

# **Bill Barrett Corp.**

**Garfield County, Colorado [NAD83]**

**Kaufman 1 Pad Phase 2**

**Kaufman 12C-25-692**

**Wellbore #1**

**Design: Wellbore #1**

## **Standard Survey Report**

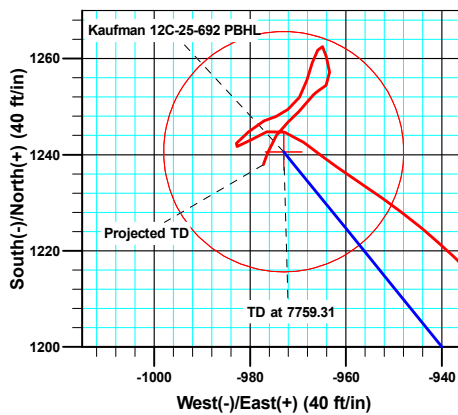
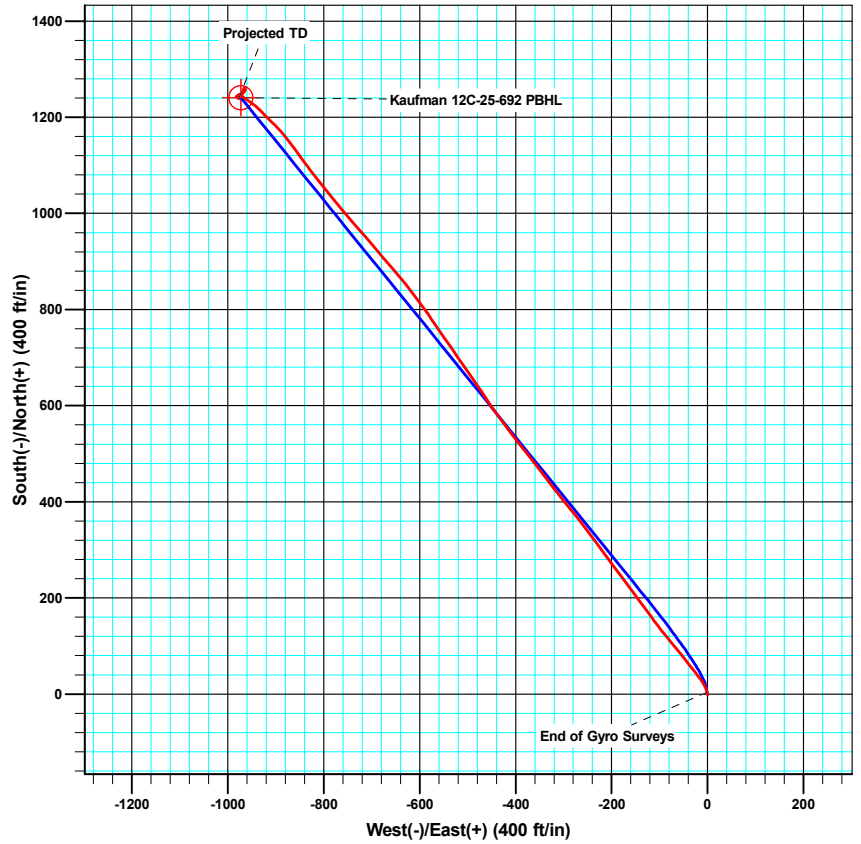
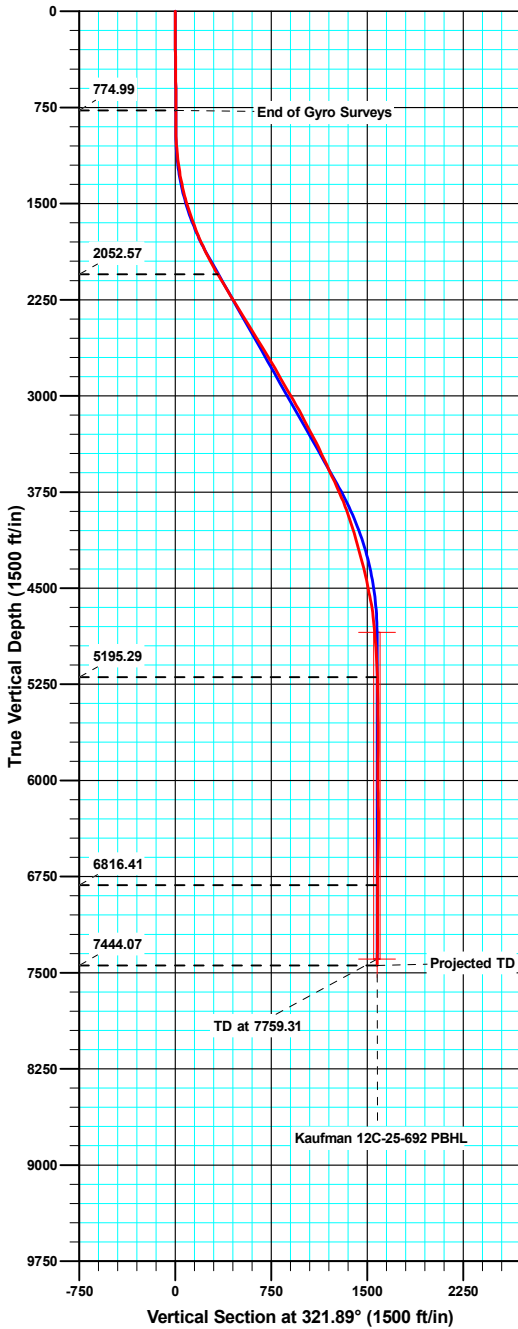
**08 July, 2011**



