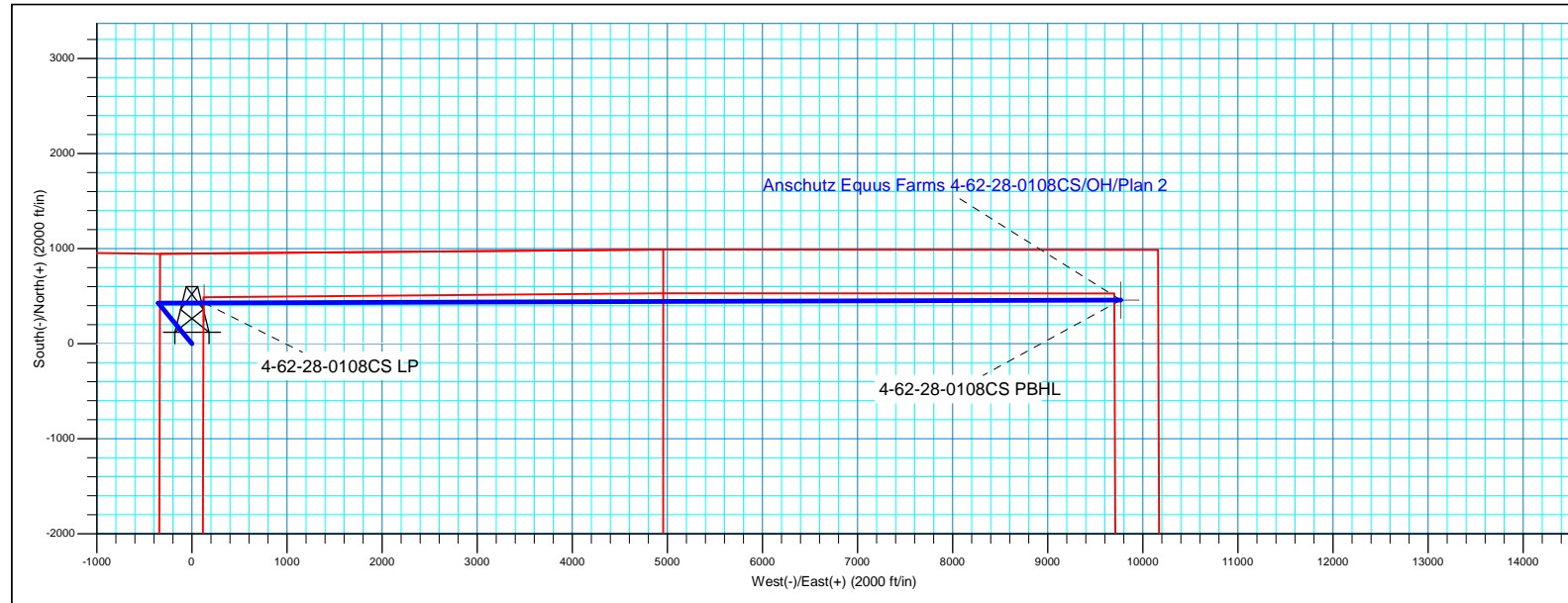
