

# **BILL BARRETT CORP**

**GARFIELD COUNTY, COLORADO NAD 1983**

**Kaufman Pad #4 NWNW-30-691**

**Kaufman 41A-25-692**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**31 December, 2009**

# BBC

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Kaufman 41A-25-692
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 5786.00ft (Original Well Elev)
<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 5786.00ft (Original Well Elev)
<b>Site:</b>	Kaufman Pad #4 NWNW-30-691	<b>North Reference:</b>	True
<b>Well:</b>	Kaufman 41A-25-692	<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						Kaufman Pad #4 NWNW-30-691											
Site Position:						Northing:			1,614,920.309ft			Latitude:			39° 30' 10.271 N		
From:			Lat/Long			Easting:			2,406,245.151 ft			Longitude:			107° 36' 15.8796 W		
Position Uncertainty:			0.00 ft			Slot Radius:			"			Grid Convergence:			-1.33 °		

Well	Kaufman 41A-25-692					
Well Position	+N/-S	72.84 ft	Northing:	1,614,993.906 ft	Latitude:	39° 30' 10.991 N
	+E/-W	-33.58 ft	Easting:	2,406,213.269 ft	Longitude:	107° 36' 16.3080 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	12/29/2009	10.42	65.84	52,432

<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	258.06	

<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	
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,344.04	14.85	258.06	1,337.41	-15.84	-74.90	2.50	2.50	0.00	258.06	
4,930.41	14.85	258.06	4,803.98	-205.96	-974.24	0.00	0.00	0.00	0.00	
5,920.48	0.00	0.00	5,783.00	-232.35	-1,099.07	1.50	-1.50	0.00	180.00	
7,420.48	0.00	0.00	7,283.00	-232.35	-1,099.07	0.00	0.00	0.00	0.00	Kaufman 41A-25-692

