

# **BILL BARRETT CORP**

**GARFIELD COUNTY, COLORADO NAD 1983**

**Werner Pad(s) SWSE-23-692**

**Werner 41C-26-692**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**14 December, 2009**

# BBC

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Werner 41C-26-692
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 0.00ft (Original Well Elev)
<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 0.00ft (Original Well Elev)
<b>Site:</b>	Werner Pad(s) SWSE-23-692	<b>North Reference:</b>	True
<b>Well:</b>	Werner 41C-26-692	<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		

Site		Werner Pad(s) SWSE-23-692			
Site Position:		Northing:	1,616,896.898 ft	Latitude:	39° 30' 28.134 N
From:	Lat/Long	Easting:	2,399,006.620 ft	Longitude:	107° 37' 48.7956 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	-1.34 °

Well	Werner 41C-26-692					
Well Position	+N/-S	-329.65 ft	Northing:	1,616,567.706 ft	Latitude:	39° 30' 24.876 N
	+E/-W	-15.52 ft	Easting:	2,398,983.377 ft	Longitude:	107° 37' 48.9936 W
Position Uncertainty	0.00 ft		Wellhead Elevation:	ft	Ground Level:	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>
	BGGM2007	12/14/2009	10.44	65.84	52,482

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tile 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	139.71

<b>Plan Sections</b>										
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	
1,634.30	20.86	139.71	1,615.99	-114.55	97.13	2.50	2.50	0.00	139.71	
4,369.56	20.86	139.71	4,172.01	-857.35	726.95	0.00	0.00	0.00	0.00	
5,760.06	0.00	0.00	5,532.00	-1,048.26	888.83	1.50	-1.50	0.00	180.00	
7,760.06	0.00	0.00	7,532.00	-1,048.26	888.83	0.00	0.00	0.00	0.00	Werner 41C-26-692

