

PROJECT DETAILS: Weld County, CO NAD 83

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

Project: Weld County, CO NAD 83  
 Site: Heath  
 Well: Heath 6-62-15-0758B2  
 Wellbore: OH  
 Design: Plan 1



Azimuths to True North  
 Magnetic North: 8.25°

Magnetic Field  
 Strength: 52680.7nT  
 Dip Angle: 67.11°  
 Date: 12/16/2015  
 Model: BGGM2015

Plan: Plan 1 (Heath 6-62-15-0758B2/OH)

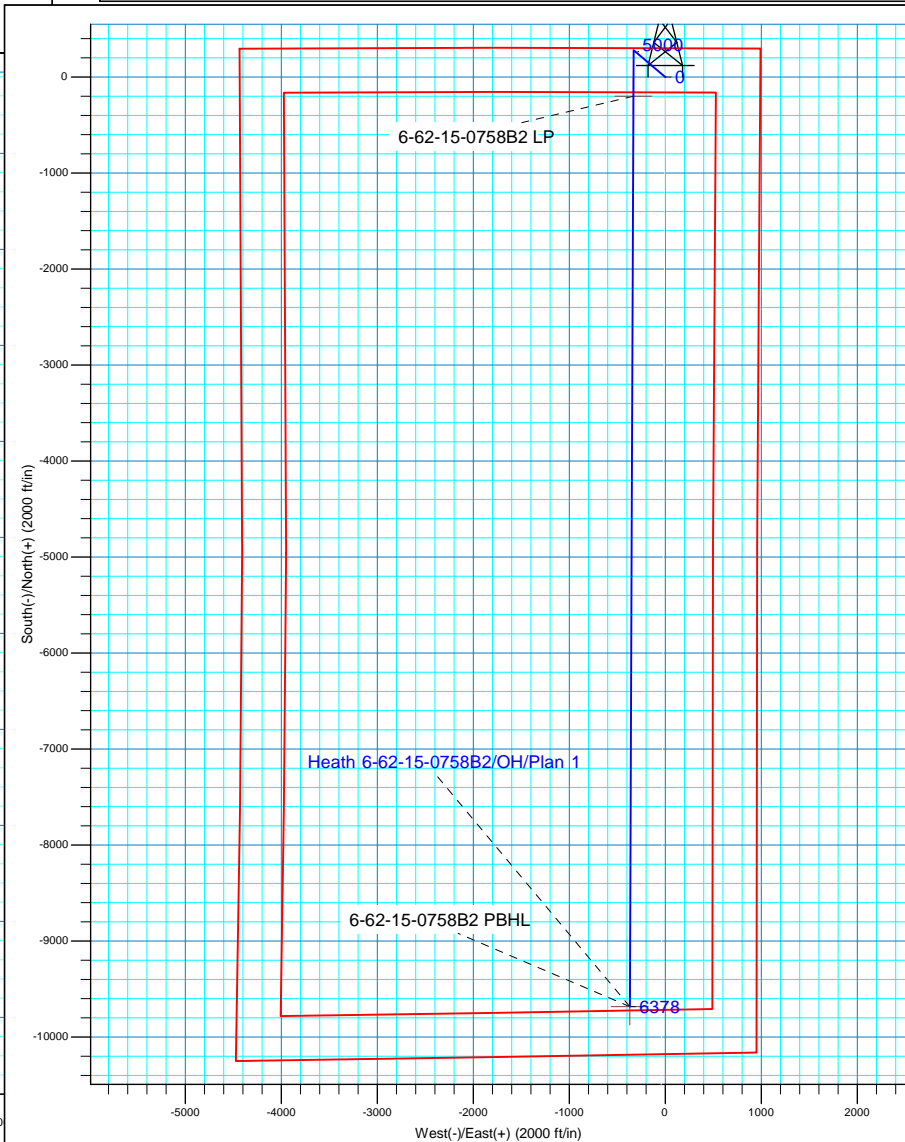
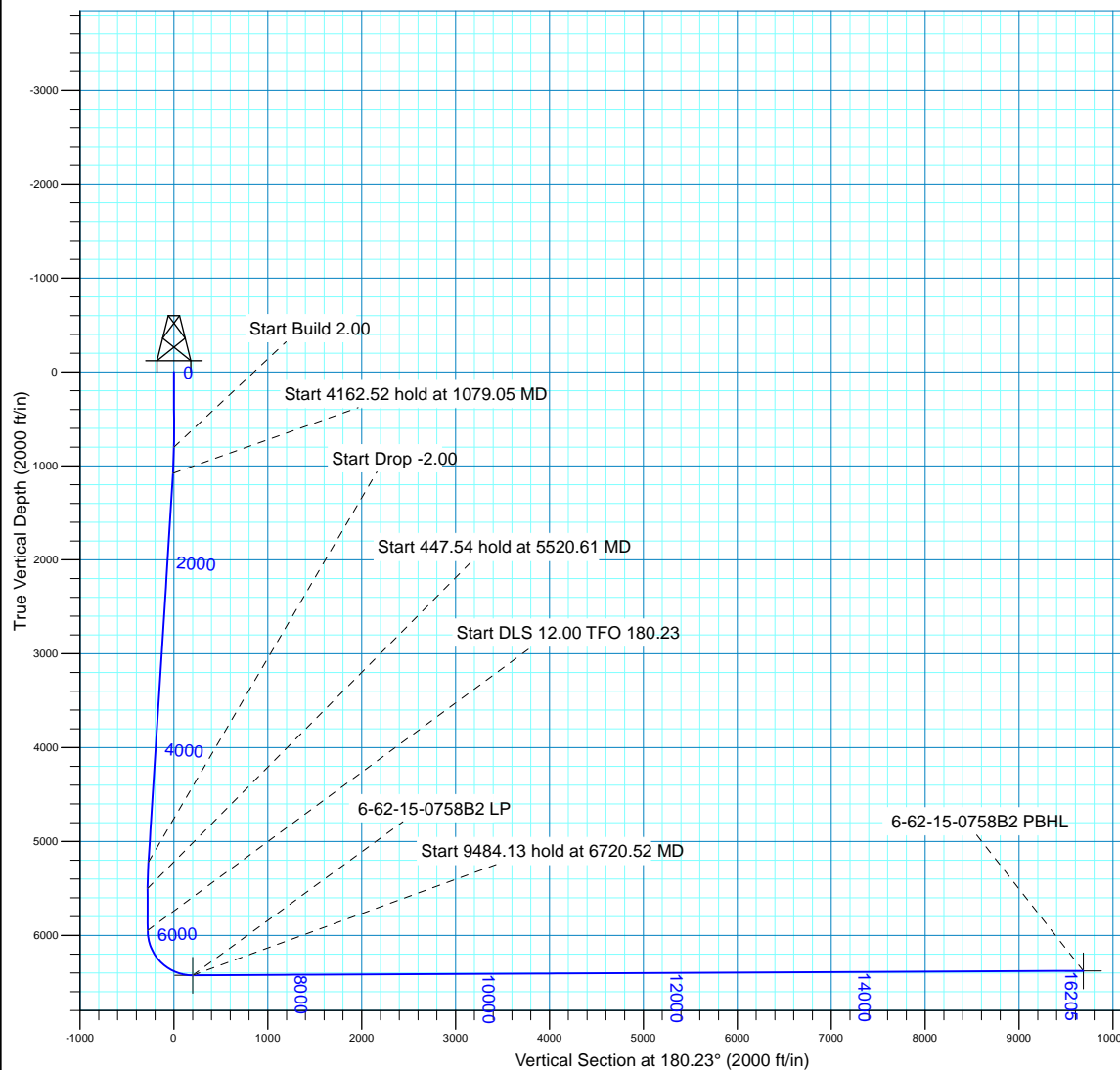
Created By: Seth Burstad Date: 12-16-2015

### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00
1079.05	5.58	310.44	1078.61	8.81	-10.34	2.00	310.44	-8.77
5241.56	5.58	310.44	5221.39	271.39	-318.43	0.00	0.00	-270.11
5520.61	0.00	0.00	5500.00	280.20	-328.77	2.00	180.00	-278.88
5968.15	0.00	0.00	5947.54	280.20	-328.77	0.00	0.00	-278.88
6720.52	90.28	180.23	6425.00	-199.63	-330.69	12.00	180.23	200.95
16204.64	90.28	180.23	6378.00	-9683.56	-368.66	0.00	0.00	9684.96

### WELL DETAILS: Heath 6-62-15-0758B2

		GL 4732' & KB 16' @ 4748.00ft		4732.00	Longitude
+N/-S	+E/-W	Northing	Easting	Latitude	
0.00	0.00	1424920.76	3333172.77	40° 29' 37.071 N	104° 18' 7.351 W





## **Bill Barrett Corp.**

Weld County, CO NAD 83

Heath

Heath 6-62-15-0758B2

OH

Plan: Plan 1

## **Standard Planning Report**

16 December, 2015



<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Heath 6-62-15-0758B2
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4732' & KB 16' @ 4748.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4732' & KB 16' @ 4748.00ft
<b>Site:</b>	Heath	<b>North Reference:</b>	True
<b>Well:</b>	Heath 6-62-15-0758B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1		

<b>Project</b>	Weld County, CO NAD 83		
<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		Heath, Site Center : 6-62-15-0659A2			
Site Position: From:		Northing:	1,424,920.59 usft	Latitude:	40° 29' 37.072 N
	Lat/Long	Easting:	3,333,158.31 usft	Longitude:	104° 18' 7.538 W
	Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:

Well	Heath 6-62-15-0758B2, 300' FNL 990' FEL Sec 15 T6N R62W					
Well Position	+N/-S	-0.02 ft	Northing:	1,424,920.76 usft	Latitude:	40° 29' 37.071 N
	+E/-W	14.46 ft	Easting:	3,333,172.77 usft	Longitude:	104° 18' 7.351 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,732.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2015	12/16/2015	8.25	67.11	52,681

<b>Design</b>	Plan 1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	180.23

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,079.05	5.58	310.44	1,078.61	8.81	-10.34	2.00	2.00	0.00	310.44	
5,241.56	5.58	310.44	5,221.39	271.39	-318.43	0.00	0.00	0.00	0.00	
5,520.61	0.00	0.00	5,500.00	280.20	-328.77	2.00	-2.00	0.00	180.00	
5,968.15	0.00	0.00	5,947.54	280.20	-328.77	0.00	0.00	0.00	0.00	
6,720.52	90.28	180.23	6,425.00	-199.63	-330.69	12.00	12.00	-23.89	180.23	
16,204.64	90.28	180.23	6,378.00	-9,683.55	-368.66	0.00	0.00	0.00	0.00	6-62-15-0758B2 PBI

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Heath 6-62-15-0758B2
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4732' & KB 16' @ 4748.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4732' & KB 16' @ 4748.00ft
<b>Site:</b>	Heath	<b>North Reference:</b>	True
<b>Well:</b>	Heath 6-62-15-0758B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1		

