

# **BILL BARRETT CORP**

**GARFIELD COUNTY, COLORADO NAD 1983**

**CBC #1**

**CBC 24B-22-692**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**24 January, 2012**

# Bill Barrett Corp

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well CBC 24B-22-692
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 5773.00ft (Original Well Elev)
<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 5773.00ft (Original Well Elev)
<b>Site:</b>	CBC #1	<b>North Reference:</b>	True
<b>Well:</b>	CBC 24B-22-692	<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>	CBC #1		
<b>Site Position:</b>		<b>Northing:</b>	1,617,285.528 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,392,460.705 ft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	39° 30' 30.449 N
		<b>Longitude:</b>	107° 39' 12.4092 W
		<b>Grid Convergence:</b>	-1.36 °

<b>Well</b>	CBC 24B-22-692		
<b>Well Position</b>	<b>+N/-S</b>	8.73 ft	<b>Northing:</b>
	<b>+E/-W</b>	11.29 ft	<b>Easting:</b>
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>
			ft
			<b>Latitude:</b>
			39° 30' 30.535 N
			<b>Longitude:</b>
			107° 39' 12.2652 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>
	IGRF2010	1/24/2012	10.12	65.80	52,241

<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	217.95

<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	
1,223.80	11.59	217.95	1,220.64	-36.88	-28.76	2.50	2.50	0.00	217.95	
4,808.58	11.59	217.95	4,732.27	-605.08	-471.80	0.00	0.00	0.00	0.00	
5,581.58	0.00	0.00	5,500.00	-666.55	-519.74	1.50	-1.50	0.00	180.00	
7,581.58	0.00	0.00	7,500.00	-666.55	-519.74	0.00	0.00	0.00	0.00	CBC 24B-22-692 (T

