

# **BILL BARRETT CORP**

**GARFIELD COUNTY, COLORADO NAD 1983**

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

**Werner 43D-23-692**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**14 December, 2009**

# BBC Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Werner 43D-23-692
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:	Werner Pad(s) SWSE-23-692	North Reference:	True
Well:	Werner 43D-23-692	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	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 43D-23-692					
Well Position	+N/-S	-0.01 ft	Northing:	1,616,896.885 ft	Latitude:	39° 30' 28.134 N
	+E/-W	0.00 ft	Easting:	2,399,006.620 ft	Longitude:	107° 37' 48.7956 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)
	BGGM2007	12/14/2009	10.44	65.84	52,483

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	28.31

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	
810.00	0.00	0.00	810.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,931.75	28.04	28.31	1,887.50	236.91	127.60	2.50	2.50	0.00	28.31	
4,200.84	28.04	28.31	3,890.17	1,176.15	633.46	0.00	0.00	0.00	0.00	
6,070.43	0.00	0.00	5,686.00	1,571.00	846.13	1.50	-1.50	0.00	180.00	
8,070.43	0.00	0.00	7,686.00	1,571.00	846.13	0.00	0.00	0.00	0.00	Werner 43D-23-692

# BBC Planning Report

Database: Compass  
Company: BILL BARRETT CORP  
Project: GARFIELD COUNTY, COLORADO NAD 1983  
Site: Werner Pad(s) SWSE-23-692  
Well: Werner 43D-23-692  
Wellbore: Wellbore #1  
Design: Design #1

Local Co-ordinate Reference: Well Werner 43D-23-692  
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)	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
810.00	0.00	0.00	810.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>9 5/8"</b>									
900.00	2.25	28.31	899.98	1.56	0.84	1.77	2.50	2.50	0.00
1,000.00	4.75	28.31	999.78	6.93	3.73	7.87	2.50	2.50	0.00
1,100.00	7.25	28.31	1,099.23	16.13	8.69	18.32	2.50	2.50	0.00
1,200.00	9.75	28.31	1,198.12	29.14	15.70	33.10	2.50	2.50	0.00
1,300.00	12.25	28.31	1,296.28	45.94	24.74	52.18	2.50	2.50	0.00
1,400.00	14.75	28.31	1,393.50	66.49	35.81	75.52	2.50	2.50	0.00
1,500.00	17.25	28.31	1,489.62	90.76	48.88	103.09	2.50	2.50	0.00
1,600.00	19.75	28.31	1,584.45	118.69	63.93	134.81	2.50	2.50	0.00
1,700.00	22.25	28.31	1,677.80	150.24	80.92	170.65	2.50	2.50	0.00
1,800.00	24.75	28.31	1,769.50	185.35	99.83	210.52	2.50	2.50	0.00
1,900.00	27.25	28.31	1,859.37	223.94	120.61	254.35	2.50	2.50	0.00
1,931.75	28.04	28.31	1,887.50	236.91	127.60	269.09	2.50	2.50	0.00
2,000.00	28.04	28.31	1,947.73	265.16	142.81	301.17	0.00	0.00	0.00
2,100.00	28.04	28.31	2,035.99	306.55	165.11	348.19	0.00	0.00	0.00
2,200.00	28.04	28.31	2,124.25	347.95	187.40	395.20	0.00	0.00	0.00
2,300.00	28.04	28.31	2,212.51	389.34	209.69	442.22	0.00	0.00	0.00
2,400.00	28.04	28.31	2,300.77	430.73	231.99	489.23	0.00	0.00	0.00
2,500.00	28.04	28.31	2,389.03	472.12	254.28	536.25	0.00	0.00	0.00
2,600.00	28.04	28.31	2,477.28	513.52	276.58	583.26	0.00	0.00	0.00
2,700.00	28.04	28.31	2,565.54	554.91	298.87	630.28	0.00	0.00	0.00
2,800.00	28.04	28.31	2,653.80	596.30	321.16	677.29	0.00	0.00	0.00
2,900.00	28.04	28.31	2,742.06	637.70	343.46	724.31	0.00	0.00	0.00
3,000.00	28.04	28.31	2,830.32	679.09	365.75	771.32	0.00	0.00	0.00
3,100.00	28.04	28.31	2,918.58	720.48	388.04	818.33	0.00	0.00	0.00
3,200.00	28.04	28.31	3,006.84	761.87	410.34	865.35	0.00	0.00	0.00
3,300.00	28.04	28.31	3,095.10	803.27	432.63	912.36	0.00	0.00	0.00
3,400.00	28.04	28.31	3,183.36	844.66	454.93	959.38	0.00	0.00	0.00
3,500.00	28.04	28.31	3,271.61	886.05	477.22	1,006.39	0.00	0.00	0.00
3,600.00	28.04	28.31	3,359.87	927.44	499.51	1,053.41	0.00	0.00	0.00
3,700.00	28.04	28.31	3,448.13	968.84	521.81	1,100.42	0.00	0.00	0.00
3,800.00	28.04	28.31	3,536.39	1,010.23	544.10	1,147.44	0.00	0.00	0.00
3,900.00	28.04	28.31	3,624.65	1,051.62	566.39	1,194.45	0.00	0.00	0.00
4,000.00	28.04	28.31	3,712.91	1,093.02	588.69	1,241.47	0.00	0.00	0.00
4,060.15	28.04	28.31	3,766.00	1,117.92	602.10	1,269.75	0.00	0.00	0.00
<b>Mesaverde</b>									
4,100.00	28.04	28.31	3,801.17	1,134.41	610.98	1,288.48	0.00	0.00	0.00
4,200.00	28.04	28.31	3,889.43	1,175.80	633.28	1,335.50	0.00	0.00	0.00
4,200.84	28.04	28.31	3,890.17	1,176.15	633.46	1,335.89	0.00	0.00	0.00
4,300.00	26.56	28.31	3,978.28	1,216.19	655.03	1,381.37	1.50	-1.50	0.00
4,400.00	25.06	28.31	4,068.30	1,254.52	675.67	1,424.90	1.50	-1.50	0.00
4,500.00	23.56	28.31	4,159.44	1,290.75	695.19	1,466.06	1.50	-1.50	0.00
4,600.00	22.06	28.31	4,251.62	1,324.88	713.57	1,504.82	1.50	-1.50	0.00

