

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 4-62-32 SESE Pad
Well: Anschutz Equus Farms 4-62-33-4956C
Wellbore: OH
Design: Plan 2



Azimuths to True North
Magnetic North: 8.27°



Magnetic Field
Strength: 52362.7nT
Dip Angle: 66.92°
Date: 7/19/2017
Model: HDGM

Plan: Plan 2 (Anschutz Equus Farms 4-62-33-4956C/OH)

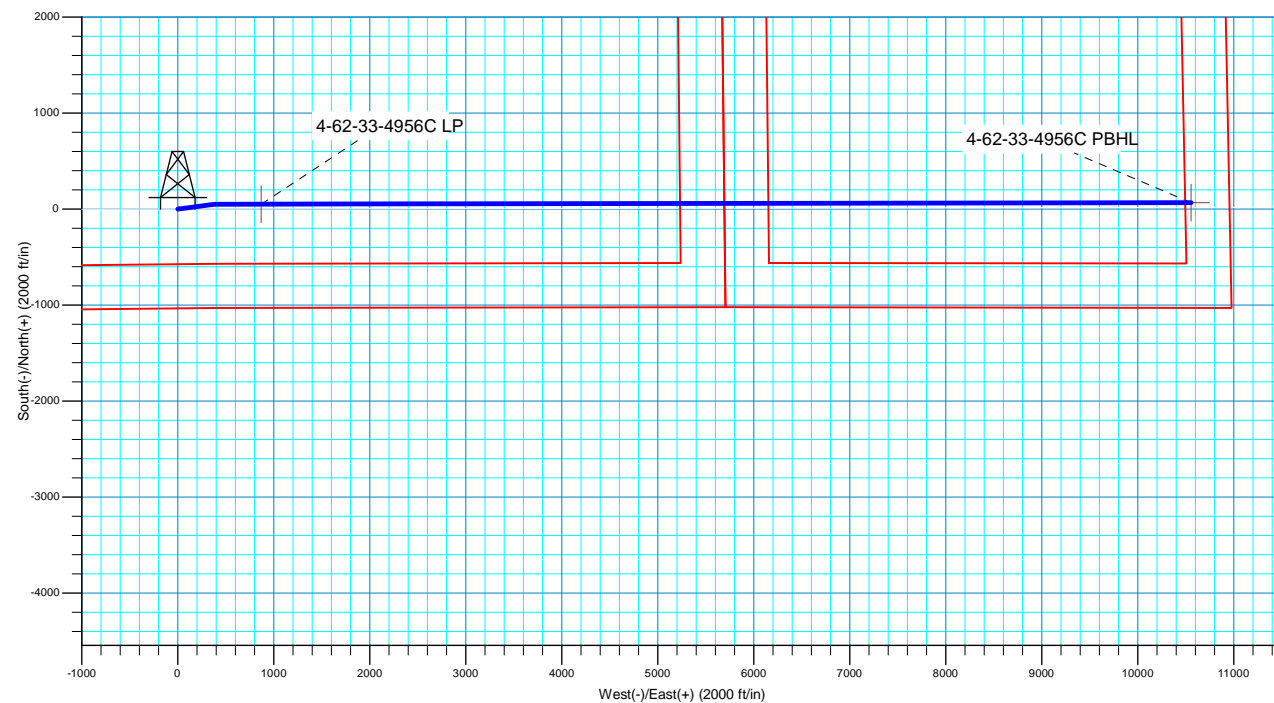
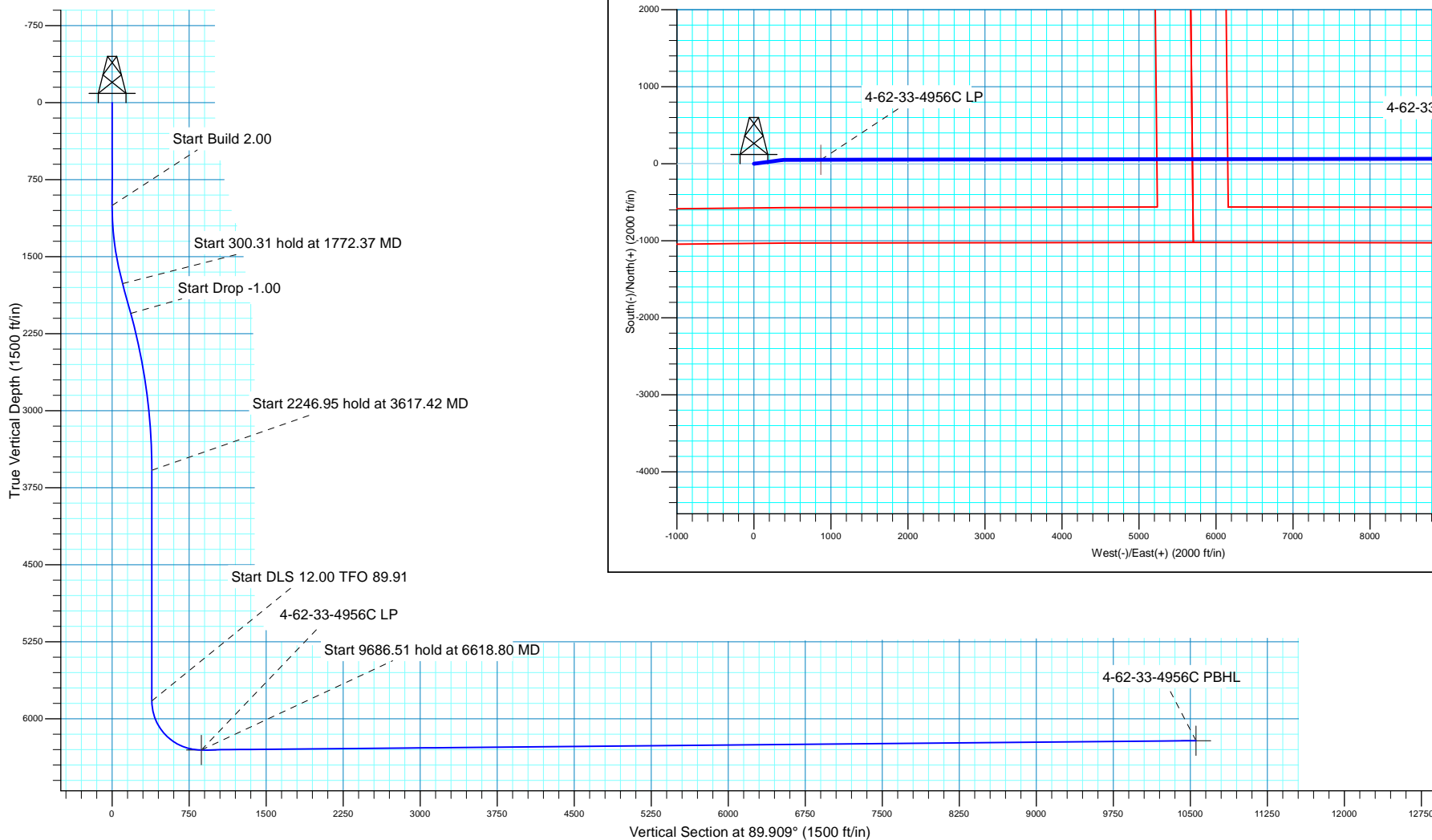
Created By: Seth Burstad Date: 7-20-2017

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
1000.00	0.00	0.000	1000.00	0.00	0.00	0.00	0.00	0.00
1772.37	15.45	82.493	1763.05	13.52	102.60	2.00	82.49	102.62
2072.68	15.45	82.493	2052.51	23.97	181.90	0.00	0.00	181.94
3617.42	0.00	0.000	3578.60	51.01	387.11	1.00	180.00	387.19
5864.37	0.00	0.000	5825.55	51.01	387.11	0.00	0.00	387.19
6618.80	90.53	89.909	6302.99	51.77	869.01	12.00	89.91	869.09
16305.31	90.53	89.909	6213.00	67.13	10555.09	0.00	0.00	10555.18

WELL DETAILS: Anschutz Equus Farms 4-62-33-4956C

		GL 4681' & KB 20' @ 4701.00ft		4681.00		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	1341452.49	3323771.75	40° 15' 53.539 N	104° 20' 23.161 W	





Bill Barrett Corporation

Bill Barrett Corp.

