



Bill Barrett Corporation

Bill Barrett Corp.

Weld Co., CO

Sec.22-T5N-R62W

Anschutz State 5-62-22-1609C2

Wellbore #1

Plan: Design #1

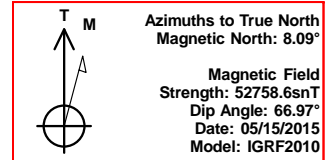
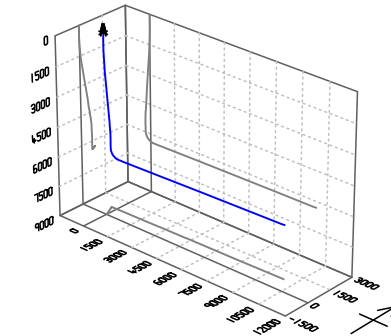
Standard Planning Report

15 May, 2015



Bill Barrett Corp.
Project: Weld Co., CO
Site: Sec.22-T5N-R62W
Well: Anschutz State 5-62-22-1609C2
Wellbore: Wellbore #1
Design: Design #1
Lat: 40° 23' 13.560 N
Long: 104° 19' 5.452 W
Pad GL: 4719.00
KB: Well @ 4735.00usft

Archer



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1429.58	10.59	334.36	1426.57	44.00	-21.12	2.00	334.36	-20.30	Start 3550.90 hold at 1429.58 MD
4980.48	10.59	334.36	4916.97	632.40	-303.58	0.00	0.00	-291.72	Start Drop -2.00
5510.06	0.00	0.00	5443.54	676.40	-324.70	2.00	180.00	-312.01	Start 500.03 hold at 5510.06 MD
6010.09	0.00	0.00	5943.57	676.40	-324.70	0.00	0.00	-312.01	Start Build 12.00
6765.48	90.65	88.93	6421.00	865.41	158.07	12.00	88.93	170.84	Start 9747.66 hold at 6765.48 MD
16513.14	90.65	88.93	6311.00	867.19	9903.42	0.00	0.00	9917.88	TD at 16513.14

WELL DETAILS: Anschutz State 5-62-22-1609C2

+N/-S	+E/-W	Northing	Ground Level: Easting	Latitude	Longitude	Slot
0.00	0.00	1386054.724	3329201.717	40° 23' 13.560 N	104° 19' 5.452 W	