**BBC**  
Planning Report

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<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 5786.00ft (Original Well Elev)
<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 5786.00ft (Original Well Elev)
<b>Site:</b>	Kaufman Pad #4 NWNW-30-691	<b>North Reference:</b>	True
<b>Well:</b>	Kaufman 41A-25-692	<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
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
800.00	1.25	258.06	800.00	-0.11	-0.53	0.55	2.50	2.50	0.00
900.00	3.75	258.06	899.89	-1.01	-4.80	4.91	2.50	2.50	0.00
1,000.00	6.25	258.06	999.50	-2.82	-13.33	13.62	2.50	2.50	0.00
1,100.00	8.75	258.06	1,098.64	-5.52	-26.10	26.67	2.50	2.50	0.00
1,200.00	11.25	258.06	1,197.11	-9.11	-43.08	44.04	2.50	2.50	0.00
1,300.00	13.75	258.06	1,294.74	-13.58	-64.26	65.68	2.50	2.50	0.00
1,344.04	14.85	258.06	1,337.41	-15.84	-74.90	76.56	2.50	2.50	0.00
1,400.00	14.85	258.06	1,391.50	-18.80	-88.93	90.90	0.00	0.00	0.00
1,500.00	14.85	258.06	1,488.16	-24.10	-114.01	116.53	0.00	0.00	0.00
1,600.00	14.85	258.06	1,584.82	-29.40	-139.09	142.16	0.00	0.00	0.00
1,700.00	14.85	258.06	1,681.48	-34.71	-164.16	167.79	0.00	0.00	0.00
1,800.00	14.85	258.06	1,778.14	-40.01	-189.24	193.42	0.00	0.00	0.00
1,900.00	14.85	258.06	1,874.80	-45.31	-214.32	219.05	0.00	0.00	0.00
2,000.00	14.85	258.06	1,971.46	-50.61	-239.39	244.68	0.00	0.00	0.00
2,100.00	14.85	258.06	2,068.12	-55.91	-264.47	270.31	0.00	0.00	0.00
2,200.00	14.85	258.06	2,164.78	-61.21	-289.55	295.95	0.00	0.00	0.00
2,300.00	14.85	258.06	2,261.44	-66.51	-314.62	321.58	0.00	0.00	0.00
2,400.00	14.85	258.06	2,358.10	-71.82	-339.70	347.21	0.00	0.00	0.00
2,500.00	14.85	258.06	2,454.76	-77.12	-364.78	372.84	0.00	0.00	0.00
2,600.00	14.85	258.06	2,551.42	-82.42	-389.85	398.47	0.00	0.00	0.00
2,700.00	14.85	258.06	2,648.08	-87.72	-414.93	424.10	0.00	0.00	0.00
2,800.00	14.85	258.06	2,744.73	-93.02	-440.00	449.73	0.00	0.00	0.00
2,900.00	14.85	258.06	2,841.39	-98.32	-465.08	475.36	0.00	0.00	0.00
3,000.00	14.85	258.06	2,938.05	-103.62	-490.16	500.99	0.00	0.00	0.00
3,100.00	14.85	258.06	3,034.71	-108.92	-515.23	526.62	0.00	0.00	0.00
3,200.00	14.85	258.06	3,131.37	-114.23	-540.31	552.25	0.00	0.00	0.00
3,300.00	14.85	258.06	3,228.03	-119.53	-565.39	577.88	0.00	0.00	0.00
3,400.00	14.85	258.06	3,324.69	-124.83	-590.46	603.51	0.00	0.00	0.00
3,444.80	14.85	258.06	3,368.00	-127.20	-601.70	615.00	0.00	0.00	0.00
Mesaverde									
3,500.00	14.85	258.06	3,421.35	-130.13	-615.54	629.15	0.00	0.00	0.00
3,600.00	14.85	258.06	3,518.01	-135.43	-640.62	654.78	0.00	0.00	0.00
3,700.00	14.85	258.06	3,614.67	-140.73	-665.69	680.41	0.00	0.00	0.00
3,800.00	14.85	258.06	3,711.33	-146.03	-690.77	706.04	0.00	0.00	0.00
3,900.00	14.85	258.06	3,807.99	-151.34	-715.85	731.67	0.00	0.00	0.00
4,000.00	14.85	258.06	3,904.65	-156.64	-740.92	757.30	0.00	0.00	0.00
4,100.00	14.85	258.06	4,001.31	-161.94	-766.00	782.93	0.00	0.00	0.00
4,200.00	14.85	258.06	4,097.97	-167.24	-791.08	808.56	0.00	0.00	0.00
4,272.45	14.85	258.06	4,168.00	-171.08	-809.24	827.13	0.00	0.00	0.00
