



Bill Barrett Corporation

Bill Barrett Corp.

Weld Co., CO

Sec.22-T5N-R62W

Anschutz State 5-62-22-4841B2

Wellbore #1

Plan: Design #1

Standard Planning Report

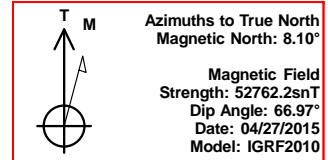
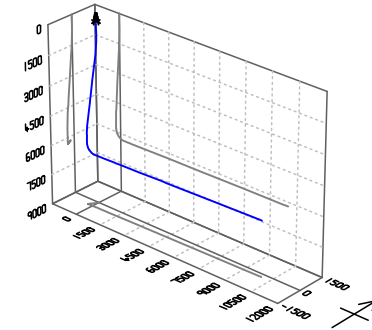
27 April, 2015

Archer



Bill Barrett Corp.
Project: Weld Co., CO
Site: Sec.22-T5N-R62W
Well: Anschutz State 5-62-22-4841B2
Wellbore: Wellbore #1
Design: Design #1
Lat: 40° 23' 1.388 N
Long: 104° 19' 6.982 W
Pad GL: 4690.00
KB: Well @ 4706.00usft

Archer



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	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
1254.33	7.09	212.78	1253.43	-18.40	-11.85	2.00	212.78	-12.19	Start 3764.44 hold at 1254.33 MD
5018.77	7.09	212.78	4989.11	-408.87	-263.28	0.00	0.00	-270.80	Start Drop -2.00
5373.10	0.00	0.00	5342.54	-427.27	-275.13	2.00	180.00	-282.99	Start 500.03 hold at 5373.10 MD
5873.13	0.00	0.00	5842.57	-427.27	-275.13	0.00	0.00	-282.99	Start Build 12.00
6628.69	90.67	88.94	6320.00	-418.36	207.81	12.00	88.94	200.03	Start 9796.38 hold at 6628.69 MD
16425.07	90.67	88.94	6206.00	-237.68	10001.86	0.00	0.00	9995.75	TD at 16425.07

WELL DETAILS: Anschutz State 5-62-22-4841B2

+N/-S	+E/-W	Northing	Ground Level: Easting	Latitude	Longitude	Slot
0.00	0.00	1384821.572	4690.00	40° 23' 1.388 N	104° 19' 6.982 W	

PROJECT DETAILS: Weld Co., CO

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

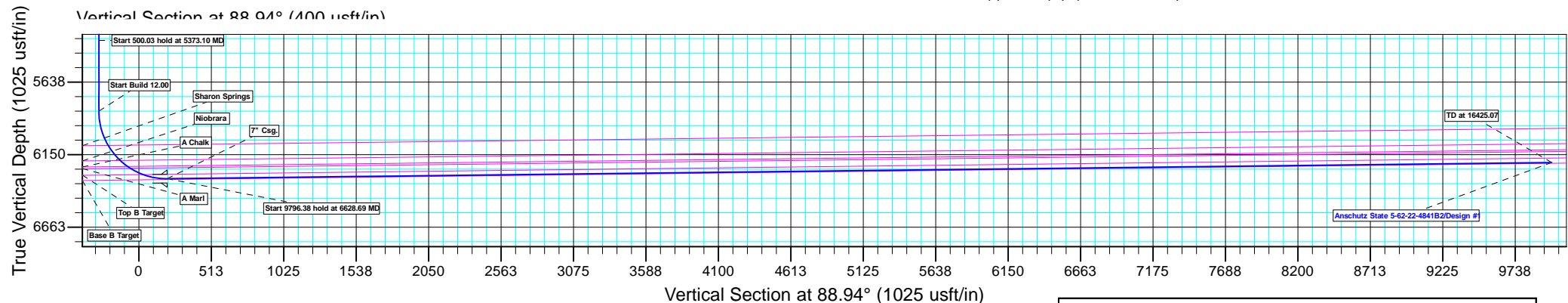
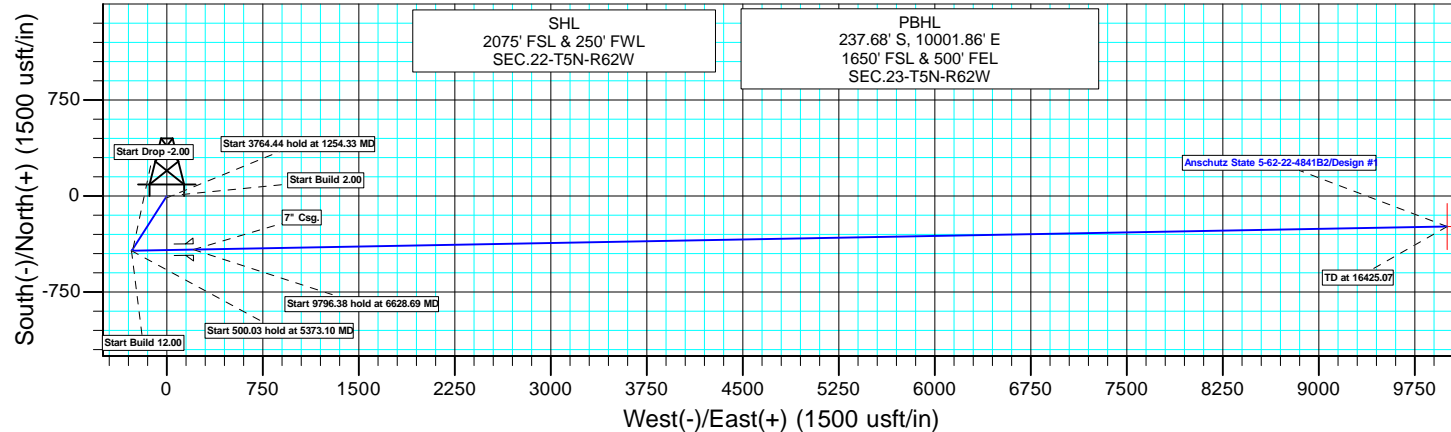
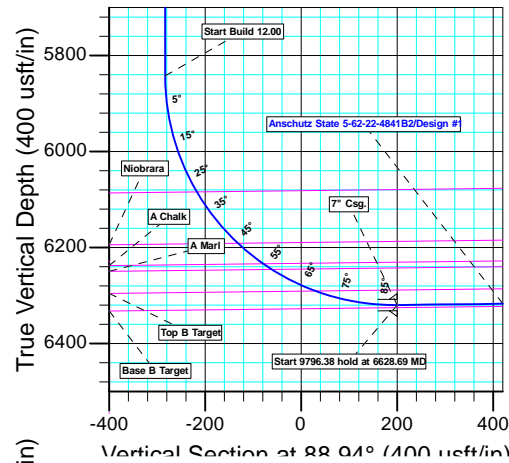
System Datum: Mean Sea Level