# BBC

## Planning Report

**Database:** Compass  
**Company:** BILL BARRETT CORP  
**Project:** GARFIELD COUNTY, COLORADO NAD 1983  
**Site:** Werner Pad(s) SWSE-23-692  
**Well:** Werner 41C-26-692  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well Werner 41C-26-692  
**TVD Reference:** WELL @ 0.00ft (Original Well Elev)  
**MD Reference:** WELL @ 0.00ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Bulld 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
<b>9 5/8"</b>									
900.00	2.50	139.71	899.97	-1.66	1.41	2.18	2.50	2.50	0.00
1,000.00	5.00	139.71	999.75	-6.65	5.64	8.72	2.50	2.50	0.00
1,100.00	7.50	139.71	1,099.14	-14.95	12.68	19.61	2.50	2.50	0.00
1,200.00	10.00	139.71	1,197.97	-26.56	22.52	34.82	2.50	2.50	0.00
1,300.00	12.50	139.71	1,296.04	-41.44	35.13	54.33	2.50	2.50	0.00
1,400.00	15.00	139.71	1,393.17	-59.56	50.50	78.09	2.50	2.50	0.00
1,500.00	17.50	139.71	1,489.17	-80.90	68.60	106.07	2.50	2.50	0.00
1,600.00	20.00	139.71	1,583.85	-105.42	89.39	138.21	2.50	2.50	0.00
1,634.30	20.86	139.71	1,615.99	-114.55	97.13	150.18	2.50	2.50	0.00
1,700.00	20.86	139.71	1,677.39	-132.39	112.26	173.58	0.00	0.00	0.00
1,800.00	20.86	139.71	1,770.84	-159.55	135.28	209.18	0.00	0.00	0.00
1,900.00	20.86	139.71	1,864.28	-186.71	158.31	244.79	0.00	0.00	0.00
2,000.00	20.86	139.71	1,957.73	-213.86	181.34	280.39	0.00	0.00	0.00
2,100.00	20.86	139.71	2,051.18	-241.02	204.36	316.00	0.00	0.00	0.00
2,200.00	20.86	139.71	2,144.62	-268.17	227.39	351.60	0.00	0.00	0.00
2,300.00	20.86	139.71	2,238.07	-295.33	250.41	387.20	0.00	0.00	0.00
2,400.00	20.86	139.71	2,331.52	-322.49	273.44	422.81	0.00	0.00	0.00
2,500.00	20.86	139.71	2,424.97	-349.64	296.47	458.41	0.00	0.00	0.00
2,600.00	20.86	139.71	2,518.41	-376.80	319.49	494.02	0.00	0.00	0.00
2,700.00	20.86	139.71	2,611.86	-403.96	342.52	529.62	0.00	0.00	0.00
2,800.00	20.86	139.71	2,705.31	-431.11	365.54	565.23	0.00	0.00	0.00
2,900.00	20.86	139.71	2,798.75	-458.27	388.57	600.83	0.00	0.00	0.00
3,000.00	20.86	139.71	2,892.20	-485.42	411.60	636.43	0.00	0.00	0.00
3,100.00	20.86	139.71	2,985.65	-512.58	434.62	672.04	0.00	0.00	0.00
3,200.00	20.86	139.71	3,079.09	-539.74	457.65	707.64	0.00	0.00	0.00
3,300.00	20.86	139.71	3,172.54	-566.89	480.67	743.25	0.00	0.00	0.00
3,400.00	20.86	139.71	3,265.99	-594.05	503.70	778.85	0.00	0.00	0.00
3,500.00	20.86	139.71	3,359.44	-621.21	526.73	814.45	0.00	0.00	0.00
3,600.00	20.86	139.71	3,452.88	-648.36	549.75	850.06	0.00	0.00	0.00
3,700.00	20.86	139.71	3,546.33	-675.52	572.78	885.66	0.00	0.00	0.00
3,800.00	20.86	139.71	3,639.78	-702.67	595.80	921.27	0.00	0.00	0.00
3,813.08	20.86	139.71	3,652.00	-706.23	598.82	925.93	0.00	0.00	0.00
<b>Mesaverde</b>									
3,900.00	20.86	139.71	3,733.22	-729.83	618.83	956.87	0.00	0.00	0.00
4,000.00	20.86	139.71	3,826.67	-756.99	641.86	992.48	0.00	0.00	0.00
4,100.00	20.86	139.71	3,920.12	-784.14	664.88	1,028.08	0.00	0.00	0.00
4,200.00	20.86	139.71	4,013.56	-811.30	687.91	1,063.68	0.00	0.00	0.00
4,300.00	20.86	139.71	4,107.01	-838.46	710.93	1,099.29	0.00	0.00	0.00
4,369.56	20.86	139.71	4,172.01	-857.35	726.95	1,124.06	0.00	0.00	0.00
4,400.00	20.40	139.71	4,200.50	-865.53	733.89	1,134.78	1.50	-1.50	0.00
4,500.00	18.90	139.71	4,294.67	-891.17	755.64	1,168.41	1.50	-1.50	0.00
4,600.00	17.40	139.71	4,389.70	-914.93	775.78	1,199.56	1.50	-1.50	0.00
4,665.12	16.42	139.71	4,452.00	-929.38	788.03	1,218.50	1.50	-1.50	0.00

