



**Bill Barrett Corporation**

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Garfield Co., CO (NAD83)

Epperly 23-692 Pad (Sec.23-T6S-R92W)

Epperly 24B-23-692

Wellbore #1

Design: Wellbore #1

## **Standard Survey Report**

28 February, 2012



<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Epperly 24B-23-692
<b>Project:</b>	Garfield Co., CO (NAD83)	<b>TVD Reference:</b>	WELL @ 5876.00usft
<b>Site:</b>	Epperly 23-692 Pad (Sec.23-T6S-R92W)	<b>MD Reference:</b>	WELL @ 5876.00usft
<b>Well:</b>	Epperly 24B-23-692	<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>	EDM 5000.1 Single User Db

<b>Project</b>	Garfield Co., CO (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>	Epperly 23-692 Pad (Sec.23-T6S-R92W)				
<b>Site Position:</b>		<b>Northing:</b>	1,618,438.205 usft	<b>Latitude:</b>	39° 30' 42.689 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,396,102.658 usft	<b>Longitude:</b>	107° 38' 26.300 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	-1.35 °

<b>Well</b>	Epperly 24B-23-692					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,618,397.888 usft	<b>Latitude:</b>	39° 30' 42.293 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	2,396,112.432 usft	<b>Longitude:</b>	107° 38' 26.164 W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	5,854.00 usft

<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	2011/12/17	10.13	65.80	52,255

<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) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	148.30	

<b>Survey Program</b>	<b>Date</b>	2012/02/28			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
100.00	679.00	Survey #1 (Wellbore #1)	NS-GYRO-MS	North sensing gyrocompassing m/s	
679.00	8,095.00	Survey #2 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.42	267.68	100.00	-0.01	-0.37	-0.18	0.42	0.42	0.00	
200.00	0.30	284.28	200.00	0.03	-0.99	-0.55	0.16	-0.12	16.60	
300.00	0.37	291.59	300.00	0.22	-1.54	-0.99	0.08	0.07	7.31	
400.00	0.24	311.56	399.99	0.48	-2.00	-1.45	0.17	-0.13	19.97	
500.00	0.26	308.05	499.99	0.75	-2.33	-1.87	0.03	0.02	-3.51	
600.00	0.27	305.70	599.99	1.03	-2.70	-2.30	0.01	0.01	-2.35	
<b>Tie-In Survey</b>										
679.00	0.55	248.61	678.99	1.00	-3.21	-2.54	0.59	0.35	-72.27	
<b>First Sharewell Survey</b>										
787.00	0.40	35.00	786.99	1.12	-3.47	-2.78	0.84	-0.14	135.55	
879.00	3.70	150.00	878.93	-1.19	-1.80	0.06	4.22	3.59	125.00	

