

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: Anschutz Equus Farms 4-62-33_34 SWNW Pad
 Well: Anschutz Equus Farms 4-62-32-2417C
 Wellbore: OH
 Design: Plan 2



Azimuths to True North
 Magnetic North: 8.27°



Magnetic Field
 Strength: 52362.7nT
 Dip Angle: 66.93°
 Date: 7/18/2017
 Model: HDGM

Plan: Plan 2 (Anschutz Equus Farms 4-62-32-2417C/OH)

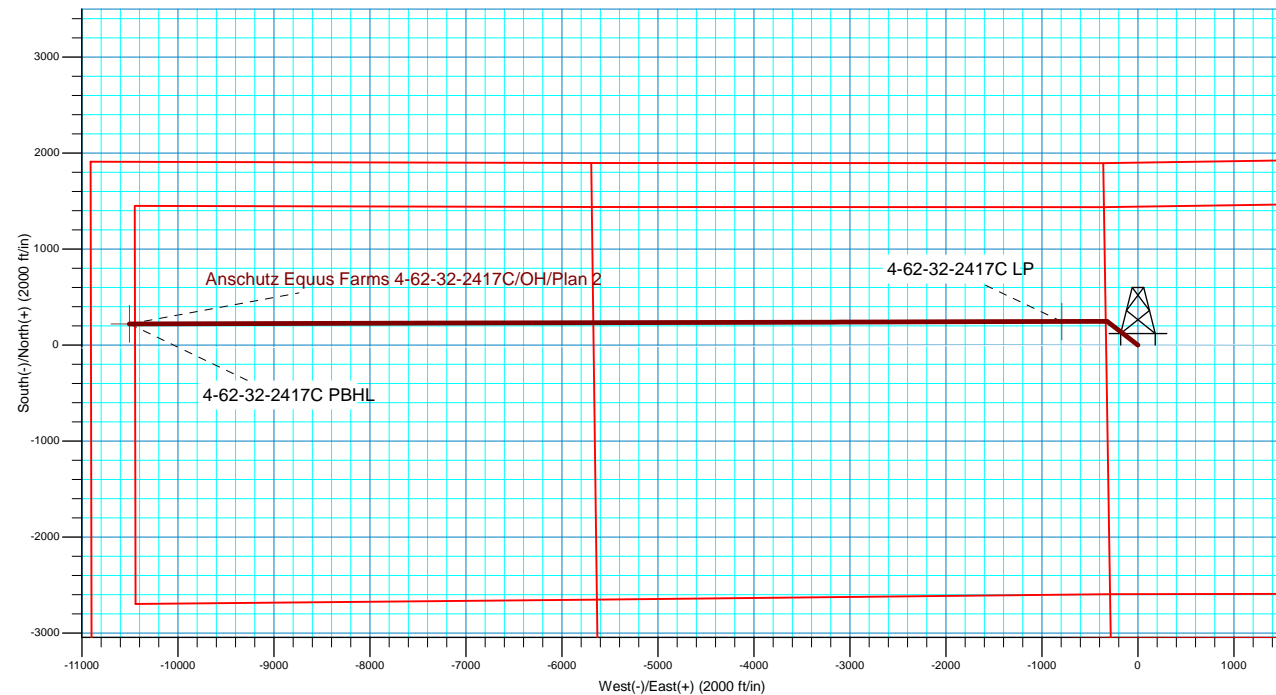
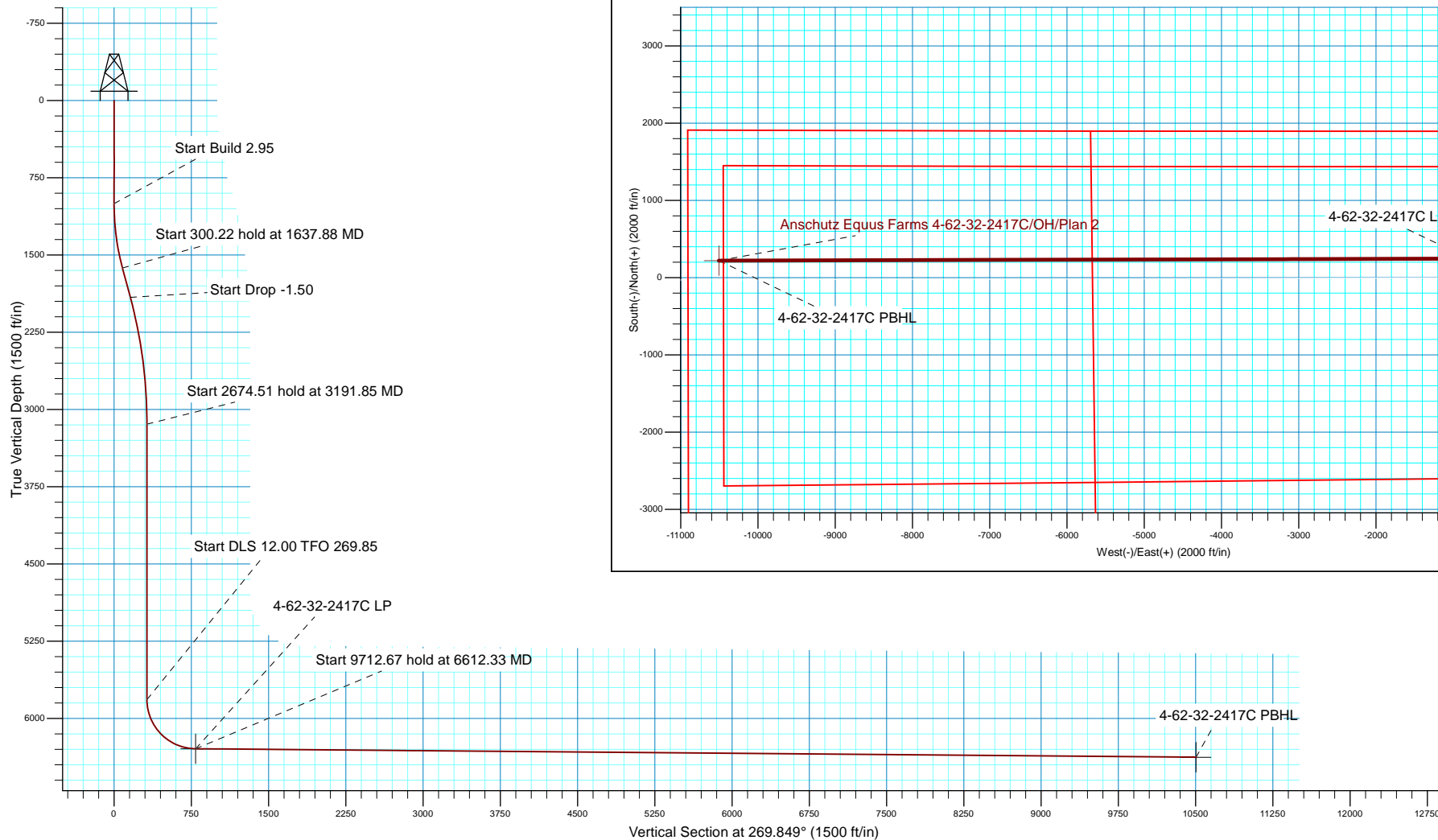
Created By: Seth Burstad Date: 7-18-2017

