

Bill Barrett Corp.

Garfield Co., CO (NAD83)

Kaufman Pad #4 (Sec.30-T6S-R91W)

Kaufman 41B-25-692

Wellbore #1

Design: Wellbore #1

Standard Survey Report

14 March, 2012



Project: Garfield Co., CO (NAD83)
 Site: Kaufman Pad #4 (Sec.30-T6S-R91W)
 Well: Kaufman 41B-25-692
 Wellbore: Wellbore #1
 Design: Wellbore #1
 Latitude: 39° 30' 11.28 N
 Longitude: 107° 36' 16.48 W
 Ground Level: 5786.01
 WELL @ 5808.01ft



PROJECT DETAILS: Garfield Co., CO (NAD83)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Central Zone
 System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Kaufman 41B-25-692, True North
 Vertical (TVD) Reference: WELL @ 5808.01ft
 Section (VS) Reference: Slot - (0.00N, 0.00E)
 Measured Depth Reference: WELL @ 5808.01ft
 Calculation Method: Minimum Curvature

WELL DETAILS: Kaufman 41B-25-692

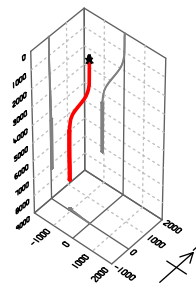
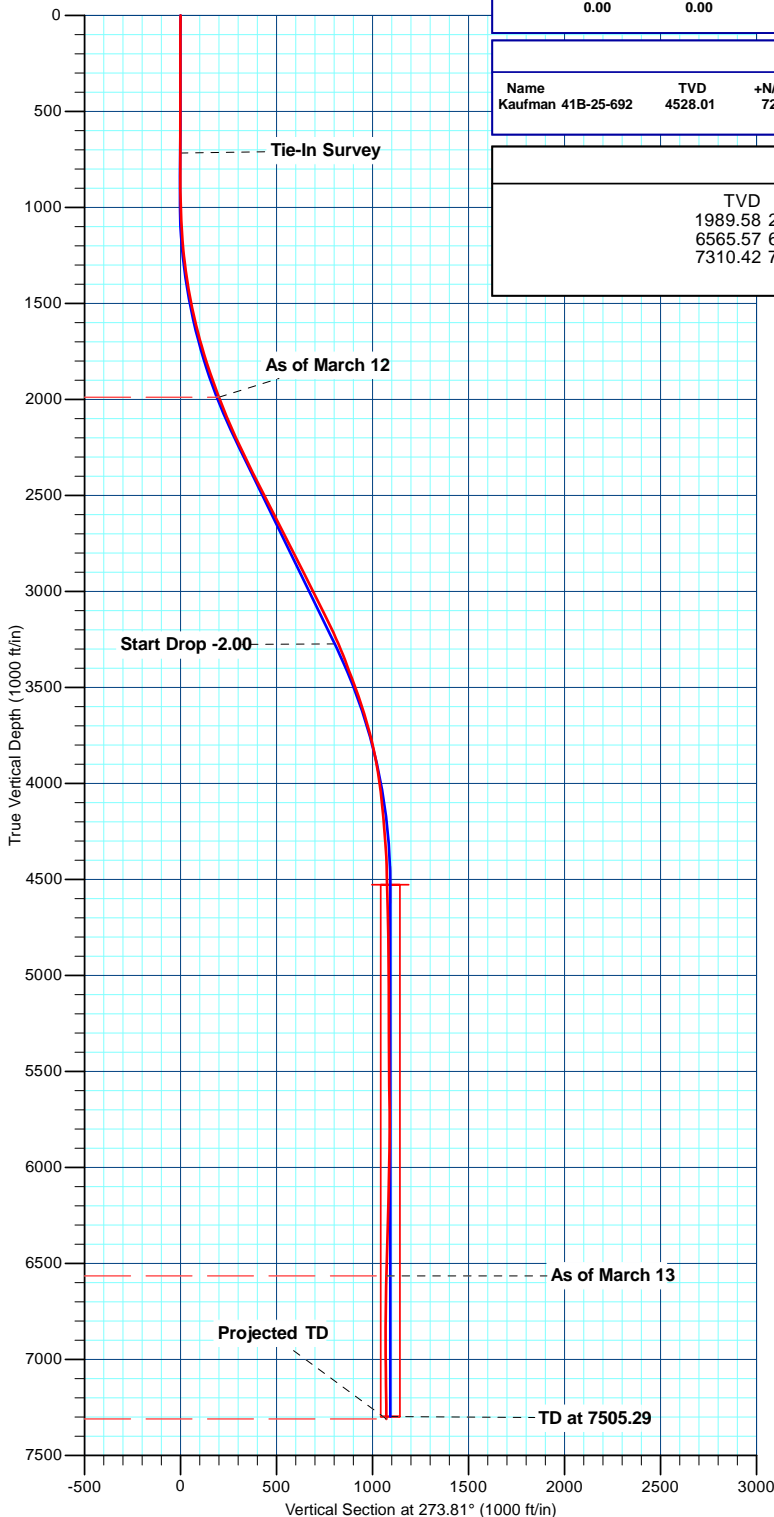
+N/-S	+E/-W	Northing	Easting	Ground Level:	Latitude	Longitude	Slot
0.00	0.00	1615022.99	2406200.39	5786.01	39° 30' 11.28 N	107° 36' 16.48 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Kaufman 41B-25-692	4528.01	72.52	-1089.75	1615120.73	2405112.62	39° 30' 11.99 N	107° 36' 30.38 W	Circle (Radius: 50.00)