# BBC

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<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 0.00ft (Original Well Elev)
<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 0.00ft (Original Well Elev)
<b>Site:</b>	Werner Pad(s) SWSE-23-692	<b>North Reference:</b>	True
<b>Well:</b>	Werner 41C-26-692	<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)
<b>Price Coal</b>									
4,700.00	15.90	139.71	4,485.50	-936.79	794.31	1,228.21	1.50	-1.50	0.00
4,800.00	14.40	139.71	4,582.02	-956.72	811.21	1,254.35	1.50	-1.50	0.00
4,900.00	12.90	139.71	4,679.19	-974.72	826.48	1,277.95	1.50	-1.50	0.00
5,000.00	11.40	139.71	4,776.95	-990.78	840.09	1,298.99	1.50	-1.50	0.00
5,100.00	9.90	139.71	4,875.22	-1,004.87	852.04	1,317.48	1.50	-1.50	0.00
5,200.00	8.40	139.71	4,973.95	-1,017.00	862.33	1,333.38	1.50	-1.50	0.00
5,300.00	6.90	139.71	5,073.06	-1,027.16	870.94	1,346.69	1.50	-1.50	0.00
5,400.00	5.40	139.71	5,172.48	-1,035.33	877.87	1,357.41	1.50	-1.50	0.00
5,429.64	4.96	139.71	5,202.00	-1,037.37	879.60	1,360.08	1.50	-1.50	0.00
<b>Top Gas</b>									
5,500.00	3.90	139.71	5,272.15	-1,041.51	883.11	1,365.51	1.50	-1.50	0.00
5,600.00	2.40	139.71	5,371.99	-1,045.71	886.66	1,371.01	1.50	-1.50	0.00
5,700.00	0.90	139.71	5,471.95	-1,047.90	888.53	1,373.89	1.50	-1.50	0.00
5,760.06	0.00	0.00	5,532.00	-1,048.26	888.83	1,374.36	1.50	-1.50	0.00
5,800.00	0.00	0.00	5,571.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
5,900.00	0.00	0.00	5,671.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
6,000.00	0.00	0.00	5,771.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
6,100.00	0.00	0.00	5,871.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
6,200.00	0.00	0.00	5,971.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
6,300.00	0.00	0.00	6,071.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
6,400.00	0.00	0.00	6,171.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
6,500.00	0.00	0.00	6,271.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
6,600.00	0.00	0.00	6,371.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
6,700.00	0.00	0.00	6,471.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
6,800.00	0.00	0.00	6,571.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
6,900.00	0.00	0.00	6,671.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
7,000.00	0.00	0.00	6,771.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
7,100.00	0.00	0.00	6,871.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
7,200.00	0.00	0.00	6,971.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
7,300.00	0.00	0.00	7,071.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
7,400.00	0.00	0.00	7,171.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
7,460.06	0.00	0.00	7,232.00	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
<b>Rollins</b>									
7,500.00	0.00	0.00	7,271.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
7,600.00	0.00	0.00	7,371.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
7,700.00	0.00	0.00	7,471.94	-1,048.26	888.83	1,374.36	0.00	0.00	0.00
7,760.06	0.00	0.00	7,532.00	-1,048.26	888.83	1,374.36	0.00	0.00	0.00

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
800.00	800.00	9 5/8"	9-5/8	12-1/4

**BBC**  
Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Werner 41C-26-692
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 0.00ft (Original Well Elev)
<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 0.00ft (Original Well Elev)
<b>Site:</b>	Werner Pad(s) SWSE-23-692	<b>North Reference:</b>	True
<b>Well:</b>	Werner 41C-26-692	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

**Formations**

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,813.08	3,652.00	Mesaverde		0.00	
4,665.12	4,452.00	Price Coal		0.00	
5,429.64	5,202.00	Top Gas		0.00	
7,460.06	7,232.00	Rollins		0.00	

# WELL DETAILS: Werner 41C-26-692

Ground Level: 0.00  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.00 0.00 1616567.706 2398983.373 39° 30' 24.8760N 107° 37' 48.9936 W