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
1637.88	18.81	307.666	1626.49	63.40	-82.13	2.95	307.67	81.96
1938.10	18.81	307.666	1910.68	122.53	-158.74	0.00	0.00	158.41
3191.85	0.00	0.000	3142.04	247.14	-320.16	1.50	180.00	319.51
5866.36	0.00	0.000	5816.55	247.14	-320.16	0.00	0.00	319.51
6612.33	89.52	269.852	6294.00	245.92	-793.59	12.00	269.85	792.94
16325.00	89.52	269.852	6376.00	220.83	-10505.88	0.00	0.00	10505.26

WELL DETAILS: Anschutz Equus Farms 4-62-32-2417C

		GL 4657' & KB 20' @ 4677.00ft		4657.00	Longitude
+N/-S	+E/-W	Northing	Easting	Latitude	
0.00	0.00	1343489.59	3324452.81	40° 16' 13.580 N	104° 20' 14.032 W





Bill Barrett Corporation

Bill Barrett Corp.

Weld County, CO NAD 83

Anschutz Equus Farms 4-62-33_34 SWNW Pad

Anschutz Equus Farms 4-62-32-2417C

OH

Plan: Plan 2

Standard Planning Report

18 July, 2017



Scientific Drilling

www.scientificdrilling.com



Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-32-2417C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4657' & KB 20' @ 4677.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4657' & KB 20' @ 4677.00ft
Site:	Anschutz Equus Farms 4-62-33_34 SWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-32-2417C	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 4-62-33_34 SWNW Pad, Site Center : Anschutz Equus Farms 4-62-32-0916C			
Site Position:		Northing:	1,343,489.81 usft	Latitude:	40° 16' 13.580 N
From:	Lat/Long	Easting:	3,324,467.60 usft	Longitude:	104° 20' 13.841 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.75

Well	Anschutz Equus Farms 4-62-32-2417C, 1901' FNL 330' FWL Sec 33 T4N R62W					
Well Position	+N/-S	-0.02 ft	Northing:	1,343,489.59 usft	Latitude:	40° 16' 13.580 N
	+E/-W	-14.79 ft	Easting:	3,324,452.81 usft	Longitude:	104° 20' 14.032 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,657.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2016	4/13/2017	8.14	66.85	52,412
	HDGM	7/18/2017	8.27	66.93	52,363

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	269.849

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	
1,637.88	18.81	307.665	1,626.49	63.40	-82.13	2.95	2.95	0.00	307.67	
1,938.10	18.81	307.665	1,910.68	122.53	-158.74	0.00	0.00	0.00	0.00	
3,191.85	0.00	0.000	3,142.04	247.14	-320.16	1.50	-1.50	0.00	180.00	
5,866.36	0.00	0.000	5,816.55	247.14	-320.16	0.00	0.00	0.00	0.00	
6,612.33	89.52	269.852	6,294.00	245.92	-793.59	12.00	12.00	-12.08	269.85	
16,325.00	89.52	269.852	6,376.00	220.82	-10,505.88	0.00	0.00	0.00	0.00	4-62-32-2417C PBHL