Weld County, CO NAD 83

Anschutz Equus Farms 4-62-32 SESE Pad

Anschutz Equus Farms 4-62-33-4956C

OH

Plan: Plan 2

Standard Planning Report

20 July, 2017



Scientific Drilling

www.scientificdrilling.com



Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-33-4956C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4681' & KB 20' @ 4701.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4681' & KB 20' @ 4701.00ft
Site:	Anschutz Equus Farms 4-62-32 SESE Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-33-4956C	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 4-62-32 SESE Pad, Site Center : Anschutz Equus Farms 4-62-32-4148C				
Site Position:		Northing:	1,341,471.99 usft	Latitude:	40° 15' 53.708 N
From:	Lat/Long	Easting:	3,323,950.67 usft	Longitude:	104° 20' 20.850 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.75 °

Well	Anschutz Equus Farms 4-62-33-4956C, 1033' FSL 410' FEL Sec 32 T4N R62W					
Well Position	+N/-S	-17.15 ft	Northing:	1,341,452.50 usft	Latitude:	40° 15' 53.539 N
	+E/-W	-179.16 ft	Easting:	3,323,771.75 usft	Longitude:	104° 20' 23.161 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,681.00 ft

Wellbore	OH					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	HDGM	5/9/2017	8.28	66.93	52,386	
	HDGM	7/19/2017	8.27	66.92	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	89.909	

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	
1,772.37	15.45	82.493	1,763.05	13.52	102.60	2.00	2.00	0.00	82.49	
2,072.68	15.45	82.493	2,052.51	23.97	181.90	0.00	0.00	0.00	0.00	
3,617.42	0.00	0.000	3,578.60	51.01	387.11	1.00	-1.00	0.00	180.00	
5,864.37	0.00	0.000	5,825.55	51.01	387.11	0.00	0.00	0.00	0.00	
6,618.80	90.53	89.909	6,302.99	51.77	869.01	12.00	12.00	11.92	89.91	
16,305.31	90.53	89.909	6,213.00	67.13	10,555.09	0.00	0.00	0.00	0.00	4-62-33-4956C PBHL