Planned 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
248.00	0.00	0.00	248.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>BASE OF FOX HILLS</b>									
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>									
900.00	2.00	310.44	899.98	1.13	-1.33	-1.13	2.00	2.00	0.00
1,000.00	4.00	310.44	999.84	4.53	-5.31	-4.51	2.00	2.00	0.00
1,079.05	5.58	310.44	1,078.61	8.81	-10.34	-8.77	2.00	2.00	0.00
<b>Start 4162.52 hold at 1079.05 MD</b>									
1,100.00	5.58	310.44	1,099.46	10.13	-11.89	-10.08	0.00	0.00	0.00
1,200.00	5.58	310.44	1,198.99	16.44	-19.29	-16.36	0.00	0.00	0.00
1,300.00	5.58	310.44	1,298.51	22.75	-26.69	-22.64	0.00	0.00	0.00
1,400.00	5.58	310.44	1,398.04	29.06	-34.09	-28.92	0.00	0.00	0.00
1,500.00	5.58	310.44	1,497.56	35.36	-41.49	-35.20	0.00	0.00	0.00
1,600.00	5.58	310.44	1,597.09	41.67	-48.89	-41.47	0.00	0.00	0.00
1,700.00	5.58	310.44	1,696.62	47.98	-56.30	-47.75	0.00	0.00	0.00
1,800.00	5.58	310.44	1,796.14	54.29	-63.70	-54.03	0.00	0.00	0.00
1,900.00	5.58	310.44	1,895.67	60.60	-71.10	-60.31	0.00	0.00	0.00
2,000.00	5.58	310.44	1,995.19	66.90	-78.50	-66.59	0.00	0.00	0.00
2,100.00	5.58	310.44	2,094.72	73.21	-85.90	-72.87	0.00	0.00	0.00
2,200.00	5.58	310.44	2,194.25	79.52	-93.31	-79.15	0.00	0.00	0.00
2,300.00	5.58	310.44	2,293.77	85.83	-100.71	-85.42	0.00	0.00	0.00
2,400.00	5.58	310.44	2,393.30	92.14	-108.11	-91.70	0.00	0.00	0.00
2,500.00	5.58	310.44	2,492.82	98.45	-115.51	-97.98	0.00	0.00	0.00
2,600.00	5.58	310.44	2,592.35	104.75	-122.91	-104.26	0.00	0.00	0.00
2,700.00	5.58	310.44	2,691.88	111.06	-130.31	-110.54	0.00	0.00	0.00
2,800.00	5.58	310.44	2,791.40	117.37	-137.72	-116.82	0.00	0.00	0.00
2,900.00	5.58	310.44	2,890.93	123.68	-145.12	-123.10	0.00	0.00	0.00
3,000.00	5.58	310.44	2,990.45	129.99	-152.52	-129.37	0.00	0.00	0.00
3,100.00	5.58	310.44	3,089.98	136.30	-159.92	-135.65	0.00	0.00	0.00
3,200.00	5.58	310.44	3,189.51	142.60	-167.32	-141.93	0.00	0.00	0.00
3,300.00	5.58	310.44	3,289.03	148.91	-174.72	-148.21	0.00	0.00	0.00
3,400.00	5.58	310.44	3,388.56	155.22	-182.13	-154.49	0.00	0.00	0.00
3,500.00	5.58	310.44	3,488.08	161.53	-189.53	-160.77	0.00	0.00	0.00
3,600.00	5.58	310.44	3,587.61	167.84	-196.93	-167.05	0.00	0.00	0.00
3,700.00	5.58	310.44	3,687.14	174.15	-204.33	-173.32	0.00	0.00	0.00
3,800.00	5.58	310.44	3,786.66	180.45	-211.73	-179.60	0.00	0.00	0.00
3,900.00	5.58	310.44	3,886.19	186.76	-219.14	-185.88	0.00	0.00	0.00
4,000.00	5.58	310.44	3,985.71	193.07	-226.54	-192.16	0.00	0.00	0.00
4,093.73	5.58	310.44	4,079.00	198.98	-233.47	-198.04	0.00	0.00	0.00
<b>SUSSEX</b>									
4,100.00	5.58	310.44	4,085.24	199.38	-233.94	-198.44	0.00	0.00	0.00
4,200.00	5.58	310.44	4,184.76	205.69	-241.34	-204.72	0.00	0.00	0.00
4,300.00	5.58	310.44	4,284.29	211.99	-248.74	-210.99	0.00	0.00	0.00
4,400.00	5.58	310.44	4,383.82	218.30	-256.14	-217.27	0.00	0.00	0.00
4,500.00	5.58	310.44	4,483.34	224.61	-263.55	-223.55	0.00	0.00	0.00
4,600.00	5.58	310.44	4,582.87	230.92	-270.95	-229.83	0.00	0.00	0.00

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<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4732' & KB 16' @ 4748.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4732' & KB 16' @ 4748.00ft
<b>Site:</b>	Heath	<b>North Reference:</b>	True
<b>Well:</b>	Heath 6-62-15-0758B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1		

