



Bill Barrett Corp.  
Project: Weld Co., CO  
Site: Sec.27-T5N-R63W  
Well: Helton 05-63-27-3340 CDH  
Wellbore: Wellbore #1  
Design: Design#3  
Lat: 40° 22' 11.892 N  
Long: 104° 25' 37.488 W  
Pad GL: 4542.00  
KB: WELL @ 4558.00usft (Original Well Elev)

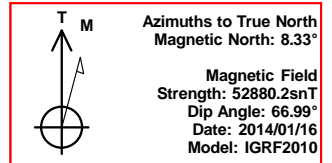
# Archer

## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
6991.00	90.00	94.00	6499.67	-54.53	-524.96	0.00	0.00	-523.60	Start DLS 2.00 TFO -94.05
7177.91	89.74	90.27	6500.10	-61.50	-338.22	2.00	-94.05	-336.75	Start 3885.32 hold at 7177.91 MD
11063.23	89.74	90.27	6518.00	-79.88	3547.02	0.00	0.00	3547.92	TD at 11063.23

## PROJECT DETAILS: Weld Co., CO

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



## WELL DETAILS: Helton 05-63-27-3340 CDH

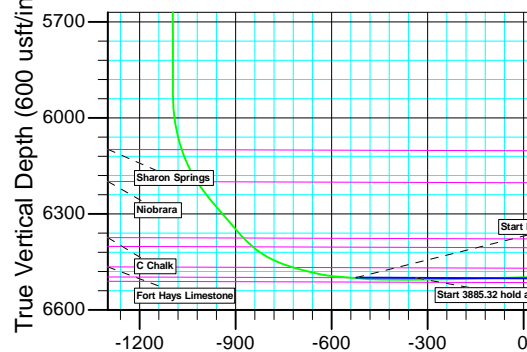
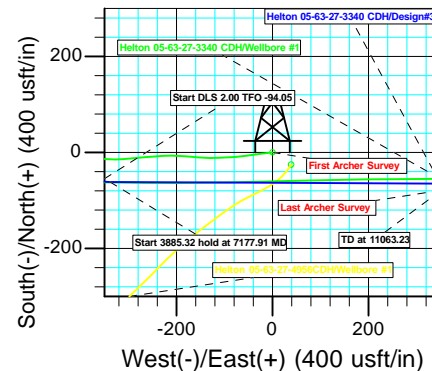
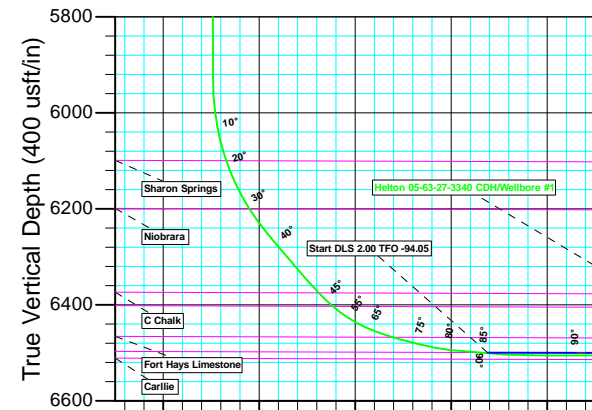
+N/-S	+E/-W	Northing	Ground Level: Easting	Latitude	Longitude	Slot
0.00	0.00	1379429.142	3298944.403	40° 22' 11.892 N	104° 25' 37.488 W	

