

**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: Anschutz Equus Farms 4-62-33\_34 SWNW Pad  
 Well: Anschutz Equus Farms 4-62-33-1624C  
 Wellbore: OH  
 Design: Plan 2



Azimuths to True North  
 Magnetic North: 8.27°



Magnetic Field  
 Strength: 52362.3nT  
 Dip Angle: 66.93°  
 Date: 7/19/2017  
 Model: HDGM

Plan: Plan 2 (Anschutz Equus Farms 4-62-33-1624C/OH)

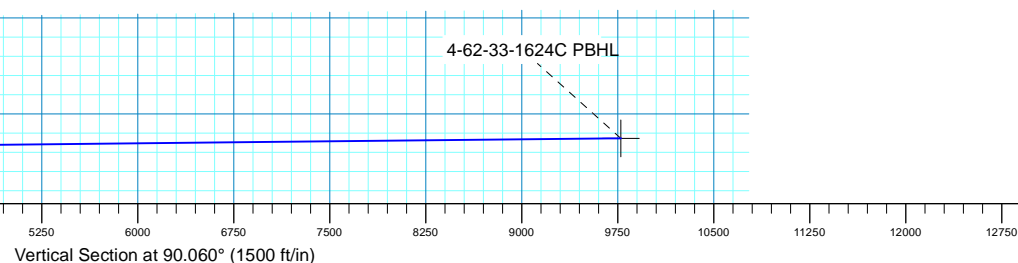
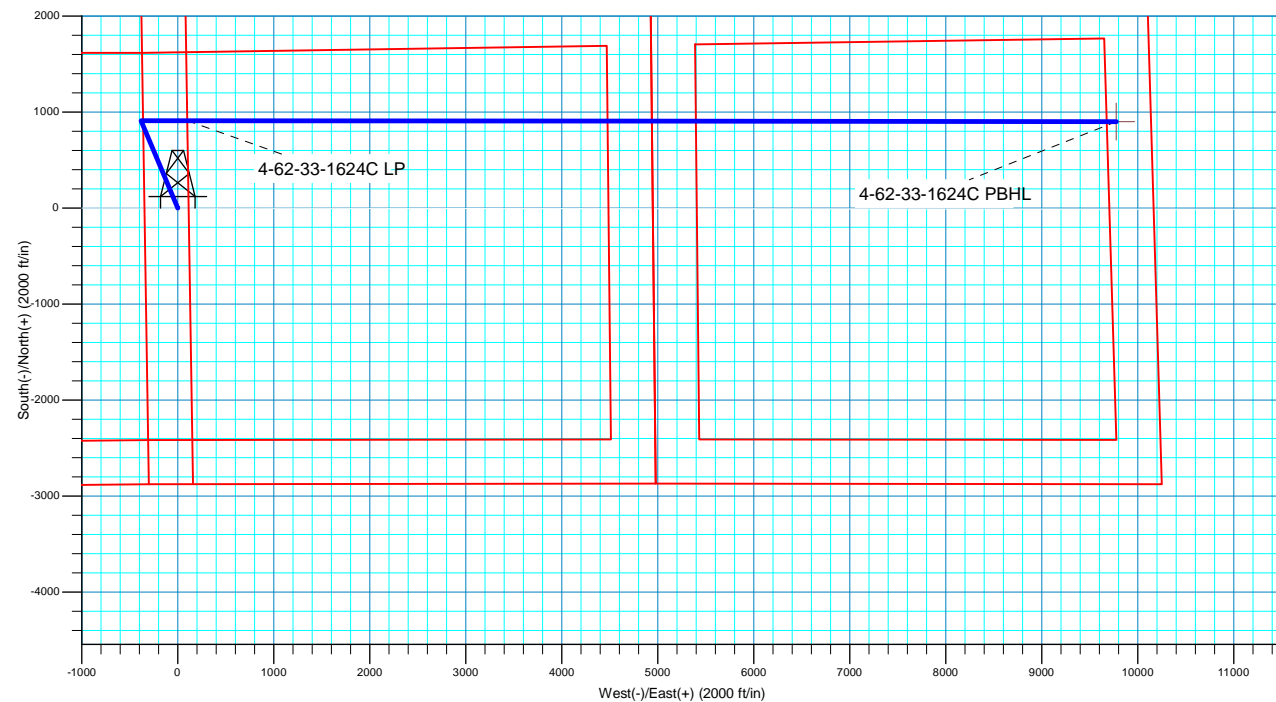
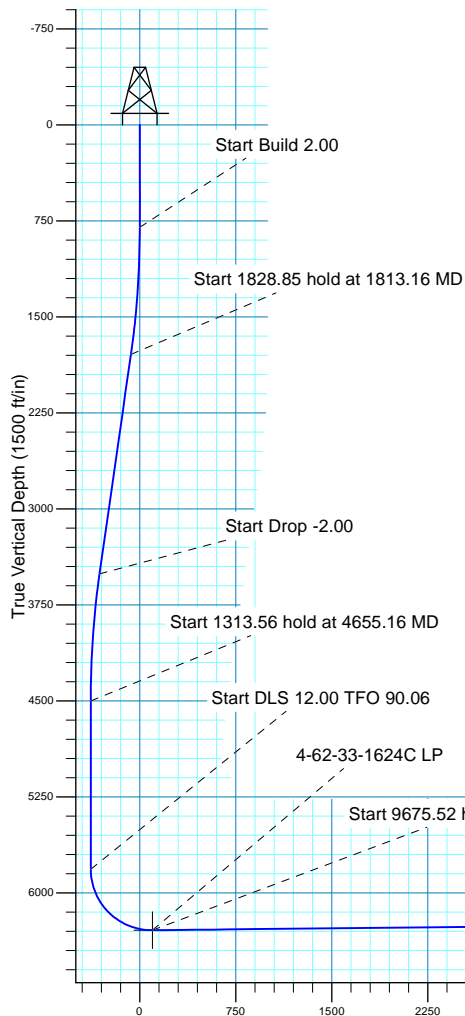
Created By: Seth Burstad Date: 7-20-2017