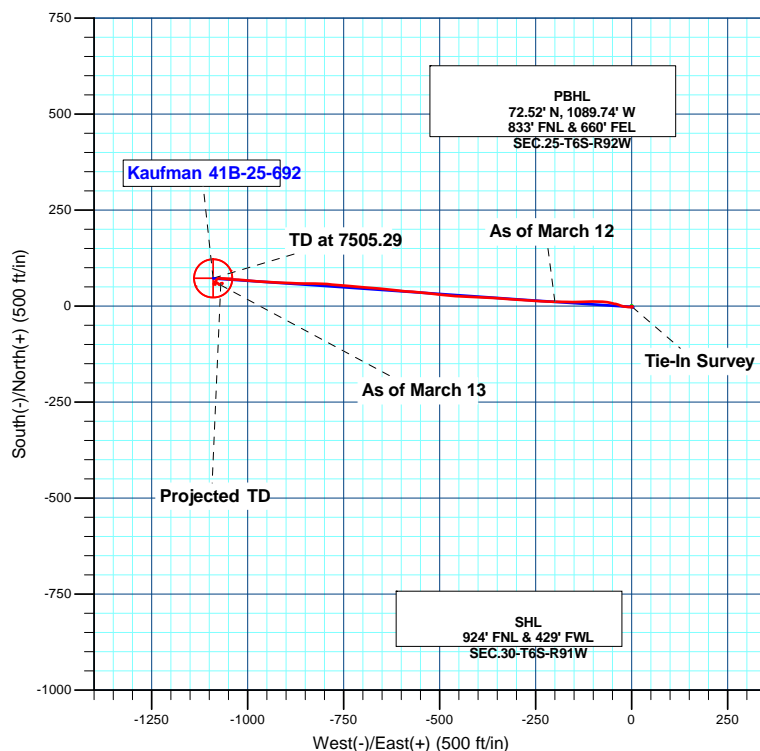
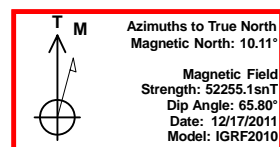
ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSD	Departure	Annotation
1989.58	2015.00	20.500	271.20	11.73	-200.00	200.34	209.98	As of March 12
6565.57	6770.00	1.600	66.60	55.73	-1071.67	1073.00	1138.31	As of March 13
7310.42	7515.00	0.500	219.60	59.17	-1069.85	1071.41	1152.19	Projected TD



FORMATION TOP DETAILS

No formation data is available



Design: Wellbore #1 (Kaufman 41B-25-692/Wellbore #1)