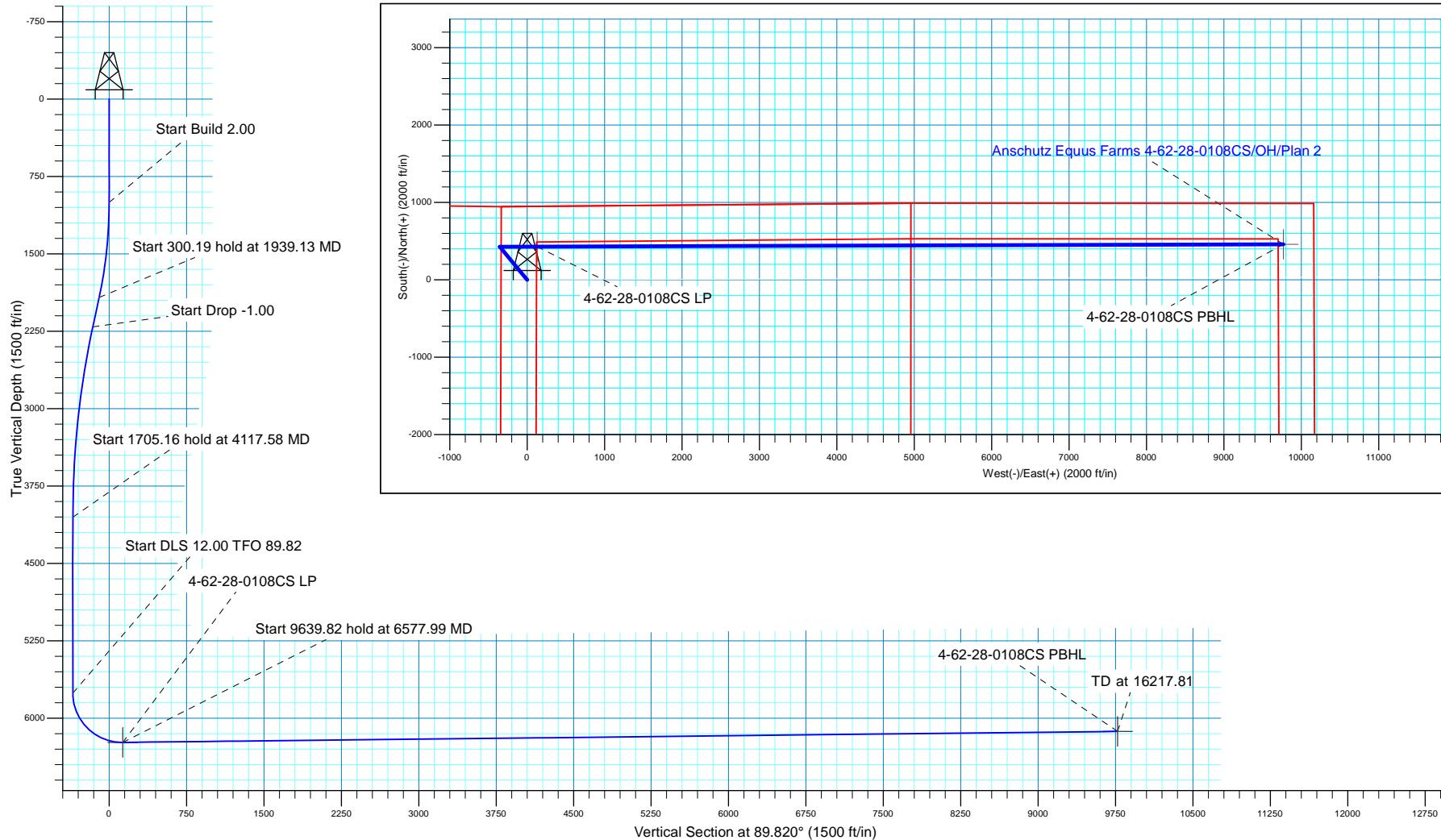