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Epperly 24B-23-692
<b>Project:</b>	Garfield Co., CO (NAD83)	<b>TVD Reference:</b>	WELL @ 5876.00usft
<b>Site:</b>	Epperly 23-692 Pad (Sec.23-T6S-R92W)	<b>MD Reference:</b>	WELL @ 5876.00usft
<b>Well:</b>	Epperly 24B-23-692	<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>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
970.00	6.90	151.50	969.53	-8.53	2.27	8.46	3.52	3.52	1.65	
1,062.00	10.50	141.80	1,060.46	-19.98	10.10	22.31	4.21	3.91	-10.54	
1,154.00	14.50	145.60	1,150.26	-36.08	21.79	42.15	4.44	4.35	4.13	
1,249.00	16.90	144.60	1,241.71	-57.15	36.51	67.81	2.54	2.53	-1.05	
1,345.00	19.70	146.90	1,332.85	-82.09	53.44	97.92	3.01	2.92	2.40	
1,440.00	19.70	148.50	1,422.29	-109.15	70.55	129.94	0.57	0.00	1.68	
1,535.00	21.50	145.00	1,511.21	-137.07	88.90	163.34	2.29	1.89	-3.68	
1,630.00	21.60	143.60	1,599.57	-165.40	109.26	198.14	0.55	0.11	-1.47	
1,725.00	24.40	146.20	1,687.01	-195.79	130.56	235.19	3.13	2.95	2.74	
1,821.00	26.60	146.20	1,773.66	-230.13	153.55	276.49	2.29	2.29	0.00	
1,916.00	28.50	149.90	1,857.89	-267.42	176.75	320.40	2.69	2.00	3.89	
2,011.00	30.40	146.50	1,940.61	-307.08	201.39	367.09	2.66	2.00	-3.58	
2,106.00	31.00	145.60	2,022.30	-347.31	228.48	415.55	0.80	0.63	-0.95	
2,201.00	31.60	146.20	2,103.47	-388.18	256.15	464.86	0.71	0.63	0.63	
2,296.00	32.10	145.20	2,184.17	-429.59	284.40	514.94	0.77	0.53	-1.05	
2,392.00	30.90	146.70	2,266.02	-471.14	312.49	565.05	1.49	-1.25	1.56	
2,487.00	31.00	148.00	2,347.50	-512.28	338.85	613.90	0.71	0.11	1.37	
2,582.00	31.70	147.80	2,428.63	-554.14	365.11	663.33	0.74	0.74	-0.21	
2,677.00	31.80	148.60	2,509.41	-596.63	391.45	713.32	0.46	0.11	0.84	
2,772.00	32.60	148.10	2,589.80	-639.72	418.02	763.94	0.89	0.84	-0.53	
2,868.00	31.40	149.00	2,671.21	-683.12	444.57	814.81	1.35	-1.25	0.94	
2,963.00	31.70	148.60	2,752.17	-725.63	470.32	864.51	0.39	0.32	-0.42	
3,058.00	32.30	149.50	2,832.73	-768.81	496.20	914.85	0.81	0.63	0.95	
3,154.00	30.30	148.70	2,914.76	-811.61	521.81	964.72	2.13	-2.08	-0.83	
3,249.00	30.20	149.10	2,996.82	-852.58	546.53	1,012.57	0.24	-0.11	0.42	
3,344.00	30.50	149.70	3,078.80	-893.90	570.96	1,060.56	0.45	0.32	0.63	
3,440.00	30.80	147.90	3,161.39	-935.76	596.31	1,109.50	1.01	0.31	-1.87	
3,535.00	30.60	144.90	3,243.08	-976.15	623.14	1,157.96	1.63	-0.21	-3.16	
3,630.00	29.70	146.90	3,325.23	-1,015.65	649.90	1,205.62	1.42	-0.95	2.11	
3,726.00	30.30	146.10	3,408.37	-1,055.67	676.39	1,253.60	0.75	0.62	-0.83	
3,821.00	31.70	148.90	3,489.80	-1,096.94	702.65	1,302.51	2.12	1.47	2.95	
3,916.00	31.30	149.30	3,570.80	-1,139.53	728.15	1,352.14	0.48	-0.42	0.42	
4,011.00	30.40	149.20	3,652.36	-1,181.39	753.05	1,400.85	0.95	-0.95	-0.11	
4,106.00	32.60	150.80	3,733.36	-1,224.39	777.85	1,450.46	2.48	2.32	1.68	
4,202.00	32.10	150.30	3,814.46	-1,269.12	803.10	1,501.79	0.59	-0.52	-0.52	
4,297.00	30.80	148.60	3,895.50	-1,311.81	828.28	1,551.34	1.66	-1.37	-1.79	
4,392.00	31.00	150.50	3,977.02	-1,353.86	853.00	1,600.11	1.05	0.21	2.00	
4,487.00	31.20	151.90	4,058.37	-1,396.86	876.64	1,649.11	0.79	0.21	1.47	
4,583.00	30.80	150.20	4,140.66	-1,440.12	900.57	1,698.49	1.00	-0.42	-1.77	
4,678.00	28.10	149.40	4,223.37	-1,480.49	924.05	1,745.18	2.87	-2.84	-0.84	
4,773.00	28.00	151.40	4,307.22	-1,519.33	946.11	1,789.82	1.00	-0.11	2.11	
4,869.00	27.90	149.80	4,392.02	-1,558.53	968.20	1,834.77	0.79	-0.10	-1.67	
4,964.00	25.90	150.80	4,476.74	-1,595.85	989.50	1,877.73	2.16	-2.11	1.05	
5,059.00	24.20	149.30	4,562.80	-1,630.71	1,009.57	1,917.93	1.91	-1.79	-1.58	
5,154.00	22.90	150.40	4,649.89	-1,663.53	1,028.64	1,955.87	1.44	-1.37	1.16	
5,250.00	20.60	150.60	4,739.05	-1,694.48	1,046.16	1,991.41	2.40	-2.40	0.21	
5,345.00	17.70	150.00	4,828.78	-1,721.56	1,061.59	2,022.55	3.06	-3.05	-0.63	
5,440.00	17.10	150.00	4,919.43	-1,746.16	1,075.79	2,050.95	0.63	-0.63	0.00	
5,536.00	14.50	144.90	5,011.80	-1,768.22	1,089.76	2,077.06	3.07	-2.71	-5.31	
5,631.00	12.50	148.00	5,104.17	-1,786.67	1,102.05	2,099.21	2.24	-2.11	3.26	
5,726.00	9.90	150.20	5,197.36	-1,802.48	1,111.56	2,117.66	2.77	-2.74	2.32	
5,821.00	9.10	150.80	5,291.05	-1,816.12	1,119.28	2,133.33	0.85	-0.84	0.63	
5,917.00	7.50	152.80	5,386.04	-1,828.32	1,125.85	2,147.16	1.69	-1.67	2.08	
6,012.00	5.60	145.60	5,480.42	-1,837.66	1,131.30	2,157.97	2.18	-2.00	-7.58	