**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
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00
1813.16	20.26	337.272	1792.17	163.53	-68.50	2.00	337.27	-68.67
3642.00	20.26	337.272	3507.83	747.73	-313.22	0.00	0.00	-314.00
4655.16	0.00	0.000	4500.00	911.26	-381.72	2.00	180.00	-382.67
5968.72	0.00	0.000	5813.56	911.26	-381.72	0.00	0.00	-382.67
6723.70	90.60	90.060	6291.00	910.76	100.73	12.00	90.06	99.77
16399.22	90.60	90.060	6190.00	900.68	9775.71	0.00	0.00	9774.77

**WELL DETAILS: Anschutz Equus Farms 4-62-33-1624C**

		GL 4657' & KB 20' @ 4677.00ft		4657.00		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	1343309.49	3324473.03	40° 16' 11.798 N	104° 20' 13.801 W	





**Bill Barrett Corporation**

## **Bill Barrett Corp.**

**Weld County, CO NAD 83**

**Anschutz Equus Farms 4-62-33\_34 SWNW Pad**

**Anschutz Equus Farms 4-62-33-1624C**

**OH**

**Plan: Plan 2**

## **Standard Planning Report**

**20 July, 2017**



**Scientific Drilling**

[www.scientificdrilling.com](http://www.scientificdrilling.com)



<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz Equus Farms 4-62-33-1624C
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4657' & KB 20' @ 4677.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4657' & KB 20' @ 4677.00ft
<b>Site:</b>	Anschutz Equus Farms 4-62-33_34 SWNW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz Equus Farms 4-62-33-1624C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 2		

<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		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 4-62-33-1624C, 2081' FNL 345' FWL Sec 33 T4N R62W					
Well Position	+N/-S	-180.37 ft	Northing:	1,343,309.49 usft	Latitude:	40° 16' 11.798 N
	+E/-W	3.07 ft	Easting:	3,324,473.03 usft	Longitude:	104° 20' 13.801 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,657.00 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>
	BGGM2016	4/13/2017	8.14	66.85	52,411
	HDGM	7/19/2017	8.27	66.93	52,362

<b>Design</b>	Plan 2			
<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	90.060

<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	0.000	0.00	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	
1,813.16	20.26	337.272	1,792.17	163.53	-68.50	2.00	2.00	0.00	337.27	
3,642.00	20.26	337.272	3,507.83	747.73	-313.22	0.00	0.00	0.00	0.00	
4,655.16	0.00	0.000	4,500.00	911.26	-381.72	2.00	-2.00	0.00	180.00	
5,968.72	0.00	0.000	5,813.56	911.26	-381.72	0.00	0.00	0.00	0.00	
6,723.70	90.60	90.060	6,291.00	910.76	100.73	12.00	12.00	11.93	90.06	
16,399.22	90.60	90.060	6,190.00	900.68	9,775.71	0.00	0.00	0.00	0.00	4-62-33-1624C PBHL