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## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well CBC 24B-22-692
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<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 5773.00ft (Original Well Elev)
<b>Site:</b>	CBC #1	<b>North Reference:</b>	True
<b>Well:</b>	CBC 24B-22-692	<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	217.95	800.00	-0.28	-0.21	0.35	2.50	2.50	0.00
900.00	3.50	217.95	899.91	-3.37	-2.63	4.27	2.50	2.50	0.00
1,000.00	6.00	217.95	999.56	-9.90	-7.72	12.55	2.50	2.50	0.00
1,100.00	8.50	217.95	1,098.75	-19.85	-15.48	25.17	2.50	2.50	0.00
1,200.00	11.00	217.95	1,197.30	-33.21	-25.89	42.11	2.50	2.50	0.00
1,223.80	11.59	217.95	1,220.64	-36.88	-28.76	46.77	2.50	2.50	0.00
1,300.00	11.59	217.95	1,295.29	-48.96	-38.18	62.09	0.00	0.00	0.00
1,400.00	11.59	217.95	1,393.25	-64.81	-50.54	82.18	0.00	0.00	0.00
1,500.00	11.59	217.95	1,491.20	-80.66	-62.89	102.28	0.00	0.00	0.00
1,600.00	11.59	217.95	1,589.16	-96.51	-75.25	122.38	0.00	0.00	0.00
1,700.00	11.59	217.95	1,687.12	-112.36	-87.61	142.48	0.00	0.00	0.00
1,800.00	11.59	217.95	1,785.08	-128.21	-99.97	162.58	0.00	0.00	0.00
1,900.00	11.59	217.95	1,883.04	-144.06	-112.33	182.68	0.00	0.00	0.00
2,000.00	11.59	217.95	1,981.00	-159.91	-124.69	202.78	0.00	0.00	0.00
2,100.00	11.59	217.95	2,078.96	-175.76	-137.05	222.88	0.00	0.00	0.00
2,200.00	11.59	217.95	2,176.92	-191.61	-149.41	242.98	0.00	0.00	0.00
2,300.00	11.59	217.95	2,274.88	-207.46	-161.77	263.08	0.00	0.00	0.00
2,400.00	11.59	217.95	2,372.84	-223.31	-174.13	283.18	0.00	0.00	0.00
2,500.00	11.59	217.95	2,470.80	-239.16	-186.49	303.27	0.00	0.00	0.00
2,600.00	11.59	217.95	2,568.76	-255.01	-198.84	323.37	0.00	0.00	0.00
2,700.00	11.59	217.95	2,666.72	-270.86	-211.20	343.47	0.00	0.00	0.00
2,800.00	11.59	217.95	2,764.68	-286.71	-223.56	363.57	0.00	0.00	0.00
2,900.00	11.59	217.95	2,862.63	-302.56	-235.92	383.67	0.00	0.00	0.00
3,000.00	11.59	217.95	2,960.59	-318.41	-248.28	403.77	0.00	0.00	0.00
3,100.00	11.59	217.95	3,058.55	-334.26	-260.64	423.87	0.00	0.00	0.00
3,200.00	11.59	217.95	3,156.51	-350.11	-273.00	443.97	0.00	0.00	0.00
3,300.00	11.59	217.95	3,254.47	-365.96	-285.36	464.07	0.00	0.00	0.00
3,400.00	11.59	217.95	3,352.43	-381.81	-297.72	484.17	0.00	0.00	0.00
3,500.00	11.59	217.95	3,450.39	-397.66	-310.08	504.27	0.00	0.00	0.00
3,600.00	11.59	217.95	3,548.35	-413.51	-322.43	524.37	0.00	0.00	0.00
3,700.00	11.59	217.95	3,646.31	-429.37	-334.79	544.46	0.00	0.00	0.00
3,800.00	11.59	217.95	3,744.27	-445.22	-347.15	564.56	0.00	0.00	0.00
3,900.00	11.59	217.95	3,842.23	-461.07	-359.51	584.66	0.00	0.00	0.00
4,000.00	11.59	217.95	3,940.19	-476.92	-371.87	604.76	0.00	0.00	0.00
4,100.00	11.59	217.95	4,038.15	-492.77	-384.23	624.86	0.00	0.00	0.00
4,200.00	11.59	217.95	4,136.11	-508.62	-396.59	644.96	0.00	0.00	0.00
4,300.00	11.59	217.95	4,234.06	-524.47	-408.95	665.06	0.00	0.00	0.00
4,400.00	11.59	217.95	4,332.02	-540.32	-421.31	685.16	0.00	0.00	0.00
4,500.00	11.59	217.95	4,429.98	-556.17	-433.67	705.26	0.00	0.00	0.00
4,600.00	11.59	217.95	4,527.94	-572.02	-446.03	725.36	0.00	0.00	0.00
4,700.00	11.59	217.95	4,625.90	-587.87	-458.38	745.46	0.00	0.00	0.00
4,800.00	11.59	217.95	4,723.86	-603.72	-470.74	765.55	0.00	0.00	0.00
4,808.58	11.59	217.95	4,732.27	-605.08	-471.80	767.28	0.00	0.00	0.00
4,900.00	10.22	217.95	4,822.03	-618.72	-482.44	784.58	1.50	-1.50	0.00