## WELLBORE TARGET DETAILS (LAT/LONG)

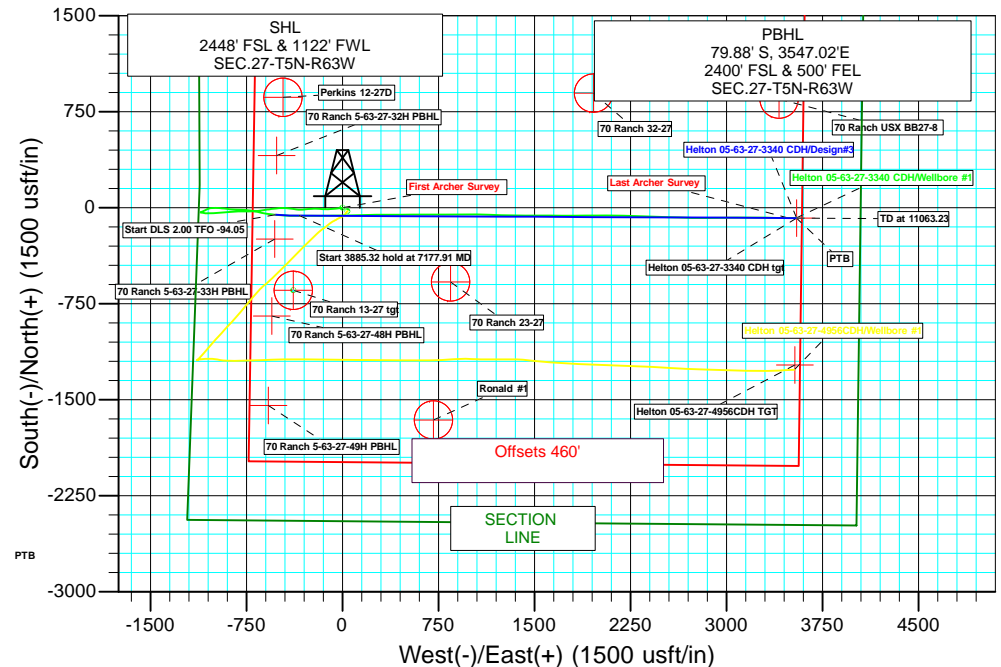
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
Helton 05-63-27-3340 CDH tgt	6518.00	-79.88	3547.02	40° 22' 11.100 N	104° 24' 51.660 W	

## CASING DETAILS

TVD	MD	Name
	830.00	9 5/8" Csg.
	6922.35	9 5/8" Csg.



Vertical Section at 91.29° (600 usft/in)



Plan: Design#3 (Helton 05-63-27-3340 CDH/Wellbore #1)

Created By: Ricky Osburn

Date: 7:35, January 29 2014



**Bill Barrett Corporation**

## **Bill Barrett Corp.**

**Weld Co., CO**

**Sec.27-T5N-R63W**

**Helton 05-63-27-3340 CDH**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**29 January, 2014**

# **Archer**

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Helton 05-63-27-3340 CDH
<b>Project:</b>	Weld Co., CO	<b>TVD Reference:</b>	WELL @ 4558.00usft (Original Well Elev)
<b>Site:</b>	Sec.27-T5N-R63W	<b>MD Reference:</b>	WELL @ 4558.00usft (Original Well Elev)
<b>Well:</b>	Helton 05-63-27-3340 CDH	<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>	EDMDBBW

<b>Project</b>	Weld Co., CO		
<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 Northern Zone		

Site		Sec.27-T5N-R63W			
Site Position:		Northing:	1,378,940.876 usft	Latitude:	40° 22' 6.600 N
From:	Lat/Long	Easting:	3,302,826.474 usft	Longitude:	104° 24' 47.412 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.70 °

Well		Helton 05-63-27-3340 CDH				
Well Position	+N/-S	0.00 usft	Northing:	1,379,429.142 usft	Latitude:	40° 22' 11.892 N
	+E/-W	0.00 usft	Easting:	3,298,944.403 usft	Longitude:	104° 25' 37.488 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,542.00 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	2014/01/16	8.33	66.99	52,880

Design	Wellbore #1			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	267.95

<b>Survey Program</b>	<b>Date</b>	2014/01/29			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
800.00	11,064.00	Survey #1 (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	
<b>First Archer Survey</b>										
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
835.00	0.40	60.80	835.00	0.06	0.11	-0.11	1.14	1.14	0.00	
928.00	2.50	261.90	927.97	-0.07	-1.62	1.62	3.09	2.26	-170.86	
1,020.00	5.80	263.20	1,019.72	-0.90	-8.22	8.25	3.59	3.59	1.41	
1,112.00	9.20	262.90	1,110.92	-2.36	-20.14	20.21	3.70	3.70	-0.33	
1,203.00	10.40	263.00	1,200.59	-4.26	-35.51	35.64	1.32	1.32	0.11	
1,295.00	10.60	263.00	1,291.05	-6.30	-52.15	52.34	0.22	0.22	0.00	
1,387.00	10.70	262.50	1,381.46	-8.45	-69.02	69.28	0.15	0.11	-0.54	
1,479.00	12.00	268.20	1,471.67	-9.87	-87.05	87.34	1.86	1.41	6.20	
1,571.00	13.50	265.90	1,561.40	-10.93	-107.32	107.64	1.72	1.63	-2.50	
1,663.00	14.90	271.70	1,650.59	-11.35	-129.85	130.18	2.17	1.52	6.30	

