

Bill Barrett Corp. (II)

Garfield County, Colorado [NAD83]

Kaufman 3 Pad

GGU Kaufman 32D-30-691

Wellbore #1

Design: Wellbore #1

Standard Survey Report

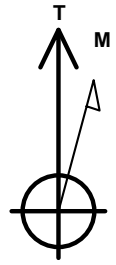
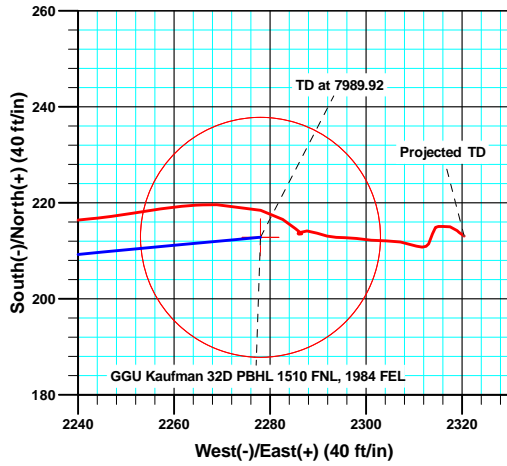
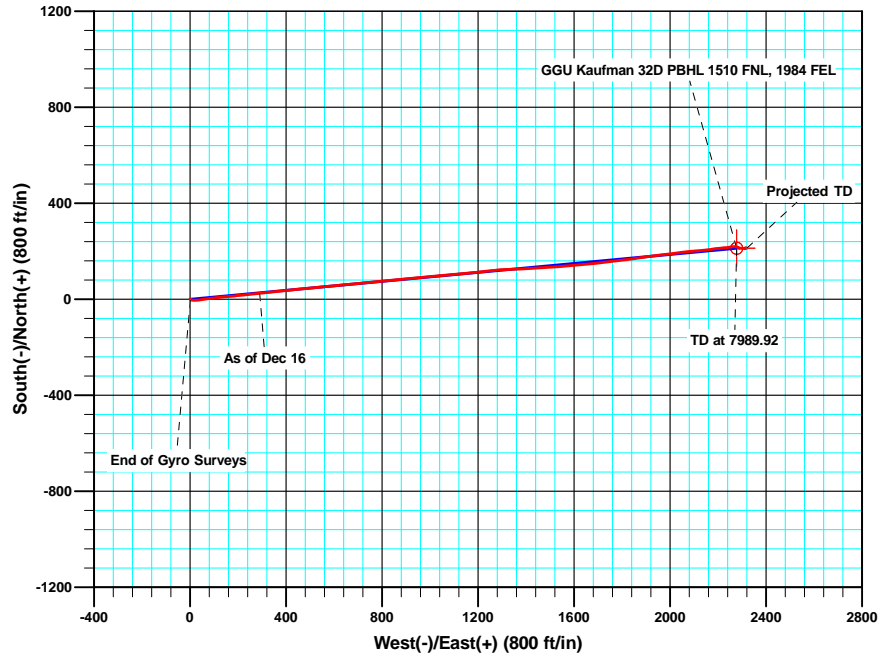
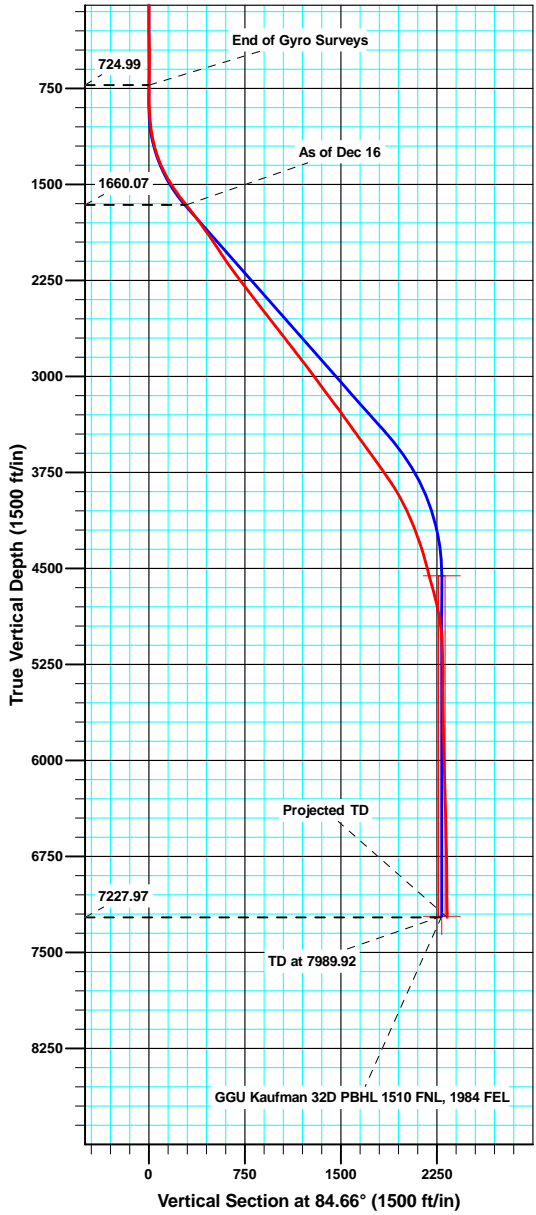
19 December, 2011

