

# **Bill Barrett Corp. (II)**

**Garfield County, Colorado [NAD83]**

**Circle B Tract 5 Pad**

**CBS 41B-21-692**

**Wellbore #1**

**Design: Wellbore #1**

## **Standard Survey Report**

**28 December, 2011**



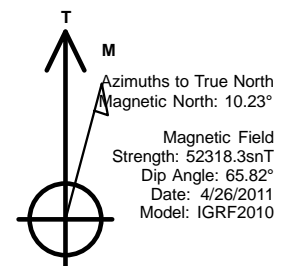
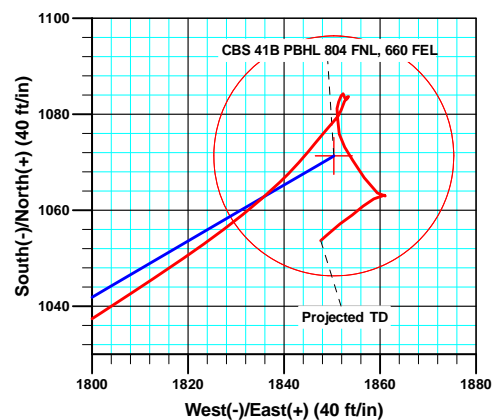
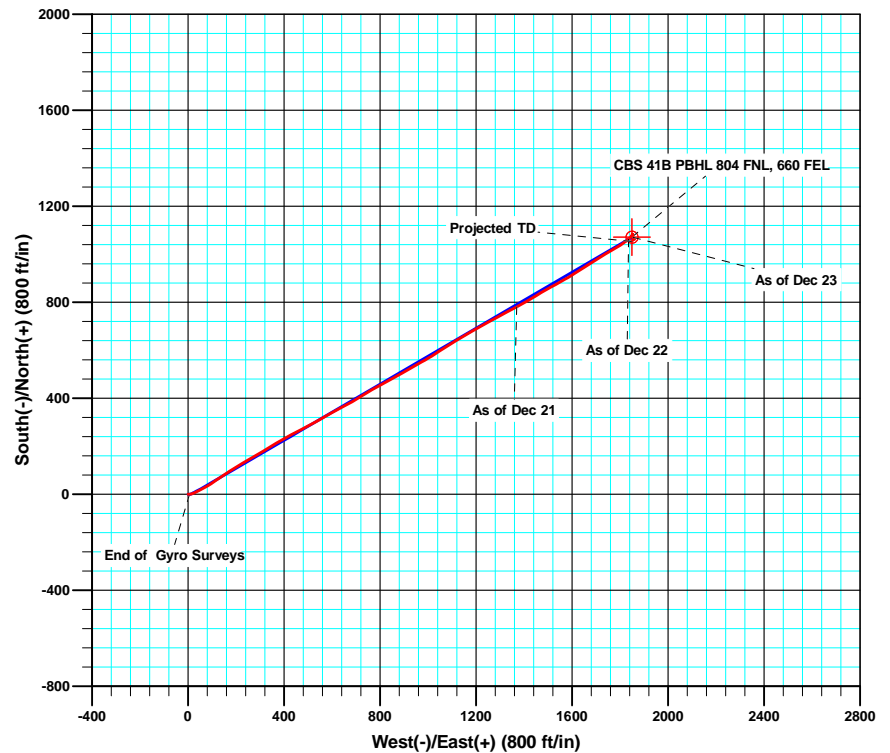
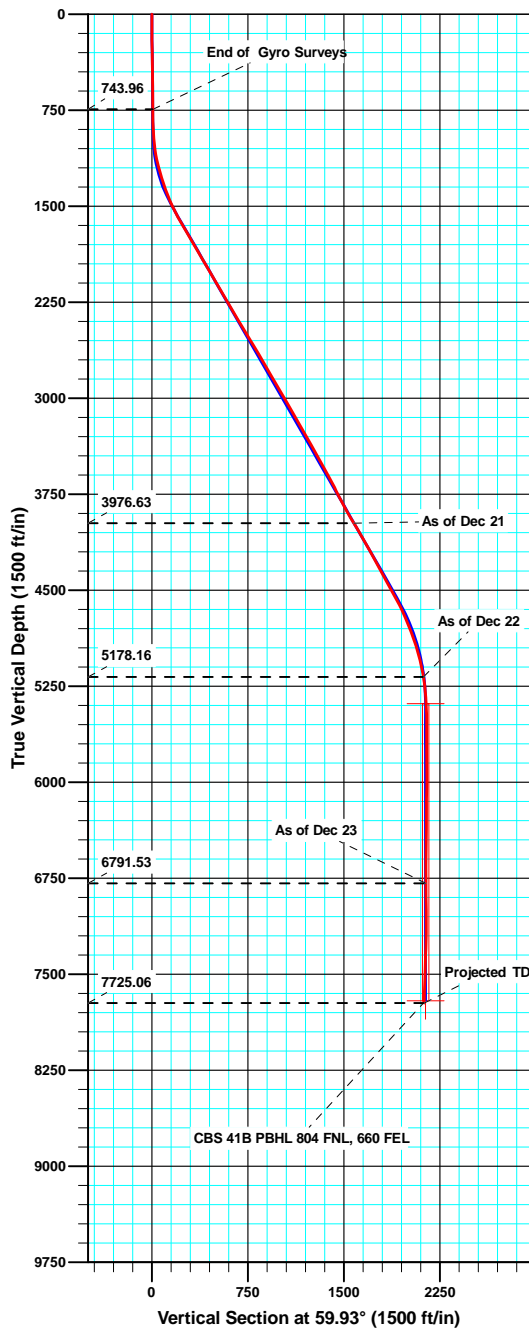
**Bill Barrett Corporation**