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-32-2417C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4657' & KB 20' @ 4677.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4657' & KB 20' @ 4677.00ft
Site:	Anschutz Equus Farms 4-62-33_34 SWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-32-2417C	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 2.95									
1,100.00	2.95	307.665	1,099.96	1.57	-2.04	2.03	2.95	2.95	0.00
1,200.00	5.90	307.665	1,199.65	6.28	-8.14	8.12	2.95	2.95	0.00
1,300.00	8.84	307.665	1,298.81	14.12	-18.29	18.26	2.95	2.95	0.00
1,400.00	11.79	307.665	1,397.18	25.07	-32.47	32.41	2.95	2.95	0.00
1,500.00	14.74	307.665	1,494.50	39.09	-50.64	50.53	2.95	2.95	0.00
1,600.00	17.69	307.665	1,590.51	56.15	-72.74	72.59	2.95	2.95	0.00
1,637.88	18.81	307.665	1,626.49	63.40	-82.13	81.96	2.95	2.95	0.00
Start 300.22 hold at 1637.88 MD									
1,700.00	18.81	307.665	1,685.29	75.63	-97.98	97.78	0.00	0.00	0.00
1,800.00	18.81	307.665	1,779.95	95.33	-123.50	123.25	0.00	0.00	0.00
1,900.00	18.81	307.665	1,874.61	115.03	-149.02	148.71	0.00	0.00	0.00
1,938.10	18.81	307.665	1,910.68	122.53	-158.74	158.41	0.00	0.00	0.00
Start Drop -1.50									
2,000.00	17.88	307.665	1,969.43	134.44	-174.16	173.80	1.50	-1.50	0.00
2,100.00	16.38	307.665	2,065.00	152.43	-197.47	197.07	1.50	-1.50	0.00
2,200.00	14.88	307.665	2,161.30	168.89	-218.79	218.35	1.50	-1.50	0.00
2,300.00	13.38	307.665	2,258.27	183.81	-238.12	237.63	1.50	-1.50	0.00
2,400.00	11.88	307.665	2,355.85	197.17	-255.42	254.90	1.50	-1.50	0.00
2,500.00	10.38	307.665	2,453.97	208.96	-270.70	270.15	1.50	-1.50	0.00
2,600.00	8.88	307.665	2,552.55	219.18	-283.94	283.36	1.50	-1.50	0.00
2,700.00	7.38	307.665	2,651.55	227.82	-295.13	294.53	1.50	-1.50	0.00
2,800.00	5.88	307.665	2,750.88	234.87	-304.26	303.64	1.50	-1.50	0.00
2,900.00	4.38	307.665	2,850.47	240.33	-311.34	310.70	1.50	-1.50	0.00
3,000.00	2.88	307.665	2,950.27	244.20	-316.35	315.70	1.50	-1.50	0.00
3,100.00	1.38	307.665	3,050.20	246.47	-319.29	318.64	1.50	-1.50	0.00
3,191.85	0.00	0.000	3,142.04	247.14	-320.16	319.51	1.50	-1.50	0.00
Start 2674.51 hold at 3191.85 MD									
3,200.00	0.00	0.000	3,150.19	247.14	-320.16	319.51	0.00	0.00	0.00
3,300.00	0.00	0.000	3,250.19	247.14	-320.16	319.51	0.00	0.00	0.00
3,400.00	0.00	0.000	3,350.19	247.14	-320.16	319.51	0.00	0.00	0.00
3,500.00	0.00	0.000	3,450.19	247.14	-320.16	319.51	0.00	0.00	0.00
3,600.00	0.00	0.000	3,550.19	247.14	-320.16	319.51	0.00	0.00	0.00
3,700.00	0.00	0.000	3,650.19	247.14	-320.16	319.51	0.00	0.00	0.00
3,800.00	0.00	0.000	3,750.19	247.14	-320.16	319.51	0.00	0.00	0.00
3,900.00	0.00	0.000	3,850.19	247.14	-320.16	319.51	0.00	0.00	0.00
4,000.00	0.00	0.000	3,950.19	247.14	-320.16	319.51	0.00	0.00	0.00
4,100.00	0.00	0.000	4,050.19	247.14	-320.16	319.51	0.00	0.00	0.00
