

# **BILL BARRETT CORP**

**GARFIELD COUNTY, COLORADO NAD 1983**

**Epperly NWSW-23-692**

**Epperly 13A-23-692**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**28 June, 2011**

# Bill Barrett Corp

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Epperly 13A-23-692
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 5853.00ft (Original Well Elev)
<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 5853.00ft (Original Well Elev)
<b>Site:</b>	Epperly NWSW-23-692	<b>North Reference:</b>	True
<b>Well:</b>	Epperly 13A-23-692	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	GARFIELD COUNTY, COLORADO NAD 1983		
<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 Central Zone		

<b>Site</b>	Epperly NWSW-23-692		
<b>Site Position:</b>		<b>Northing:</b>	1,618,446.580 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,396,102.855 ft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	39° 30' 42.772 N
		<b>Longitude:</b>	107° 38' 26.3004 W
		<b>Grid Convergence:</b>	-1.35 °

<b>Well</b>	Epperly 13A-23-692		
<b>Well Position</b>	<b>+N/-S</b>	-32.79 ft	<b>Northing:</b>
	<b>+E/-W</b>	0.28 ft	<b>Easting:</b>
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>
			ft
			<b>Latitude:</b>
			39° 30' 42.447 N
			<b>Longitude:</b>
			107° 38' 26.2968 W
			<b>Ground Level:</b>
			0.00 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>
	IGRF200510	12/31/2009	10.36	65.87	52,481

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	191.52

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
760.00	0.00	0.00	760.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,251.85	12.30	191.52	1,248.08	-51.52	-10.50	2.50	2.50	0.00	191.52	
4,873.37	12.30	191.52	4,786.53	-807.25	-164.49	0.00	0.00	0.00	0.00	
5,693.12	0.00	0.00	5,600.00	-893.11	-181.99	1.50	-1.50	0.00	180.00	
7,693.12	0.00	0.00	7,600.00	-893.11	-181.99	0.00	0.00	0.00	0.00	Epperly 13A-23-692