### WELL DETAILS: Kaufman 12C-25-692

North American Datum 1983      US State Plane 1983      Colorado Central Zone  
 +N/-S    +E/-W    Northing      Easting      Latitude      Longitude  
 0.00    0.00    1612922.57    2402094.63    39.497105    -107.618951

Ground Level: 5922.00      KB @ 5945.00ft  
 Kaufman 1 Pad Phase 2



Azimuths to True North  
 Magnetic North: 10.20°

Magnetic Field  
 Strength: 52311.9snT  
 Dip Angle: 65.81°  
 Date: 05/04/2011  
 Model: IGRF2010

#### ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
774.99	775.00	0.17	256.68	3.91	-1.02	3.71	4.69	End of Gyro Surveys
2052.57	2113.00	30.90	322.70	267.43	-196.97	331.99	333.93	As of July 5
5195.29	5545.00	2.50	290.10	1244.71	-972.83	1579.78	1584.87	As of July 6
6816.41	7167.00	0.60	247.90	1253.35	-965.67	1582.16	1638.24	As of July 7
7444.07	7795.00	2.60	199.90	1237.90	-977.22	1577.13	1657.90	Projected TD



# Sharewell Survey Report

<b>Company:</b> Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b> Well Kaufman 12C-25-692
<b>Project:</b> Garfield County, Colorado [NAD83]	<b>TVD Reference:</b> KB @ 5945.00ft
<b>Site:</b> Kaufman 1 Pad Phase 2	<b>MD Reference:</b> KB @ 5945.00ft
<b>Well:</b> Kaufman 12C-25-692	<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		

<b>Site</b> Kaufman 1 Pad Phase 2					
<b>Site Position:</b>		<b>Northing:</b>	1,612,919.10 usft	<b>Latitude:</b>	39.497097
<b>From:</b> Lat/Long		<b>Easting:</b>	2,402,118.83 usft	<b>Longitude:</b>	-107.618865
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	1.10 ft	<b>Grid Convergence:</b>	-1.34 °

<b>Well</b> Kaufman 12C-25-692						
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	1,612,922.56 usft	<b>Latitude:</b>	39.497105
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	2,402,094.64 usft	<b>Longitude:</b>	-107.618951
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	5,922.00 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</b>
	IGRF2010	05/04/11	(°)	(°)	(nT)
			10.20	65.81	52,312

<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)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	321.89	

<b>Survey Program</b>		<b>Date</b> 07/08/11
<b>From</b>	<b>To</b>	<b>Survey (Wellbore)</b>
(ft)	(ft)	
		<b>Tool Name</b>
		<b>Description</b>
50.00	775.00	Gyro Surveys (Wellbore #1)
		MWD
882.00	7,795.00	MWD Survey (Wellbore #1)
		MWD
		MWD - Standard
		MWD - Standard