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
1000.00	0.00	0.000	1000.00	0.00	0.00	0.00	0.00	0.00
1939.13	18.78	320.485	1922.40	117.69	-97.07	2.00	320.48	-96.70
2239.32	18.78	320.485	2206.60	192.26	-158.57	0.00	0.00	-157.97
4117.58	0.00	0.000	4051.40	427.64	-352.71	1.00	180.00	-351.36
5822.74	0.00	0.000	5756.56	427.64	-352.71	0.00	0.00	-351.36
6577.99	90.63	89.820	6234.00	429.16	130.00	12.00	89.82	131.35
16217.81	90.63	89.820	6128.00	459.51	9769.19	0.00	0.00	9770.59

WELL DETAILS: Anschutz Equus Farms 4-62-28-0108CS

		GL 4574' & KB 20' @ 4594.00ft		4574.00	Longitude
+N/-S	+E/-W	Northing	Easting	Latitude	
0.00	0.00	1349662.40	3324353.45	40° 17' 14.589 N	104° 20' 14.269 W





Bill Barrett Corporation

Bill Barrett Corp.

Weld County, CO NAD 83

Anschutz Equus Farms 4-62-28_27 NWNW Pad

Anschutz Equus Farms 4-62-28-0108CS

OH

Plan: Plan 2

Standard Planning Report

28 June, 2017



Scientific Drilling

www.scientificdrilling.com



Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-28-0108CS
Company:	Bill Barrett Corp.	TVD Reference:	GL 4574' & KB 20' @ 4594.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4574' & KB 20' @ 4594.00ft
Site:	Anschutz Equus Farms 4-62-28_27 NWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-28-0108CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

Project	Weld County, CO NAD 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site						Anschutz Equus Farms 4-62-28_27 NWNW Pad											
Site Position:			Northing:			1,350,001.24 usft			Latitude:			40° 17' 17.948 N					
From:			Lat/Long			Easting:			3,324,269.21 usft			Longitude:			104° 20' 15.299 W		
Position Uncertainty:			0.00 ft			Slot Radius:			13.200 in			Grid Convergence:			0.75 °		

Well	Anschutz Equus Farms 4-62-28-0108CS, 951' FNL 331' FWL Sec 28 T4N R62W					
Well Position	+N-S	-339.92 ft	Northing:	1,349,662.39 usft	Latitude:	40° 17' 14.589 N
	+E-W	79.79 ft	Easting:	3,324,353.45 usft	Longitude:	104° 20' 14.269 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,574.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2016	4/24/2017	8.14	66.87	52,418
	HDGM	6/28/2017	8.25	66.95	52,364

Design	Plan 2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	89.820

Plan Sections										
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	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,939.13	18.78	320.485	1,922.40	117.69	-97.07	2.00	2.00	0.00	320.48	
2,239.32	18.78	320.485	2,206.60	192.26	-158.57	0.00	0.00	0.00	0.00	
4,117.58	0.00	0.000	4,051.40	427.64	-352.71	1.00	-1.00	0.00	180.00	
5,822.74	0.00	0.000	5,756.56	427.64	-352.71	0.00	0.00	0.00	0.00	
6,577.99	90.63	89.820	6,234.00	429.16	130.00	12.00	12.00	11.89	89.82	
16,217.81	90.63	89.820	6,128.00	459.51	9,769.19	0.00	0.00	0.00	0.00	4-62-28-0108CS PBH