Planned 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)
4,700.00	5.58	310.44	4,682.39	237.23	-278.35	-236.11	0.00	0.00	0.00
4,800.00	5.58	310.44	4,781.92	243.54	-285.75	-242.39	0.00	0.00	0.00
4,833.24	5.58	310.44	4,815.00	245.63	-288.21	-244.47	0.00	0.00	0.00
<b>SHANNON</b>									
4,900.00	5.58	310.44	4,881.45	249.84	-293.15	-248.67	0.00	0.00	0.00
5,000.00	5.58	310.44	4,980.97	256.15	-300.55	-254.94	0.00	0.00	0.00
5,100.00	5.58	310.44	5,080.50	262.46	-307.96	-261.22	0.00	0.00	0.00
5,200.00	5.58	310.44	5,180.02	268.77	-315.36	-267.50	0.00	0.00	0.00
5,241.56	5.58	310.44	5,221.39	271.39	-318.43	-270.11	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,300.00	4.41	310.44	5,279.60	274.69	-322.31	-273.40	2.00	-2.00	0.00
5,400.00	2.41	310.44	5,379.42	278.55	-326.84	-277.24	2.00	-2.00	0.00
5,500.00	0.41	310.44	5,479.39	280.15	-328.71	-278.83	2.00	-2.00	0.00
5,520.61	0.00	0.00	5,500.00	280.20	-328.77	-278.88	2.00	-2.00	0.00
<b>Start 447.54 hold at 5520.61 MD</b>									
5,600.00	0.00	0.00	5,579.39	280.20	-328.77	-278.88	0.00	0.00	0.00
5,700.00	0.00	0.00	5,679.39	280.20	-328.77	-278.88	0.00	0.00	0.00
5,800.00	0.00	0.00	5,779.39	280.20	-328.77	-278.88	0.00	0.00	0.00
5,900.00	0.00	0.00	5,879.39	280.20	-328.77	-278.88	0.00	0.00	0.00
5,968.15	0.00	0.00	5,947.54	280.20	-328.77	-278.88	0.00	0.00	0.00
<b>Start DLS 12.00 TFO 180.23</b>									
6,000.00	3.82	180.23	5,979.36	279.14	-328.77	-277.82	12.00	12.00	0.00
6,100.00	15.82	180.23	6,077.72	262.11	-328.84	-260.79	12.00	12.00	0.00
6,200.00	27.82	180.23	6,170.38	225.01	-328.99	-223.69	12.00	12.00	0.00
6,210.94	29.13	180.23	6,180.00	219.79	-329.01	-218.47	12.00	12.00	0.00
<b>SHARON SPRINGS</b>									
6,300.00	39.82	180.23	6,253.31	169.45	-329.21	-168.13	12.00	12.00	0.00
6,319.47	42.16	180.23	6,268.00	156.68	-329.26	-155.36	12.00	12.00	0.00
<b>NIOBRARA</b>									
6,373.62	48.66	180.23	6,306.00	118.14	-329.42	-116.82	12.00	12.00	0.00
<b>A CHALK</b>									
6,400.00	51.82	180.23	6,322.87	97.86	-329.50	-96.54	12.00	12.00	0.00
6,420.17	54.24	180.23	6,335.00	81.75	-329.56	-80.42	12.00	12.00	0.00
<b>A MARL</b>									
6,500.00	63.82	180.23	6,376.03	13.38	-329.84	-12.06	12.00	12.00	0.00
6,504.51	64.36	180.23	6,378.00	9.32	-329.85	-8.00	12.00	12.00	0.00
<b>TD (HORIZONTAL)</b>									
6,566.11	71.75	180.23	6,401.00	-47.77	-330.08	49.10	12.00	12.00	0.00
<b>TOP "B" TARGET</b>									
6,600.00	75.82	180.23	6,410.46	-80.31	-330.21	81.64	12.00	12.00	0.00
6,700.00	87.82	180.23	6,424.66	-179.11	-330.61	180.44	12.00	12.00	0.00
6,720.31	90.28	180.23	6,425.00	-199.42	-330.69	200.74	12.12	12.12	0.00
<b>LANDING POINT</b>									
6,720.52	90.28	180.23	6,425.00	-199.63	-330.69	200.95	0.00	0.00	0.00
<b>Start 9484.13 hold at 6720.52 MD</b>									
6,800.00	90.28	180.23	6,424.61	-279.11	-331.01	280.43	0.00	0.00	0.00
6,900.00	90.28	180.23	6,424.11	-379.10	-331.41	380.43	0.00	0.00	0.00
7,000.00	90.28	180.23	6,423.61	-479.10	-331.81	480.43	0.00	0.00	0.00
7,100.00	90.28	180.23	6,423.12	-579.10	-332.21	580.43	0.00	0.00	0.00
7,200.00	90.28	180.23	6,422.62	-679.10	-332.61	680.43	0.00	0.00	0.00
7,300.00	90.28	180.23	6,422.13	-779.10	-333.01	780.43	0.00	0.00	0.00
7,400.00	90.28	180.23	6,421.63	-879.09	-333.41	880.43	0.00	0.00	0.00

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<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4732' & KB 16' @ 4748.00ft
<b>Site:</b>	Heath	<b>North Reference:</b>	True
<b>Well:</b>	Heath 6-62-15-0758B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1		