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Wellbore: Wellbore #1  
Design: Design #1

Local Co-ordinate Reference: Well Werner 43D-23-692  
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)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,700.00	20.56	28.31	4,344.78	1,356.87	730.80	1,541.16	1.50	-1.50	0.00
4,800.00	19.06	28.31	4,438.86	1,386.70	746.86	1,575.04	1.50	-1.50	0.00
4,900.00	17.56	28.31	4,533.80	1,414.36	761.76	1,606.45	1.50	-1.50	0.00
4,975.50	16.42	28.31	4,606.00	1,433.78	772.22	1,628.51	1.50	-1.50	0.00
<b>Price Coal</b>									
5,000.00	16.06	28.31	4,629.52	1,439.81	775.47	1,635.36	1.50	-1.50	0.00
5,100.00	14.56	28.31	4,725.97	1,463.05	787.99	1,661.76	1.50	-1.50	0.00
5,200.00	13.06	28.31	4,823.08	1,484.06	799.30	1,685.62	1.50	-1.50	0.00
5,300.00	11.56	28.31	4,920.78	1,502.83	809.41	1,706.94	1.50	-1.50	0.00
5,400.00	10.06	28.31	5,019.00	1,519.33	818.30	1,725.69	1.50	-1.50	0.00
5,500.00	8.56	28.31	5,117.69	1,533.57	825.97	1,741.86	1.50	-1.50	0.00
5,600.00	7.06	28.31	5,216.76	1,545.53	832.41	1,755.44	1.50	-1.50	0.00
5,700.00	5.56	28.31	5,316.15	1,555.20	837.62	1,766.42	1.50	-1.50	0.00
5,800.00	4.06	28.31	5,415.79	1,562.58	841.59	1,774.80	1.50	-1.50	0.00
5,825.26	3.68	28.31	5,441.00	1,564.08	842.40	1,776.51	1.50	-1.50	0.00
<b>Top Gas</b>									
5,900.00	2.56	28.31	5,515.62	1,567.66	844.32	1,780.57	1.50	-1.50	0.00
6,000.00	1.06	28.31	5,615.57	1,570.43	845.82	1,783.72	1.50	-1.50	0.00
6,070.43	0.00	0.00	5,686.00	1,571.00	846.13	1,784.37	1.50	-1.50	0.00
6,100.00	0.00	0.00	5,715.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
6,200.00	0.00	0.00	5,815.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
6,300.00	0.00	0.00	5,915.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
6,400.00	0.00	0.00	6,015.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
6,500.00	0.00	0.00	6,115.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
6,600.00	0.00	0.00	6,215.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
6,700.00	0.00	0.00	6,315.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
6,800.00	0.00	0.00	6,415.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
6,900.00	0.00	0.00	6,515.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
7,000.00	0.00	0.00	6,615.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
7,100.00	0.00	0.00	6,715.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
7,200.00	0.00	0.00	6,815.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
7,300.00	0.00	0.00	6,915.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
7,400.00	0.00	0.00	7,015.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
7,500.00	0.00	0.00	7,115.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
7,600.00	0.00	0.00	7,215.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
7,700.00	0.00	0.00	7,315.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
7,770.43	0.00	0.00	7,386.00	1,571.00	846.13	1,784.37	0.00	0.00	0.00
<b>Rollins</b>									
7,800.00	0.00	0.00	7,415.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
7,900.00	0.00	0.00	7,515.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
8,000.00	0.00	0.00	7,615.57	1,571.00	846.13	1,784.37	0.00	0.00	0.00
8,070.43	0.00	0.00	7,686.00	1,571.00	846.13	1,784.37	0.00	0.00	0.00

## Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
810.00	810.00	9 5/8"	9-5/8	12-1/4

**BBC**  
Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Werner 43D-23-692
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:	Werner Pad(s) SWSE-23-692	North Reference:	True
Well:	Werner 43D-23-692	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,060.15	3,766.00	Mesaverde		0.00		
4,975.50	4,606.00	Price Coal		0.00		
5,825.26	5,441.00	Top Gas		0.00		
7,770.43	7,386.00	Rollins		0.00		

# WELL DETAILS: Werner 43D-23-692

Ground Level: 0.00  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.00 0.00 1616896.885 2399006.620 39° 30' 28.1340N 101° 37' 48.7956 W



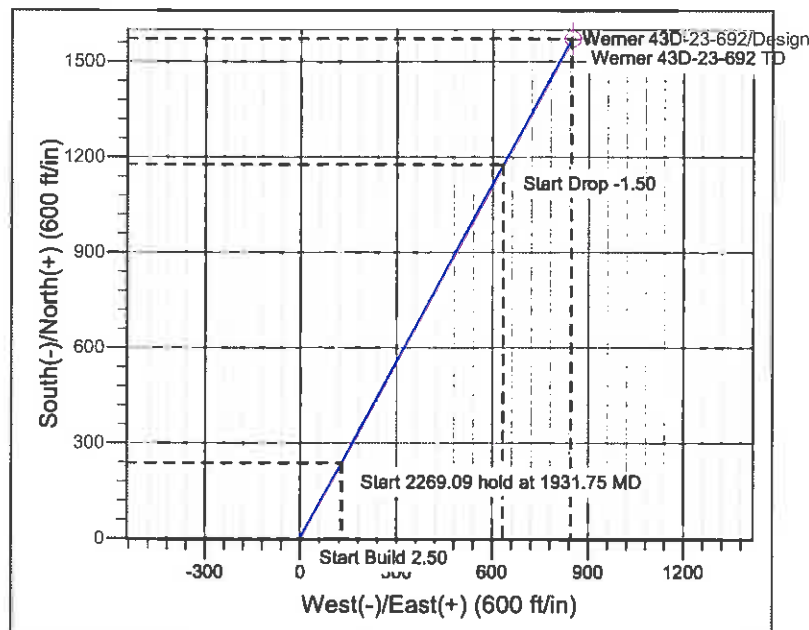
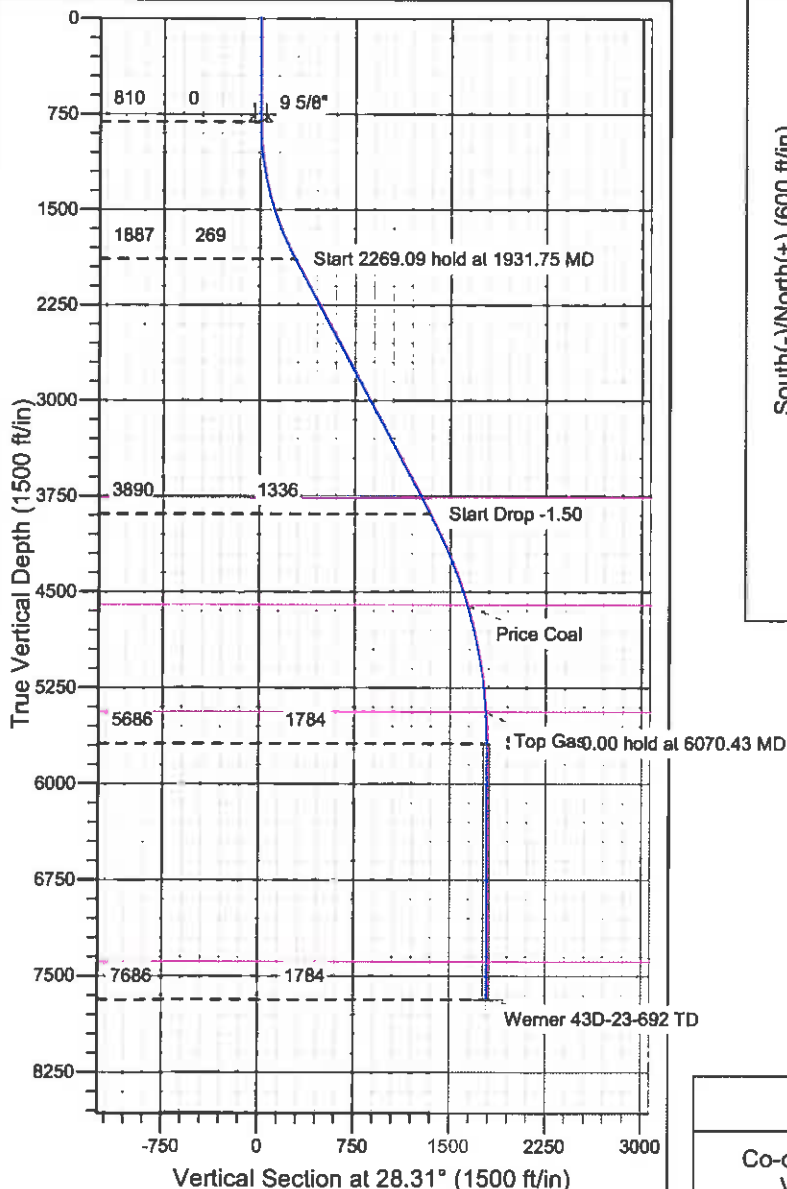
Azimuths to True North  
 Magnetic North: 10.46°  
 Magnetic Field  
 Strength: 52482.7nT  
 Dip Angle: 65.84°  
 Date: 12/14/2009  
 Model: BGGM2007

## 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	
2810.00	0.00	0.00	810.00	0.00	0.00	0.00	0.00	0.00	
3931.75	28.04	28.31	1887.50	236.91	127.60	2.50	28.31	269.09	
4200.84	28.04	28.31	3890.17	1176.15	633.46	0.00	0.00	1335.89	
5070.43	0.00	0.00	5686.00	1571.00	846.13	1.50	180.00	1784.37	
6070.43	0.00	0.00	7686.00	1571.00	846.13	0.00	0.00	1784.37	Werner 43D-23-692 TD

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Werner 43D-23-692 TD	7686.00	1571.00	846.13	Circle (Radius: 25.00)



## CASING DETAILS

TVD	MD	Name	Size
810.00	810.00	9 5/8"	9-5/8

## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3766.00	4060.15	Mesaverde
4606.00	4975.50	Price Coal
5441.00	5825.26	Top Gas
7386.00	7770.43	Rollins

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Werner 43D-23-692, 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