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-28-0108CS
Company:	Bill Barrett Corp.	TVD Reference:	GL 4574' & KB 20' @ 4594.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4574' & KB 20' @ 4594.00ft
Site:	Anschutz Equus Farms 4-62-28_27 NWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-28-0108CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,100.00	2.00	320.485	1,099.98	1.35	-1.11	-1.11	2.00	2.00	0.00
1,200.00	4.00	320.485	1,199.84	5.38	-4.44	-4.42	2.00	2.00	0.00
1,300.00	6.00	320.485	1,299.45	12.11	-9.99	-9.95	2.00	2.00	0.00
1,400.00	8.00	320.485	1,398.70	21.51	-17.74	-17.67	2.00	2.00	0.00
1,500.00	10.00	320.485	1,497.47	33.58	-27.69	-27.59	2.00	2.00	0.00
1,600.00	12.00	320.485	1,595.62	48.30	-39.83	-39.68	2.00	2.00	0.00
1,700.00	14.00	320.485	1,693.06	65.65	-54.15	-53.94	2.00	2.00	0.00
1,800.00	16.00	320.485	1,789.64	85.61	-70.61	-70.34	2.00	2.00	0.00
1,900.00	18.00	320.485	1,885.27	108.17	-89.22	-88.87	2.00	2.00	0.00
1,939.13	18.78	320.485	1,922.40	117.69	-97.07	-96.70	2.00	2.00	0.00
Start 300.19 hold at 1939.13 MD									
2,000.00	18.78	320.485	1,980.03	132.81	-109.54	-109.12	0.00	0.00	0.00
2,100.00	18.78	320.485	2,074.70	157.65	-130.03	-129.53	0.00	0.00	0.00
2,200.00	18.78	320.485	2,169.38	182.49	-150.51	-149.94	0.00	0.00	0.00
2,239.32	18.78	320.485	2,206.60	192.26	-158.57	-157.97	0.00	0.00	0.00
Start Drop -1.00									
2,300.00	18.18	320.485	2,264.15	207.09	-170.81	-170.16	1.00	-1.00	0.00
2,400.00	17.18	320.485	2,359.43	230.52	-190.13	-189.40	1.00	-1.00	0.00
2,500.00	16.18	320.485	2,455.23	252.65	-208.39	-207.59	1.00	-1.00	0.00
2,600.00	15.18	320.485	2,551.50	273.50	-225.58	-224.72	1.00	-1.00	0.00
2,700.00	14.18	320.485	2,648.24	293.04	-241.70	-240.77	1.00	-1.00	0.00
2,800.00	13.18	320.485	2,745.40	311.28	-256.74	-255.76	1.00	-1.00	0.00
2,900.00	12.18	320.485	2,842.97	328.21	-270.70	-269.67	1.00	-1.00	0.00
3,000.00	11.18	320.485	2,940.90	343.82	-283.58	-282.50	1.00	-1.00	0.00
3,100.00	10.18	320.485	3,039.16	358.11	-295.37	-294.24	1.00	-1.00	0.00
3,200.00	9.18	320.485	3,137.74	371.08	-306.06	-304.89	1.00	-1.00	0.00
3,300.00	8.18	320.485	3,236.59	382.72	-315.66	-314.45	1.00	-1.00	0.00
3,400.00	7.18	320.485	3,335.70	393.02	-324.16	-322.92	1.00	-1.00	0.00
3,500.00	6.18	320.485	3,435.02	401.99	-331.55	-330.29	1.00	-1.00	0.00
3,600.00	5.18	320.485	3,534.53	409.62	-337.85	-336.56	1.00	-1.00	0.00
3,700.00	4.18	320.485	3,634.19	415.91	-343.03	-341.72	1.00	-1.00	0.00
3,800.00	3.18	320.485	3,733.99	420.85	-347.11	-345.79	1.00	-1.00	0.00
3,900.00	2.18	320.485	3,833.88	424.45	-350.08	-348.75	1.00	-1.00	0.00
4,000.00	1.18	320.485	3,933.83	426.71	-351.94	-350.60	1.00	-1.00	0.00
4,100.00	0.18	320.485	4,033.82	427.62	-352.69	-351.35	1.00	-1.00	0.00
4,117.58	0.00	0.000	4,051.40	427.64	-352.71	-351.36	1.00	-1.00	0.00