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-33-4956C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4681' & KB 20' @ 4701.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4681' & KB 20' @ 4701.00ft
Site:	Anschutz Equus Farms 4-62-32 SESE Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-33-4956C	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	82.493	1,099.98	0.23	1.73	1.73	2.00	2.00	0.00
1,200.00	4.00	82.493	1,199.84	0.91	6.92	6.92	2.00	2.00	0.00
1,300.00	6.00	82.493	1,299.45	2.05	15.56	15.56	2.00	2.00	0.00
1,400.00	8.00	82.493	1,398.70	3.64	27.64	27.65	2.00	2.00	0.00
1,500.00	10.00	82.493	1,497.47	5.69	43.15	43.16	2.00	2.00	0.00
1,600.00	12.00	82.493	1,595.62	8.18	62.07	62.08	2.00	2.00	0.00
1,700.00	14.00	82.493	1,693.06	11.12	84.37	84.38	2.00	2.00	0.00
1,772.37	15.45	82.493	1,763.05	13.52	102.60	102.62	2.00	2.00	0.00
Start 300.31 hold at 1772.37 MD									
1,800.00	15.45	82.493	1,789.68	14.48	109.90	109.92	0.00	0.00	0.00
1,900.00	15.45	82.493	1,886.07	17.96	136.31	136.33	0.00	0.00	0.00
2,000.00	15.45	82.493	1,982.45	21.44	162.71	162.75	0.00	0.00	0.00
2,072.68	15.45	82.493	2,052.51	23.97	181.90	181.94	0.00	0.00	0.00
Start Drop -1.00									
2,100.00	15.17	82.493	2,078.86	24.91	189.06	189.10	1.00	-1.00	0.00
2,200.00	14.17	82.493	2,175.60	28.22	214.17	214.22	1.00	-1.00	0.00
2,300.00	13.17	82.493	2,272.76	31.31	237.61	237.66	1.00	-1.00	0.00
2,400.00	12.17	82.493	2,370.32	34.18	259.36	259.42	1.00	-1.00	0.00
2,500.00	11.17	82.493	2,468.25	36.82	279.42	279.48	1.00	-1.00	0.00
2,600.00	10.17	82.493	2,566.52	39.24	297.79	297.85	1.00	-1.00	0.00
2,700.00	9.17	82.493	2,665.10	41.44	314.45	314.51	1.00	-1.00	0.00
2,800.00	8.17	82.493	2,763.95	43.41	329.40	329.47	1.00	-1.00	0.00
2,900.00	7.17	82.493	2,863.06	45.15	342.64	342.71	1.00	-1.00	0.00
3,000.00	6.17	82.493	2,962.38	46.67	354.16	354.23	1.00	-1.00	0.00
3,100.00	5.17	82.493	3,061.89	47.96	363.96	364.04	1.00	-1.00	0.00
3,200.00	4.17	82.493	3,161.55	49.02	372.04	372.12	1.00	-1.00	0.00
3,300.00	3.17	82.493	3,261.34	49.86	378.40	378.47	1.00	-1.00	0.00
3,400.00	2.17	82.493	3,361.23	50.47	383.02	383.10	1.00	-1.00	0.00
3,500.00	1.17	82.493	3,461.19	50.85	385.92	386.00	1.00	-1.00	0.00
3,600.00	0.17	82.493	3,561.18	51.01	387.08	387.16	1.00	-1.00	0.00
3,617.42	0.00	0.000	3,578.60	51.01	387.11	387.19	1.00	-1.00	0.00