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## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Epperly 13A-23-692
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 5853.00ft (Original Well Elev)
<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 5853.00ft (Original Well Elev)
<b>Site:</b>	Epperly NWSW-23-692	<b>North Reference:</b>	True
<b>Well:</b>	Epperly 13A-23-692	<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)	
0.00	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	
760.00	0.00	0.00	760.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	1.00	191.52	800.00	-0.34	-0.07	0.35	2.50	2.50	0.00	
900.00	3.50	191.52	899.91	-4.19	-0.85	4.27	2.50	2.50	0.00	
1,000.00	6.00	191.52	999.56	-12.30	-2.51	12.55	2.50	2.50	0.00	
1,100.00	8.50	191.52	1,098.75	-24.67	-5.03	25.17	2.50	2.50	0.00	
1,200.00	11.00	191.52	1,197.30	-41.26	-8.41	42.11	2.50	2.50	0.00	
1,251.85	12.30	191.52	1,248.08	-51.52	-10.50	52.58	2.50	2.50	0.00	
1,300.00	12.30	191.52	1,295.13	-61.56	-12.54	62.83	0.00	0.00	0.00	
1,400.00	12.30	191.52	1,392.83	-82.43	-16.80	84.13	0.00	0.00	0.00	
1,500.00	12.30	191.52	1,490.54	-103.30	-21.05	105.42	0.00	0.00	0.00	
1,600.00	12.30	191.52	1,588.25	-124.17	-25.30	126.72	0.00	0.00	0.00	
1,700.00	12.30	191.52	1,685.95	-145.04	-29.55	148.02	0.00	0.00	0.00	
1,800.00	12.30	191.52	1,783.66	-165.90	-33.81	169.31	0.00	0.00	0.00	
1,900.00	12.30	191.52	1,881.36	-186.77	-38.06	190.61	0.00	0.00	0.00	
2,000.00	12.30	191.52	1,979.07	-207.64	-42.31	211.91	0.00	0.00	0.00	
2,100.00	12.30	191.52	2,076.78	-228.51	-46.56	233.20	0.00	0.00	0.00	
2,200.00	12.30	191.52	2,174.48	-249.38	-50.81	254.50	0.00	0.00	0.00	
2,300.00	12.30	191.52	2,272.19	-270.24	-55.07	275.80	0.00	0.00	0.00	
2,400.00	12.30	191.52	2,369.89	-291.11	-59.32	297.09	0.00	0.00	0.00	
2,500.00	12.30	191.52	2,467.60	-311.98	-63.57	318.39	0.00	0.00	0.00	
2,600.00	12.30	191.52	2,565.31	-332.85	-67.82	339.69	0.00	0.00	0.00	
2,700.00	12.30	191.52	2,663.01	-353.71	-72.07	360.98	0.00	0.00	0.00	
2,800.00	12.30	191.52	2,760.72	-374.58	-76.33	382.28	0.00	0.00	0.00	
2,900.00	12.30	191.52	2,858.42	-395.45	-80.58	403.58	0.00	0.00	0.00	
3,000.00	12.30	191.52	2,956.13	-416.32	-84.83	424.87	0.00	0.00	0.00	
3,100.00	12.30	191.52	3,053.84	-437.19	-89.08	446.17	0.00	0.00	0.00	
3,200.00	12.30	191.52	3,151.54	-458.05	-93.34	467.47	0.00	0.00	0.00	
3,300.00	12.30	191.52	3,249.25	-478.92	-97.59	488.76	0.00	0.00	0.00	
3,400.00	12.30	191.52	3,346.95	-499.79	-101.84	510.06	0.00	0.00	0.00	
3,500.00	12.30	191.52	3,444.66	-520.66	-106.09	531.36	0.00	0.00	0.00	
3,600.00	12.30	191.52	3,542.37	-541.52	-110.34	552.65	0.00	0.00	0.00	
3,700.00	12.30	191.52	3,640.07	-562.39	-114.60	573.95	0.00	0.00	0.00	
3,800.00	12.30	191.52	3,737.78	-583.26	-118.85	595.25	0.00	0.00	0.00	
3,900.00	12.30	191.52	3,835.48	-604.13	-123.10	616.54	0.00	0.00	0.00	
4,000.00	12.30	191.52	3,933.19	-625.00	-127.35	637.84	0.00	0.00	0.00	
4,100.00	12.30	191.52	4,030.90	-645.86	-131.60	659.14	0.00	0.00	0.00	
4,200.00	12.30	191.52	4,128.60	-666.73	-135.86	680.43	0.00	0.00	0.00	
4,300.00	12.30	191.52	4,226.31	-687.60	-140.11	701.73	0.00	0.00	0.00	
4,400.00	12.30	191.52	4,324.01	-708.47	-144.36	723.03	0.00	0.00	0.00	
4,500.00	12.30	191.52	4,421.72	-729.34	-148.61	744.32	0.00	0.00	0.00	
4,600.00	12.30	191.52	4,519.43	-750.20	-152.87	765.62	0.00	0.00	0.00	
4,700.00	12.30	191.52	4,617.13	-771.07	-157.12	786.92	0.00	0.00	0.00	
4,800.00	12.30	191.52	4,714.84	-791.94	-161.37	808.21	0.00	0.00	0.00	
4,873.37	12.30	191.52	4,786.53	-807.25	-164.49	823.84	0.00	0.00	0.00	
4,900.00	11.90	191.52	4,812.56	-812.72	-165.60	829.42	1.50	-1.50	0.00	