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz Equus Farms 4-62-33-1624C
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4657' & KB 20' @ 4677.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4657' & KB 20' @ 4677.00ft
<b>Site:</b>	Anschutz Equus Farms 4-62-33_34 SWNW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz Equus Farms 4-62-33-1624C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
<b>Start Build 2.00</b>									
900.00	2.00	337.272	899.98	1.61	-0.67	-0.68	2.00	2.00	0.00
1,000.00	4.00	337.272	999.84	6.44	-2.70	-2.70	2.00	2.00	0.00
1,100.00	6.00	337.272	1,099.45	14.47	-6.06	-6.08	2.00	2.00	0.00
1,200.00	8.00	337.272	1,198.70	25.71	-10.77	-10.80	2.00	2.00	0.00
1,300.00	10.00	337.272	1,297.47	40.14	-16.82	-16.86	2.00	2.00	0.00
1,400.00	12.00	337.272	1,395.62	57.74	-24.19	-24.25	2.00	2.00	0.00
1,500.00	14.00	337.272	1,493.06	78.49	-32.88	-32.96	2.00	2.00	0.00
1,600.00	16.00	337.272	1,589.64	102.36	-42.88	-42.98	2.00	2.00	0.00
1,700.00	18.00	337.272	1,685.27	129.32	-54.17	-54.31	2.00	2.00	0.00
1,800.00	20.00	337.272	1,779.82	159.35	-66.75	-66.92	2.00	2.00	0.00
1,813.16	20.26	337.272	1,792.17	163.53	-68.50	-68.67	2.00	2.00	0.00
<b>Start 1828.85 hold at 1813.16 MD</b>									
1,900.00	20.26	337.272	1,873.64	191.27	-80.12	-80.32	0.00	0.00	0.00
2,000.00	20.26	337.272	1,967.45	223.21	-93.50	-93.74	0.00	0.00	0.00
2,100.00	20.26	337.272	2,061.26	255.16	-106.88	-107.15	0.00	0.00	0.00
2,200.00	20.26	337.272	2,155.07	287.10	-120.26	-120.57	0.00	0.00	0.00
2,300.00	20.26	337.272	2,248.88	319.04	-133.65	-133.98	0.00	0.00	0.00
2,400.00	20.26	337.272	2,342.69	350.99	-147.03	-147.39	0.00	0.00	0.00
2,500.00	20.26	337.272	2,436.50	382.93	-160.41	-160.81	0.00	0.00	0.00
2,600.00	20.26	337.272	2,530.32	414.88	-173.79	-174.22	0.00	0.00	0.00
2,700.00	20.26	337.272	2,624.13	446.82	-187.17	-187.64	0.00	0.00	0.00
2,800.00	20.26	337.272	2,717.94	478.76	-200.55	-201.05	0.00	0.00	0.00
2,900.00	20.26	337.272	2,811.75	510.71	-213.93	-214.47	0.00	0.00	0.00
3,000.00	20.26	337.272	2,905.56	542.65	-227.31	-227.88	0.00	0.00	0.00
3,100.00	20.26	337.272	2,999.37	574.60	-240.69	-241.30	0.00	0.00	0.00
3,200.00	20.26	337.272	3,093.18	606.54	-254.07	-254.71	0.00	0.00	0.00
3,300.00	20.26	337.272	3,186.99	638.48	-267.46	-268.12	0.00	0.00	0.00
3,400.00	20.26	337.272	3,280.81	670.43	-280.84	-281.54	0.00	0.00	0.00
3,500.00	20.26	337.272	3,374.62	702.37	-294.22	-294.95	0.00	0.00	0.00
3,600.00	20.26	337.272	3,468.43	734.31	-307.60	-308.37	0.00	0.00	0.00
3,642.00	20.26	337.272	3,507.83	747.73	-313.22	-314.00	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
3,700.00	19.10	337.272	3,562.44	765.75	-320.77	-321.57	2.00	-2.00	0.00
3,800.00	17.10	337.272	3,657.48	794.41	-332.77	-333.60	2.00	-2.00	0.00
3,900.00	15.10	337.272	3,753.55	819.99	-343.49	-344.35	2.00	-2.00	0.00
4,000.00	13.10	337.272	3,850.54	842.46	-352.90	-353.78	2.00	-2.00	0.00
4,100.00	11.10	337.272	3,948.31	861.80	-361.00	-361.90	2.00	-2.00	0.00
4,200.00	9.10	337.272	4,046.75	877.98	-367.78	-368.70	2.00	-2.00	0.00
4,300.00	7.10	337.272	4,145.75	890.98	-373.22	-374.16	2.00	-2.00	0.00
4,400.00	5.10	337.272	4,245.18	900.79	-377.33	-378.28	2.00	-2.00	0.00
4,500.00	3.10	337.272	4,344.92	907.39	-380.10	-381.05	2.00	-2.00	0.00
4,600.00	1.10	337.272	4,444.84	910.77	-381.51	-382.47	2.00	-2.00	0.00
4,655.16	0.00	0.000	4,500.00	911.26	-381.72	-382.67	2.00	-2.00	0.00