WELL DETAILS: GGU Kaufman 32D-30-691

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

+N/-S +E/-W Northing Easting Latitude Longitude
 0.00 0.00 1614264.34 2406770.76 39° 30' 3.91 N 107° 36' 8.98 W

KB @ 5858.00ft GL @ 5835.00



Azimuths to True North
 Magnetic North: 10.18°
 Magnetic Field
 Strength: 52362.1snT
 Dip Angle: 65.84°
 Date: 3/15/2011
 Model: IGRF200510

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
724.99	725.00	0.390	46.66	-1.89	2.31	2.13	3.13	End of Gyro Surveys
1660.07	1731.00	38.000	83.30	26.08	290.43	291.60	294.69	As of Dec 16
7227.97	7900.00	1.500	125.40	213.10	2320.46	2330.22	2343.44	Projected TD

Sharewell

Survey Report

Company: Bill Barrett Corp. (II)	Local Co-ordinate Reference: Well GGU Kaufman 32D-30-691
Project: Garfield County, Colorado [NAD83]	TVD Reference: KB @ 5858.00ft
Site: Kaufman 3 Pad	MD Reference: KB @ 5858.00ft
Well: GGU Kaufman 32D-30-691	North Reference: True
Wellbore: Wellbore #1	Survey Calculation Method: Minimum Curvature
Design: Wellbore #1	Database: Compass VM

Project Garfield County, Colorado [NAD83]	
Map System: US State Plane 1983	System Datum: Mean Sea Level
Geo Datum: North American Datum 1983	
Map Zone: Colorado Central Zone	

Site Kaufman 3 Pad		
Site Position:	Northing: 1,614,368.45 usft	Latitude: 39° 30' 4.92 N
From: Lat/Long	Easting: 2,406,696.40 usft	Longitude: 107° 36' 9.96 W
Position Uncertainty: 0.00 ft	Slot Radius: 1.10 ft	Grid Convergence: -1.33 °

Well GGU Kaufman 32D-30-691		
Well Position +N/-S 0.00 ft	Northing: 1,614,264.34 usft	Latitude: 39° 30' 3.91 N
+E/-W 0.00 ft	Easting: 2,406,770.76 usft	Longitude: 107° 36' 8.98 W
Position Uncertainty 0.00 ft	Wellhead Elevation: ft	Ground Level: 5,835.00 ft

Wellbore Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	3/15/2011	10.18	65.84	52,362

Design Wellbore #1					
Audit Notes:					
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.00			
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	84.66	

Survey Program		Date 12/19/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100.00	725.00	Gyro Surveys (Wellbore #1)	MWD	MWD - Standard
748.00	7,900.00	MWD (Wellbore #1)	MWD	MWD - Standard

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	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.380	148.36	100.00	-0.28	0.17	0.15	0.38	0.38	0.00	
200.00	0.390	131.56	200.00	-0.79	0.60	0.53	0.11	0.01	-16.80	
300.00	0.270	134.83	300.00	-1.18	1.02	0.91	0.12	-0.12	3.27	
400.00	0.210	125.18	399.99	-1.45	1.34	1.20	0.07	-0.06	-9.65	
500.00	0.260	116.75	499.99	-1.66	1.69	1.53	0.06	0.05	-8.43	
600.00	0.140	125.68	599.99	-1.84	2.00	1.82	0.12	-0.12	8.93	
700.00	0.150	105.46	699.99	-1.94	2.22	2.03	0.05	0.01	-20.22	
725.00	0.390	46.66	724.99	-1.89	2.31	2.13	1.35	0.96	-235.20	
748.00	0.390	46.66	747.99	-1.78	2.43	2.25	0.00	0.00	0.00	