PROJECT DETAILS: Weld Co., CO

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

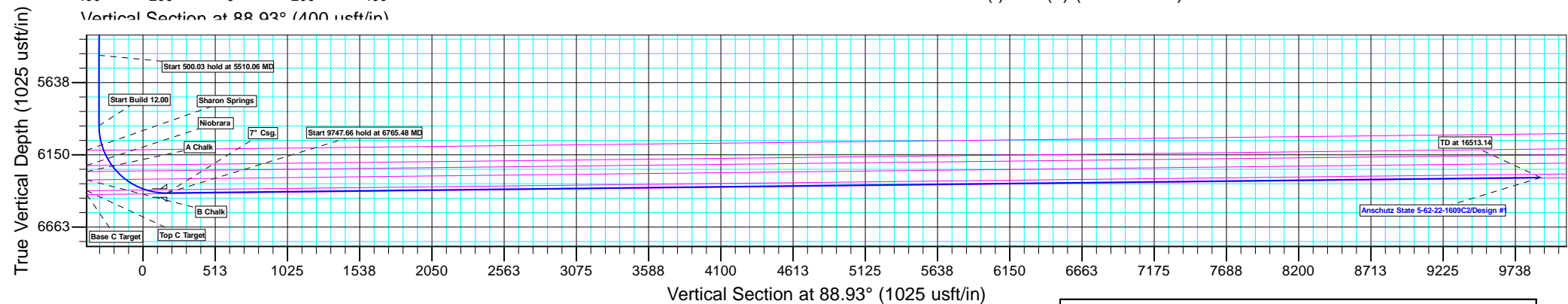
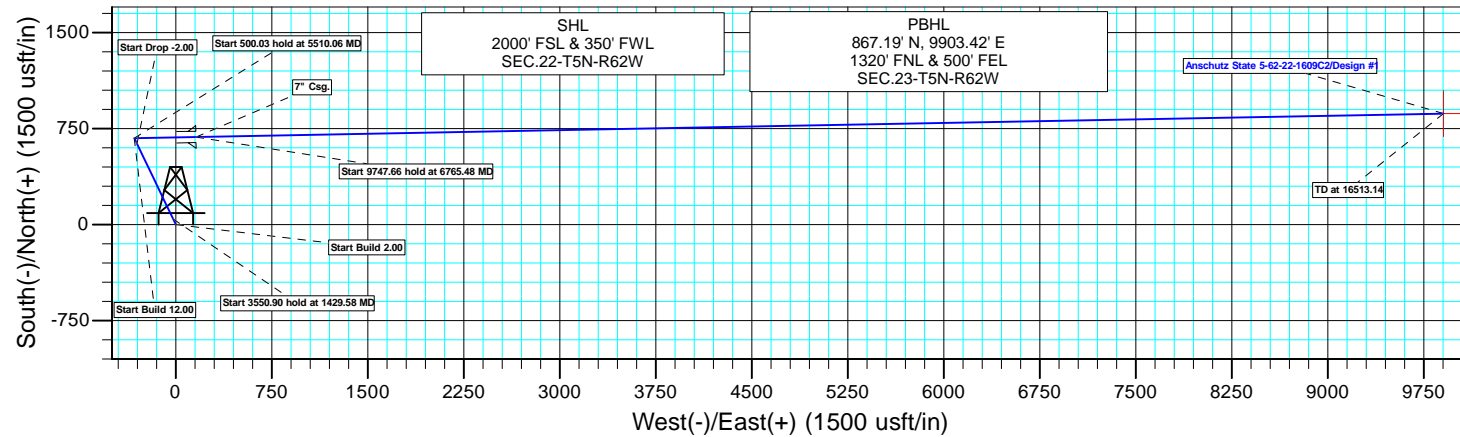
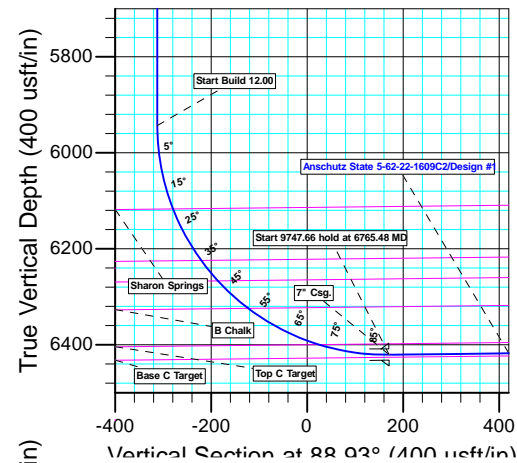
System Datum: Mean Sea Level

CASING DETAILS

TVD	MD	Name
6421.00	6765.48	7" Csg.

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
Anschutz State 5-62-22-1609C2 tgt	6311.00	867.19	9903.42	40° 23' 22.110 N	104° 16' 57.461 W	



Plan: Design #1 (Anschutz State 5-62-22-1609C2/Wellbore #1)

Created By: Ricky Osburn Date: 10:49, May 15 2015

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-1609C2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4735.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4735.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-1609C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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

Site		Sec.22-T5N-R62W			
Site Position:		Northing:	1,387,395.099 usft	Latitude:	40° 23' 26.801 N
From:	Lat/Long	Easting:	3,329,229.538 usft	Longitude:	104° 19' 4.861 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.76 °

Well	Anschutz State 5-62-22-1609C2					
Well Position	+N/-S	-1,339.88 usft	Northing:	1,386,054.724 usft	Latitude:	40° 23' 13.560 N
	+E/-W	-45.68 usft	Easting:	3,329,201.717 usft	Longitude:	104° 19' 5.452 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,719.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2015/05/15	8.09	66.97	52,759