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz Equus Farms 4-62-33-1624C
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4657' & KB 20' @ 4677.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4657' & KB 20' @ 4677.00ft
<b>Site:</b>	Anschutz Equus Farms 4-62-33_34 SWNW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz Equus Farms 4-62-33-1624C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
<b>Start 1313.56 hold at 4655.16 MD</b>									
4,700.00	0.00	0.000	4,544.84	911.26	-381.72	-382.67	0.00	0.00	0.00
4,800.00	0.00	0.000	4,644.84	911.26	-381.72	-382.67	0.00	0.00	0.00
4,900.00	0.00	0.000	4,744.84	911.26	-381.72	-382.67	0.00	0.00	0.00
5,000.00	0.00	0.000	4,844.84	911.26	-381.72	-382.67	0.00	0.00	0.00
5,100.00	0.00	0.000	4,944.84	911.26	-381.72	-382.67	0.00	0.00	0.00
5,200.00	0.00	0.000	5,044.84	911.26	-381.72	-382.67	0.00	0.00	0.00
5,300.00	0.00	0.000	5,144.84	911.26	-381.72	-382.67	0.00	0.00	0.00
5,400.00	0.00	0.000	5,244.84	911.26	-381.72	-382.67	0.00	0.00	0.00
5,500.00	0.00	0.000	5,344.84	911.26	-381.72	-382.67	0.00	0.00	0.00
5,600.00	0.00	0.000	5,444.84	911.26	-381.72	-382.67	0.00	0.00	0.00
5,700.00	0.00	0.000	5,544.84	911.26	-381.72	-382.67	0.00	0.00	0.00
5,800.00	0.00	0.000	5,644.84	911.26	-381.72	-382.67	0.00	0.00	0.00
5,900.00	0.00	0.000	5,744.84	911.26	-381.72	-382.67	0.00	0.00	0.00
5,968.72	0.00	0.000	5,813.56	911.26	-381.72	-382.67	0.00	0.00	0.00
<b>Start DLS 12.00 TFO 90.06</b>									
6,000.00	3.75	90.060	5,844.82	911.26	-380.70	-381.65	12.00	12.00	0.00
6,100.00	15.75	90.060	5,943.19	911.24	-363.79	-364.74	12.00	12.00	0.00
6,200.00	27.75	90.060	6,035.90	911.20	-326.79	-327.75	12.00	12.00	0.00
6,300.00	39.75	90.060	6,118.89	911.14	-271.33	-272.29	12.00	12.00	0.00
6,400.00	51.75	90.060	6,188.54	911.07	-199.83	-200.78	12.00	12.00	0.00
6,500.00	63.75	90.060	6,241.80	910.98	-115.41	-116.36	12.00	12.00	0.00
6,600.00	75.75	90.060	6,276.34	910.88	-21.76	-22.71	12.00	12.00	0.00
6,700.00	87.75	90.060	6,290.66	910.78	77.03	76.08	12.00	12.00	0.00
6,723.70	90.60	90.060	6,291.00	910.76	100.73	99.77	12.00	12.00	0.00
<b>Start 9675.52 hold at 6723.70 MD</b>									
6,800.00	90.60	90.060	6,290.20	910.68	177.02	176.07	0.00	0.00	0.00
6,900.00	90.60	90.060	6,289.16	910.57	277.01	276.06	0.00	0.00	0.00
7,000.00	90.60	90.060	6,288.11	910.47	377.01	376.06	0.00	0.00	0.00
7,100.00	90.60	90.060	6,287.07	910.37	477.00	476.05	0.00	0.00	0.00
7,200.00	90.60	90.060	6,286.03	910.26	577.00	576.04	0.00	0.00	0.00
7,300.00	90.60	90.060	6,284.98	910.16	676.99	676.04	0.00	0.00	0.00
7,400.00	90.60	90.060	6,283.94	910.05	776.99	776.03	0.00	0.00	0.00
7,500.00	90.60	90.060	6,282.90	909.95	876.98	876.03	0.00	0.00	0.00
7,600.00	90.60	90.060	6,281.85	909.84	976.98	976.02	0.00	0.00	0.00
7,700.00	90.60	90.060	6,280.81	909.74	1,076.97	1,076.02	0.00	0.00	0.00
7,800.00	90.60	90.060	6,279.76	909.64	1,176.97	1,176.01	0.00	0.00	0.00
7,900.00	90.60	90.060	6,278.72	909.53	1,276.96	1,276.01	0.00	0.00	0.00
8,000.00	90.60	90.060	6,277.68	909.43	1,376.95	1,376.00	0.00	0.00	0.00
8,100.00	90.60	90.060	6,276.63	909.32	1,476.95	1,476.00	0.00	0.00	0.00
8,200.00	90.60	90.060	6,275.59	909.22	1,576.94	1,575.99	0.00	0.00	0.00
8,300.00	90.60	90.060	6,274.54	909.11	1,676.94	1,675.98	0.00	0.00	0.00
8,400.00	90.60	90.060	6,273.50	909.01	1,776.93	1,775.98	0.00	0.00	0.00
8,500.00	90.60	90.060	6,272.46	908.91	1,876.93	1,875.97	0.00	0.00	0.00
8,600.00	90.60	90.060	6,271.41	908.80	1,976.92	1,975.97	0.00	0.00	0.00
8,700.00	90.60	90.060	6,270.37	908.70	2,076.92	2,075.96	0.00	0.00	0.00
8,800.00	90.60	90.060	6,269.33	908.59	2,176.91	2,175.96	0.00	0.00	0.00
8,900.00	90.60	90.060	6,268.28	908.49	2,276.90	2,275.95	0.00	0.00	0.00
9,000.00	90.60	90.060	6,267.24	908.39	2,376.90	2,375.95	0.00	0.00	0.00
9,100.00	90.60	90.060	6,266.19	908.28	2,476.89	2,475.94	0.00	0.00	0.00
9,200.00	90.60	90.060	6,265.15	908.18	2,576.89	2,575.94	0.00	0.00	0.00
9,300.00	90.60	90.060	6,264.11	908.07	2,676.88	2,675.93	0.00	0.00	0.00
9,400.00	90.60	90.060	6,263.06	907.97	2,776.88	2,775.92	0.00	0.00	0.00