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Helton 05-63-27-3340 CDH
<b>Project:</b>	Weld Co., CO	<b>TVD Reference:</b>	WELL @ 4558.00usft (Original Well Elev)
<b>Site:</b>	Sec.27-T5N-R63W	<b>MD Reference:</b>	WELL @ 4558.00usft (Original Well Elev)
<b>Well:</b>	Helton 05-63-27-3340 CDH	<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>	EDMDBBW

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)
1,755.00	16.30	274.00	1,739.20	-10.10	-154.56	154.82	1.66	1.52	2.50
1,847.00	17.90	275.30	1,827.13	-7.89	-181.52	181.68	1.79	1.74	1.41
1,939.00	18.70	269.70	1,914.48	-6.66	-210.35	210.45	2.10	0.87	-6.09
2,031.00	17.50	266.20	2,001.93	-7.66	-238.90	239.02	1.76	-1.30	-3.80
2,123.00	18.00	264.70	2,089.55	-9.89	-266.85	267.04	0.74	0.54	-1.63
2,215.00	19.60	264.50	2,176.64	-12.68	-296.37	296.63	1.74	1.74	-0.22
2,307.00	19.80	268.90	2,263.26	-14.46	-327.31	327.62	1.63	0.22	4.78
2,399.00	20.10	277.00	2,349.75	-12.83	-358.59	358.82	3.02	0.33	8.80
2,495.00	19.50	278.00	2,440.08	-8.59	-390.83	390.88	0.72	-0.62	1.04
2,591.00	19.10	277.90	2,530.68	-4.20	-422.25	422.13	0.42	-0.42	-0.10
2,686.00	20.00	271.20	2,620.22	-1.72	-453.89	453.66	2.54	0.95	-7.05
2,781.00	20.70	264.70	2,709.30	-2.94	-486.86	486.65	2.49	0.74	-6.84
2,876.00	19.10	264.60	2,798.62	-5.95	-519.05	518.93	1.68	-1.68	-0.11
2,970.00	18.50	263.90	2,887.61	-8.98	-549.19	549.16	0.68	-0.64	-0.74
3,065.00	16.30	262.60	2,978.26	-12.30	-577.40	577.47	2.35	-2.32	-1.37
3,160.00	14.00	260.10	3,069.95	-15.99	-601.95	602.13	2.52	-2.42	-2.63
3,254.00	14.20	263.10	3,161.12	-19.33	-624.60	624.89	0.81	0.21	3.19
3,349.00	13.10	260.70	3,253.43	-22.47	-646.79	647.18	1.30	-1.16	-2.53
3,443.00	14.90	263.80	3,344.64	-25.50	-669.32	669.80	2.07	1.91	3.30
3,538.00	17.40	269.90	3,435.89	-26.84	-695.67	696.19	3.18	2.63	6.42
3,633.00	18.50	269.90	3,526.26	-26.90	-724.95	725.45	1.16	1.16	0.00
3,728.00	18.90	269.70	3,616.25	-27.00	-755.41	755.89	0.43	0.42	-0.21
3,823.00	17.60	270.10	3,706.47	-27.06	-785.16	785.62	1.37	-1.37	0.42
3,918.00	18.70	267.00	3,796.74	-27.83	-814.73	815.20	1.54	1.16	-3.26
4,012.00	18.20	265.50	3,885.91	-29.77	-844.41	844.94	0.73	-0.53	-1.60
4,107.00	16.70	264.20	3,976.54	-32.31	-872.78	873.38	1.63	-1.58	-1.37
4,201.00	16.90	264.40	4,066.53	-35.01	-899.82	900.49	0.22	0.21	0.21