Planned 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)	
7,500.00	90.28	180.23	6,421.14	-979.09	-333.81	980.42	0.00	0.00	0.00	
7,600.00	90.28	180.23	6,420.64	-1,079.09	-334.21	1,080.42	0.00	0.00	0.00	
7,700.00	90.28	180.23	6,420.15	-1,179.09	-334.61	1,180.42	0.00	0.00	0.00	
7,800.00	90.28	180.23	6,419.65	-1,279.09	-335.01	1,280.42	0.00	0.00	0.00	
7,900.00	90.28	180.23	6,419.15	-1,379.08	-335.41	1,380.42	0.00	0.00	0.00	
8,000.00	90.28	180.23	6,418.66	-1,479.08	-335.81	1,480.42	0.00	0.00	0.00	
8,100.00	90.28	180.23	6,418.16	-1,579.08	-336.21	1,580.42	0.00	0.00	0.00	
8,200.00	90.28	180.23	6,417.67	-1,679.08	-336.61	1,680.42	0.00	0.00	0.00	
8,300.00	90.28	180.23	6,417.17	-1,779.08	-337.01	1,780.41	0.00	0.00	0.00	
8,400.00	90.28	180.23	6,416.68	-1,879.07	-337.42	1,880.41	0.00	0.00	0.00	
8,500.00	90.28	180.23	6,416.18	-1,979.07	-337.82	1,980.41	0.00	0.00	0.00	
8,600.00	90.28	180.23	6,415.69	-2,079.07	-338.22	2,080.41	0.00	0.00	0.00	
8,700.00	90.28	180.23	6,415.19	-2,179.07	-338.62	2,180.41	0.00	0.00	0.00	
8,800.00	90.28	180.23	6,414.69	-2,279.07	-339.02	2,280.41	0.00	0.00	0.00	
8,900.00	90.28	180.23	6,414.20	-2,379.06	-339.42	2,380.41	0.00	0.00	0.00	
9,000.00	90.28	180.23	6,413.70	-2,479.06	-339.82	2,480.41	0.00	0.00	0.00	
9,100.00	90.28	180.23	6,413.21	-2,579.06	-340.22	2,580.40	0.00	0.00	0.00	
9,200.00	90.28	180.23	6,412.71	-2,679.06	-340.62	2,680.40	0.00	0.00	0.00	
9,300.00	90.28	180.23	6,412.22	-2,779.06	-341.02	2,780.40	0.00	0.00	0.00	
9,400.00	90.28	180.23	6,411.72	-2,879.05	-341.42	2,880.40	0.00	0.00	0.00	
9,500.00	90.28	180.23	6,411.23	-2,979.05	-341.82	2,980.40	0.00	0.00	0.00	
9,600.00	90.28	180.23	6,410.73	-3,079.05	-342.22	3,080.40	0.00	0.00	0.00	
9,700.00	90.28	180.23	6,410.23	-3,179.05	-342.62	3,180.40	0.00	0.00	0.00	
9,800.00	90.28	180.23	6,409.74	-3,279.05	-343.02	3,280.40	0.00	0.00	0.00	
9,900.00	90.28	180.23	6,409.24	-3,379.04	-343.42	3,380.39	0.00	0.00	0.00	
10,000.00	90.28	180.23	6,408.75	-3,479.04	-343.82	3,480.39	0.00	0.00	0.00	
10,100.00	90.28	180.23	6,408.25	-3,579.04	-344.22	3,580.39	0.00	0.00	0.00	