Start 1705.16 hold at 4117.58 MD									
4,200.00	0.00	0.000	4,133.82	427.64	-352.71	-351.36	0.00	0.00	0.00
4,300.00	0.00	0.000	4,233.82	427.64	-352.71	-351.36	0.00	0.00	0.00
4,400.00	0.00	0.000	4,333.82	427.64	-352.71	-351.36	0.00	0.00	0.00
4,500.00	0.00	0.000	4,433.82	427.64	-352.71	-351.36	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-28-0108CS
Company:	Bill Barrett Corp.	TVD Reference:	GL 4574' & KB 20' @ 4594.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4574' & KB 20' @ 4594.00ft
Site:	Anschutz Equus Farms 4-62-28_27 NWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-28-0108CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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)
4,600.00	0.00	0.000	4,533.82	427.64	-352.71	-351.36	0.00	0.00	0.00
4,700.00	0.00	0.000	4,633.82	427.64	-352.71	-351.36	0.00	0.00	0.00
4,800.00	0.00	0.000	4,733.82	427.64	-352.71	-351.36	0.00	0.00	0.00
4,900.00	0.00	0.000	4,833.82	427.64	-352.71	-351.36	0.00	0.00	0.00
5,000.00	0.00	0.000	4,933.82	427.64	-352.71	-351.36	0.00	0.00	0.00
5,100.00	0.00	0.000	5,033.82	427.64	-352.71	-351.36	0.00	0.00	0.00
5,200.00	0.00	0.000	5,133.82	427.64	-352.71	-351.36	0.00	0.00	0.00
5,300.00	0.00	0.000	5,233.82	427.64	-352.71	-351.36	0.00	0.00	0.00
5,400.00	0.00	0.000	5,333.82	427.64	-352.71	-351.36	0.00	0.00	0.00
5,500.00	0.00	0.000	5,433.82	427.64	-352.71	-351.36	0.00	0.00	0.00
5,600.00	0.00	0.000	5,533.82	427.64	-352.71	-351.36	0.00	0.00	0.00
5,700.00	0.00	0.000	5,633.82	427.64	-352.71	-351.36	0.00	0.00	0.00
5,800.00	0.00	0.000	5,733.82	427.64	-352.71	-351.36	0.00	0.00	0.00
5,822.74	0.00	0.000	5,756.56	427.64	-352.71	-351.36	0.00	0.00	0.00
Start DLS 12.00 TFO 89.82									
5,900.00	9.27	89.820	5,833.49	427.66	-346.47	-345.13	12.00	12.00	0.00
6,000.00	21.27	89.820	5,929.78	427.74	-320.18	-318.84	12.00	12.00	0.00
6,100.00	33.27	89.820	6,018.50	427.89	-274.44	-273.10	12.00	12.00	0.00
6,200.00	45.27	89.820	6,095.78	428.09	-211.26	-209.91	12.00	12.00	0.00
6,300.00	57.27	89.820	6,158.22	428.33	-133.39	-132.05	12.00	12.00	0.00
6,400.00	69.27	89.820	6,203.12	428.61	-44.24	-42.89	12.00	12.00	0.00
6,500.00	81.27	89.820	6,228.50	428.92	52.30	53.64	12.00	12.00	0.00
6,577.99	90.63	89.820	6,234.00	429.16	130.00	131.35	12.00	12.00	0.00
Start 9639.82 hold at 6577.99 MD									
6,600.00	90.63	89.820	6,233.75	429.23	152.01	153.36	0.00	0.00	0.00
6,700.00	90.63	89.820	6,232.65	429.54	252.01	253.36	0.00	0.00	0.00
6,800.00	90.63	89.820	6,231.55	429.86	352.00	353.35	0.00	0.00	0.00
6,900.00	90.63	89.820	6,230.46	430.17	451.99	453.34	0.00	0.00	0.00
7,000.00	90.63	89.820	6,229.36	430.49	551.99	553.34	0.00	0.00	0.00
7,100.00	90.63	89.820	6,228.26	430.80	651.98	653.33	0.00	0.00	0.00
7,200.00	90.63	89.820	6,227.16	431.12	751.97	753.33	0.00	0.00	0.00