## WELL DETAILS: CBS 41B-21-692

North American Datum 1983 , US State Plane 1983 , Colorado Central Zone

+N/-S +E/-W Northing Easting Latitude Longitude  
0.00 0.00 1619633.15 2387479.56 39° 30' 52.47 N 107° 40' 16.66 W

GL @ 5743.50



### ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
743.96	744.00	0.860	95.08	0.70	7.09	6.49	7.26	End of Gyro Surveys
3976.63	4377.00	30.700	61.50	781.32	1369.69	1576.84	1579.35	As of Dec 21
5178.16	5704.00	9.800	48.70	1062.59	1835.55	2120.93	2123.87	As of Dec 22
6791.53	7319.00	2.100	156.80	1070.43	1854.34	2141.11	2170.74	As of Dec 23
7725.06	8253.00	1.600	227.70	1053.68	1847.66	2126.95	2199.80	Projected TD

# Sharewell

## Survey Report

<b>Company:</b>	Bill Barrett Corp. (II)	<b>Local Co-ordinate Reference:</b>	Well CBS 41B-21-692
<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>TVD Reference:</b>	KB @ 5767.00ft
<b>Site:</b>	Circle B Tract 5 Pad	<b>MD Reference:</b>	KB @ 5767.00ft
<b>Well:</b>	CBS 41B-21-692	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Compass VM

<b>Project</b>	Garfield County, Colorado [NAD83]		
<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		Circle B Tract 5 Pad			
Site Position:		Northing:	1,619,626.42 usft	Latitude:	39° 30' 52.41 N
From:	Lat/Long	Easting:	2,387,502.83 usft	Longitude:	107° 40' 16.36 W
Position Uncertainty:	0.00 ft	Slot Radius:	1.10 ft	Grid Convergence:	-1.37 °

Well	CBS 41B-21-692					
Well Position	+N/-S	0.00 ft	Northing:	1,619,633.14 usft	Latitude:	39° 30' 52.47 N
	+E/-W	0.00 ft	Easting:	2,387,479.57 usft	Longitude:	107° 40' 16.66 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,743.50 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	4/26/2011	10.23	65.82	52,318

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<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	59.93	