Start 2246.95 hold at 3617.42 MD									
3,700.00	0.00	0.000	3,661.18	51.01	387.11	387.19	0.00	0.00	0.00
3,800.00	0.00	0.000	3,761.18	51.01	387.11	387.19	0.00	0.00	0.00
3,900.00	0.00	0.000	3,861.18	51.01	387.11	387.19	0.00	0.00	0.00
4,000.00	0.00	0.000	3,961.18	51.01	387.11	387.19	0.00	0.00	0.00
4,100.00	0.00	0.000	4,061.18	51.01	387.11	387.19	0.00	0.00	0.00
4,200.00	0.00	0.000	4,161.18	51.01	387.11	387.19	0.00	0.00	0.00
4,300.00	0.00	0.000	4,261.18	51.01	387.11	387.19	0.00	0.00	0.00
4,400.00	0.00	0.000	4,361.18	51.01	387.11	387.19	0.00	0.00	0.00
4,500.00	0.00	0.000	4,461.18	51.01	387.11	387.19	0.00	0.00	0.00
4,600.00	0.00	0.000	4,561.18	51.01	387.11	387.19	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-33-4956C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4681' & KB 20' @ 4701.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4681' & KB 20' @ 4701.00ft
Site:	Anschutz Equus Farms 4-62-32 SESE Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-33-4956C	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)
4,700.00	0.00	0.000	4,661.18	51.01	387.11	387.19	0.00	0.00	0.00
4,800.00	0.00	0.000	4,761.18	51.01	387.11	387.19	0.00	0.00	0.00
4,900.00	0.00	0.000	4,861.18	51.01	387.11	387.19	0.00	0.00	0.00
5,000.00	0.00	0.000	4,961.18	51.01	387.11	387.19	0.00	0.00	0.00
5,100.00	0.00	0.000	5,061.18	51.01	387.11	387.19	0.00	0.00	0.00
5,200.00	0.00	0.000	5,161.18	51.01	387.11	387.19	0.00	0.00	0.00
5,300.00	0.00	0.000	5,261.18	51.01	387.11	387.19	0.00	0.00	0.00
5,400.00	0.00	0.000	5,361.18	51.01	387.11	387.19	0.00	0.00	0.00
5,500.00	0.00	0.000	5,461.18	51.01	387.11	387.19	0.00	0.00	0.00
5,600.00	0.00	0.000	5,561.18	51.01	387.11	387.19	0.00	0.00	0.00
5,700.00	0.00	0.000	5,661.18	51.01	387.11	387.19	0.00	0.00	0.00
5,800.00	0.00	0.000	5,761.18	51.01	387.11	387.19	0.00	0.00	0.00
5,864.37	0.00	0.000	5,825.55	51.01	387.11	387.19	0.00	0.00	0.00
Start DLS 12.00 TFO 89.91									
5,900.00	4.28	89.909	5,861.15	51.01	388.44	388.52	12.00	12.00	0.00
6,000.00	16.28	89.909	5,959.37	51.04	406.25	406.33	12.00	12.00	0.00
6,100.00	28.28	89.909	6,051.73	51.10	444.08	444.16	12.00	12.00	0.00
6,200.00	40.28	89.909	6,134.22	51.19	500.30	500.38	12.00	12.00	0.00
6,300.00	52.28	89.909	6,203.21	51.30	572.43	572.51	12.00	12.00	0.00
6,400.00	64.28	89.909	6,255.70	51.44	657.34	657.42	12.00	12.00	0.00