4,293.00	17.10	265.30	4,154.51	-37.43	-926.61	927.35	0.36	0.22	0.98
4,388.00	17.50	269.40	4,245.21	-38.72	-954.81	955.58	1.35	0.42	4.32
4,482.00	16.00	267.60	4,335.22	-39.41	-981.89	982.67	1.69	-1.60	-1.91
4,576.00	15.30	265.90	4,425.74	-40.84	-1,007.20	1,008.02	0.89	-0.74	-1.81
4,670.00	14.00	265.30	4,516.68	-42.66	-1,030.91	1,031.77	1.39	-1.38	-0.64
4,765.00	12.40	269.10	4,609.17	-43.76	-1,052.56	1,053.45	1.92	-1.68	4.00
4,859.00	11.30	278.30	4,701.17	-42.59	-1,071.77	1,072.60	2.32	-1.17	9.79
4,954.00	11.00	280.70	4,794.38	-39.56	-1,089.88	1,090.60	0.58	-0.32	2.53
5,049.00	6.10	276.70	4,888.29	-37.29	-1,103.81	1,104.44	5.19	-5.16	-4.21
5,143.00	1.00	285.70	4,982.08	-36.48	-1,109.56	1,110.16	5.44	-5.43	9.57
5,238.00	1.50	50.70	5,077.07	-35.47	-1,109.40	1,109.96	2.35	0.53	131.58
5,333.00	1.80	75.00	5,172.03	-34.30	-1,106.99	1,107.51	0.79	0.32	25.58
5,428.00	1.60	72.00	5,266.99	-33.50	-1,104.29	1,104.78	0.23	-0.21	-3.16
5,522.00	1.10	74.70	5,360.96	-32.86	-1,102.17	1,102.64	0.54	-0.53	2.87
5,617.00	0.90	86.40	5,455.95	-32.57	-1,100.55	1,101.01	0.30	-0.21	12.32
5,713.00	0.70	88.40	5,551.94	-32.51	-1,099.21	1,099.67	0.21	-0.21	2.08
5,809.00	0.60	60.80	5,647.93	-32.25	-1,098.19	1,098.64	0.34	-0.10	-28.75
5,908.00	0.50	32.20	5,746.93	-31.63	-1,097.50	1,097.93	0.29	-0.10	-28.89
5,999.00	0.50	24.10	5,837.93	-30.93	-1,097.13	1,097.53	0.08	0.00	-8.90
6,031.00	0.40	34.00	5,869.93	-30.71	-1,097.01	1,097.41	0.39	-0.31	30.94
6,062.00	0.40	350.80	5,900.93	-30.51	-1,096.97	1,097.36	0.95	0.00	-139.35
6,094.00	0.80	18.70	5,932.92	-30.19	-1,096.91	1,097.29	1.51	1.25	87.19
6,125.00	3.80	63.00	5,963.90	-29.52	-1,095.93	1,096.28	10.57	9.68	142.90
6,157.00	7.90	70.70	5,995.72	-28.31	-1,092.91	1,093.22	13.02	12.81	24.06
6,188.00	11.10	65.00	6,026.29	-26.34	-1,088.19	1,088.44	10.75	10.32	-18.39
6,220.00	15.60	61.90	6,057.42	-23.01	-1,081.60	1,081.73	14.23	14.06	-9.69
6,251.00	19.20	61.70	6,087.00	-18.63	-1,073.43	1,073.41	11.61	11.61	-0.65

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Helton 05-63-27-3340 CDH
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<b>Site:</b>	Sec.27-T5N-R63W	<b>MD Reference:</b>	WELL @ 4558.00usft (Original Well Elev)
<b>Well:</b>	Helton 05-63-27-3340 CDH	<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>	EDMDBBW