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Site:	Kaufman 3 Pad	MD Reference:	KB @ 5858.00ft
Well:	GGU Kaufman 32D-30-691	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	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)
878.00	0.600	187.40	877.99	-2.16	2.66	2.45	0.72	0.16	108.26
971.00	4.200	96.30	970.91	-3.01	5.99	5.68	4.57	3.87	-97.96
1,066.00	8.100	96.40	1,065.34	-4.14	16.10	15.64	4.11	4.11	0.11
1,161.00	12.900	82.50	1,158.74	-3.50	33.28	32.81	5.68	5.05	-14.63
1,256.00	17.200	81.00	1,250.46	0.08	57.67	57.43	4.54	4.53	-1.58
1,351.00	22.900	82.60	1,339.66	4.66	89.90	89.95	6.03	6.00	1.68
1,446.00	27.900	84.60	1,425.45	9.14	130.39	130.67	5.34	5.26	2.11
1,541.00	32.700	84.80	1,507.45	13.56	178.10	178.59	5.05	5.05	0.21
1,636.00	37.700	83.30	1,585.06	19.28	232.54	233.33	5.34	5.26	-1.58
1,731.00	38.000	83.30	1,660.07	26.08	290.43	291.60	0.32	0.32	0.00
1,827.00	37.400	84.40	1,736.03	32.37	348.80	350.30	0.94	-0.63	1.15
1,922.00	36.100	84.80	1,812.15	37.72	405.39	407.14	1.39	-1.37	0.42
2,017.00	34.600	85.50	1,889.63	42.38	460.15	462.10	1.64	-1.58	0.74
2,112.00	34.200	84.00	1,968.02	47.28	513.59	515.77	0.99	-0.42	-1.58
2,207.00	32.900	84.10	2,047.19	52.73	565.81	568.26	1.37	-1.37	0.11
2,302.00	34.800	83.90	2,126.08	58.26	618.44	621.18	2.00	2.00	-0.21
2,397.00	37.400	84.20	2,202.84	64.06	674.11	677.14	2.74	2.74	0.32
2,492.00	37.000	84.40	2,278.51	69.76	731.26	734.58	0.44	-0.42	0.21
2,587.00	36.700	84.90	2,354.53	75.07	787.98	791.55	0.45	-0.32	0.53
2,682.00	38.600	84.40	2,429.74	80.49	845.76	849.58	2.03	2.00	-0.53
2,778.00	38.100	84.70	2,505.03	86.15	905.05	909.14	0.56	-0.52	0.31
2,873.00	38.000	85.20	2,579.84	91.30	963.38	967.69	0.34	-0.11	0.53
2,968.00	38.100	85.00	2,654.65	96.30	1,021.72	1,026.24	0.17	0.11	-0.21
3,063.00	37.200	84.70	2,729.86	101.51	1,079.51	1,084.27	0.97	-0.95	-0.32
3,158.00	37.900	85.00	2,805.18	106.71	1,137.17	1,142.17	0.76	0.74	0.32
3,253.00	37.300	83.80	2,880.45	112.36	1,194.86	1,200.13	1.00	-0.63	-1.26
3,348.00	36.000	83.30	2,956.67	118.73	1,251.21	1,256.83	1.40	-1.37	-0.53
3,443.00	37.300	86.30	3,032.89	123.84	1,307.67	1,313.52	2.33	1.37	3.16
3,538.00	36.100	89.30	3,109.06	126.04	1,364.38	1,370.19	2.27	-1.26	3.16
3,633.00	36.700	85.70	3,185.53	128.51	1,420.68	1,426.48	2.34	0.63	-3.79
3,729.00	37.800	87.10	3,261.95	132.15	1,478.67	1,484.55	1.45	1.15	1.46
3,824.00	34.800	85.50	3,338.51	135.75	1,534.79	1,540.76	3.31	-3.16	-1.68
3,919.00	35.100	84.60	3,416.37	140.45	1,589.00	1,595.18	0.63	0.32	-0.95
4,014.00	37.300	84.40	3,493.03	145.83	1,644.85	1,651.28	2.32	2.32	-0.21
4,109.00	34.800	84.00	3,569.83	151.47	1,700.47	1,707.18	2.64	-2.63	-0.42
4,204.00	35.900	83.60	3,647.32	157.41	1,755.11	1,762.14	1.18	1.16	-0.42
4,299.00	35.600	82.20	3,724.42	164.27	1,810.18	1,817.61	0.92	-0.32	-1.47
4,394.00	35.100	81.90	3,801.90	171.87	1,864.62	1,872.52	0.56	-0.53	-0.32
4,489.00	30.900	82.30	3,881.56	178.99	1,915.86	1,924.20	4.43	-4.42	0.42
4,584.00	28.500	83.10	3,964.07	184.98	1,962.54	1,971.23	2.56	-2.53	0.84
4,679.00	25.400	83.10	4,048.75	190.15	2,005.27	2,014.27	3.26	-3.26	0.00
4,775.00	22.500	83.70	4,136.47	194.64	2,043.98	2,053.22	3.03	-3.02	0.63
4,870.00	20.400	83.50	4,224.89	198.51	2,078.50	2,087.96	2.21	-2.21	-0.21