<b>Survey</b>										
<b>Measured</b>	<b>Inclination</b>	<b>Azimuth</b>	<b>Vertical</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Vertical</b>	<b>Dogleg</b>	<b>Build</b>	<b>Turn</b>	
<b>Depth</b>	<b>(°)</b>	<b>(°)</b>	<b>Depth</b>	<b>(ft)</b>	<b>(ft)</b>	<b>Section</b>	<b>Rate</b>	<b>Rate</b>	<b>Rate</b>	
<b>(ft)</b>			<b>(ft)</b>			<b>(ft)</b>	<b>(°/100ft)</b>	<b>(°/100ft)</b>	<b>(°/100ft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
50.00	0.29	23.61	50.00	0.12	0.05	0.06	0.58	0.58	0.00	
100.00	0.20	260.79	100.00	0.22	0.02	0.16	0.86	-0.18	-245.64	
150.00	0.43	352.80	150.00	0.39	-0.09	0.37	0.96	0.46	184.02	
200.00	0.36	313.81	200.00	0.68	-0.23	0.68	0.54	-0.14	-77.98	
250.00	0.40	318.10	250.00	0.92	-0.46	1.01	0.10	0.08	8.58	
300.00	0.50	337.29	300.00	1.25	-0.66	1.40	0.36	0.20	38.38	
350.00	0.57	12.69	349.99	1.70	-0.69	1.76	0.66	0.14	70.80	
400.00	0.31	332.40	399.99	2.06	-0.70	2.05	0.78	-0.52	-80.58	
450.00	0.40	326.66	449.99	2.33	-0.86	2.36	0.19	0.18	-11.48	

# Sharewell

## Survey Report

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Kaufman 12C-25-692
<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>TVD Reference:</b>	KB @ 5945.00ft
<b>Site:</b>	Kaufman 1 Pad Phase 2	<b>MD Reference:</b>	KB @ 5945.00ft
<b>Well:</b>	Kaufman 12C-25-692	<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)
500.00	0.43	8.75	499.99	2.66	-0.93	2.66	0.60	0.06	84.18
550.00	0.35	40.30	549.99	2.96	-0.80	2.82	0.45	-0.16	63.10
600.00	0.39	329.34	599.99	3.22	-0.79	3.02	0.86	0.08	-141.92
650.00	0.36	332.69	649.99	3.51	-0.95	3.34	0.07	-0.06	6.70
700.00	0.18	346.13	699.99	3.72	-1.04	3.57	0.38	-0.36	26.88
750.00	0.21	28.85	749.99	3.88	-1.01	3.68	0.29	0.06	85.44
775.00	0.17	256.68	774.99	3.91	-1.02	3.71	1.39	-0.16	-528.68
882.00	0.40	2.70	881.98	4.25	-1.16	4.06	0.44	0.21	99.08
974.00	2.00	340.50	973.96	6.08	-1.68	5.83	1.78	1.74	-24.13
1,066.00	4.70	337.90	1,065.80	11.09	-3.64	10.97	2.94	2.93	-2.83
1,159.00	6.90	330.80	1,158.32	19.50	-7.80	20.15	2.48	2.37	-7.63
1,254.00	9.40	325.60	1,252.35	30.88	-14.96	33.54	2.74	2.63	-5.47
1,350.00	12.00	321.30	1,346.67	45.14	-25.64	51.34	2.83	2.71	-4.48