Price Coal									
4,300.00	14.85	258.06	4,194.63	-172.54	-816.15	834.19	0.00	0.00	0.00
4,400.00	14.85	258.06	4,291.29	-177.84	-841.23	859.82	0.00	0.00	0.00
4,500.00	14.85	258.06	4,387.95	-183.14	-866.30	885.45	0.00	0.00	0.00

# BBC

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<b>Site:</b>	Kaufman Pad #4 NWNW-30-691	<b>North Reference:</b>	True
<b>Well:</b>	Kaufman 41A-25-692	<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)
4,600.00	14.85	258.06	4,484.61	-188.45	-891.38	911.08	0.00	0.00	0.00
4,624.20	14.85	258.06	4,508.00	-189.73	-897.45	917.29	0.00	0.00	0.00
<b>Top Gas</b>									
4,700.00	14.85	258.06	4,581.27	-193.75	-916.46	936.71	0.00	0.00	0.00
4,800.00	14.85	258.06	4,677.93	-199.05	-941.53	962.34	0.00	0.00	0.00
4,900.00	14.85	258.06	4,774.59	-204.35	-966.61	987.98	0.00	0.00	0.00
4,930.41	14.85	258.06	4,803.98	-205.96	-974.24	995.77	0.00	0.00	0.00
5,000.00	13.81	258.06	4,871.40	-209.52	-991.09	1,012.99	1.50	-1.50	0.00
5,100.00	12.31	258.06	4,968.82	-214.20	-1,013.19	1,035.58	1.50	-1.50	0.00
5,200.00	10.81	258.06	5,066.78	-218.34	-1,032.79	1,055.62	1.50	-1.50	0.00
5,300.00	9.31	258.06	5,165.25	-221.95	-1,049.88	1,073.08	1.50	-1.50	0.00
5,400.00	7.81	258.06	5,264.13	-225.03	-1,064.43	1,087.96	1.50	-1.50	0.00
5,500.00	6.31	258.06	5,363.37	-227.57	-1,076.45	1,100.25	1.50	-1.50	0.00
5,600.00	4.81	258.06	5,462.90	-229.57	-1,085.93	1,109.93	1.50	-1.50	0.00
5,700.00	3.31	258.06	5,562.64	-231.04	-1,092.85	1,117.00	1.50	-1.50	0.00
5,800.00	1.81	258.06	5,662.54	-231.96	-1,097.21	1,121.47	1.50	-1.50	0.00
5,900.00	0.31	258.06	5,762.52	-232.34	-1,099.02	1,123.31	1.50	-1.50	0.00
5,920.48	0.00	0.00	5,783.00	-232.35	-1,099.07	1,123.37	1.50	-1.50	0.00
6,000.00	0.00	0.00	5,862.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
6,100.00	0.00	0.00	5,962.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
6,200.00	0.00	0.00	6,062.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
6,300.00	0.00	0.00	6,162.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
6,400.00	0.00	0.00	6,262.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
6,500.00	0.00	0.00	6,362.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
6,600.00	0.00	0.00	6,462.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
6,700.00	0.00	0.00	6,562.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
6,800.00	0.00	0.00	6,662.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
6,900.00	0.00	0.00	6,762.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
7,000.00	0.00	0.00	6,862.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
7,100.00	0.00	0.00	6,962.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
7,120.48	0.00	0.00	6,983.00	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
<b>Rollins</b>									
7,200.00	0.00	0.00	7,062.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
7,300.00	0.00	0.00	7,162.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
7,400.00	0.00	0.00	7,262.52	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00
7,420.48	0.00	0.00	7,283.00	-232.35	-1,099.07	1,123.37	0.00	0.00	0.00