4,200.00	0.00	0.000	4,150.19	247.14	-320.16	319.51	0.00	0.00	0.00
4,300.00	0.00	0.000	4,250.19	247.14	-320.16	319.51	0.00	0.00	0.00
4,400.00	0.00	0.000	4,350.19	247.14	-320.16	319.51	0.00	0.00	0.00
4,500.00	0.00	0.000	4,450.19	247.14	-320.16	319.51	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-32-2417C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4657' & KB 20' @ 4677.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4657' & KB 20' @ 4677.00ft
Site:	Anschutz Equus Farms 4-62-33_34 SWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-32-2417C	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	4,550.19	247.14	-320.16	319.51	0.00	0.00	0.00
4,700.00	0.00	0.000	4,650.19	247.14	-320.16	319.51	0.00	0.00	0.00
4,800.00	0.00	0.000	4,750.19	247.14	-320.16	319.51	0.00	0.00	0.00
4,900.00	0.00	0.000	4,850.19	247.14	-320.16	319.51	0.00	0.00	0.00
5,000.00	0.00	0.000	4,950.19	247.14	-320.16	319.51	0.00	0.00	0.00
5,100.00	0.00	0.000	5,050.19	247.14	-320.16	319.51	0.00	0.00	0.00
5,200.00	0.00	0.000	5,150.19	247.14	-320.16	319.51	0.00	0.00	0.00
5,300.00	0.00	0.000	5,250.19	247.14	-320.16	319.51	0.00	0.00	0.00
5,400.00	0.00	0.000	5,350.19	247.14	-320.16	319.51	0.00	0.00	0.00
5,500.00	0.00	0.000	5,450.19	247.14	-320.16	319.51	0.00	0.00	0.00
5,600.00	0.00	0.000	5,550.19	247.14	-320.16	319.51	0.00	0.00	0.00
5,700.00	0.00	0.000	5,650.19	247.14	-320.16	319.51	0.00	0.00	0.00
5,800.00	0.00	0.000	5,750.19	247.14	-320.16	319.51	0.00	0.00	0.00
5,866.36	0.00	0.000	5,816.55	247.14	-320.16	319.51	0.00	0.00	0.00
Start DLS 12.00 TFO 269.85									
5,900.00	4.04	269.852	5,850.16	247.14	-321.34	320.69	12.00	12.00	0.00
6,000.00	16.04	269.852	5,948.45	247.09	-338.74	338.09	12.00	12.00	0.00
6,100.00	28.04	269.852	6,040.98	247.00	-376.19	375.54	12.00	12.00	0.00
6,200.00	40.04	269.852	6,123.69	246.85	-432.06	431.41	12.00	12.00	0.00
6,300.00	52.04	269.852	6,192.99	246.67	-503.91	503.26	12.00	12.00	0.00
6,400.00	64.04	269.852	6,245.83	246.45	-588.59	587.94	12.00	12.00	0.00
6,500.00	76.04	269.852	6,279.91	246.20	-682.41	681.76	12.00	12.00	0.00
6,600.00	88.04	269.852	6,293.73	245.95	-781.27	780.61	12.00	12.00	0.00
6,612.33	89.52	269.852	6,294.00	245.92	-793.59	792.94	12.00	12.00	0.00
Start 9712.67 hold at 6612.33 MD									
6,700.00	89.52	269.852	6,294.74	245.69	-881.26	880.61	0.00	0.00	0.00
6,800.00	89.52	269.852	6,295.58	245.43	-981.25	980.60	0.00	0.00	0.00
6,900.00	89.52	269.852	6,296.43	245.17	-1,081.25	1,080.60	0.00	0.00	0.00
7,000.00	89.52	269.852	6,297.27	244.92	-1,181.25	1,180.60	0.00	0.00	0.00
7,100.00	89.52	269.852	6,298.12	244.66	-1,281.24	1,280.59	0.00	0.00	0.00
7,200.00	89.52	269.852	6,298.96	244.40	-1,381.24	1,380.59	0.00	0.00	0.00
7,300.00	89.52	269.852	6,299.80	244.14	-1,481.24	1,480.59	0.00	0.00	0.00