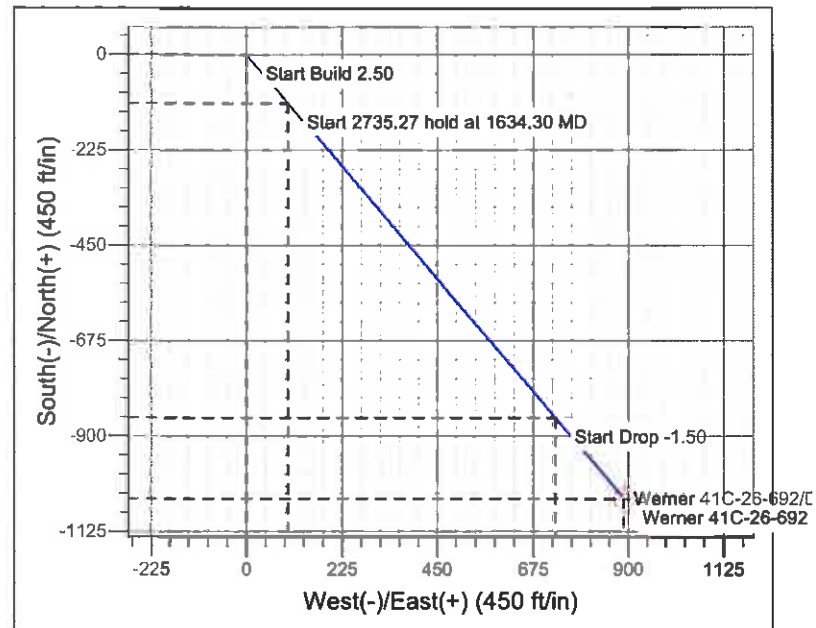
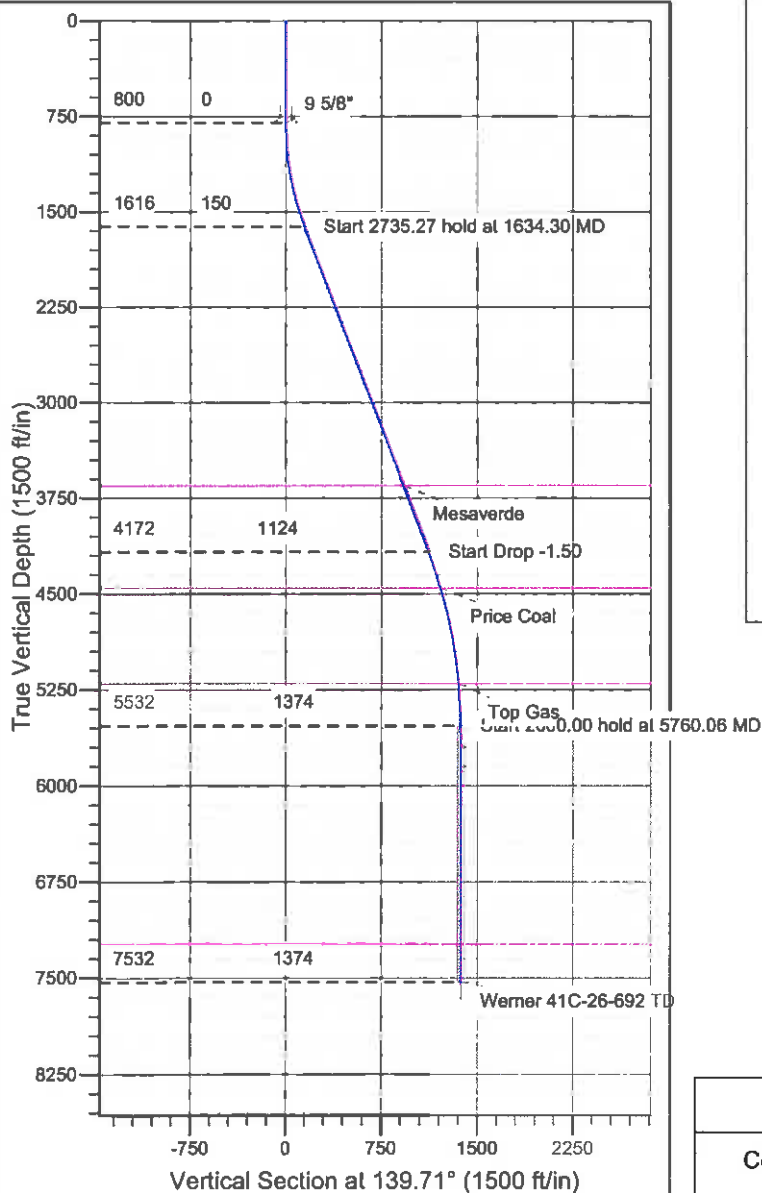
Azimuths to True North  
 Magnetic North: 10.46°  
 Magnetic Field  
 Strength: 52482.2snT  
 Dip Angle: 65.84°  
 Date: 12/14/2009  
 Model: BGGM2007

## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	
31634.30	20.86	139.71	1615.99	-114.55	97.13	2.50	139.71	150.18	
41369.56	20.86	139.71	4172.01	-857.35	726.95	0.00	0.00	1124.06	
5760.06	0.00	0.00	5532.00	-1048.26	888.83	1.50	180.00	1374.36	
6760.06	0.00	0.00	7532.00	-1048.26	888.83	0.00	0.00	1374.36	Werner 41C-26-692 TD

## WELLBORE TARGET DETAILS

Name TVD +N/-S +E/-W Shape  
 Werner 41C-26-692 TD -1048.26 888.83 Circle (Radius: 25.00)



## CASING DETAILS

TVD MD Name Size  
 800.00 800.00 9 5/8" 9-5/8

## FORMATION TOP DETAILS

TVDPath MDPATH Formation  
 3652.00 3813.08 Mesaverde  
 4452.00 4665.12 Price Coal  
 5202.00 5429.64 Top Gas  
 7232.00 7460.06 Rollins

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Werner 41C-26-692, 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