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz Equus Farms 4-62-33-1624C
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4657' & KB 20' @ 4677.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4657' & KB 20' @ 4677.00ft
<b>Site:</b>	Anschutz Equus Farms 4-62-33_34 SWNW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz Equus Farms 4-62-33-1624C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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	90.60	90.060	6,262.02	907.86	2,876.87	2,875.92	0.00	0.00	0.00
9,600.00	90.60	90.060	6,260.97	907.76	2,976.87	2,975.91	0.00	0.00	0.00
9,700.00	90.60	90.060	6,259.93	907.66	3,076.86	3,075.91	0.00	0.00	0.00
9,800.00	90.60	90.060	6,258.89	907.55	3,176.86	3,175.90	0.00	0.00	0.00
9,900.00	90.60	90.060	6,257.84	907.45	3,276.85	3,275.90	0.00	0.00	0.00
10,000.00	90.60	90.060	6,256.80	907.34	3,376.84	3,375.89	0.00	0.00	0.00
10,100.00	90.60	90.060	6,255.76	907.24	3,476.84	3,475.89	0.00	0.00	0.00
10,200.00	90.60	90.060	6,254.71	907.14	3,576.83	3,575.88	0.00	0.00	0.00
10,300.00	90.60	90.060	6,253.67	907.03	3,676.83	3,675.88	0.00	0.00	0.00
10,400.00	90.60	90.060	6,252.62	906.93	3,776.82	3,775.87	0.00	0.00	0.00
10,500.00	90.60	90.060	6,251.58	906.82	3,876.82	3,875.86	0.00	0.00	0.00
10,600.00	90.60	90.060	6,250.54	906.72	3,976.81	3,975.86	0.00	0.00	0.00
10,700.00	90.60	90.060	6,249.49	906.61	4,076.81	4,075.85	0.00	0.00	0.00
10,800.00	90.60	90.060	6,248.45	906.51	4,176.80	4,175.85	0.00	0.00	0.00
10,900.00	90.60	90.060	6,247.40	906.41	4,276.79	4,275.84	0.00	0.00	0.00
11,000.00	90.60	90.060	6,246.36	906.30	4,376.79	4,375.84	0.00	0.00	0.00
11,100.00	90.60	90.060	6,245.32	906.20	4,476.78	4,475.83	0.00	0.00	0.00
11,200.00	90.60	90.060	6,244.27	906.09	4,576.78	4,575.83	0.00	0.00	0.00
11,300.00	90.60	90.060	6,243.23	905.99	4,676.77	4,675.82	0.00	0.00	0.00
11,400.00	90.60	90.060	6,242.18	905.88	4,776.77	4,775.82	0.00	0.00	0.00
11,500.00	90.60	90.060	6,241.14	905.78	4,876.76	4,875.81	0.00	0.00	0.00
11,600.00	90.60	90.060	6,240.10	905.68	4,976.76	4,975.80	0.00	0.00	0.00
11,700.00	90.60	90.060	6,239.05	905.57	5,076.75	5,075.80	0.00	0.00	0.00