Created By: Bret Wolford Date: 8:06, March 14 2012

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Survey Report

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Kaufman 41B-25-692
Project:	Garfield Co., CO (NAD83)	TVD Reference:	WELL @ 5808.01ft
Site:	Kaufman Pad #4 (Sec.30-T6S-R91W)	MD Reference:	WELL @ 5808.01ft
Well:	Kaufman 41B-25-692	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	CompassVM

Project	Garfield Co., CO (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 Pad #4 (Sec.30-T6S-R91W)			
Site Position:		Northing:	1,615,037.35 usft	Latitude:	39° 30' 11.42 N
From:	Lat/Long	Easting:	2,406,193.68 usft	Longitude:	107° 36' 16.57 W
Position Uncertainty:	0.00 ft	Slot Radius:	1.10 ft	Grid Convergence:	-1.33 °

Well	Kaufman 41B-25-692					
Well Position	+N/-S	0.00 ft	Northing:	1,615,022.98 usft	Latitude:	39° 30' 11.28 N
	+E/-W	0.00 ft	Easting:	2,406,200.40 usft	Longitude:	107° 36' 16.48 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,786.01 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/17/2011	10.11	65.80	52,255

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	273.81	

Survey Program	Date	3/14/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	718.00	Survey #1 (Wellbore #1)	MWD	MWD - Standard	
718.00	7,515.00	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	0.390	101.30	100.00	-0.07	0.33	-0.34	0.39	0.39	0.00	
200.00	0.410	198.22	200.00	-0.47	0.56	-0.59	0.60	0.02	96.92	
300.00	0.380	315.95	300.00	-0.57	0.21	-0.25	0.68	-0.03	117.73	
400.00	0.620	106.54	400.00	-0.49	0.50	-0.53	0.97	0.24	150.59	
500.00	0.520	181.89	499.99	-1.10	1.00	-1.08	0.70	-0.10	75.35	
600.00	0.140	254.96	599.99	-1.58	0.87	-0.98	0.50	-0.38	73.07	
700.00	0.430	112.20	699.99	-1.76	1.10	-1.22	0.55	0.29	-142.76	
718.00	0.630	98.47	717.99	-1.80	1.26	-1.38	1.31	1.11	-76.28	
875.00	0.600	223.30	874.98	-2.52	1.55	-1.72	0.69	-0.02	79.51	

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Survey Report

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Kaufman 41B-25-692
Project:	Garfield Co., CO (NAD83)	TVD Reference:	WELL @ 5808.01ft
Site:	Kaufman Pad #4 (Sec.30-T6S-R91W)	MD Reference:	WELL @ 5808.01ft
Well:	Kaufman 41B-25-692	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	CompassVM