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	88.93

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,429.58	10.59	334.36	1,426.57	44.00	-21.12	2.00	2.00	0.00	334.36	
4,980.48	10.59	334.36	4,916.97	632.40	-303.58	0.00	0.00	0.00	0.00	
5,510.06	0.00	0.00	5,443.54	676.40	-324.70	2.00	-2.00	0.00	180.00	
6,010.09	0.00	0.00	5,943.57	676.40	-324.70	0.00	0.00	0.00	0.00	
6,765.48	90.65	88.93	6,421.00	685.41	158.07	12.00	12.00	0.00	88.93	Anschutz State 5-62-2
16,513.14	90.65	88.93	6,311.00	867.19	9,903.42	0.00	0.00	0.00	0.00	Anschutz State 5-62-2

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-1609C2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4735.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4735.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-1609C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
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
Start Build 2.00									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	2.00	334.36	999.98	1.57	-0.76	-0.73	2.00	2.00	0.00
1,100.00	4.00	334.36	1,099.84	6.29	-3.02	-2.90	2.00	2.00	0.00
1,200.00	6.00	334.36	1,199.45	14.15	-6.79	-6.53	2.00	2.00	0.00
1,300.00	8.00	334.36	1,298.70	25.13	-12.07	-11.59	2.00	2.00	0.00
1,400.00	10.00	334.36	1,397.47	39.24	-18.83	-18.10	2.00	2.00	0.00
Start 3550.90 hold at 1429.58 MD									
1,429.58	10.59	334.36	1,426.57	44.00	-21.12	-20.30	2.00	2.00	0.00
1,500.00	10.59	334.36	1,495.79	55.67	-26.72	-25.68	0.00	0.00	0.00
1,600.00	10.59	334.36	1,594.09	72.24	-34.68	-33.32	0.00	0.00	0.00
1,700.00	10.59	334.36	1,692.38	88.81	-42.63	-40.97	0.00	0.00	0.00
1,800.00	10.59	334.36	1,790.68	105.38	-50.59	-48.61	0.00	0.00	0.00
1,900.00	10.59	334.36	1,888.97	121.95	-58.54	-56.25	0.00	0.00	0.00
2,000.00	10.59	334.36	1,987.27	138.52	-66.50	-63.90	0.00	0.00	0.00
2,100.00	10.59	334.36	2,085.57	155.09	-74.45	-71.54	0.00	0.00	0.00
2,200.00	10.59	334.36	2,183.86	171.66	-82.41	-79.19	0.00	0.00	0.00
2,300.00	10.59	334.36	2,282.16	188.23	-90.36	-86.83	0.00	0.00	0.00
2,400.00	10.59	334.36	2,380.46	204.80	-98.31	-94.47	0.00	0.00	0.00
2,500.00	10.59	334.36	2,478.75	221.37	-106.27	-102.12	0.00	0.00	0.00
2,600.00	10.59	334.36	2,577.05	237.94	-114.22	-109.76	0.00	0.00	0.00
2,700.00	10.59	334.36	2,675.34	254.51	-122.18	-117.40	0.00	0.00	0.00
2,800.00	10.59	334.36	2,773.64	271.09	-130.13	-125.05	0.00	0.00	0.00
2,900.00	10.59	334.36	2,871.94	287.66	-138.09	-132.69	0.00	0.00	0.00
3,000.00	10.59	334.36	2,970.23	304.23	-146.04	-140.33	0.00	0.00	0.00
3,100.00	10.59	334.36	3,068.53	320.80	-154.00	-147.98	0.00	0.00	0.00
3,200.00	10.59	334.36	3,166.83	337.37	-161.95	-155.62	0.00	0.00	0.00
3,300.00	10.59	334.36	3,265.12	353.94	-169.90	-163.27	0.00	0.00	0.00
3,400.00	10.59	334.36	3,363.42	370.51	-177.86	-170.91	0.00	0.00	0.00
3,500.00	10.59	334.36	3,461.71	387.08	-185.81	-178.55	0.00	0.00	0.00
3,600.00	10.59	334.36	3,560.01	403.65	-193.77	-186.20	0.00	0.00	0.00
3,700.00	10.59	334.36	3,658.31	420.22	-201.72	-193.84	0.00	0.00	0.00
3,800.00	10.59	334.36	3,756.60	436.79	-209.68	-201.48	0.00	0.00	0.00
3,900.00	10.59	334.36	3,854.90	453.36	-217.63	-209.13	0.00	0.00	0.00