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
750.00	750.00	9 5/8"	9-5/8	12-1/4

# BBC

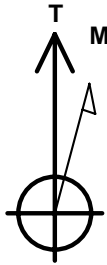
## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Kaufman 41A-25-692
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 5786.00ft (Original Well Elev)
<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 5786.00ft (Original Well Elev)
<b>Site:</b>	Kaufman Pad #4 NWNW-30-691	<b>North Reference:</b>	True
<b>Well:</b>	Kaufman 41A-25-692	<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 (°)	
3,444.80	3,368.00	Mesaverde		0.00		
4,272.45	4,168.00	Price Coal		0.00		
4,624.20	4,508.00	Top Gas		0.00		
7,120.48	6,983.00	Rollins		0.00		

WELL DETAILS: Kaufman 41A-25-692

Ground Level: 0.00  
+N/-S+E/-W    Northing    Easting    Latitude    Longitude    Slot  
0.00    0.00 1614993.906 2406213.269 30° 10.997' N 106° 16.3080 W



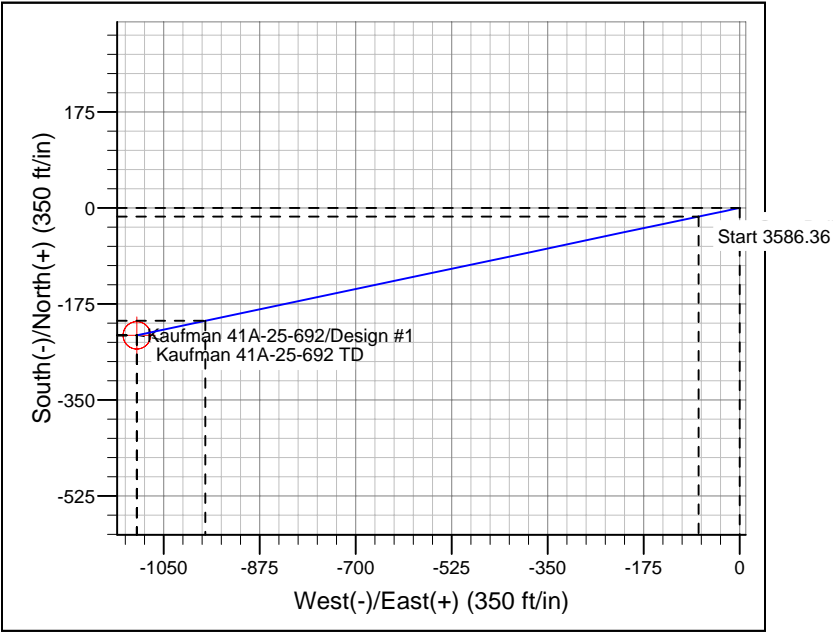
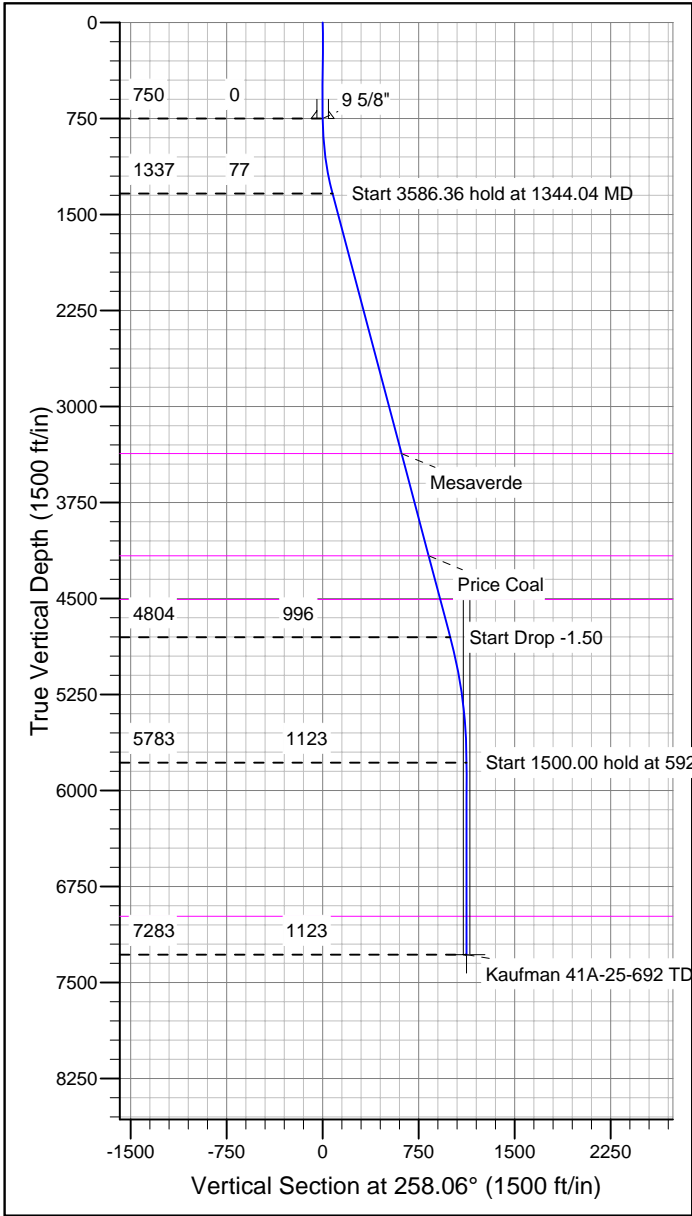
Azimuths to True North  
Magnetic North: 10.42°  
  
Magnetic Field  
Strength: 52432.4snT  
Dip Angle: 65.84°  
Date: 12/29/2009  
Model: BGGM2007

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	
	750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	
	1344.04	14.85	258.06	1337.41	-15.84	-74.90	2.50	258.06	76.56	
	4930.41	14.85	258.06	4803.98	-205.96	-974.24	0.00	0.00	995.77	
	5920.48	0.00	0.00	5783.00	-232.35	-1099.07	1.50	180.00	123.37	
	7420.48	0.00	0.00	7283.00	-232.35	-1099.07	0.00	0.00	123.37	Kaufman 41A-25-692 TD

WELLBORE TARGET DETAILS

Name                      TVD                      +N/-S                      +E/-W                      Shape  
Kaufman 41A-25-692-TD                      5782.35                      -1099.07                      Circle (Radius: 25.00)



CASING DETAILS

TVD                      MD                      Name                      Size  
750.00                      750.00                      9 5/8"                      9-5/8

FORMATION TOP DETAILS

TVDPATH	MDPATH	Formation
3368.00	3444.80	Mesaverde
4168.00	4272.45	Price Coal
4508.00	4624.20	Top Gas
6983.00	7120.48	Rollins

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Kaufman 41A-25-692, True North  
Vertical (TVD) Reference: WELL @ 5786.00ft (Original Well Elev)  
Section (VS) Reference: Slot - (0.00N, 0.00E)  
Measured Depth Reference: WELL @ 5786.00ft (Original Well Elev)  
Calculation Method: Minimum Curvature