11,800.00	90.60	90.060	6,238.01	905.47	5,176.75	5,175.79	0.00	0.00	0.00
11,900.00	90.60	90.060	6,236.97	905.36	5,276.74	5,275.79	0.00	0.00	0.00
12,000.00	90.60	90.060	6,235.92	905.26	5,376.73	5,375.78	0.00	0.00	0.00
12,100.00	90.60	90.060	6,234.88	905.16	5,476.73	5,475.78	0.00	0.00	0.00
12,200.00	90.60	90.060	6,233.83	905.05	5,576.72	5,575.77	0.00	0.00	0.00
12,300.00	90.60	90.060	6,232.79	904.95	5,676.72	5,675.77	0.00	0.00	0.00
12,400.00	90.60	90.060	6,231.75	904.84	5,776.71	5,775.76	0.00	0.00	0.00
12,500.00	90.60	90.060	6,230.70	904.74	5,876.71	5,875.76	0.00	0.00	0.00
12,600.00	90.60	90.060	6,229.66	904.63	5,976.70	5,975.75	0.00	0.00	0.00
12,700.00	90.60	90.060	6,228.61	904.53	6,076.70	6,075.74	0.00	0.00	0.00
12,800.00	90.60	90.060	6,227.57	904.43	6,176.69	6,175.74	0.00	0.00	0.00
12,900.00	90.60	90.060	6,226.53	904.32	6,276.68	6,275.73	0.00	0.00	0.00
13,000.00	90.60	90.060	6,225.48	904.22	6,376.68	6,375.73	0.00	0.00	0.00
13,100.00	90.60	90.060	6,224.44	904.11	6,476.67	6,475.72	0.00	0.00	0.00
13,200.00	90.60	90.060	6,223.40	904.01	6,576.67	6,575.72	0.00	0.00	0.00
13,300.00	90.60	90.060	6,222.35	903.91	6,676.66	6,675.71	0.00	0.00	0.00
13,400.00	90.60	90.060	6,221.31	903.80	6,776.66	6,775.71	0.00	0.00	0.00
13,500.00	90.60	90.060	6,220.26	903.70	6,876.65	6,875.70	0.00	0.00	0.00
13,600.00	90.60	90.060	6,219.22	903.59	6,976.65	6,975.70	0.00	0.00	0.00
13,700.00	90.60	90.060	6,218.18	903.49	7,076.64	7,075.69	0.00	0.00	0.00
13,800.00	90.60	90.060	6,217.13	903.38	7,176.64	7,175.69	0.00	0.00	0.00
13,900.00	90.60	90.060	6,216.09	903.28	7,276.63	7,275.68	0.00	0.00	0.00
14,000.00	90.60	90.060	6,215.04	903.18	7,376.62	7,375.67	0.00	0.00	0.00
14,100.00	90.60	90.060	6,214.00	903.07	7,476.62	7,475.67	0.00	0.00	0.00
14,200.00	90.60	90.060	6,212.96	902.97	7,576.61	7,575.66	0.00	0.00	0.00
14,300.00	90.60	90.060	6,211.91	902.86	7,676.61	7,675.66	0.00	0.00	0.00
14,400.00	90.60	90.060	6,210.87	902.76	7,776.60	7,775.65	0.00	0.00	0.00
14,500.00	90.60	90.060	6,209.83	902.65	7,876.60	7,875.65	0.00	0.00	0.00
14,600.00	90.60	90.060	6,208.78	902.55	7,976.59	7,975.64	0.00	0.00	0.00
14,700.00	90.60	90.060	6,207.74	902.45	8,076.59	8,075.64	0.00	0.00	0.00