7,400.00	89.52	269.852	6,300.65	243.88	-1,581.23	1,580.58	0.00	0.00	0.00
7,500.00	89.52	269.852	6,301.49	243.62	-1,681.23	1,680.58	0.00	0.00	0.00
7,600.00	89.52	269.852	6,302.34	243.37	-1,781.22	1,780.58	0.00	0.00	0.00
7,700.00	89.52	269.852	6,303.18	243.11	-1,881.22	1,880.57	0.00	0.00	0.00
7,800.00	89.52	269.852	6,304.03	242.85	-1,981.22	1,980.57	0.00	0.00	0.00
7,900.00	89.52	269.852	6,304.87	242.59	-2,081.21	2,080.57	0.00	0.00	0.00
8,000.00	89.52	269.852	6,305.71	242.33	-2,181.21	2,180.56	0.00	0.00	0.00
8,100.00	89.52	269.852	6,306.56	242.07	-2,281.20	2,280.56	0.00	0.00	0.00
8,200.00	89.52	269.852	6,307.40	241.82	-2,381.20	2,380.55	0.00	0.00	0.00
8,300.00	89.52	269.852	6,308.25	241.56	-2,481.20	2,480.55	0.00	0.00	0.00
8,400.00	89.52	269.852	6,309.09	241.30	-2,581.19	2,580.55	0.00	0.00	0.00
8,500.00	89.52	269.852	6,309.94	241.04	-2,681.19	2,680.54	0.00	0.00	0.00
8,600.00	89.52	269.852	6,310.78	240.78	-2,781.18	2,780.54	0.00	0.00	0.00
8,700.00	89.52	269.852	6,311.62	240.52	-2,881.18	2,880.54	0.00	0.00	0.00
8,800.00	89.52	269.852	6,312.47	240.26	-2,981.18	2,980.53	0.00	0.00	0.00
8,900.00	89.52	269.852	6,313.31	240.01	-3,081.17	3,080.53	0.00	0.00	0.00
9,000.00	89.52	269.852	6,314.16	239.75	-3,181.17	3,180.53	0.00	0.00	0.00
9,100.00	89.52	269.852	6,315.00	239.49	-3,281.17	3,280.52	0.00	0.00	0.00
9,200.00	89.52	269.852	6,315.85	239.23	-3,381.16	3,380.52	0.00	0.00	0.00
9,300.00	89.52	269.852	6,316.69	238.97	-3,481.16	3,480.52	0.00	0.00	0.00
9,400.00	89.52	269.852	6,317.53	238.71	-3,581.15	3,580.51	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-32-2417C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4657' & KB 20' @ 4677.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4657' & KB 20' @ 4677.00ft
Site:	Anschutz Equus Farms 4-62-33_34 SWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-32-2417C	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	89.52	269.852	6,318.38	238.46	-3,681.15	3,680.51	0.00	0.00	0.00
9,600.00	89.52	269.852	6,319.22	238.20	-3,781.15	3,780.50	0.00	0.00	0.00
9,700.00	89.52	269.852	6,320.07	237.94	-3,881.14	3,880.50	0.00	0.00	0.00
9,800.00	89.52	269.852	6,320.91	237.68	-3,981.14	3,980.50	0.00	0.00	0.00
9,900.00	89.52	269.852	6,321.76	237.42	-4,081.13	4,080.49	0.00	0.00	0.00
10,000.00	89.52	269.852	6,322.60	237.16	-4,181.13	4,180.49	0.00	0.00	0.00
10,100.00	89.52	269.852	6,323.44	236.91	-4,281.13	4,280.49	0.00	0.00	0.00
10,200.00	89.52	269.852	6,324.29	236.65	-4,381.12	4,380.48	0.00	0.00	0.00
10,300.00	89.52	269.852	6,325.13	236.39	-4,481.12	4,480.48	0.00	0.00	0.00
10,400.00	89.52	269.852	6,325.98	236.13	-4,581.11	4,580.48	0.00	0.00	0.00
10,500.00	89.52	269.852	6,326.82	235.87	-4,681.11	4,680.47	0.00	0.00	0.00
10,600.00	89.52	269.852	6,327.67	235.61	-4,781.11	4,780.47	0.00	0.00	0.00