4,000.00	10.59	334.36	3,953.20	469.93	-225.59	-216.77	0.00	0.00	0.00
4,100.00	10.59	334.36	4,051.49	486.50	-233.54	-224.41	0.00	0.00	0.00
4,200.00	10.59	334.36	4,149.79	503.07	-241.49	-232.06	0.00	0.00	0.00
Sussex									
4,229.37	10.59	334.36	4,178.66	507.94	-243.83	-234.30	0.00	0.00	0.00
4,300.00	10.59	334.36	4,248.08	519.64	-249.45	-239.70	0.00	0.00	0.00
4,400.00	10.59	334.36	4,346.38	536.21	-257.40	-247.35	0.00	0.00	0.00
4,500.00	10.59	334.36	4,444.68	552.78	-265.36	-254.99	0.00	0.00	0.00
4,600.00	10.59	334.36	4,542.97	569.35	-273.31	-262.63	0.00	0.00	0.00
4,700.00	10.59	334.36	4,641.27	585.92	-281.27	-270.28	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-1609C2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4735.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4735.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-1609C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,800.00	10.59	334.36	4,739.57	602.49	-289.22	-277.92	0.00	0.00	0.00
4,900.00	10.59	334.36	4,837.86	619.06	-297.18	-285.56	0.00	0.00	0.00
Start Drop -2.00									
4,980.48	10.59	334.36	4,916.97	632.40	-303.58	-291.72	0.00	0.00	0.00
5,000.00	10.20	334.36	4,936.17	635.57	-305.10	-293.18	2.00	-2.00	0.00
Shannon									
5,051.94	9.16	334.36	4,987.37	643.45	-308.88	-296.81	2.00	-2.00	0.00
5,100.00	8.20	334.36	5,034.88	649.99	-312.02	-299.83	2.00	-2.00	0.00
5,200.00	6.20	334.36	5,134.08	661.29	-317.45	-305.04	2.00	-2.00	0.00
5,300.00	4.20	334.36	5,233.67	669.46	-321.37	-308.81	2.00	-2.00	0.00
5,400.00	2.20	334.36	5,333.51	674.49	-323.79	-311.13	2.00	-2.00	0.00
5,500.00	0.20	334.36	5,433.48	676.38	-324.69	-312.00	2.00	-2.00	0.00
Start 500.03 hold at 5510.06 MD									
5,510.06	0.00	0.00	5,443.54	676.40	-324.70	-312.01	2.00	-2.00	0.00
5,600.00	0.00	0.00	5,533.48	676.40	-324.70	-312.01	0.00	0.00	0.00
5,700.00	0.00	0.00	5,633.48	676.40	-324.70	-312.01	0.00	0.00	0.00
5,800.00	0.00	0.00	5,733.48	676.40	-324.70	-312.01	0.00	0.00	0.00
5,900.00	0.00	0.00	5,833.48	676.40	-324.70	-312.01	0.00	0.00	0.00
6,000.00	0.00	0.00	5,933.48	676.40	-324.70	-312.01	0.00	0.00	0.00
Start Build 12.00									
6,010.09	0.00	0.00	5,943.57	676.40	-324.70	-312.01	0.00	0.00	0.00
6,025.00	1.79	88.93	5,958.48	676.40	-324.47	-311.78	12.00	12.00	0.00
6,050.00	4.79	88.93	5,983.43	676.43	-323.03	-310.35	12.00	12.00	0.00
6,075.00	7.79	88.93	6,008.28	676.48	-320.30	-307.61	12.00	12.00	0.00
6,100.00	10.79	88.93	6,032.95	676.56	-316.26	-303.57	12.00	12.00	0.00
6,125.00	13.79	88.93	6,057.37	676.66	-310.94	-298.25	12.00	12.00	0.00
6,150.00	16.79	88.93	6,081.49	676.78	-304.35	-291.66	12.00	12.00	0.00
6,175.00	19.79	88.93	6,105.22	676.93	-296.51	-283.82	12.00	12.00	0.00
Sharon Springs									
6,187.76	21.32	88.93	6,117.17	677.01	-292.03	-279.34	12.00	12.00	0.00
6,200.00	22.79	88.93	6,128.51	677.10	-287.43	-274.74	12.00	12.00	0.00
6,225.00	25.79	88.93	6,151.30	677.29	-277.15	-264.46	12.00	12.00	0.00
6,250.00	28.79	88.93	6,173.51	677.50	-265.69	-253.00	12.00	12.00	0.00
6,275.00	31.79	88.93	6,195.10	677.74	-253.09	-240.39	12.00	12.00	0.00