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<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 5773.00ft (Original Well Elev)
<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 5773.00ft (Original Well Elev)
<b>Site:</b>	CBC #1	<b>North Reference:</b>	True
<b>Well:</b>	CBC 24B-22-692	<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	8.72	217.95	4,920.67	-631.70	-492.56	801.04	1.50	-1.50	0.00
5,100.00	7.22	217.95	5,019.70	-642.64	-501.09	814.91	1.50	-1.50	0.00
5,200.00	5.72	217.95	5,119.06	-651.53	-508.03	826.19	1.50	-1.50	0.00
5,300.00	4.22	217.95	5,218.68	-658.37	-513.36	834.85	1.50	-1.50	0.00
5,400.00	2.72	217.95	5,318.49	-663.15	-517.08	840.91	1.50	-1.50	0.00
5,500.00	1.22	217.95	5,418.43	-665.86	-519.20	844.36	1.50	-1.50	0.00
5,581.58	0.00	0.00	5,500.00	-666.55	-519.74	845.23	1.50	-1.50	0.00
5,600.00	0.00	0.00	5,518.42	-666.55	-519.74	845.23	0.00	0.00	0.00
5,700.00	0.00	0.00	5,618.42	-666.55	-519.74	845.23	0.00	0.00	0.00
5,800.00	0.00	0.00	5,718.42	-666.55	-519.74	845.23	0.00	0.00	0.00
5,900.00	0.00	0.00	5,818.42	-666.55	-519.74	845.23	0.00	0.00	0.00
6,000.00	0.00	0.00	5,918.42	-666.55	-519.74	845.23	0.00	0.00	0.00
6,100.00	0.00	0.00	6,018.42	-666.55	-519.74	845.23	0.00	0.00	0.00
6,200.00	0.00	0.00	6,118.42	-666.55	-519.74	845.23	0.00	0.00	0.00
6,300.00	0.00	0.00	6,218.42	-666.55	-519.74	845.23	0.00	0.00	0.00
6,400.00	0.00	0.00	6,318.42	-666.55	-519.74	845.23	0.00	0.00	0.00
6,500.00	0.00	0.00	6,418.42	-666.55	-519.74	845.23	0.00	0.00	0.00
6,600.00	0.00	0.00	6,518.42	-666.55	-519.74	845.23	0.00	0.00	0.00
6,700.00	0.00	0.00	6,618.42	-666.55	-519.74	845.23	0.00	0.00	0.00
6,800.00	0.00	0.00	6,718.42	-666.55	-519.74	845.23	0.00	0.00	0.00
6,900.00	0.00	0.00	6,818.42	-666.55	-519.74	845.23	0.00	0.00	0.00
7,000.00	0.00	0.00	6,918.42	-666.55	-519.74	845.23	0.00	0.00	0.00
7,100.00	0.00	0.00	7,018.42	-666.55	-519.74	845.23	0.00	0.00	0.00
7,200.00	0.00	0.00	7,118.42	-666.55	-519.74	845.23	0.00	0.00	0.00
7,300.00	0.00	0.00	7,218.42	-666.55	-519.74	845.23	0.00	0.00	0.00
7,400.00	0.00	0.00	7,318.42	-666.55	-519.74	845.23	0.00	0.00	0.00
7,500.00	0.00	0.00	7,418.42	-666.55	-519.74	845.23	0.00	0.00	0.00
7,581.58	0.00	0.00	7,500.00	-666.55	-519.74	845.23	0.00	0.00	0.00