10,700.00	89.52	269.852	6,328.51	235.36	-4,881.10	4,880.47	0.00	0.00	0.00
10,800.00	89.52	269.852	6,329.35	235.10	-4,981.10	4,980.46	0.00	0.00	0.00
10,900.00	89.52	269.852	6,330.20	234.84	-5,081.10	5,080.46	0.00	0.00	0.00
11,000.00	89.52	269.852	6,331.04	234.58	-5,181.09	5,180.45	0.00	0.00	0.00
11,100.00	89.52	269.852	6,331.89	234.32	-5,281.09	5,280.45	0.00	0.00	0.00
11,200.00	89.52	269.852	6,332.73	234.06	-5,381.08	5,380.45	0.00	0.00	0.00
11,300.00	89.52	269.852	6,333.58	233.81	-5,481.08	5,480.44	0.00	0.00	0.00
11,400.00	89.52	269.852	6,334.42	233.55	-5,581.08	5,580.44	0.00	0.00	0.00
11,500.00	89.52	269.852	6,335.26	233.29	-5,681.07	5,680.44	0.00	0.00	0.00
11,600.00	89.52	269.852	6,336.11	233.03	-5,781.07	5,780.43	0.00	0.00	0.00
11,700.00	89.52	269.852	6,336.95	232.77	-5,881.06	5,880.43	0.00	0.00	0.00
11,800.00	89.52	269.852	6,337.80	232.51	-5,981.06	5,980.43	0.00	0.00	0.00
11,900.00	89.52	269.852	6,338.64	232.26	-6,081.06	6,080.42	0.00	0.00	0.00
12,000.00	89.52	269.852	6,339.49	232.00	-6,181.05	6,180.42	0.00	0.00	0.00
12,100.00	89.52	269.852	6,340.33	231.74	-6,281.05	6,280.42	0.00	0.00	0.00
12,200.00	89.52	269.852	6,341.17	231.48	-6,381.04	6,380.41	0.00	0.00	0.00
12,300.00	89.52	269.852	6,342.02	231.22	-6,481.04	6,480.41	0.00	0.00	0.00
12,400.00	89.52	269.852	6,342.86	230.96	-6,581.04	6,580.41	0.00	0.00	0.00
12,500.00	89.52	269.852	6,343.71	230.71	-6,681.03	6,680.40	0.00	0.00	0.00
12,600.00	89.52	269.852	6,344.55	230.45	-6,781.03	6,780.40	0.00	0.00	0.00
12,700.00	89.52	269.852	6,345.39	230.19	-6,881.02	6,880.39	0.00	0.00	0.00
12,800.00	89.52	269.852	6,346.24	229.93	-6,981.02	6,980.39	0.00	0.00	0.00
12,900.00	89.52	269.852	6,347.08	229.67	-7,081.02	7,080.39	0.00	0.00	0.00
13,000.00	89.52	269.852	6,347.93	229.41	-7,181.01	7,180.38	0.00	0.00	0.00
13,100.00	89.52	269.852	6,348.77	229.16	-7,281.01	7,280.38	0.00	0.00	0.00
13,200.00	89.52	269.852	6,349.62	228.90	-7,381.01	7,380.38	0.00	0.00	0.00
13,300.00	89.52	269.852	6,350.46	228.64	-7,481.00	7,480.37	0.00	0.00	0.00
13,400.00	89.52	269.852	6,351.30	228.38	-7,581.00	7,580.37	0.00	0.00	0.00
13,500.00	89.52	269.852	6,352.15	228.12	-7,680.99	7,680.37	0.00	0.00	0.00
13,600.00	89.52	269.852	6,352.99	227.86	-7,780.99	7,780.36	0.00	0.00	0.00
13,700.00	89.52	269.852	6,353.84	227.61	-7,880.99	7,880.36	0.00	0.00	0.00
13,800.00	89.52	269.852	6,354.68	227.35	-7,980.98	7,980.36	0.00	0.00	0.00
13,900.00	89.52	269.852	6,355.53	227.09	-8,080.98	8,080.35	0.00	0.00	0.00
14,000.00	89.52	269.852	6,356.37	226.83	-8,180.97	8,180.35	0.00	0.00	0.00
14,100.00	89.52	269.852	6,357.21	226.57	-8,280.97	8,280.34	0.00	0.00	0.00
14,200.00	89.52	269.852	6,358.06	226.31	-8,380.97	8,380.34	0.00	0.00	0.00
14,300.00	89.52	269.852	6,358.90	226.06	-8,480.96	8,480.34	0.00	0.00	0.00