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)
970.00	1.800	279.60	969.96	-2.64	-0.26	0.08	1.63	1.26	59.26
1,065.00	2.500	270.30	1,064.90	-2.38	-3.80	3.64	0.82	0.74	-9.79
1,160.00	4.100	275.20	1,159.74	-2.06	-9.26	9.10	1.71	1.68	5.16
1,255.00	6.500	279.70	1,254.32	-0.84	-17.94	17.85	2.56	2.53	4.74
1,350.00	8.300	288.30	1,348.53	2.22	-29.75	29.83	2.22	1.89	9.05
1,445.00	10.500	283.60	1,442.25	6.41	-44.68	45.01	2.45	2.32	-4.95
1,540.00	11.900	280.10	1,535.44	10.16	-62.74	63.27	1.64	1.47	-3.68
1,635.00	13.900	271.80	1,628.05	12.24	-83.79	84.42	2.86	2.11	-8.74
1,730.00	16.200	268.70	1,719.78	12.29	-108.45	109.02	2.56	2.42	-3.26
1,825.00	17.900	267.80	1,810.60	11.43	-136.29	136.74	1.81	1.79	-0.95
1,920.00	20.000	270.90	1,900.45	11.13	-167.12	167.49	2.45	2.21	3.26
2,015.00	20.500	271.20	1,989.58	11.73	-200.00	200.34	0.54	0.53	0.32
2,110.00	22.400	272.80	2,078.00	12.96	-234.71	235.05	2.09	2.00	1.68
2,206.00	24.100	273.60	2,166.20	15.09	-272.55	272.95	1.80	1.77	0.83
2,301.00	26.300	275.30	2,252.15	18.25	-312.86	313.39	2.44	2.32	1.79
2,396.00	25.600	272.50	2,337.58	21.09	-354.33	354.95	1.49	-0.74	-2.95
2,492.00	27.200	273.30	2,423.56	23.26	-396.95	397.62	1.71	1.67	0.83
2,587.00	26.600	272.60	2,508.28	25.47	-439.88	440.60	0.71	-0.63	-0.74
2,682.00	27.200	275.30	2,593.01	28.44	-482.75	483.57	1.43	0.63	2.84
2,777.00	27.100	277.30	2,677.54	33.20	-525.83	526.87	0.97	-0.11	2.11
2,872.00	26.800	273.70	2,762.23	37.33	-568.67	569.89	1.75	-0.32	-3.79
2,967.00	27.200	276.40	2,846.88	41.13	-611.62	613.00	1.36	0.42	2.84
3,062.00	26.900	275.30	2,931.49	45.54	-654.59	656.17	0.61	-0.32	-1.16
3,157.00	26.400	274.60	3,016.39	49.22	-697.05	698.77	0.62	-0.53	-0.74
3,252.00	26.100	275.10	3,101.60	52.77	-738.91	740.78	0.39	-0.32	0.53
3,347.00	25.800	275.10	3,187.02	56.46	-780.32	782.34	0.32	-0.32	0.00
3,443.00	23.300	271.60	3,274.34	58.85	-820.11	822.21	3.01	-2.60	-3.65
3,538.00	21.100	269.90	3,362.29	59.34	-856.00	858.05	2.41	-2.32	-1.79
3,633.00	20.100	272.80	3,451.22	60.11	-889.40	891.43	1.50	-1.05	3.05
3,728.00	20.200	272.80	3,540.40	61.71	-922.09	924.15	0.11	0.11	0.00
3,823.00	17.100	273.10	3,630.40	63.27	-952.43	954.53	3.26	-3.26	0.32
3,918.00	15.000	275.40	3,721.70	65.18	-978.62	980.78	2.31	-2.21	2.42
4,013.00	12.700	274.70	3,813.93	67.19	-1,001.27	1,003.52	2.43	-2.42	-0.74
4,108.00	10.200	275.70	3,907.03	68.88	-1,020.05	1,022.37	2.64	-2.63	1.05
4,203.00	6.900	267.90	4,000.97	69.51	-1,034.12	1,036.46	3.67	-3.47	-8.21
4,298.00	6.300	273.80	4,095.34	69.65	-1,045.03	1,047.35	0.95	-0.63	6.21
4,393.00	5.400	278.60	4,189.84	70.66	-1,054.65	1,057.01	1.08	-0.95	5.05
4,489.00	4.500	277.90	4,285.48	71.85	-1,062.85	1,065.27	0.94	-0.94	-0.73
4,584.00	2.600	272.50	4,380.30	72.46	-1,068.69	1,071.14	2.03	-2.00	-5.68
4,679.00	1.500	276.80	4,475.23	72.70	-1,072.08	1,074.54	1.17	-1.16	4.53
4,774.00	1.500	258.60	4,570.20	72.60	-1,074.53	1,076.98	0.50	0.00	-19.16
4,869.00	1.300	252.60	4,665.17	72.04	-1,076.78	1,079.19	0.26	-0.21	-6.32
4,964.00	1.200	228.50	4,760.15	71.05	-1,078.55	1,080.89	0.56	-0.11	-25.37

Sharewell
Survey Report

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Kaufman 41B-25-692
Project:	Garfield Co., CO (NAD83)	TVD Reference:	WELL @ 5808.01ft
Site:	Kaufman Pad #4 (Sec.30-T6S-R91W)	MD Reference:	WELL @ 5808.01ft
Well:	Kaufman 41B-25-692	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	CompassVM