### Formations

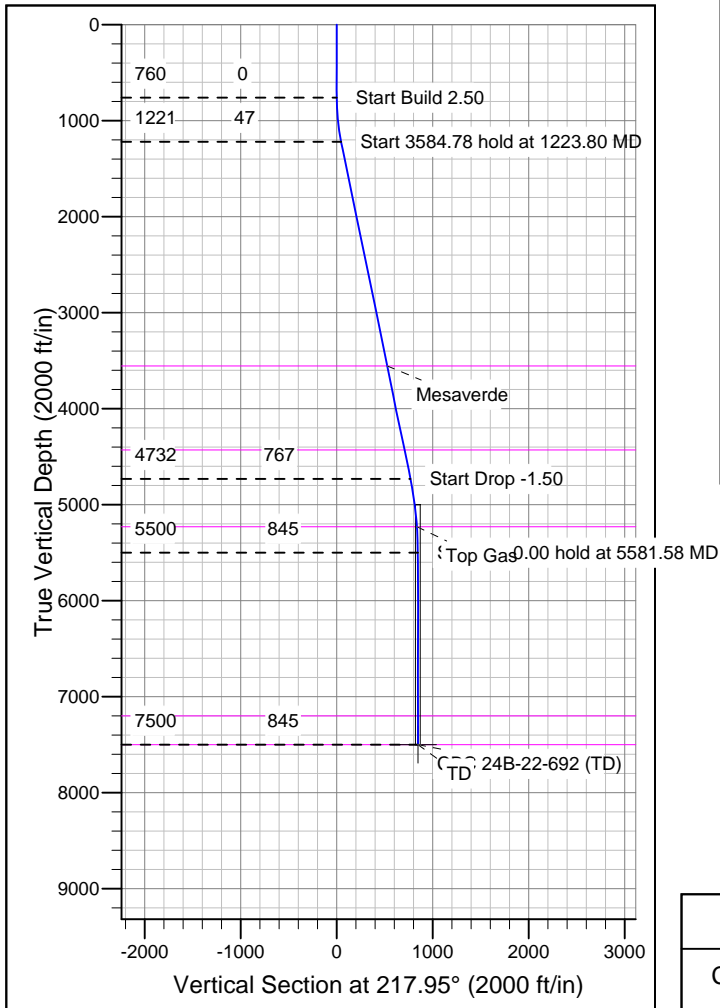
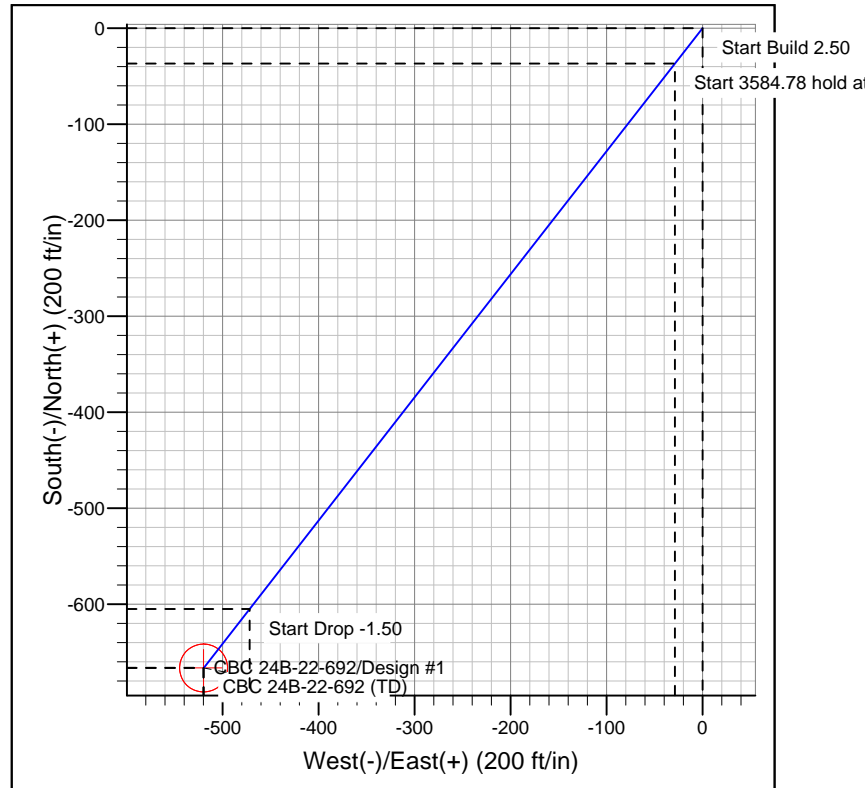
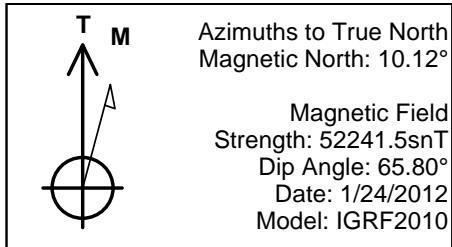
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,606.79	3,555.00	Mesaverde		0.00	
4,500.02	4,430.00	Price Coal		0.00	
5,311.35	5,230.00	Top Gas		0.00	
7,281.58	7,200.00	Rollins		0.00	
7,581.58	7,500.00	TD		0.00	

# WELL DETAILS: CBC 24B-22-692

+N/-S	+E/-W	Northing	Ground Level:	0.00		
0.00	0.00	1617293.991	Easting	2392472.195	Latitude	Longitude
				39° 30' 30.535 N	07° 39' 12.2652 W	Slot

## 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	1223.80	11.59	217.95	1220.64	-36.88	-28.76	2.50	217.95	46.77	
4	4808.58	11.59	217.95	4732.27	-605.08	-471.80	0.00	0.00	767.28	
5	5581.58	0.00	0.00	5500.00	-666.55	-519.74	1.50	180.00	845.23	
6	7581.58	0.00	0.00	7500.00	-666.55	-519.74	0.00	0.00	845.23	CBC 24B-22-692 (TD)



## FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
3555.00	3606.79	Mesaverde
4430.00	4500.02	Price Coal
5230.00	5311.35	Top Gas
7200.00	7281.58	Rollins
7500.00	7581.58	TD

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well CBC 24B-22-692, True North  
Vertical (TVD) Reference: WELL @ 5773.00ft (Original Well Elev)  
Section (VS) Reference: Slot - (0.00N, 0.00E)  
Measured Depth Reference: WELL @ 5773.00ft (Original Well Elev)  
Calculation Method: Minimum Curvature