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<b>Site:</b>	Epperly 23-692 Pad (Sec.23-T6S-R92W)	<b>MD Reference:</b>	WELL @ 5876.00usft
<b>Well:</b>	Epperly 24B-23-692	<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>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
6,107.00	3.10	146.80	5,575.14	-1,843.64	1,135.33	2,165.17	2.63	-2.63	1.26	
6,202.00	1.40	142.60	5,670.06	-1,846.71	1,137.44	2,168.89	1.80	-1.79	-4.42	
6,298.00	1.10	126.60	5,766.04	-1,848.19	1,138.89	2,170.92	0.48	-0.31	-16.67	
6,393.00	1.40	132.00	5,861.02	-1,849.51	1,140.49	2,172.88	0.34	0.32	5.68	
6,488.00	1.90	166.30	5,955.98	-1,851.82	1,141.72	2,175.49	1.14	0.53	36.11	
6,584.00	0.90	69.30	6,051.96	-1,853.10	1,142.80	2,177.15	2.29	-1.04	-101.04	
6,679.00	1.10	39.10	6,146.95	-1,852.13	1,144.08	2,176.99	0.58	0.21	-31.79	
6,774.00	1.50	54.20	6,241.92	-1,850.69	1,145.66	2,176.60	0.55	0.42	15.89	
6,870.00	1.10	89.30	6,337.90	-1,849.95	1,147.60	2,176.99	0.91	-0.42	36.56	
6,965.00	0.60	142.60	6,432.89	-1,850.33	1,148.82	2,177.95	0.93	-0.53	56.11	
7,060.00	1.10	347.90	6,527.88	-1,849.83	1,148.93	2,177.59	1.75	0.53	-162.84	
7,155.00	0.00	4.90	6,622.88	-1,848.94	1,148.74	2,176.73	1.16	-1.16	0.00	
7,250.00	0.40	290.80	6,717.88	-1,848.82	1,148.43	2,176.46	0.42	0.42	0.00	
7,345.00	0.50	204.30	6,812.88	-1,849.08	1,147.94	2,176.43	0.65	0.11	-91.05	
7,441.00	1.10	129.80	6,908.87	-1,850.06	1,148.48	2,177.54	1.12	0.62	-77.60	
7,536.00	1.30	115.90	7,003.85	-1,851.11	1,150.15	2,179.32	0.37	0.21	-14.63	
7,631.00	2.70	112.10	7,098.79	-1,852.42	1,153.19	2,182.03	1.48	1.47	-4.00	
7,726.00	0.80	242.90	7,193.75	-1,853.57	1,154.68	2,183.78	3.45	-2.00	137.68	
7,821.00	0.50	221.90	7,288.75	-1,854.18	1,153.81	2,183.85	0.40	-0.32	-22.11	
7,917.00	0.70	208.30	7,384.74	-1,855.01	1,153.25	2,184.26	0.25	0.21	-14.17	
<b>Last Sharewell Survey</b>										
8,012.00	1.80	209.30	7,479.72	-1,856.82	1,152.25	2,185.27	1.16	1.16	1.05	
<b>Proj. to TD</b>										
8,095.00	1.80	209.30	7,562.68	-1,859.09	1,150.97	2,186.54	0.00	0.00	0.00	

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")		
759.60	759.59	9 5/8" Csg.	9-5/8	12-1/4		

Design Annotations						
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment		
		+N/-S (usft)	+E/-W (usft)			
679.00	678.99	1.00	-3.21	Tie-In Survey		
787.00	786.99	1.12	-3.47	First Sharewell Survey		
8,012.00	7,479.72	-1,856.82	1,152.25	Last Sharewell Survey		
8,095.00	7,562.68	-1,859.09	1,150.97	Proj. to TD		

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