7,300.00	90.63	89.820	6,226.06	431.43	851.97	853.32	0.00	0.00	0.00
7,400.00	90.63	89.820	6,224.96	431.75	951.96	953.31	0.00	0.00	0.00
7,500.00	90.63	89.820	6,223.86	432.06	1,051.95	1,053.31	0.00	0.00	0.00
7,600.00	90.63	89.820	6,222.76	432.38	1,151.95	1,153.30	0.00	0.00	0.00
7,700.00	90.63	89.820	6,221.66	432.69	1,251.94	1,253.29	0.00	0.00	0.00
7,800.00	90.63	89.820	6,220.56	433.01	1,351.94	1,353.29	0.00	0.00	0.00
7,900.00	90.63	89.820	6,219.46	433.32	1,451.93	1,453.28	0.00	0.00	0.00
8,000.00	90.63	89.820	6,218.36	433.64	1,551.92	1,553.28	0.00	0.00	0.00
8,100.00	90.63	89.820	6,217.26	433.95	1,651.92	1,653.27	0.00	0.00	0.00
8,200.00	90.63	89.820	6,216.16	434.27	1,751.91	1,753.26	0.00	0.00	0.00
8,300.00	90.63	89.820	6,215.06	434.58	1,851.90	1,853.26	0.00	0.00	0.00
8,400.00	90.63	89.820	6,213.96	434.90	1,951.90	1,953.25	0.00	0.00	0.00
8,500.00	90.63	89.820	6,212.86	435.21	2,051.89	2,053.25	0.00	0.00	0.00
8,600.00	90.63	89.820	6,211.76	435.53	2,151.88	2,153.24	0.00	0.00	0.00
8,700.00	90.63	89.820	6,210.66	435.84	2,251.88	2,253.23	0.00	0.00	0.00
8,800.00	90.63	89.820	6,209.56	436.16	2,351.87	2,353.23	0.00	0.00	0.00
8,900.00	90.63	89.820	6,208.46	436.47	2,451.86	2,453.22	0.00	0.00	0.00
9,000.00	90.63	89.820	6,207.36	436.79	2,551.86	2,553.22	0.00	0.00	0.00
9,100.00	90.63	89.820	6,206.26	437.10	2,651.85	2,653.21	0.00	0.00	0.00
9,200.00	90.63	89.820	6,205.17	437.42	2,751.84	2,753.20	0.00	0.00	0.00
9,300.00	90.63	89.820	6,204.07	437.73	2,851.84	2,853.20	0.00	0.00	0.00
9,400.00	90.63	89.820	6,202.97	438.05	2,951.83	2,953.19	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-28-0108CS
Company:	Bill Barrett Corp.	TVD Reference:	GL 4574' & KB 20' @ 4594.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4574' & KB 20' @ 4594.00ft
Site:	Anschutz Equus Farms 4-62-28_27 NWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-28-0108CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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)
9,500.00	90.63	89.820	6,201.87	438.36	3,051.82	3,053.19	0.00	0.00	0.00
9,600.00	90.63	89.820	6,200.77	438.68	3,151.82	3,153.18	0.00	0.00	0.00
9,700.00	90.63	89.820	6,199.67	438.99	3,251.81	3,253.17	0.00	0.00	0.00
9,800.00	90.63	89.820	6,198.57	439.31	3,351.80	3,353.17	0.00	0.00	0.00
9,900.00	90.63	89.820	6,197.47	439.62	3,451.80	3,453.16	0.00	0.00	0.00
10,000.00	90.63	89.820	6,196.37	439.94	3,551.79	3,553.16	0.00	0.00	0.00
10,100.00	90.63	89.820	6,195.27	440.25	3,651.78	3,653.15	0.00	0.00	0.00
10,200.00	90.63	89.820	6,194.17	440.56	3,751.78	3,753.14	0.00	0.00	0.00
10,300.00	90.63	89.820	6,193.07	440.88	3,851.77	3,853.14	0.00	0.00	0.00
10,400.00	90.63	89.820	6,191.97	441.19	3,951.77	3,953.13	0.00	0.00	0.00
10,500.00	90.63	89.820	6,190.87	441.51	4,051.76	4,053.13	0.00	0.00	0.00