6,300.00	34.79	88.93	6,215.99	677.99	-239.37	-226.67	12.00	12.00	0.00
Niobrara									
6,310.44	36.04	88.93	6,224.50	678.10	-233.32	-220.62	12.00	12.00	0.00
6,325.00	37.79	88.93	6,236.14	678.27	-224.58	-211.87	12.00	12.00	0.00
6,350.00	40.79	88.93	6,255.49	678.56	-208.75	-196.05	12.00	12.00	0.00
A Chalk									
6,365.57	42.66	88.93	6,267.11	678.76	-198.39	-185.68	12.00	12.00	0.00
6,375.00	43.79	88.93	6,273.98	678.88	-191.94	-179.23	12.00	12.00	0.00
6,400.00	46.79	88.93	6,291.56	679.21	-174.17	-161.46	12.00	12.00	0.00
6,425.00	49.79	88.93	6,308.20	679.56	-155.52	-142.80	12.00	12.00	0.00
6,450.00	52.79	88.93	6,323.83	679.92	-136.02	-123.29	12.00	12.00	0.00
B Chalk									
6,450.93	52.90	88.93	6,324.39	679.93	-135.28	-122.56	12.00	12.00	0.00
6,475.00	55.79	88.93	6,338.42	680.30	-115.72	-103.00	12.00	12.00	0.00
6,500.00	58.79	88.93	6,351.93	680.69	-94.69	-81.96	12.00	12.00	0.00
6,525.00	61.79	88.93	6,364.32	681.10	-72.99	-60.25	12.00	12.00	0.00
6,550.00	64.79	88.93	6,375.55	681.51	-50.66	-37.92	12.00	12.00	0.00
6,575.00	67.79	88.93	6,385.61	681.94	-27.78	-15.04	12.00	12.00	0.00
6,600.00	70.79	88.93	6,394.45	682.37	-4.40	8.34	12.00	12.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-1609C2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4735.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4735.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-1609C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Top C Target									
6,616.90	72.82	88.93	6,399.72	682.67	11.65	24.40	12.00	12.00	0.00
6,625.00	73.79	88.93	6,402.05	682.82	19.41	32.16	12.00	12.00	0.00
6,650.00	76.79	88.93	6,408.40	683.27	43.58	56.33	12.00	12.00	0.00
6,675.00	79.79	88.93	6,413.47	683.73	68.06	80.81	12.00	12.00	0.00
6,700.00	82.79	88.93	6,417.26	684.19	92.76	105.52	12.00	12.00	0.00
6,725.00	85.79	88.93	6,419.75	684.65	117.63	130.39	12.00	12.00	0.00
6,750.00	88.79	88.93	6,420.93	685.12	142.59	155.36	12.00	12.00	0.00
Start 9747.66 hold at 6765.48 MD - 7" Csg.									
6,765.48	90.65	88.93	6,421.00	685.41	158.07	170.84	12.00	12.00	0.00
6,800.00	90.65	88.93	6,420.61	686.05	192.58	205.36	0.00	0.00	0.00
6,900.00	90.65	88.93	6,419.49	687.91	292.56	305.35	0.00	0.00	0.00
7,000.00	90.65	88.93	6,418.36	689.78	392.53	405.35	0.00	0.00	0.00
7,100.00	90.65	88.93	6,417.23	691.64	492.51	505.34	0.00	0.00	0.00
7,200.00	90.65	88.93	6,416.10	693.51	592.49	605.33	0.00	0.00	0.00
7,300.00	90.65	88.93	6,414.97	695.37	692.46	705.33	0.00	0.00	0.00
7,400.00	90.65	88.93	6,413.84	697.24	792.44	805.32	0.00	0.00	0.00
7,500.00	90.65	88.93	6,412.72	699.10	892.42	905.31	0.00	0.00	0.00
7,600.00	90.65	88.93	6,411.59	700.97	992.39	1,005.31	0.00	0.00	0.00
7,700.00	90.65	88.93	6,410.46	702.83	1,092.37	1,105.30	0.00	0.00	0.00
7,800.00	90.65	88.93	6,409.33	704.70	1,192.34	1,205.30	0.00	0.00	0.00
7,900.00	90.65	88.93	6,408.20	706.56	1,292.32	1,305.29	0.00	0.00	0.00
8,000.00	90.65	88.93	6,407.07	708.43	1,392.30	1,405.28	0.00	0.00	0.00
8,100.00	90.65	88.93	6,405.94	710.29	1,492.27	1,505.28	0.00	0.00	0.00
8,200.00	90.65	88.93	6,404.82	712.16	1,592.25	1,605.27	0.00	0.00	0.00
8,300.00	90.65	88.93	6,403.69	714.02	1,692.23	1,705.26	0.00	0.00	0.00