14,400.00	89.52	269.852	6,359.75	225.80	-8,580.96	8,580.33	0.00	0.00	0.00
14,500.00	89.52	269.852	6,360.59	225.54	-8,680.95	8,680.33	0.00	0.00	0.00
14,600.00	89.52	269.852	6,361.44	225.28	-8,780.95	8,780.33	0.00	0.00	0.00
14,700.00	89.52	269.852	6,362.28	225.02	-8,880.95	8,880.32	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-32-2417C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4657' & KB 20' @ 4677.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4657' & KB 20' @ 4677.00ft
Site:	Anschutz Equus Farms 4-62-33_34 SWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-32-2417C	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	89.52	269.852	6,363.12	224.76	-8,980.94	8,980.32	0.00	0.00	0.00
14,900.00	89.52	269.852	6,363.97	224.51	-9,080.94	9,080.32	0.00	0.00	0.00
15,000.00	89.52	269.852	6,364.81	224.25	-9,180.94	9,180.31	0.00	0.00	0.00
15,100.00	89.52	269.852	6,365.66	223.99	-9,280.93	9,280.31	0.00	0.00	0.00
15,200.00	89.52	269.852	6,366.50	223.73	-9,380.93	9,380.31	0.00	0.00	0.00
15,300.00	89.52	269.852	6,367.35	223.47	-9,480.92	9,480.30	0.00	0.00	0.00
15,400.00	89.52	269.852	6,368.19	223.21	-9,580.92	9,580.30	0.00	0.00	0.00
15,500.00	89.52	269.852	6,369.03	222.96	-9,680.92	9,680.29	0.00	0.00	0.00
15,600.00	89.52	269.852	6,369.88	222.70	-9,780.91	9,780.29	0.00	0.00	0.00
15,700.00	89.52	269.852	6,370.72	222.44	-9,880.91	9,880.29	0.00	0.00	0.00
15,800.00	89.52	269.852	6,371.57	222.18	-9,980.90	9,980.28	0.00	0.00	0.00
15,900.00	89.52	269.852	6,372.41	221.92	-10,080.90	10,080.28	0.00	0.00	0.00
16,000.00	89.52	269.852	6,373.26	221.66	-10,180.90	10,180.28	0.00	0.00	0.00
16,100.00	89.52	269.852	6,374.10	221.41	-10,280.89	10,280.27	0.00	0.00	0.00
16,200.00	89.52	269.852	6,374.94	221.15	-10,380.89	10,380.27	0.00	0.00	0.00
16,300.00	89.52	269.852	6,375.79	220.89	-10,480.88	10,480.27	0.00	0.00	0.00
16,325.00	89.52	269.852	6,376.00	220.82	-10,505.88	10,505.26	0.00	0.00	0.00
TD at 16325.00									

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									
4-62-32-2417C LP	0.00	0.000	6,294.00	245.93	-793.59	1,343,725.09	3,323,656.06	40° 16' 16.010 N	104° 20' 24.270 W
- plan misses target center by 0.01ft at 6612.33ft MD (6294.00 TVD, 245.92 N, -793.59 E)									
- Point									
4-62-32-2417C PBHL	0.00	0.000	6,376.00	220.82	-10,505.88	1,343,572.64	3,313,944.96	40° 16' 15.740 N	104° 22' 29.572 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,000.00	1,000.00	0.00	0.00	Start Build 2.95
1,637.88	1,626.49	63.40	-82.13	Start 300.22 hold at 1637.88 MD
1,938.10	1,910.68	122.53	-158.74	Start Drop -1.50
3,191.85	3,142.04	247.14	-320.16	Start 2674.51 hold at 3191.85 MD
5,866.36	5,816.55	247.14	-320.16	Start DLS 12.00 TFO 269.85
6,612.33	6,294.00	245.92	-793.59	Start 9712.67 hold at 6612.33 MD
16,325.00	6,376.00	220.82	-10,505.88	TD at 16325.00