10,200.00	90.28	180.23	6,407.76	-3,679.04	-344.62	3,680.39	0.00	0.00	0.00	
10,300.00	90.28	180.23	6,407.26	-3,779.03	-345.02	3,780.39	0.00	0.00	0.00	
10,400.00	90.28	180.23	6,406.77	-3,879.03	-345.42	3,880.39	0.00	0.00	0.00	
10,500.00	90.28	180.23	6,406.27	-3,979.03	-345.82	3,980.39	0.00	0.00	0.00	
10,600.00	90.28	180.23	6,405.77	-4,079.03	-346.22	4,080.39	0.00	0.00	0.00	
10,700.00	90.28	180.23	6,405.28	-4,179.03	-346.62	4,180.38	0.00	0.00	0.00	
10,800.00	90.28	180.23	6,404.78	-4,279.02	-347.02	4,280.38	0.00	0.00	0.00	
10,900.00	90.28	180.23	6,404.29	-4,379.02	-347.42	4,380.38	0.00	0.00	0.00	
11,000.00	90.28	180.23	6,403.79	-4,479.02	-347.82	4,480.38	0.00	0.00	0.00	
11,100.00	90.28	180.23	6,403.30	-4,579.02	-348.22	4,580.38	0.00	0.00	0.00	
11,200.00	90.28	180.23	6,402.80	-4,679.02	-348.63	4,680.38	0.00	0.00	0.00	
11,300.00	90.28	180.23	6,402.31	-4,779.01	-349.03	4,780.38	0.00	0.00	0.00	
11,400.00	90.28	180.23	6,401.81	-4,879.01	-349.43	4,880.38	0.00	0.00	0.00	
11,500.00	90.28	180.23	6,401.31	-4,979.01	-349.83	4,980.37	0.00	0.00	0.00	
11,600.00	90.28	180.23	6,400.82	-5,079.01	-350.23	5,080.37	0.00	0.00	0.00	
11,700.00	90.28	180.23	6,400.32	-5,179.01	-350.63	5,180.37	0.00	0.00	0.00	
11,800.00	90.28	180.23	6,399.83	-5,279.00	-351.03	5,280.37	0.00	0.00	0.00	
11,900.00	90.28	180.23	6,399.33	-5,379.00	-351.43	5,380.37	0.00	0.00	0.00	
12,000.00	90.28	180.23	6,398.84	-5,479.00	-351.83	5,480.37	0.00	0.00	0.00	
12,100.00	90.28	180.23	6,398.34	-5,579.00	-352.23	5,580.37	0.00	0.00	0.00	
12,200.00	90.28	180.23	6,397.85	-5,679.00	-352.63	5,680.37	0.00	0.00	0.00	
12,300.00	90.28	180.23	6,397.35	-5,778.99	-353.03	5,780.36	0.00	0.00	0.00	
12,400.00	90.28	180.23	6,396.85	-5,878.99	-353.43	5,880.36	0.00	0.00	0.00	
12,500.00	90.28	180.23	6,396.36	-5,978.99	-353.83	5,980.36	0.00	0.00	0.00	
12,600.00	90.28	180.23	6,395.86	-6,078.99	-354.23	6,080.36	0.00	0.00	0.00	
12,700.00	90.28	180.23	6,395.37	-6,178.99	-354.63	6,180.36	0.00	0.00	0.00	
12,800.00	90.28	180.23	6,394.87	-6,278.98	-355.03	6,280.36	0.00	0.00	0.00	