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)	
5,059.00	1.600	237.50	4,855.12	69.68	-1,080.42	1,082.66	0.48	0.42	9.47	
5,154.00	1.200	229.00	4,950.09	68.32	-1,082.28	1,084.43	0.47	-0.42	-8.95	
5,249.00	1.200	200.40	5,045.07	66.73	-1,083.38	1,085.42	0.62	0.00	-30.11	
5,344.00	1.900	180.80	5,140.04	64.23	-1,083.75	1,085.62	0.91	0.74	-20.63	
5,439.00	2.000	195.60	5,234.99	61.05	-1,084.22	1,085.88	0.54	0.11	15.58	
5,534.00	1.800	162.80	5,329.94	58.03	-1,084.22	1,085.68	1.15	-0.21	-34.53	
5,630.00	0.500	222.80	5,425.92	56.28	-1,084.06	1,085.41	1.68	-1.35	62.50	
5,725.00	1.400	329.80	5,520.91	56.98	-1,084.93	1,086.32	1.70	0.95	112.63	
5,820.00	1.200	282.80	5,615.89	58.21	-1,086.48	1,087.95	1.11	-0.21	-49.47	
5,915.00	1.100	228.10	5,710.87	57.82	-1,088.13	1,089.57	1.12	-0.11	-57.58	
6,010.00	1.500	35.60	5,805.86	58.22	-1,088.09	1,089.55	2.72	0.42	176.32	
6,105.00	1.600	33.00	5,900.83	60.34	-1,086.64	1,088.25	0.13	0.11	-2.74	
6,200.00	1.700	60.60	5,995.79	62.15	-1,084.69	1,086.42	0.83	0.11	29.05	
6,295.00	1.400	106.30	6,090.76	62.51	-1,082.35	1,084.11	1.30	-0.32	48.11	
6,390.00	1.500	119.90	6,185.73	61.57	-1,080.16	1,081.86	0.38	0.11	14.32	
6,485.00	1.500	136.90	6,280.69	60.04	-1,078.23	1,079.84	0.47	0.00	17.89	
6,580.00	2.000	143.30	6,375.65	57.80	-1,076.39	1,077.85	0.56	0.53	6.74	
6,675.00	1.700	116.90	6,470.60	55.84	-1,074.14	1,075.48	0.94	-0.32	-27.79	
6,770.00	1.600	66.60	6,565.57	55.73	-1,071.67	1,073.00	1.48	-0.11	-52.95	
6,869.00	1.600	53.60	6,664.53	57.09	-1,069.29	1,070.72	0.37	0.00	-13.13	
6,964.00	1.900	82.80	6,759.49	58.08	-1,066.66	1,068.16	0.98	0.32	30.74	
7,059.00	1.000	355.20	6,854.46	59.10	-1,065.16	1,066.74	2.22	-0.95	-92.21	
7,155.00	1.100	275.40	6,950.45	60.02	-1,066.15	1,067.78	1.41	0.10	-83.13	
7,250.00	0.900	256.60	7,045.44	59.94	-1,067.78	1,069.41	0.40	-0.21	-19.79	
7,345.00	0.600	266.00	7,140.43	59.73	-1,069.01	1,070.61	0.34	-0.32	9.89	
7,440.00	0.100	178.10	7,235.43	59.61	-1,069.50	1,071.10	0.64	-0.53	-92.53	
7,465.00	0.500	219.60	7,260.43	59.51	-1,069.57	1,071.16	1.72	1.60	166.00	
7,515.00	0.500	219.60	7,310.43	59.17	-1,069.85	1,071.41	0.00	0.00	0.00	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (ft)	Hole Diameter (ft)
824.70	824.69	9 5/8" Csg.		0.80	1.02

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,015.00	1,989.58	11.73	-200.00	As of March 12	
6,770.00	6,565.57	55.73	-1,071.67	As of March 13	
7,515.00	7,310.43	59.17	-1,069.85	Projected TD	

Sharewell
Survey Report

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Kaufman 41B-25-692
Project:	Garfield Co., CO (NAD83)	TVD Reference:	WELL @ 5808.01ft
Site:	Kaufman Pad #4 (Sec.30-T6S-R91W)	MD Reference:	WELL @ 5808.01ft
Well:	Kaufman 41B-25-692	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	CompassVM

Checked By: _____	Approved By: _____	Date: _____
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