10,600.00	90.63	89.820	6,189.77	441.82	4,151.75	4,153.12	0.00	0.00	0.00
10,700.00	90.63	89.820	6,188.67	442.14	4,251.75	4,253.11	0.00	0.00	0.00
10,800.00	90.63	89.820	6,187.57	442.45	4,351.74	4,353.11	0.00	0.00	0.00
10,900.00	90.63	89.820	6,186.47	442.77	4,451.73	4,453.10	0.00	0.00	0.00
11,000.00	90.63	89.820	6,185.37	443.08	4,551.73	4,553.10	0.00	0.00	0.00
11,100.00	90.63	89.820	6,184.27	443.40	4,651.72	4,653.09	0.00	0.00	0.00
11,200.00	90.63	89.820	6,183.17	443.71	4,751.71	4,753.08	0.00	0.00	0.00
11,300.00	90.63	89.820	6,182.07	444.03	4,851.71	4,853.08	0.00	0.00	0.00
11,400.00	90.63	89.820	6,180.98	444.34	4,951.70	4,953.07	0.00	0.00	0.00
11,500.00	90.63	89.820	6,179.88	444.66	5,051.69	5,053.07	0.00	0.00	0.00
11,600.00	90.63	89.820	6,178.78	444.97	5,151.69	5,153.06	0.00	0.00	0.00
11,700.00	90.63	89.820	6,177.68	445.29	5,251.68	5,253.05	0.00	0.00	0.00
11,800.00	90.63	89.820	6,176.58	445.60	5,351.67	5,353.05	0.00	0.00	0.00
11,900.00	90.63	89.820	6,175.48	445.92	5,451.67	5,453.04	0.00	0.00	0.00
12,000.00	90.63	89.820	6,174.38	446.23	5,551.66	5,553.04	0.00	0.00	0.00
12,100.00	90.63	89.820	6,173.28	446.55	5,651.65	5,653.03	0.00	0.00	0.00
12,200.00	90.63	89.820	6,172.18	446.86	5,751.65	5,753.02	0.00	0.00	0.00
12,300.00	90.63	89.820	6,171.08	447.18	5,851.64	5,853.02	0.00	0.00	0.00
12,400.00	90.63	89.820	6,169.98	447.49	5,951.63	5,953.01	0.00	0.00	0.00
12,500.00	90.63	89.820	6,168.88	447.81	6,051.63	6,053.00	0.00	0.00	0.00
12,600.00	90.63	89.820	6,167.78	448.12	6,151.62	6,153.00	0.00	0.00	0.00
12,700.00	90.63	89.820	6,166.68	448.44	6,251.61	6,252.99	0.00	0.00	0.00
12,800.00	90.63	89.820	6,165.58	448.75	6,351.61	6,352.99	0.00	0.00	0.00
12,900.00	90.63	89.820	6,164.48	449.07	6,451.60	6,452.98	0.00	0.00	0.00
13,000.00	90.63	89.820	6,163.38	449.38	6,551.60	6,552.97	0.00	0.00	0.00
13,100.00	90.63	89.820	6,162.28	449.70	6,651.59	6,652.97	0.00	0.00	0.00
13,200.00	90.63	89.820	6,161.18	450.01	6,751.58	6,752.96	0.00	0.00	0.00
13,300.00	90.63	89.820	6,160.08	450.33	6,851.58	6,852.96	0.00	0.00	0.00
13,400.00	90.63	89.820	6,158.98	450.64	6,951.57	6,952.95	0.00	0.00	0.00
13,500.00	90.63	89.820	6,157.88	450.96	7,051.56	7,052.94	0.00	0.00	0.00
13,600.00	90.63	89.820	6,156.78	451.27	7,151.56	7,152.94	0.00	0.00	0.00
13,700.00	90.63	89.820	6,155.69	451.59	7,251.55	7,252.93	0.00	0.00	0.00
13,800.00	90.63	89.820	6,154.59	451.90	7,351.54	7,352.93	0.00	0.00	0.00
13,900.00	90.63	89.820	6,153.49	452.22	7,451.54	7,452.92	0.00	0.00	0.00
14,000.00	90.63	89.820	6,152.39	452.53	7,551.53	7,552.91	0.00	0.00	0.00
14,100.00	90.63	89.820	6,151.29	452.85	7,651.52	7,652.91	0.00	0.00	0.00
14,200.00	90.63	89.820	6,150.19	453.16	7,751.52	7,752.90	0.00	0.00	0.00
14,300.00	90.63	89.820	6,149.09	453.47	7,851.51	7,852.90	0.00	0.00	0.00