<b>Survey Program</b>	<b>Date</b>	12/28/2011			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
100.00	744.00	Gyro (Wellbore #1)	Gyro	Gyro	
967.00	8,253.00	MWD (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</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>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.260	53.83	100.00	0.13	0.18	0.23	0.26	0.26	0.00	
200.00	0.470	69.86	200.00	0.41	0.75	0.86	0.23	0.21	16.03	
300.00	0.620	97.25	299.99	0.48	1.67	1.69	0.30	0.15	27.39	
400.00	0.670	78.50	399.99	0.53	2.78	2.67	0.22	0.05	-18.75	
500.00	0.660	86.46	499.98	0.68	3.93	3.74	0.09	-0.01	7.96	
600.00	0.730	89.60	599.97	0.72	5.14	4.81	0.08	0.07	3.14	
700.00	0.780	89.73	699.97	0.73	6.46	5.96	0.05	0.05	0.13	
744.00	0.860	95.08	743.96	0.70	7.09	6.49	0.25	0.18	12.16	
967.00	3.400	79.80	966.79	1.73	15.26	14.07	1.16	1.14	-6.85	

# Sharewell

## Survey Report

<b>Company:</b>	Bill Barrett Corp. (II)	<b>Local Co-ordinate Reference:</b>	Well CBS 41B-21-692
<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>TVD Reference:</b>	KB @ 5767.00ft
<b>Site:</b>	Circle B Tract 5 Pad	<b>MD Reference:</b>	KB @ 5767.00ft
<b>Well:</b>	CBS 41B-21-692	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Compass VM

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)
1,062.00	8.700	65.00	1,061.23	5.26	24.56	23.89	5.77	5.58	-15.58
1,157.00	13.400	64.00	1,154.44	13.13	40.97	42.04	4.95	4.95	-1.05
1,251.00	16.200	62.30	1,245.32	24.00	62.38	66.01	3.01	2.98	-1.81
1,346.00	18.300	58.10	1,336.04	38.05	86.77	94.16	2.57	2.21	-4.42
1,441.00	22.300	55.20	1,425.12	56.22	114.25	127.04	4.34	4.21	-3.05
1,536.00	25.500	54.50	1,511.97	78.39	145.71	165.37	3.38	3.37	-0.74
1,631.00	29.100	59.70	1,596.38	101.93	182.32	208.85	4.54	3.79	5.47
1,726.00	30.400	59.40	1,678.86	125.82	222.95	255.99	1.38	1.37	-0.32
1,821.00	30.800	59.40	1,760.63	150.44	264.58	304.35	0.42	0.42	0.00
1,916.00	30.600	58.50	1,842.32	175.45	306.13	352.84	0.53	-0.21	-0.95
2,011.00	30.300	58.30	1,924.22	200.68	347.13	400.97	0.33	-0.32	-0.21
2,105.00	29.900	61.10	2,005.54	224.46	387.82	448.10	1.55	-0.43	2.98
2,200.00	30.200	61.60	2,087.77	247.27	429.57	495.65	0.41	0.32	0.53