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## Planning Report

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<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 5853.00ft (Original Well Elev)
<b>Site:</b>	Epperly NWSW-23-692	<b>North Reference:</b>	True
<b>Well:</b>	Epperly 13A-23-692	<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)
5,000.00	10.40	191.52	4,910.67	-831.66	-169.46	848.75	1.50	-1.50	0.00
5,100.00	8.90	191.52	5,009.26	-848.08	-172.81	865.51	1.50	-1.50	0.00
5,200.00	7.40	191.52	5,108.24	-861.97	-175.64	879.68	1.50	-1.50	0.00
5,300.00	5.90	191.52	5,207.57	-873.31	-177.95	891.25	1.50	-1.50	0.00
5,400.00	4.40	191.52	5,307.16	-882.10	-179.74	900.22	1.50	-1.50	0.00
5,500.00	2.90	191.52	5,406.96	-888.33	-181.01	906.58	1.50	-1.50	0.00
5,600.00	1.40	191.52	5,506.88	-892.00	-181.76	910.33	1.50	-1.50	0.00
5,693.12	0.00	0.00	5,600.00	-893.11	-181.99	911.46	1.50	-1.50	0.00
5,700.00	0.00	0.00	5,606.88	-893.11	-181.99	911.46	0.00	0.00	0.00
5,800.00	0.00	0.00	5,706.88	-893.11	-181.99	911.46	0.00	0.00	0.00
5,900.00	0.00	0.00	5,806.88	-893.11	-181.99	911.46	0.00	0.00	0.00
6,000.00	0.00	0.00	5,906.88	-893.11	-181.99	911.46	0.00	0.00	0.00
6,100.00	0.00	0.00	6,006.88	-893.11	-181.99	911.46	0.00	0.00	0.00
6,200.00	0.00	0.00	6,106.88	-893.11	-181.99	911.46	0.00	0.00	0.00
6,300.00	0.00	0.00	6,206.88	-893.11	-181.99	911.46	0.00	0.00	0.00
6,400.00	0.00	0.00	6,306.88	-893.11	-181.99	911.46	0.00	0.00	0.00
6,500.00	0.00	0.00	6,406.88	-893.11	-181.99	911.46	0.00	0.00	0.00
6,600.00	0.00	0.00	6,506.88	-893.11	-181.99	911.46	0.00	0.00	0.00
6,700.00	0.00	0.00	6,606.88	-893.11	-181.99	911.46	0.00	0.00	0.00
6,800.00	0.00	0.00	6,706.88	-893.11	-181.99	911.46	0.00	0.00	0.00
6,900.00	0.00	0.00	6,806.88	-893.11	-181.99	911.46	0.00	0.00	0.00
7,000.00	0.00	0.00	6,906.88	-893.11	-181.99	911.46	0.00	0.00	0.00
7,100.00	0.00	0.00	7,006.88	-893.11	-181.99	911.46	0.00	0.00	0.00
7,200.00	0.00	0.00	7,106.88	-893.11	-181.99	911.46	0.00	0.00	0.00
7,300.00	0.00	0.00	7,206.88	-893.11	-181.99	911.46	0.00	0.00	0.00
7,400.00	0.00	0.00	7,306.88	-893.11	-181.99	911.46	0.00	0.00	0.00
7,500.00	0.00	0.00	7,406.88	-893.11	-181.99	911.46	0.00	0.00	0.00
7,600.00	0.00	0.00	7,506.88	-893.11	-181.99	911.46	0.00	0.00	0.00
7,693.12	0.00	0.00	7,600.00	-893.11	-181.99	911.46	0.00	0.00	0.00

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
770.00	770.00	9 5/8"	9-5/8	12-1/4

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,705.04	3,645.00	Mesaverde		0.00	
4,605.71	4,525.00	Price Coal		0.00	
5,493.03	5,400.00	Top Gas		0.00	
7,393.12	7,300.00	Rollins		0.00	
7,693.12	7,600.00	TD		0.00	

# WELL DETAILS: Epperly 13A-23-692

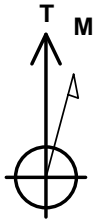
			Ground Level:	0.00		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1618413.792	2396102.365	39° 30' 42.447 N	107° 38' 26.2968 W	

## 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	760.00	0.00	0.00	760.00	0.00	0.00	0.00	0.00	0.00	
3	1251.85	12.30	191.52	1248.08	-51.52	-10.50	2.50	191.52	52.58	
4	4873.37	12.30	191.52	4786.53	-807.25	-164.49	0.00	0.00	823.84	
5	5693.12	0.00	0.00	5600.00	-893.11	-181.99	1.50	180.00	911.46	
6	7693.12	0.00	0.00	7600.00	-893.11	-181.99	0.00	0.00	911.46	Epperly 13A-23-692 (TD)