8,400.00	90.65	88.93	6,402.56	715.89	1,792.20	1,805.26	0.00	0.00	0.00
8,500.00	90.65	88.93	6,401.43	717.75	1,892.18	1,905.25	0.00	0.00	0.00
8,600.00	90.65	88.93	6,400.30	719.62	1,992.15	2,005.24	0.00	0.00	0.00
8,700.00	90.65	88.93	6,399.17	721.48	2,092.13	2,105.24	0.00	0.00	0.00
8,800.00	90.65	88.93	6,398.04	723.35	2,192.11	2,205.23	0.00	0.00	0.00
8,900.00	90.65	88.93	6,396.92	725.21	2,292.08	2,305.23	0.00	0.00	0.00
9,000.00	90.65	88.93	6,395.79	727.08	2,392.06	2,405.22	0.00	0.00	0.00
9,100.00	90.65	88.93	6,394.66	728.94	2,492.04	2,505.21	0.00	0.00	0.00
9,200.00	90.65	88.93	6,393.53	730.81	2,592.01	2,605.21	0.00	0.00	0.00
9,300.00	90.65	88.93	6,392.40	732.67	2,691.99	2,705.20	0.00	0.00	0.00
9,400.00	90.65	88.93	6,391.27	734.54	2,791.96	2,805.19	0.00	0.00	0.00
9,500.00	90.65	88.93	6,390.15	736.40	2,891.94	2,905.19	0.00	0.00	0.00
9,600.00	90.65	88.93	6,389.02	738.27	2,991.92	3,005.18	0.00	0.00	0.00
9,700.00	90.65	88.93	6,387.89	740.13	3,091.89	3,105.17	0.00	0.00	0.00
9,800.00	90.65	88.93	6,386.76	742.00	3,191.87	3,205.17	0.00	0.00	0.00
9,900.00	90.65	88.93	6,385.63	743.86	3,291.85	3,305.16	0.00	0.00	0.00
10,000.00	90.65	88.93	6,384.50	745.73	3,391.82	3,405.16	0.00	0.00	0.00
10,100.00	90.65	88.93	6,383.37	747.59	3,491.80	3,505.15	0.00	0.00	0.00
10,200.00	90.65	88.93	6,382.25	749.46	3,591.77	3,605.14	0.00	0.00	0.00
10,300.00	90.65	88.93	6,381.12	751.32	3,691.75	3,705.14	0.00	0.00	0.00
10,400.00	90.65	88.93	6,379.99	753.19	3,791.73	3,805.13	0.00	0.00	0.00
10,500.00	90.65	88.93	6,378.86	755.05	3,891.70	3,905.12	0.00	0.00	0.00
10,600.00	90.65	88.93	6,377.73	756.92	3,991.68	4,005.12	0.00	0.00	0.00
10,700.00	90.65	88.93	6,376.60	758.78	4,091.66	4,105.11	0.00	0.00	0.00
10,800.00	90.65	88.93	6,375.47	760.65	4,191.63	4,205.10	0.00	0.00	0.00
10,900.00	90.65	88.93	6,374.35	762.51	4,291.61	4,305.10	0.00	0.00	0.00
11,000.00	90.65	88.93	6,373.22	764.38	4,391.58	4,405.09	0.00	0.00	0.00
11,100.00	90.65	88.93	6,372.09	766.24	4,491.56	4,505.09	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-1609C2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4735.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4735.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-1609C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,200.00	90.65	88.93	6,370.96	768.11	4,591.54	4,605.08	0.00	0.00	0.00	
11,300.00	90.65	88.93	6,369.83	769.97	4,691.51	4,705.07	0.00	0.00	0.00	
11,400.00	90.65	88.93	6,368.70	771.84	4,791.49	4,805.07	0.00	0.00	0.00	
11,500.00	90.65	88.93	6,367.58	773.70	4,891.46	4,905.06	0.00	0.00	0.00	
11,600.00	90.65	88.93	6,366.45	775.57	4,991.44	5,005.05	0.00	0.00	0.00	
11,700.00	90.65	88.93	6,365.32	777.43	5,091.42	5,105.05	0.00	0.00	0.00	
11,800.00	90.65	88.93	6,364.19	779.30	5,191.39	5,205.04	0.00	0.00	0.00	
11,900.00	90.65	88.93	6,363.06	781.16	5,291.37	5,305.03	0.00	0.00	0.00	
12,000.00	90.65	88.93	6,361.93	783.03	5,391.35	5,405.03	0.00	0.00	0.00	
12,100.00	90.65	88.93	6,360.80	784.89	5,491.32	5,505.02	0.00	0.00	0.00	
12,200.00	90.65	88.93	6,359.68	786.76	5,591.30	5,605.02	0.00	0.00	0.00	