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)
6,283.00	23.70	63.40	6,116.78	-13.26	-1,063.04	1,062.84	14.19	14.06	5.31
6,314.00	27.00	68.00	6,144.79	-7.83	-1,050.94	1,050.55	12.39	10.65	14.84
6,346.00	29.10	77.80	6,173.04	-3.46	-1,036.59	1,036.05	15.80	6.56	30.62
6,377.00	32.50	85.90	6,199.68	-1.27	-1,020.91	1,020.30	17.28	10.97	26.13
6,409.00	36.50	92.20	6,226.05	-1.02	-1,002.81	1,002.20	16.74	12.50	19.69
6,440.00	39.50	92.70	6,250.48	-1.84	-983.74	983.18	9.73	9.68	1.61
6,472.00	40.40	92.70	6,275.01	-2.81	-963.22	962.70	2.81	2.81	0.00
6,503.00	40.40	93.60	6,298.62	-3.91	-943.16	942.69	1.88	0.00	2.90
6,534.00	40.70	96.80	6,322.18	-5.74	-923.09	922.71	6.78	0.97	10.32
6,566.00	40.90	97.40	6,346.40	-8.32	-902.34	902.06	1.38	0.62	1.87
6,597.00	42.60	96.40	6,369.53	-10.80	-881.85	881.67	5.89	5.48	-3.23
6,629.00	47.20	93.60	6,392.19	-12.75	-859.36	859.26	15.64	14.37	-8.75
6,660.00	51.90	91.50	6,412.30	-13.78	-835.80	835.76	16.01	15.16	-6.77
6,692.00	58.50	91.30	6,430.55	-14.42	-809.55	809.54	20.63	20.62	-0.62
6,724.00	65.00	91.90	6,445.69	-15.21	-781.38	781.43	20.38	20.31	1.87
6,755.00	70.80	95.60	6,457.35	-17.11	-752.74	752.87	21.73	18.71	11.94
6,787.00	73.50	99.60	6,467.16	-21.14	-722.56	722.86	14.58	8.44	12.50
6,818.00	74.70	101.20	6,475.66	-26.52	-693.24	693.74	6.29	3.87	5.16
6,850.00	77.00	102.10	6,483.48	-32.79	-662.85	663.60	7.69	7.19	2.81
6,881.00	79.40	102.20	6,489.82	-39.18	-633.19	634.19	7.75	7.74	0.32
6,913.00	82.80	99.80	6,494.77	-45.21	-602.16	603.39	12.95	10.62	-7.50
7,033.00	88.30	93.20	6,504.09	-58.71	-483.40	485.19	7.15	4.58	-5.50
7,125.00	89.50	90.60	6,505.85	-61.76	-391.48	393.44	3.11	1.30	-2.83
7,217.00	91.00	90.70	6,505.45	-62.80	-299.49	301.54	1.63	1.63	0.11
7,309.00	91.30	89.80	6,503.60	-63.20	-207.51	209.64	1.03	0.33	-0.98
7,401.00	91.60	89.40	6,501.28	-62.56	-115.54	117.70	0.54	0.33	-0.43
7,495.00	91.60	88.70	6,498.65	-61.00	-21.59	23.76	0.74	0.00	-0.74
7,590.00	90.30	88.60	6,497.08	-58.77	73.37	-71.22	1.37	-1.37	-0.11
7,684.00	90.70	88.40	6,496.26	-56.31	167.33	-165.21	0.48	0.43	-0.21
7,778.00	90.20	90.30	6,495.52	-55.24	261.32	-259.18	2.09	-0.53	2.02
7,873.00	90.20	89.60	6,495.19	-55.16	356.32	-354.12	0.74	0.00	-0.74
7,967.00	89.20	90.30	6,495.68	-55.08	450.31	-448.06	1.30	-1.06	0.74
8,062.00	89.10	88.40	6,497.09	-54.00	545.29	-543.01	2.00	-0.11	-2.00
8,156.00	89.10	90.00	6,498.56	-52.69	639.27	-636.98	1.70	0.00	1.70
8,251.00	90.00	90.90	6,499.31	-53.43	734.26	-731.88	1.34	0.95	0.95
8,314.00	89.90	89.50	6,499.37	-53.65	797.26	-794.83	2.23	-0.16	-2.22
8,377.00	88.30	88.60	6,500.35	-52.61	860.24	-857.81	2.91	-2.54	-1.43
8,471.00	87.60	90.00	6,503.72	-51.46	954.17	-951.72	1.66	-0.74	1.49
8,566.00	88.70	91.10	6,506.78	-52.37	1,049.11	-1,046.57	1.64	1.16	1.16
8,660.00	90.30	91.70	6,507.60	-54.67	1,143.08	-1,140.39	1.82	1.70	0.64
8,755.00	90.50	91.70	6,506.94	-57.49	1,238.03	-1,235.19	0.21	0.21	0.00
8,849.00	90.00	91.00	6,506.53	-59.70	1,332.01	-1,329.02	0.92	-0.53	-0.74
8,944.00	88.50	89.80	6,507.77	-60.36	1,426.99	-1,423.92	2.02	-1.58	-1.26
9,038.00	88.70	89.80	6,510.07	-60.04	1,520.96	-1,517.84	0.21	0.21	0.00
9,133.00	90.50	91.20	6,510.73	-60.86	1,615.95	-1,612.74	2.40	1.89	1.47
9,228.00	90.10	90.50	6,510.24	-62.27	1,710.94	-1,707.62	0.85	-0.42	-0.74
9,322.00	88.90	89.00	6,511.06	-61.86	1,804.93	-1,801.56	2.04	-1.28	-1.60
9,417.00	90.40	89.90	6,511.64	-60.95	1,899.92	-1,896.52	1.84	1.58	0.95
9,511.00	90.20	89.00	6,511.15	-60.05	1,993.91	-1,990.49	0.98	-0.21	-0.96
9,606.00	89.50	91.00	6,511.39	-60.05	2,088.91	-2,085.42	2.23	-0.74	2.11
9,679.00	89.80	91.00	6,511.84	-61.32	2,161.89	-2,158.32	0.41	0.41	0.00
9,774.00	89.20	92.20	6,512.67	-63.98	2,256.85	-2,253.12	1.41	-0.63	1.26
9,868.00	89.80	91.70	6,513.49	-67.17	2,350.79	-2,346.89	0.83	0.64	-0.53
9,963.00	90.00	91.80	6,513.66	-70.08	2,445.75	-2,441.68	0.24	0.21	0.11