Sharewell

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Site:	Kaufman 3 Pad	MD Reference:	KB @ 5858.00ft
Well:	GGU Kaufman 32D-30-691	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	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)	
4,965.00	18.500	84.70	4,314.46	201.78	2,109.96	2,119.59	2.04	-2.00	1.26	
5,060.00	16.100	85.10	4,405.16	204.30	2,138.10	2,147.83	2.53	-2.53	0.42	
5,155.00	15.400	82.00	4,496.59	207.18	2,163.72	2,173.61	1.15	-0.74	-3.26	
5,250.00	15.000	82.60	4,588.27	210.52	2,188.40	2,198.49	0.45	-0.42	0.63	
5,345.00	14.900	83.30	4,680.05	213.53	2,212.72	2,222.99	0.22	-0.11	0.74	
5,440.00	13.200	84.50	4,772.21	215.99	2,235.65	2,246.05	1.82	-1.79	1.26	
5,535.00	10.400	80.90	4,865.19	218.39	2,254.92	2,265.46	3.05	-2.95	-3.79	
5,630.00	6.700	91.20	4,959.12	219.63	2,268.93	2,279.52	4.20	-3.89	10.84	
5,726.00	4.400	106.50	5,054.67	218.46	2,278.06	2,288.51	2.83	-2.40	15.94	
5,821.00	1.700	128.90	5,149.53	216.54	2,282.65	2,292.90	3.05	-2.84	23.58	
5,916.00	2.300	123.00	5,244.47	214.62	2,285.35	2,295.40	0.67	0.63	-6.21	
6,011.00	0.400	262.20	5,339.45	213.54	2,286.62	2,296.57	2.75	-2.00	146.53	
6,106.00	0.400	274.30	5,434.45	213.52	2,285.96	2,295.91	0.09	0.00	12.74	
6,201.00	0.800	64.10	5,529.45	213.83	2,286.23	2,296.20	1.22	0.42	157.68	
6,296.00	1.100	89.40	5,624.43	214.13	2,287.73	2,297.73	0.54	0.32	26.63	
6,400.00	1.300	112.00	5,728.41	213.70	2,289.83	2,299.78	0.49	0.19	21.73	
6,495.00	1.300	100.00	5,823.39	213.11	2,291.89	2,301.77	0.29	0.00	-12.63	
6,590.00	1.000	97.80	5,918.37	212.81	2,293.77	2,303.62	0.32	-0.32	-2.32	
6,685.00	1.200	87.60	6,013.35	212.74	2,295.59	2,305.42	0.29	0.21	-10.74	
6,780.00	1.800	97.70	6,108.32	212.58	2,298.06	2,307.87	0.69	0.63	10.63	
6,875.00	1.900	96.50	6,203.27	212.20	2,301.10	2,310.86	0.11	0.11	-1.26	
6,970.00	1.900	86.90	6,298.22	212.11	2,304.24	2,313.98	0.33	0.00	-10.11	
7,065.00	1.700	103.30	6,393.17	211.87	2,307.18	2,316.89	0.58	-0.21	17.26	
7,160.00	2.500	105.80	6,488.11	210.98	2,310.55	2,320.15	0.85	0.84	2.63	
7,256.00	1.400	24.50	6,584.06	211.48	2,313.05	2,322.69	2.79	-1.15	-84.69	
7,351.00	1.300	18.00	6,679.04	213.56	2,313.86	2,323.70	0.19	-0.11	-6.84	
7,446.00	0.500	44.20	6,774.02	214.88	2,314.48	2,324.44	0.93	-0.84	27.58	
7,541.00	0.400	105.10	6,869.02	215.09	2,315.09	2,325.06	0.49	-0.11	64.11	
7,636.00	0.800	81.70	6,964.02	215.10	2,316.07	2,326.04	0.49	0.42	-24.63	
7,731.00	1.000	101.40	7,059.01	215.03	2,317.54	2,327.49	0.38	0.21	20.74	
7,826.00	1.100	136.40	7,153.99	214.21	2,318.98	2,328.85	0.67	0.11	36.84	
7,850.00	1.500	125.40	7,177.98	213.86	2,319.40	2,329.23	1.96	1.67	-45.83	
7,900.00	1.500	125.40	7,227.97	213.10	2,320.46	2,330.22	0.00	0.00	0.00	

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
725.00	724.99	-1.89	2.31	End of Gyro Surveys	
1,731.00	1,660.07	26.08	290.43	As of Dec 16	
7,900.00	7,227.97	213.10	2,320.46	Projected TD	

Sharewell
Survey Report

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass VM

Checked By: _____	Approved By: _____	Date: _____
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