6,500.00	76.28	89.909	6,289.38	51.59	751.30	751.38	12.00	12.00	0.00
6,600.00	88.28	89.909	6,302.80	51.74	850.21	850.29	12.00	12.00	0.00
6,618.80	90.53	89.909	6,302.99	51.77	869.01	869.09	12.00	12.00	0.00
Start 9686.51 hold at 6618.80 MD									
6,700.00	90.53	89.909	6,302.24	51.90	950.20	950.28	0.00	0.00	0.00
6,800.00	90.53	89.909	6,301.31	52.06	1,050.20	1,050.28	0.00	0.00	0.00
6,900.00	90.53	89.909	6,300.38	52.22	1,150.19	1,150.28	0.00	0.00	0.00
7,000.00	90.53	89.909	6,299.45	52.38	1,250.19	1,250.27	0.00	0.00	0.00
7,100.00	90.53	89.909	6,298.52	52.54	1,350.18	1,350.27	0.00	0.00	0.00
7,200.00	90.53	89.909	6,297.59	52.70	1,450.18	1,450.26	0.00	0.00	0.00
7,300.00	90.53	89.909	6,296.67	52.85	1,550.18	1,550.26	0.00	0.00	0.00
7,400.00	90.53	89.909	6,295.74	53.01	1,650.17	1,650.25	0.00	0.00	0.00
7,500.00	90.53	89.909	6,294.81	53.17	1,750.17	1,750.25	0.00	0.00	0.00
7,600.00	90.53	89.909	6,293.88	53.33	1,850.16	1,850.25	0.00	0.00	0.00
7,700.00	90.53	89.909	6,292.95	53.49	1,950.16	1,950.24	0.00	0.00	0.00
7,800.00	90.53	89.909	6,292.02	53.65	2,050.15	2,050.24	0.00	0.00	0.00
7,900.00	90.53	89.909	6,291.09	53.80	2,150.15	2,150.23	0.00	0.00	0.00
8,000.00	90.53	89.909	6,290.16	53.96	2,250.14	2,250.23	0.00	0.00	0.00
8,100.00	90.53	89.909	6,289.23	54.12	2,350.14	2,350.22	0.00	0.00	0.00
8,200.00	90.53	89.909	6,288.30	54.28	2,450.14	2,450.22	0.00	0.00	0.00
8,300.00	90.53	89.909	6,287.37	54.44	2,550.13	2,550.21	0.00	0.00	0.00
8,400.00	90.53	89.909	6,286.45	54.60	2,650.13	2,650.21	0.00	0.00	0.00
8,500.00	90.53	89.909	6,285.52	54.76	2,750.12	2,750.21	0.00	0.00	0.00
8,600.00	90.53	89.909	6,284.59	54.91	2,850.12	2,850.20	0.00	0.00	0.00
8,700.00	90.53	89.909	6,283.66	55.07	2,950.11	2,950.20	0.00	0.00	0.00
8,800.00	90.53	89.909	6,282.73	55.23	3,050.11	3,050.19	0.00	0.00	0.00
8,900.00	90.53	89.909	6,281.80	55.39	3,150.10	3,150.19	0.00	0.00	0.00
9,000.00	90.53	89.909	6,280.87	55.55	3,250.10	3,250.18	0.00	0.00	0.00
9,100.00	90.53	89.909	6,279.94	55.71	3,350.10	3,350.18	0.00	0.00	0.00
9,200.00	90.53	89.909	6,279.01	55.87	3,450.09	3,450.18	0.00	0.00	0.00
9,300.00	90.53	89.909	6,278.08	56.02	3,550.09	3,550.17	0.00	0.00	0.00
9,400.00	90.53	89.909	6,277.16	56.18	3,650.08	3,650.17	0.00	0.00	0.00
9,500.00	90.53	89.909	6,276.23	56.34	3,750.08	3,750.16	0.00	0.00	0.00