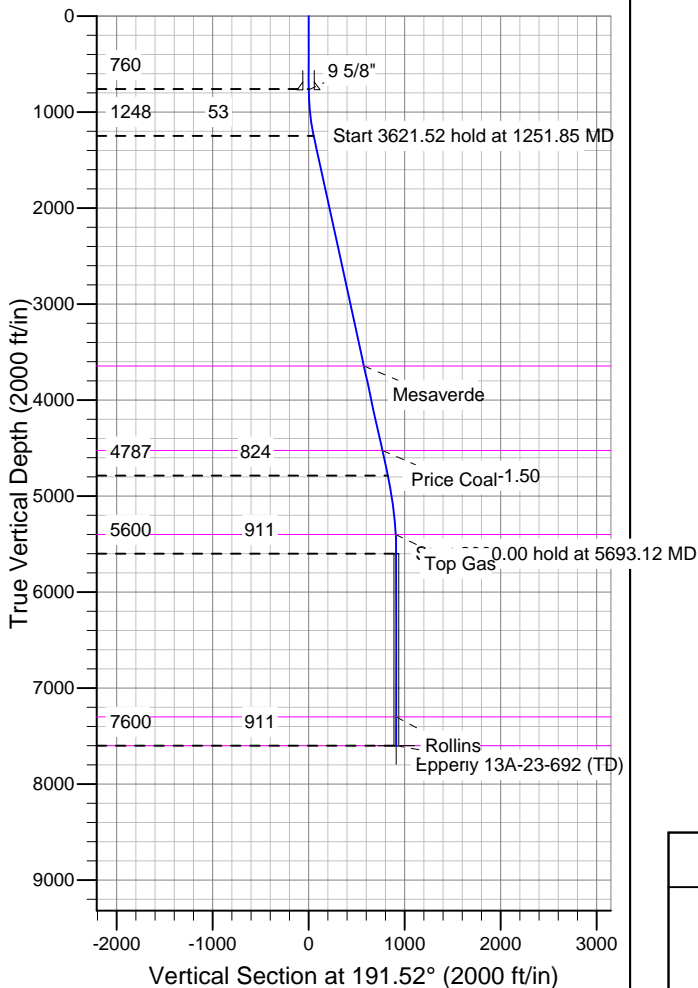
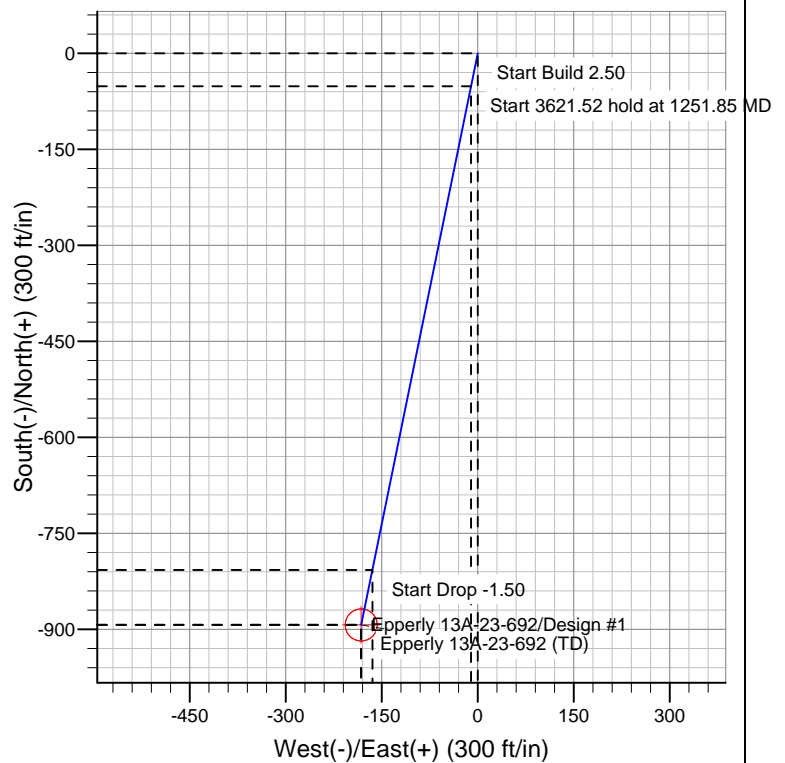
## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Epperly 13A-23-692 (TD)	7600.00	-893.11	-181.99	Circle (Radius: 25.00)



Azimuths to True North  
Magnetic North: 10.36°

Magnetic Field  
Strength: 52481.0snT  
Dip Angle: 65.87°  
Date: 12/31/2009  
Model: IGRF200510



## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3645.00	3705.04	Mesaverde
4525.00	4605.71	Price Coal
5400.00	5493.03	Top Gas
7300.00	7393.12	Rollins
7600.00	7693.12	TD

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Epperly 13A-23-692, True North  
Vertical (TVD) Reference: WELL @ 5853.00ft (Original Well Elev)  
Section (VS) Reference: Slot - (0.00N, 0.00E)  
Measured Depth Reference: WELL @ 5853.00ft (Original Well Elev)  
Calculation Method: Minimum Curvature