2,295.00	29.900	62.20	2,170.01	269.68	471.53	543.20	0.45	-0.32	0.63
2,389.00	30.300	62.00	2,251.33	291.74	513.20	590.31	0.44	0.43	-0.21
2,484.00	31.200	60.80	2,332.97	315.00	555.84	638.86	1.15	0.95	-1.26
2,578.00	31.300	60.70	2,413.33	338.82	598.38	687.62	0.12	0.11	-0.11
2,673.00	31.200	61.90	2,494.55	362.49	641.61	736.89	0.66	-0.11	1.26
2,768.00	30.800	60.20	2,575.98	386.17	684.42	785.80	1.01	-0.42	-1.79
2,863.00	30.200	58.70	2,657.84	410.67	725.95	834.01	1.02	-0.63	-1.58
2,958.00	30.500	59.70	2,739.82	435.25	767.18	882.01	0.62	0.32	1.05
3,053.00	30.400	60.80	2,821.72	459.13	808.97	930.15	0.60	-0.11	1.16
3,147.00	30.300	61.00	2,902.84	482.23	850.47	977.64	0.15	-0.11	0.21
3,242.00	29.800	61.00	2,985.07	505.30	892.08	1,025.20	0.53	-0.53	0.00
3,336.00	30.000	60.50	3,066.56	528.19	932.96	1,072.06	0.34	0.21	-0.53
3,431.00	29.700	61.00	3,148.95	551.30	974.22	1,119.34	0.41	-0.32	0.53
3,526.00	30.900	57.40	3,230.98	575.85	1,015.36	1,167.24	2.29	1.26	-3.79
3,617.00	30.100	57.00	3,309.39	600.87	1,054.18	1,213.37	0.91	-0.88	-0.44
3,712.00	29.200	58.30	3,391.95	626.02	1,093.88	1,260.33	1.16	-0.95	1.37
3,807.00	27.700	59.00	3,475.47	649.57	1,132.52	1,305.57	1.62	-1.58	0.74
3,902.00	29.300	59.80	3,558.96	672.64	1,171.54	1,350.90	1.73	1.68	0.84
3,997.00	28.500	60.20	3,642.13	695.60	1,211.30	1,396.81	0.87	-0.84	0.42
4,092.30	26.200	62.00	3,726.77	716.78	1,249.61	1,440.58	2.56	-2.41	1.89
4,187.00	28.000	61.90	3,811.07	737.06	1,287.68	1,483.69	1.90	1.90	-0.11
4,282.00	29.400	61.60	3,894.40	758.66	1,327.87	1,529.29	1.48	1.47	-0.32
4,377.00	30.700	61.50	3,976.63	781.32	1,369.69	1,576.84	1.37	1.37	-0.11
4,471.00	30.600	59.90	4,057.50	804.77	1,411.48	1,624.75	0.87	-0.11	-1.70
4,564.00	30.500	59.00	4,137.59	828.80	1,452.19	1,672.02	0.50	-0.11	-0.97
4,659.00	28.700	60.60	4,220.19	852.41	1,492.73	1,718.94	2.07	-1.89	1.68
4,753.00	27.800	61.60	4,302.99	873.92	1,531.68	1,763.42	1.08	-0.96	1.06
4,848.00	27.700	60.50	4,387.06	895.33	1,570.38	1,807.64	0.55	-0.11	-1.16
4,944.00	30.100	57.40	4,471.11	919.29	1,610.09	1,854.01	2.95	2.50	-3.23
5,039.00	28.800	57.30	4,553.83	944.49	1,649.42	1,900.67	1.37	-1.37	-0.11