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Company:	Bill Barrett Corp.	TVD Reference:	GL 4681' & KB 20' @ 4701.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4681' & KB 20' @ 4701.00ft
Site:	Anschutz Equus Farms 4-62-32 SESE Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-33-4956C	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)
9,600.00	90.53	89.909	6,275.30	56.50	3,850.07	3,850.16	0.00	0.00	0.00
9,700.00	90.53	89.909	6,274.37	56.66	3,950.07	3,950.15	0.00	0.00	0.00
9,800.00	90.53	89.909	6,273.44	56.82	4,050.07	4,050.15	0.00	0.00	0.00
9,900.00	90.53	89.909	6,272.51	56.97	4,150.06	4,150.15	0.00	0.00	0.00
10,000.00	90.53	89.909	6,271.58	57.13	4,250.06	4,250.14	0.00	0.00	0.00
10,100.00	90.53	89.909	6,270.65	57.29	4,350.05	4,350.14	0.00	0.00	0.00
10,200.00	90.53	89.909	6,269.72	57.45	4,450.05	4,450.13	0.00	0.00	0.00
10,300.00	90.53	89.909	6,268.79	57.61	4,550.04	4,550.13	0.00	0.00	0.00
10,400.00	90.53	89.909	6,267.86	57.77	4,650.04	4,650.12	0.00	0.00	0.00
10,500.00	90.53	89.909	6,266.94	57.93	4,750.03	4,750.12	0.00	0.00	0.00
10,600.00	90.53	89.909	6,266.01	58.08	4,850.03	4,850.12	0.00	0.00	0.00
10,700.00	90.53	89.909	6,265.08	58.24	4,950.03	4,950.11	0.00	0.00	0.00
10,800.00	90.53	89.909	6,264.15	58.40	5,050.02	5,050.11	0.00	0.00	0.00
10,900.00	90.53	89.909	6,263.22	58.56	5,150.02	5,150.10	0.00	0.00	0.00
11,000.00	90.53	89.909	6,262.29	58.72	5,250.01	5,250.10	0.00	0.00	0.00
11,100.00	90.53	89.909	6,261.36	58.88	5,350.01	5,350.09	0.00	0.00	0.00
11,200.00	90.53	89.909	6,260.43	59.04	5,450.00	5,450.09	0.00	0.00	0.00
11,300.00	90.53	89.909	6,259.50	59.19	5,550.00	5,550.09	0.00	0.00	0.00
11,400.00	90.53	89.909	6,258.57	59.35	5,649.99	5,650.08	0.00	0.00	0.00
11,500.00	90.53	89.909	6,257.64	59.51	5,749.99	5,750.08	0.00	0.00	0.00
11,600.00	90.53	89.909	6,256.72	59.67	5,849.99	5,850.07	0.00	0.00	0.00
11,700.00	90.53	89.909	6,255.79	59.83	5,949.98	5,950.07	0.00	0.00	0.00
11,800.00	90.53	89.909	6,254.86	59.99	6,049.98	6,050.06	0.00	0.00	0.00
11,900.00	90.53	89.909	6,253.93	60.14	6,149.97	6,150.06	0.00	0.00	0.00
12,000.00	90.53	89.909	6,253.00	60.30	6,249.97	6,250.06	0.00	0.00	0.00
12,100.00	90.53	89.909	6,252.07	60.46	6,349.96	6,350.05	0.00	0.00	0.00
12,200.00	90.53	89.909	6,251.14	60.62	6,449.96	6,450.05	0.00	0.00	0.00
12,300.00	90.53	89.909	6,250.21	60.78	6,549.95	6,550.04	0.00	0.00	0.00
12,400.00	90.53	89.909	6,249.28	60.94	6,649.95	6,650.04	0.00	0.00	0.00
12,500.00	90.53	89.909	6,248.35	61.10	6,749.95	6,750.03	0.00	0.00	0.00
12,600.00	90.53	89.909	6,247.42	61.25	6,849.94	6,850.03	0.00	0.00	0.00
12,700.00	90.53	89.909	6,246.50	61.41	6,949.94	6,950.03	0.00	0.00	0.00
12,800.00	90.53	89.909	6,245.57	61.57	7,049.93	7,050.02	0.00	0.00	0.00
12,900.00	90.53	89.909	6,244.64	61.73	7,149.93	7,150.02	0.00	0.00	0.00
13,000.00	90.53	89.909	6,243.71	61.89	7,249.92	7,250.01	0.00	0.00	0.00
13,100.00	90.53	89.909	6,242.78	62.05	7,349.92	7,350.01	0.00	0.00	0.00
13,200.00	90.53	89.909	6,241.85	62.21	7,449.91	7,450.00	0.00	0.00	0.00
13,300.00	90.53	89.909	6,240.92	62.36	7,549.91	7,550.00	0.00	0.00	0.00
13,400.00	90.53	89.909	6,239.99	62.52	7,649.91	7,649.99	0.00	0.00	0.00
13,500.00	90.53	89.909	6,239.06	62.68	7,749.90	7,749.99	0.00	0.00	0.00
13,600.00	90.53	89.909	6,238.13	62.84	7,849.90	7,849.99	0.00	0.00	0.00