1,445.00	14.40	321.50	1,439.16	62.10	-39.17	73.03	2.53	2.53	0.21
1,540.00	17.40	320.90	1,530.51	82.37	-55.48	99.05	3.16	3.16	-0.63
1,636.00	19.80	320.50	1,621.49	106.06	-74.88	129.66	2.50	2.50	-0.42
1,731.00	21.70	321.80	1,710.33	132.28	-95.98	163.31	2.06	2.00	1.37
1,827.00	23.90	324.20	1,798.82	162.00	-118.33	200.50	2.49	2.29	2.50
1,922.00	26.10	323.40	1,884.92	194.39	-142.05	240.62	2.34	2.32	-0.84
2,018.00	28.70	323.10	1,970.14	229.78	-168.49	284.79	2.71	2.71	-0.31
2,113.00	30.90	322.70	2,052.57	267.43	-196.97	331.99	2.33	2.32	-0.42
2,209.00	31.40	324.10	2,134.73	307.30	-226.57	381.63	0.92	0.52	1.46
2,304.00	31.60	322.70	2,215.73	347.15	-256.16	431.24	0.80	0.21	-1.47
2,399.00	31.60	320.50	2,296.65	386.15	-287.08	481.01	1.21	0.00	-2.32
2,495.00	31.10	321.90	2,378.63	425.07	-318.38	530.95	0.92	-0.52	1.46
2,590.00	31.80	323.40	2,459.68	464.48	-348.44	580.51	1.11	0.74	1.58
2,685.00	32.30	320.60	2,540.20	504.19	-379.48	630.91	1.65	0.53	-2.95
2,780.00	31.30	322.70	2,620.95	543.43	-410.54	680.96	1.57	-1.05	2.21
2,876.00	30.80	324.30	2,703.19	583.23	-440.00	730.46	1.01	-0.52	1.67
2,971.00	30.20	327.10	2,785.05	623.04	-467.17	778.55	1.62	-0.63	2.95
3,066.00	30.10	324.00	2,867.20	662.38	-494.15	826.16	1.64	-0.11	-3.26
3,162.00	30.50	326.70	2,950.09	702.22	-521.68	874.49	1.48	0.42	2.81
3,257.00	29.90	323.90	3,032.20	741.50	-548.87	922.18	1.61	-0.63	-2.95
3,353.00	28.70	326.30	3,115.92	780.02	-575.76	969.08	1.75	-1.25	2.50
3,448.00	27.80	322.40	3,199.61	816.55	-601.93	1,013.98	2.16	-0.95	-4.11
3,543.00	27.60	322.00	3,283.73	851.44	-629.00	1,058.14	0.29	-0.21	-0.42
3,638.00	27.50	319.00	3,367.96	885.34	-656.94	1,102.06	1.46	-0.11	-3.16
3,734.00	25.00	320.10	3,454.05	917.63	-684.49	1,144.47	2.65	-2.60	1.15
3,829.00	24.30	318.50	3,540.39	947.67	-710.32	1,184.05	1.02	-0.74	-1.68
3,924.00	25.40	319.30	3,626.60	977.76	-736.56	1,223.92	1.21	1.16	0.84
4,019.00	24.30	320.20	3,712.80	1,008.23	-762.36	1,263.81	1.22	-1.16	0.95
4,114.00	23.00	321.20	3,799.82	1,037.71	-786.51	1,301.91	1.43	-1.37	1.05
4,210.00	20.00	321.50	3,889.13	1,065.18	-808.48	1,337.09	3.13	-3.13	0.31