# Sharewell

## Survey Report

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<b>Site:</b>	Circle B Tract 5 Pad	<b>MD Reference:</b>	KB @ 5767.00ft
<b>Well:</b>	CBS 41B-21-692	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Compass VM

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)	
5,134.00	25.800	58.00	4,638.24	967.81	1,686.21	1,944.20	3.18	-3.16	0.74	
5,230.00	22.400	59.60	4,725.86	988.14	1,719.72	1,983.38	3.61	-3.54	1.67	
5,325.00	21.700	58.00	4,813.91	1,006.61	1,750.22	2,019.04	0.97	-0.74	-1.68	
5,420.00	19.000	58.70	4,902.97	1,023.96	1,778.34	2,052.06	2.85	-2.84	0.74	
5,515.00	15.000	57.30	4,993.80	1,038.64	1,801.91	2,079.81	4.23	-4.21	-1.47	
5,609.00	12.900	55.20	5,085.03	1,051.20	1,820.76	2,102.42	2.30	-2.23	-2.23	
5,704.00	9.800	48.70	5,178.16	1,062.59	1,835.55	2,120.93	3.53	-3.26	-6.84	
5,798.00	6.800	38.80	5,271.17	1,072.21	1,845.05	2,133.97	3.52	-3.19	-10.53	
5,894.00	2.600	43.60	5,366.83	1,078.22	1,850.11	2,141.36	4.39	-4.38	5.00	
5,989.00	1.300	15.90	5,461.77	1,080.82	1,851.89	2,144.20	1.65	-1.37	-29.16	
6,084.00	1.100	26.60	5,556.75	1,082.67	1,852.60	2,145.74	0.32	-0.21	11.26	
6,179.00	0.400	55.70	5,651.74	1,083.67	1,853.28	2,146.83	0.82	-0.74	30.63	
6,275.00	0.200	211.40	5,747.74	1,083.72	1,853.47	2,147.02	0.61	-0.21	162.19	
6,370.00	0.600	212.70	5,842.74	1,083.16	1,853.11	2,146.43	0.42	0.42	1.37	
6,465.00	0.800	347.30	5,937.74	1,083.38	1,852.70	2,146.19	1.36	0.21	141.68	
6,560.00	0.400	319.60	6,032.73	1,084.28	1,852.34	2,146.33	0.51	-0.42	-29.16	
6,655.00	0.800	197.20	6,127.73	1,083.90	1,851.93	2,145.78	1.13	0.42	-128.84	
6,750.00	0.100	248.30	6,222.73	1,083.24	1,851.65	2,145.21	0.78	-0.74	53.79	
6,845.00	0.800	198.80	6,317.72	1,082.58	1,851.36	2,144.63	0.78	0.74	-52.11	
6,939.00	0.900	187.70	6,411.71	1,081.23	1,851.05	2,143.68	0.20	0.11	-11.81	
7,034.00	1.800	171.00	6,506.68	1,079.01	1,851.19	2,142.69	1.02	0.95	-17.58	
7,129.00	2.000	176.20	6,601.63	1,075.89	1,851.53	2,141.42	0.28	0.21	5.47	
7,224.00	1.800	137.60	6,696.58	1,073.13	1,852.64	2,141.00	1.34	-0.21	-40.63	
7,319.00	2.100	156.80	6,791.53	1,070.43	1,854.34	2,141.12	0.75	0.32	20.21	
7,413.00	3.300	140.10	6,885.43	1,066.77	1,856.75	2,141.37	1.51	1.28	-17.77	
7,508.00	1.700	138.40	6,980.33	1,063.62	1,859.44	2,142.12	1.69	-1.68	-1.79	
7,603.00	1.000	61.40	7,075.31	1,062.96	1,861.10	2,143.23	1.86	-0.74	-81.05	
7,698.00	1.100	256.40	7,170.31	1,063.14	1,860.95	2,143.18	2.19	0.11	-173.68	
7,793.00	1.700	247.70	7,265.28	1,062.39	1,858.76	2,140.91	0.67	0.63	-9.16	
7,888.00	1.700	225.40	7,360.24	1,060.87	1,856.45	2,138.15	0.69	0.00	-23.47	
7,983.00	1.800	235.60	7,455.19	1,059.04	1,854.21	2,135.30	0.34	0.11	10.74	
8,077.00	2.000	231.10	7,549.14	1,057.17	1,851.72	2,132.21	0.27	0.21	-4.79	
8,172.00	1.700	229.30	7,644.09	1,055.21	1,849.36	2,129.19	0.32	-0.32	-1.89	
8,203.00	1.600	227.70	7,675.08	1,054.62	1,848.69	2,128.31	0.36	-0.32	-5.16	
8,253.00	1.600	227.70	7,725.06	1,053.68	1,847.66	2,126.95	0.00	0.00	0.00	

# Sharewell

## Survey Report

<b>Company:</b>	Bill Barrett Corp. (II)	<b>Local Co-ordinate Reference:</b>	Well CBS 41B-21-692
<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>TVD Reference:</b>	KB @ 5767.00ft
<b>Site:</b>	Circle B Tract 5 Pad	<b>MD Reference:</b>	KB @ 5767.00ft
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<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Compass VM

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
744.00	743.96	0.70	7.09	End of Gyro Surveys
4,377.00	3,976.63	781.32	1,369.69	As of Dec 21
5,704.00	5,178.16	1,062.59	1,835.55	As of Dec 22
7,319.00	6,791.53	1,070.43	1,854.34	As of Dec 23
8,253.00	7,725.06	1,053.68	1,847.66	Projected TD

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_