14,400.00	90.63	89.820	6,147.99	453.79	7,951.50	7,952.89	0.00	0.00	0.00
14,500.00	90.63	89.820	6,146.89	454.10	8,051.50	8,052.88	0.00	0.00	0.00
14,600.00	90.63	89.820	6,145.79	454.42	8,151.49	8,152.88	0.00	0.00	0.00
14,700.00	90.63	89.820	6,144.69	454.73	8,251.48	8,252.87	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-28-0108CS
Company:	Bill Barrett Corp.	TVD Reference:	GL 4574' & KB 20' @ 4594.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4574' & KB 20' @ 4594.00ft
Site:	Anschutz Equus Farms 4-62-28_27 NWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-28-0108CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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)
14,800.00	90.63	89.820	6,143.59	455.05	8,351.48	8,352.87	0.00	0.00	0.00
14,900.00	90.63	89.820	6,142.49	455.36	8,451.47	8,452.86	0.00	0.00	0.00
15,000.00	90.63	89.820	6,141.39	455.68	8,551.46	8,552.85	0.00	0.00	0.00
15,100.00	90.63	89.820	6,140.29	455.99	8,651.46	8,652.85	0.00	0.00	0.00
15,200.00	90.63	89.820	6,139.19	456.31	8,751.45	8,752.84	0.00	0.00	0.00
15,300.00	90.63	89.820	6,138.09	456.62	8,851.44	8,852.84	0.00	0.00	0.00
15,400.00	90.63	89.820	6,136.99	456.94	8,951.44	8,952.83	0.00	0.00	0.00
15,500.00	90.63	89.820	6,135.89	457.25	9,051.43	9,052.82	0.00	0.00	0.00
15,600.00	90.63	89.820	6,134.79	457.57	9,151.43	9,152.82	0.00	0.00	0.00
15,700.00	90.63	89.820	6,133.69	457.88	9,251.42	9,252.81	0.00	0.00	0.00
15,800.00	90.63	89.820	6,132.59	458.20	9,351.41	9,352.81	0.00	0.00	0.00
15,900.00	90.63	89.820	6,131.49	458.51	9,451.41	9,452.80	0.00	0.00	0.00
16,000.00	90.63	89.820	6,130.40	458.83	9,551.40	9,552.79	0.00	0.00	0.00
16,100.00	90.63	89.820	6,129.30	459.14	9,651.39	9,652.79	0.00	0.00	0.00
16,200.00	90.63	89.820	6,128.20	459.46	9,751.39	9,752.78	0.00	0.00	0.00
16,217.81	90.63	89.820	6,128.00	459.51	9,769.19	9,770.59	0.00	0.00	0.00
TD at 16217.81									

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									
4-62-28-0108CS PBHL	0.00	0.000	6,128.00	459.51	9,769.19	1,350,249.96	3,334,115.76	40° 17' 19.111 N	104° 18' 8.201 W
- plan hits target center									
- Point									
4-62-28-0108CS LP	0.00	0.000	6,234.00	429.17	130.00	1,350,093.23	3,324,477.81	40° 17' 18.830 N	104° 20' 12.592 W
- plan misses target center by 0.01ft at 6577.98ft MD (6234.00 TVD, 429.16 N, 130.00 E)									
- Point									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
1,000.00	1,000.00	0.00	0.00	Start Build 2.00
1,939.13	1,922.40	117.69	-97.07	Start 300.19 hold at 1939.13 MD
2,239.32	2,206.60	192.26	-158.57	Start Drop -1.00
4,117.58	4,051.40	427.64	-352.71	Start 1705.16 hold at 4117.58 MD
5,822.74	5,756.56	427.64	-352.71	Start DLS 12.00 TFO 89.82
6,577.99	6,234.00	429.16	130.00	Start 9639.82 hold at 6577.99 MD
16,217.81	6,128.00	459.51	9,769.19	TD at 16217.81