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Helton 05-63-27-3340 CDH
<b>Project:</b>	Weld Co., CO	<b>TVD Reference:</b>	WELL @ 4558.00usft (Original Well Elev)
<b>Site:</b>	Sec.27-T5N-R63W	<b>MD Reference:</b>	WELL @ 4558.00usft (Original Well Elev)
<b>Well:</b>	Helton 05-63-27-3340 CDH	<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>	EDMDBBW

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)	
10,057.00	90.50	91.90	6,513.25	-73.11	2,539.70	-2,535.46	0.54	0.53	0.11	
10,152.00	91.10	91.80	6,511.92	-76.18	2,634.64	-2,630.23	0.64	0.63	-0.11	
10,246.00	91.30	91.00	6,509.95	-78.47	2,728.59	-2,724.04	0.88	0.21	-0.85	
10,341.00	89.10	89.80	6,509.62	-79.14	2,823.58	-2,818.94	2.64	-2.32	-1.26	
10,434.00	89.30	89.30	6,510.92	-78.41	2,916.57	-2,911.90	0.58	0.22	-0.54	
10,530.00	89.50	89.70	6,511.92	-77.57	3,012.56	-3,007.86	0.47	0.21	0.42	
10,562.00	90.20	89.60	6,512.01	-77.37	3,044.56	-3,039.84	2.21	2.19	-0.31	
10,625.00	90.00	89.30	6,511.90	-76.77	3,107.55	-3,102.82	0.57	-0.32	-0.48	
10,720.00	90.50	90.50	6,511.48	-76.60	3,202.55	-3,197.76	1.37	0.53	1.26	
10,816.00	91.60	91.00	6,509.72	-77.86	3,298.52	-3,293.63	1.26	1.15	0.52	
10,912.00	91.60	90.30	6,507.04	-78.95	3,394.48	-3,389.49	0.73	0.00	-0.73	
<b>Last Archer Survey</b>										
10,999.00	92.00	89.70	6,504.31	-78.95	3,481.44	-3,476.39	0.83	0.46	-0.69	
<b>PTB - Helton 05-63-27-3340 CDH tgt</b>										
11,064.00	92.00	89.70	6,502.04	-78.61	3,546.40	-3,541.32	0.00	0.00	0.00	

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
800.00	800.00	0.00	0.00	First Archer Survey	
10,999.00	6,504.31	-78.95	3,481.44	Last Archer Survey	
11,064.00	6,502.04	-78.61	3,546.40	PTB	

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