12,300.00	90.65	88.93	6,358.55	788.62	5,691.27	5,705.01	0.00	0.00	0.00	
12,400.00	90.65	88.93	6,357.42	790.49	5,791.25	5,805.00	0.00	0.00	0.00	
12,500.00	90.65	88.93	6,356.29	792.35	5,891.23	5,905.00	0.00	0.00	0.00	
12,600.00	90.65	88.93	6,355.16	794.22	5,991.20	6,004.99	0.00	0.00	0.00	
12,700.00	90.65	88.93	6,354.03	796.08	6,091.18	6,104.98	0.00	0.00	0.00	
12,800.00	90.65	88.93	6,352.90	797.94	6,191.16	6,204.98	0.00	0.00	0.00	
12,900.00	90.65	88.93	6,351.78	799.81	6,291.13	6,304.97	0.00	0.00	0.00	
13,000.00	90.65	88.93	6,350.65	801.67	6,391.11	6,404.96	0.00	0.00	0.00	
13,100.00	90.65	88.93	6,349.52	803.54	6,491.08	6,504.96	0.00	0.00	0.00	
13,200.00	90.65	88.93	6,348.39	805.40	6,591.06	6,604.95	0.00	0.00	0.00	
13,300.00	90.65	88.93	6,347.26	807.27	6,691.04	6,704.95	0.00	0.00	0.00	
13,400.00	90.65	88.93	6,346.13	809.13	6,791.01	6,804.94	0.00	0.00	0.00	
13,500.00	90.65	88.93	6,345.00	811.00	6,890.99	6,904.93	0.00	0.00	0.00	
13,600.00	90.65	88.93	6,343.88	812.86	6,990.97	7,004.93	0.00	0.00	0.00	
13,700.00	90.65	88.93	6,342.75	814.73	7,090.94	7,104.92	0.00	0.00	0.00	
13,800.00	90.65	88.93	6,341.62	816.59	7,190.92	7,204.91	0.00	0.00	0.00	
13,900.00	90.65	88.93	6,340.49	818.46	7,290.89	7,304.91	0.00	0.00	0.00	
14,000.00	90.65	88.93	6,339.36	820.32	7,390.87	7,404.90	0.00	0.00	0.00	
14,100.00	90.65	88.93	6,338.23	822.19	7,490.85	7,504.89	0.00	0.00	0.00	
14,200.00	90.65	88.93	6,337.11	824.05	7,590.82	7,604.89	0.00	0.00	0.00	
14,300.00	90.65	88.93	6,335.98	825.92	7,690.80	7,704.88	0.00	0.00	0.00	
14,400.00	90.65	88.93	6,334.85	827.78	7,790.78	7,804.88	0.00	0.00	0.00	
14,500.00	90.65	88.93	6,333.72	829.65	7,890.75	7,904.87	0.00	0.00	0.00	
14,600.00	90.65	88.93	6,332.59	831.51	7,990.73	8,004.86	0.00	0.00	0.00	
14,700.00	90.65	88.93	6,331.46	833.38	8,090.70	8,104.86	0.00	0.00	0.00	
14,800.00	90.65	88.93	6,330.33	835.24	8,190.68	8,204.85	0.00	0.00	0.00	
14,900.00	90.65	88.93	6,329.21	837.11	8,290.66	8,304.84	0.00	0.00	0.00	
15,000.00	90.65	88.93	6,328.08	838.97	8,390.63	8,404.84	0.00	0.00	0.00	
15,100.00	90.65	88.93	6,326.95	840.84	8,490.61	8,504.83	0.00	0.00	0.00	
15,200.00	90.65	88.93	6,325.82	842.70	8,590.59	8,604.82	0.00	0.00	0.00	
15,300.00	90.65	88.93	6,324.69	844.57	8,690.56	8,704.82	0.00	0.00	0.00	
15,400.00	90.65	88.93	6,323.56	846.43	8,790.54	8,804.81	0.00	0.00	0.00	
15,500.00	90.65	88.93	6,322.43	848.30	8,890.51	8,904.81	0.00	0.00	0.00	
15,600.00	90.65	88.93	6,321.31	850.16	8,990.49	9,004.80	0.00	0.00	0.00	
15,700.00	90.65	88.93	6,320.18	852.03	9,090.47	9,104.79	0.00	0.00	0.00	
15,800.00	90.65	88.93	6,319.05	853.89	9,190.44	9,204.79	0.00	0.00	0.00	
15,900.00	90.65	88.93	6,317.92	855.76	9,290.42	9,304.78	0.00	0.00	0.00	
16,000.00	90.65	88.93	6,316.79	857.62	9,390.40	9,404.77	0.00	0.00	0.00	
16,100.00	90.65	88.93	6,315.66	859.49	9,490.37	9,504.77	0.00	0.00	0.00	
16,200.00	90.65	88.93	6,314.54	861.35	9,590.35	9,604.76	0.00	0.00	0.00	
16,300.00	90.65	88.93	6,313.41	863.22	9,690.32	9,704.75	0.00	0.00	0.00	
16,400.00	90.65	88.93	6,312.28	865.08	9,790.30	9,804.75	0.00	0.00	0.00	
16,500.00	90.65	88.93	6,311.15	866.95	9,890.28	9,904.74	0.00	0.00	0.00	

