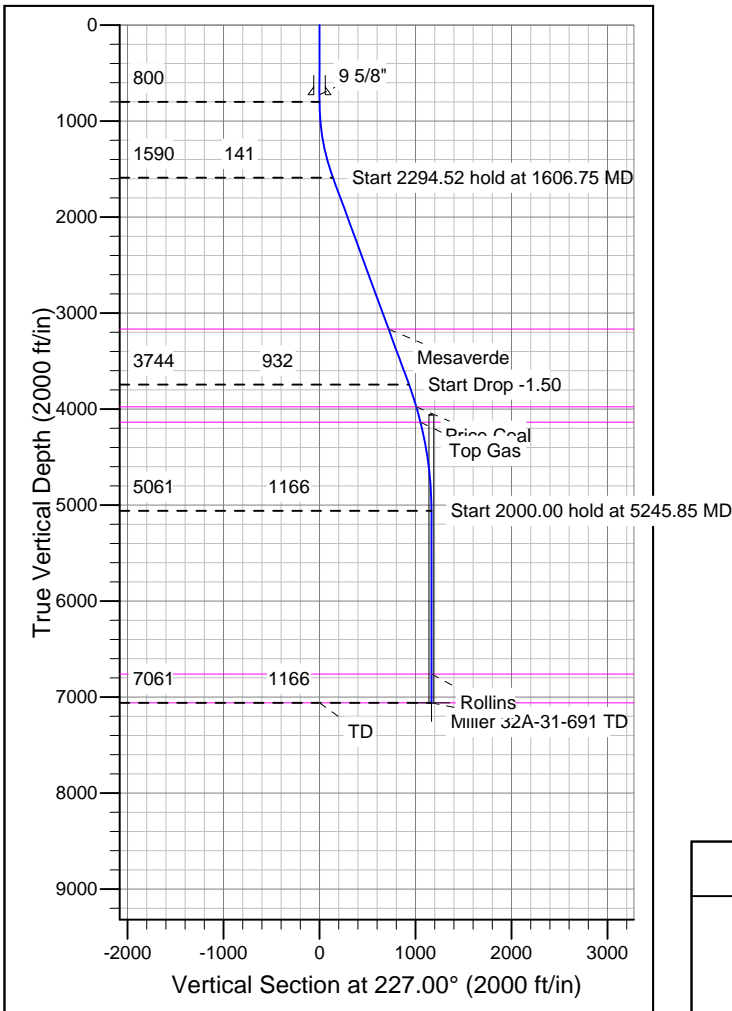
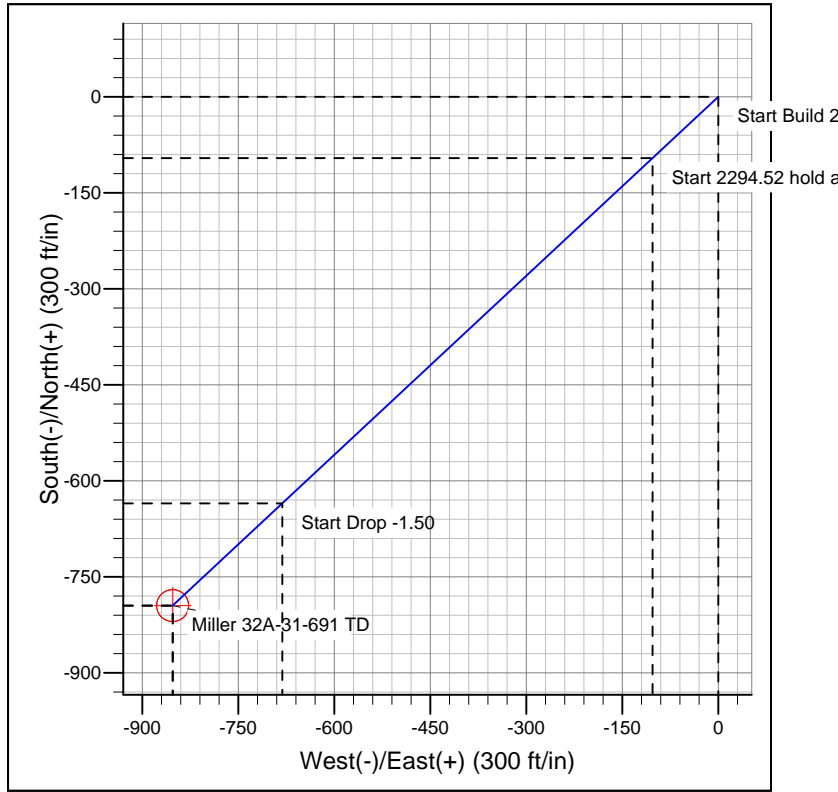
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	
3	1606.75	20.17	227.00	1590.19	-95.84	-102.78	2.50	227.00	140.53	
4	3901.27	20.17	227.00	3744.02	-635.38	-681.37	0.00	0.00	931.65	
5	5245.85	0.00	0.00	5061.00	-795.11	-852.67	1.50	180.00	1165.87	
6	7245.85	0.00	0.00	7061.00	-795.11	-852.67	0.00	0.00	1165.87	Miller 32A-31-691 TD

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Miller 32A-31-691 TD	7061.00	-795.11	-852.67	Circle (Radius: 25.00)

Azimuths to True North
Magnetic North: 10.34°

Magnetic Field
Strength: 52521.1snT
Dip Angle: 65.86°
Date: 12/31/2009
Model: IGRF200510



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation TD
3166.00	3285.50	Mesaverde
3976.00	4145.70	Price Coal
4136.00	4311.56	Top Gas
6761.00	6945.85	Rollins

REFERENCE INFORMATION	
Co-ordinate (N/E) Reference:	Well Miller 32A-31-691, True North
Vertical (TVD) Reference:	WELL @ 0.00ft (Original Well Elev)
Section (VS) Reference:	Slot - (0.00N, 0.00E)
Measured Depth Reference:	WELL @ 0.00ft (Original Well Elev)
Calculation Method:	Minimum Curvature