# Sharewell

## Survey Report

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Kaufman 12C-25-692
<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>TVD Reference:</b>	KB @ 5945.00ft
<b>Site:</b>	Kaufman 1 Pad Phase 2	<b>MD Reference:</b>	KB @ 5945.00ft
<b>Well:</b>	Kaufman 12C-25-692	<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)	
4,305.00	18.40	322.10	3,978.84	1,089.73	-827.81	1,368.33	1.70	-1.68	0.63	
4,400.00	17.00	323.60	4,069.34	1,112.74	-845.26	1,397.21	1.55	-1.47	1.58	
4,495.00	15.40	323.90	4,160.57	1,134.11	-860.93	1,423.70	1.69	-1.68	0.32	
4,591.00	15.00	321.60	4,253.21	1,154.15	-876.16	1,448.86	0.75	-0.42	-2.40	
4,686.00	14.10	318.00	4,345.17	1,172.38	-891.54	1,472.70	1.34	-0.95	-3.79	
4,782.00	11.90	314.80	4,438.70	1,188.05	-906.39	1,494.19	2.41	-2.29	-3.33	
4,877.00	12.50	314.90	4,531.55	1,202.21	-920.62	1,514.11	0.63	0.63	0.11	
4,973.00	9.80	314.30	4,625.73	1,215.25	-933.83	1,532.53	2.82	-2.81	-0.63	
5,068.00	7.10	309.70	4,719.70	1,224.65	-944.14	1,546.28	2.93	-2.84	-4.84	
5,164.00	5.20	304.70	4,815.14	1,230.91	-952.28	1,556.24	2.05	-1.98	-5.21	
5,259.00	4.70	303.70	4,909.78	1,235.52	-959.06	1,564.05	0.53	-0.53	-1.05	
5,354.00	3.40	307.80	5,004.55	1,239.41	-964.52	1,570.48	1.40	-1.37	4.32	
5,450.00	3.00	304.70	5,100.40	1,242.58	-968.84	1,575.64	0.45	-0.42	-3.23	
5,545.00	2.50	290.10	5,195.29	1,244.71	-972.83	1,579.78	0.90	-0.53	-15.37	
5,640.00	2.20	249.20	5,290.21	1,244.78	-976.48	1,582.08	1.75	-0.32	-43.05	
5,736.00	2.40	238.20	5,386.14	1,243.06	-979.91	1,582.85	0.50	0.21	-11.46	
5,831.00	1.30	256.30	5,481.09	1,241.76	-982.64	1,583.51	1.30	-1.16	19.05	
5,927.00	1.50	45.10	5,577.08	1,242.39	-982.81	1,584.11	2.81	0.21	155.00	
6,022.00	2.70	48.00	5,672.01	1,244.76	-980.27	1,584.41	1.27	1.26	3.05	
6,118.00	2.00	61.40	5,767.93	1,247.08	-977.12	1,584.29	0.92	-0.73	13.96	
6,213.00	1.30	83.70	5,862.89	1,247.99	-974.59	1,583.44	0.99	-0.74	23.47	
6,309.00	2.30	47.70	5,958.84	1,249.41	-972.08	1,583.01	1.52	1.04	-37.50	
6,404.00	1.90	38.30	6,053.78	1,251.93	-969.70	1,583.52	0.55	-0.42	-9.89	
6,499.00	2.90	14.00	6,148.70	1,255.49	-968.14	1,585.37	1.48	1.05	-25.58	
6,595.00	1.70	23.00	6,244.62	1,259.16	-967.00	1,587.55	1.30	-1.25	9.38	
6,690.00	1.70	23.90	6,339.58	1,261.75	-965.88	1,588.89	0.03	0.00	0.95	
6,785.00	0.90	141.90	6,434.56	1,262.45	-964.84	1,588.81	2.39	-0.84	124.21	
6,881.00	1.80	169.70	6,530.54	1,260.37	-964.11	1,586.72	1.13	0.94	28.96	
6,976.00	2.20	167.00	6,625.48	1,257.13	-963.43	1,583.75	0.43	0.42	-2.84	
7,072.00	1.70	230.80	6,721.43	1,254.43	-964.12	1,582.05	2.19	-0.52	66.46	
7,167.00	0.60	247.90	6,816.41	1,253.35	-965.67	1,582.16	1.20	-1.16	18.00	
7,262.00	1.00	222.40	6,911.40	1,252.55	-966.69	1,582.16	0.55	0.42	-26.84	
7,358.00	1.50	220.90	7,007.38	1,250.98	-968.08	1,581.78	0.52	0.52	-1.56	
7,453.00	1.70	220.60	7,102.34	1,248.97	-969.81	1,581.27	0.21	0.21	-0.32	
7,549.00	2.00	229.50	7,198.29	1,246.81	-972.01	1,580.92	0.43	0.31	9.27	
7,644.00	2.50	214.50	7,293.22	1,244.02	-974.45	1,580.23	0.81	0.53	-15.79	
7,739.00	2.60	199.90	7,388.13	1,240.29	-976.35	1,578.47	0.69	0.11	-15.37	
7,795.00	2.60	199.90	7,444.07	1,237.90	-977.22	1,577.13	0.00	0.00	0.00	

**Sharewell**  
Survey Report

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Kaufman 12C-25-692
<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>TVD Reference:</b>	KB @ 5945.00ft
<b>Site:</b>	Kaufman 1 Pad Phase 2	<b>MD Reference:</b>	KB @ 5945.00ft
<b>Well:</b>	Kaufman 12C-25-692	<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

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
775.00	774.99	3.91	-1.02	End of Gyro Surveys
2,113.00	2,052.57	267.43	-196.97	As of July 5
5,545.00	5,195.29	1,244.71	-972.83	As of July 6
7,167.00	6,816.41	1,253.35	-965.67	As of July 7
7,795.00	7,444.07	1,237.90	-977.22	Projected TD

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