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz Equus Farms 4-62-33-1624C
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4657' & KB 20' @ 4677.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4657' & KB 20' @ 4677.00ft
<b>Site:</b>	Anschutz Equus Farms 4-62-33_34 SWNW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz Equus Farms 4-62-33-1624C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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	90.60	90.060	6,206.69	902.34	8,176.58	8,175.63	0.00	0.00	0.00	
14,900.00	90.60	90.060	6,205.65	902.24	8,276.57	8,275.63	0.00	0.00	0.00	
15,000.00	90.60	90.060	6,204.61	902.13	8,376.57	8,375.62	0.00	0.00	0.00	
15,100.00	90.60	90.060	6,203.56	902.03	8,476.56	8,475.61	0.00	0.00	0.00	
15,200.00	90.60	90.060	6,202.52	901.93	8,576.56	8,575.61	0.00	0.00	0.00	
15,300.00	90.60	90.060	6,201.47	901.82	8,676.55	8,675.60	0.00	0.00	0.00	
15,400.00	90.60	90.060	6,200.43	901.72	8,776.55	8,775.60	0.00	0.00	0.00	
15,500.00	90.60	90.060	6,199.39	901.61	8,876.54	8,875.59	0.00	0.00	0.00	
15,600.00	90.60	90.060	6,198.34	901.51	8,976.54	8,975.59	0.00	0.00	0.00	
15,700.00	90.60	90.060	6,197.30	901.40	9,076.53	9,075.58	0.00	0.00	0.00	
15,800.00	90.60	90.060	6,196.26	901.30	9,176.53	9,175.58	0.00	0.00	0.00	
15,900.00	90.60	90.060	6,195.21	901.20	9,276.52	9,275.57	0.00	0.00	0.00	
16,000.00	90.60	90.060	6,194.17	901.09	9,376.51	9,375.57	0.00	0.00	0.00	
16,100.00	90.60	90.060	6,193.12	900.99	9,476.51	9,475.56	0.00	0.00	0.00	
16,200.00	90.60	90.060	6,192.08	900.88	9,576.50	9,575.55	0.00	0.00	0.00	
16,300.00	90.60	90.060	6,191.04	900.78	9,676.50	9,675.55	0.00	0.00	0.00	
16,399.22	90.60	90.060	6,190.00	900.68	9,775.71	9,774.77	0.00	0.00	0.00	
TD at 16399.22										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
4-62-33-1624C PBHL - hit/miss target - Shape - Point	0.00	0.000	6,190.00	900.68	9,775.71	1,344,338.28	3,334,236.08	40° 16' 20.680 N	104° 18' 7.679 W	
4-62-33-1624C LP - plan misses target center by 0.01ft at 6723.71ft MD (6291.00 TVD, 910.76 N, 100.73 E) - Point	0.00	0.000	6,291.00	910.77	100.73	1,344,221.50	3,324,561.81	40° 16' 20.798 N	104° 20' 12.502 W	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
800.00	800.00	0.00	0.00	Start Build 2.00	
1,813.16	1,792.17	163.53	-68.50	Start 1828.85 hold at 1813.16 MD	
3,642.00	3,507.83	747.73	-313.22	Start Drop -2.00	
4,655.16	4,500.00	911.26	-381.72	Start 1313.56 hold at 4655.16 MD	
5,968.72	5,813.56	911.26	-381.72	Start DLS 12.00 TFO 90.06	
6,723.70	6,291.00	910.76	100.73	Start 9675.52 hold at 6723.70 MD	
16,399.22	6,190.00	900.68	9,775.71	TD at 16399.22	