13,700.00	90.53	89.909	6,237.21	63.00	7,949.89	7,949.98	0.00	0.00	0.00
13,800.00	90.53	89.909	6,236.28	63.16	8,049.89	8,049.98	0.00	0.00	0.00
13,900.00	90.53	89.909	6,235.35	63.31	8,149.88	8,149.97	0.00	0.00	0.00
14,000.00	90.53	89.909	6,234.42	63.47	8,249.88	8,249.97	0.00	0.00	0.00
14,100.00	90.53	89.909	6,233.49	63.63	8,349.87	8,349.96	0.00	0.00	0.00
14,200.00	90.53	89.909	6,232.56	63.79	8,449.87	8,449.96	0.00	0.00	0.00
14,300.00	90.53	89.909	6,231.63	63.95	8,549.87	8,549.96	0.00	0.00	0.00
14,400.00	90.53	89.909	6,230.70	64.11	8,649.86	8,649.95	0.00	0.00	0.00
14,500.00	90.53	89.909	6,229.77	64.27	8,749.86	8,749.95	0.00	0.00	0.00
14,600.00	90.53	89.909	6,228.84	64.42	8,849.85	8,849.94	0.00	0.00	0.00
14,700.00	90.53	89.909	6,227.91	64.58	8,949.85	8,949.94	0.00	0.00	0.00
14,800.00	90.53	89.909	6,226.99	64.74	9,049.84	9,049.93	0.00	0.00	0.00
14,900.00	90.53	89.909	6,226.06	64.90	9,149.84	9,149.93	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-33-4956C
Company:	Bill Barrett Corp.	TVD Reference:	GL 4681' & KB 20' @ 4701.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4681' & KB 20' @ 4701.00ft
Site:	Anschutz Equus Farms 4-62-32 SESE Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-33-4956C	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)
15,000.00	90.53	89.909	6,225.13	65.06	9,249.83	9,249.93	0.00	0.00	0.00
15,100.00	90.53	89.909	6,224.20	65.22	9,349.83	9,349.92	0.00	0.00	0.00
15,200.00	90.53	89.909	6,223.27	65.38	9,449.83	9,449.92	0.00	0.00	0.00
15,300.00	90.53	89.909	6,222.34	65.53	9,549.82	9,549.91	0.00	0.00	0.00
15,400.00	90.53	89.909	6,221.41	65.69	9,649.82	9,649.91	0.00	0.00	0.00
15,500.00	90.53	89.909	6,220.48	65.85	9,749.81	9,749.90	0.00	0.00	0.00
15,600.00	90.53	89.909	6,219.55	66.01	9,849.81	9,849.90	0.00	0.00	0.00
15,700.00	90.53	89.909	6,218.62	66.17	9,949.80	9,949.90	0.00	0.00	0.00
15,800.00	90.53	89.909	6,217.69	66.33	10,049.80	10,049.89	0.00	0.00	0.00
15,900.00	90.53	89.909	6,216.77	66.48	10,149.79	10,149.89	0.00	0.00	0.00
16,000.00	90.53	89.909	6,215.84	66.64	10,249.79	10,249.88	0.00	0.00	0.00
16,100.00	90.53	89.909	6,214.91	66.80	10,349.79	10,349.88	0.00	0.00	0.00
16,200.00	90.53	89.909	6,213.98	66.96	10,449.78	10,449.87	0.00	0.00	0.00
16,300.00	90.53	89.909	6,213.05	67.12	10,549.78	10,549.87	0.00	0.00	0.00
16,305.31	90.53	89.909	6,213.00	67.13	10,555.09	10,555.18	0.00	0.00	0.00
TD at 16305.31									

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									
4-62-33-4956C PBHL	0.00	0.000	6,213.00	67.13	10,555.09	1,341,657.72	3,334,325.04	40° 15' 54.180 N	104° 18' 6.998 W
- plan hits target center									
- Point									
4-62-33-4956C LP	0.00	0.000	6,303.00	51.78	869.01	1,341,515.64	3,324,640.01	40° 15' 54.050 N	104° 20' 11.951 W
- plan misses target center by 0.01ft at 6618.80ft MD (6302.99 TVD, 51.77 N, 869.01 E)									
- 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 2.00
1,772.37	1,763.05	13.52	102.60	Start 300.31 hold at 1772.37 MD
2,072.68	2,052.51	23.97	181.90	Start Drop -1.00
3,617.42	3,578.60	51.01	387.11	Start 2246.95 hold at 3617.42 MD
5,864.37	5,825.55	51.01	387.11	Start DLS 12.00 TFO 89.91
6,618.80	6,302.99	51.77	869.01	Start 9686.51 hold at 6618.80 MD
16,305.31	6,213.00	67.13	10,555.09	TD at 16305.31