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-1609C2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4735.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4735.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-1609C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
TD at 16513.14									
16,513.14	90.65	88.93	6,311.00	867.19	9,903.42	9,917.88	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Anschutz State 5-62-22-	0.00	0.00	6,311.00	867.19	9,903.42	1,387,053.824	3,339,092.696	40° 23' 22.110 N	104° 16' 57.461 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
6,765.48	6,421.00	7" Csg.	7	8-3/4	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,229.37	4,176.00	Sussex		-0.65	88.93
5,051.94	4,984.00	Shannon		-0.65	88.93
6,187.76	6,114.00	Sharon Springs		-0.65	88.93
6,310.44	6,222.00	Niobrara		-0.65	88.93
6,365.57	6,265.00	A Chalk		-0.65	88.93
6,450.93	6,323.00	B Chalk		-0.65	88.93
6,616.90	6,400.00	Top C Target		-0.65	88.93

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
900.00	900.00	0.00	0.00	Start Build 2.00
1,429.58	1,426.57	44.00	-21.12	Start 3550.90 hold at 1429.58 MD
4,980.48	4,916.97	632.40	-303.58	Start Drop -2.00
5,510.06	5,443.54	676.40	-324.70	Start 500.03 hold at 5510.06 MD
6,010.09	5,943.57	676.40	-324.70	Start Build 12.00
6,765.48	6,421.00	685.41	158.07	Start 9747.66 hold at 6765.48 MD
16,513.14	6,311.00	867.19	9,903.42	TD at 16513.14