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Heath 6-62-15-0758B2
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4732' & KB 16' @ 4748.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4732' & KB 16' @ 4748.00ft
<b>Site:</b>	Heath	<b>North Reference:</b>	True
<b>Well:</b>	Heath 6-62-15-0758B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1		

Planned 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)
12,900.00	90.28	180.23	6,394.38	-6,378.98	-355.43	6,380.36	0.00	0.00	0.00
13,000.00	90.28	180.23	6,393.88	-6,478.98	-355.83	6,480.36	0.00	0.00	0.00
13,100.00	90.28	180.23	6,393.39	-6,578.98	-356.23	6,580.36	0.00	0.00	0.00
13,200.00	90.28	180.23	6,392.89	-6,678.98	-356.63	6,680.35	0.00	0.00	0.00
13,300.00	90.28	180.23	6,392.39	-6,778.97	-357.03	6,780.35	0.00	0.00	0.00
13,400.00	90.28	180.23	6,391.90	-6,878.97	-357.43	6,880.35	0.00	0.00	0.00
13,500.00	90.28	180.23	6,391.40	-6,978.97	-357.83	6,980.35	0.00	0.00	0.00
13,600.00	90.28	180.23	6,390.91	-7,078.97	-358.23	7,080.35	0.00	0.00	0.00
13,700.00	90.28	180.23	6,390.41	-7,178.97	-358.63	7,180.35	0.00	0.00	0.00
13,800.00	90.28	180.23	6,389.92	-7,278.96	-359.03	7,280.35	0.00	0.00	0.00
13,900.00	90.28	180.23	6,389.42	-7,378.96	-359.44	7,380.35	0.00	0.00	0.00
14,000.00	90.28	180.23	6,388.93	-7,478.96	-359.84	7,480.34	0.00	0.00	0.00
14,100.00	90.28	180.23	6,388.43	-7,578.96	-360.24	7,580.34	0.00	0.00	0.00
14,200.00	90.28	180.23	6,387.93	-7,678.96	-360.64	7,680.34	0.00	0.00	0.00
14,300.00	90.28	180.23	6,387.44	-7,778.95	-361.04	7,780.34	0.00	0.00	0.00
14,400.00	90.28	180.23	6,386.94	-7,878.95	-361.44	7,880.34	0.00	0.00	0.00
14,500.00	90.28	180.23	6,386.45	-7,978.95	-361.84	7,980.34	0.00	0.00	0.00
14,600.00	90.28	180.23	6,385.95	-8,078.95	-362.24	8,080.34	0.00	0.00	0.00
14,700.00	90.28	180.23	6,385.46	-8,178.95	-362.64	8,180.34	0.00	0.00	0.00
14,800.00	90.28	180.23	6,384.96	-8,278.94	-363.04	8,280.33	0.00	0.00	0.00
14,900.00	90.28	180.23	6,384.47	-8,378.94	-363.44	8,380.33	0.00	0.00	0.00
15,000.00	90.28	180.23	6,383.97	-8,478.94	-363.84	8,480.33	0.00	0.00	0.00
15,100.00	90.28	180.23	6,383.47	-8,578.94	-364.24	8,580.33	0.00	0.00	0.00
15,200.00	90.28	180.23	6,382.98	-8,678.94	-364.64	8,680.33	0.00	0.00	0.00
15,300.00	90.28	180.23	6,382.48	-8,778.93	-365.04	8,780.33	0.00	0.00	0.00
15,400.00	90.28	180.23	6,381.99	-8,878.93	-365.44	8,880.33	0.00	0.00	0.00
15,500.00	90.28	180.23	6,381.49	-8,978.93	-365.84	8,980.33	0.00	0.00	0.00
15,600.00	90.28	180.23	6,381.00	-9,078.93	-366.24	9,080.32	0.00	0.00	0.00
15,700.00	90.28	180.23	6,380.50	-9,178.93	-366.64	9,180.32	0.00	0.00	0.00
15,800.00	90.28	180.23	6,380.01	-9,278.92	-367.04	9,280.32	0.00	0.00	0.00
15,900.00	90.28	180.23	6,379.51	-9,378.92	-367.44	9,380.32	0.00	0.00	0.00
16,000.00	90.28	180.23	6,379.01	-9,478.92	-367.84	9,480.32	0.00	0.00	0.00
16,100.00	90.28	180.23	6,378.52	-9,578.92	-368.24	9,580.32	0.00	0.00	0.00
16,200.00	90.28	180.23	6,378.02	-9,678.92	-368.64	9,680.32	0.00	0.00	0.00
16,204.64	90.28	180.23	6,378.00	-9,683.55	-368.66	9,684.95	0.00	0.00	0.00
TD at 16204.65									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
6-62-15-0758B2 PBHL	0.00	0.00	6,378.00	-9,683.55	-368.66	1,415,233.13	3,332,934.96	40° 28' 1.380 N	104° 18' 12.121 W
- plan hits target center									
- Point									
6-62-15-0758B2 LP	0.00	0.00	6,425.00	-199.62	-330.69	1,424,716.70	3,332,844.80	40° 29' 35.099 N	104° 18' 11.632 W
- plan hits target center									
- Point									

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Heath 6-62-15-0758B2
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4732' & KB 16' @ 4748.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4732' & KB 16' @ 4748.00ft
<b>Site:</b>	Heath	<b>North Reference:</b>	True
<b>Well:</b>	Heath 6-62-15-0758B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
248.00	248.00	BASE OF FOX HILLS		0.00	
4,093.73	4,079.00	SUSSEX		0.00	
4,833.24	4,815.00	SHANNON		0.00	
6,210.94	6,180.00	SHARON SPRINGS		0.00	
6,319.47	6,268.00	NIOBRARA		0.00	
6,373.62	6,306.00	A CHALK		0.00	
6,420.17	6,335.00	A MARL		0.00	
6,504.51	6,378.00	TD (HORIZONTAL)		0.00	
6,566.11	6,401.00	TOP "B" TARGET		0.00	
6,720.31	6,425.00	LANDING POINT		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
800.00	800.00	0.00	0.00	Start Build 2.00	
1,079.05	1,078.61	8.81	-10.34	Start 4162.52 hold at 1079.05 MD	
5,241.56	5,221.39	271.39	-318.43	Start Drop -2.00	
5,520.61	5,500.00	280.20	-328.77	Start 447.54 hold at 5520.61 MD	
5,968.15	5,947.54	280.20	-328.77	Start DLS 12.00 TFO 180.23	
6,720.52	6,425.00	-199.63	-330.69	Start 9484.13 hold at 6720.52 MD	
16,204.64	6,378.00	-9,683.55	-368.66	TD at 16204.65	