CASING DETAILS

TVD	MD	Name
6320.00	6628.69	7" Csg.

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Anschutz State 5-62-22-4841B2 tgt	6206.00	-237.68	10001.86	40° 22' 59.020 N	104° 16' 57.731 W	Point



Plan: Design #1 (Anschutz State 5-62-22-4841B2/Wellbore #1)

Created By: Ricky Osburn Date: 10:39, April 27 2015

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-4841B2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4706.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4706.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-4841B2	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 5-62-22-4841B2					
Well Position	+N/-S	-2,571.57 usft	Northing:	1,384,821.572 usft	Latitude:	40° 23' 1.388 N
	+E/-W	-164.08 usft	Easting:	3,329,099.747 usft	Longitude:	104° 19' 6.982 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,690.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2015/04/27	8.10	66.97	52,762

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	88.94

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	
1,254.33	7.09	212.78	1,253.43	-18.40	-11.85	2.00	2.00	0.00	212.78	
5,018.77	7.09	212.78	4,989.11	-408.87	-263.28	0.00	0.00	0.00	0.00	
5,373.10	0.00	0.00	5,342.54	-427.27	-275.13	2.00	-2.00	0.00	180.00	
5,873.13	0.00	0.00	5,842.57	-427.27	-275.13	0.00	0.00	0.00	0.00	
6,628.69	90.67	88.94	6,320.00	-418.36	207.81	12.00	12.00	0.00	88.94	Anschutz State 5-62-2
16,425.07	90.67	88.94	6,206.00	-237.68	10,001.86	0.00	0.00	0.00	0.00	Anschutz State 5-62-2

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-4841B2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4706.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4706.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-4841B2	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	212.78	999.98	-1.47	-0.94	-0.97	2.00	2.00	0.00
1,100.00	4.00	212.78	1,099.84	-5.87	-3.78	-3.89	2.00	2.00	0.00
1,200.00	6.00	212.78	1,199.45	-13.19	-8.50	-8.74	2.00	2.00	0.00
Start 3764.44 hold at 1254.33 MD									
1,254.33	7.09	212.78	1,253.43	-18.40	-11.85	-12.19	2.00	2.00	0.00
1,300.00	7.09	212.78	1,298.75	-23.14	-14.90	-15.32	0.00	0.00	0.00
1,400.00	7.09	212.78	1,397.98	-33.51	-21.58	-22.19	0.00	0.00	0.00
1,500.00	7.09	212.78	1,497.22	-43.88	-28.26	-29.06	0.00	0.00	0.00
1,600.00	7.09	212.78	1,596.46	-54.25	-34.94	-35.93	0.00	0.00	0.00
1,700.00	7.09	212.78	1,695.69	-64.63	-41.62	-42.80	0.00	0.00	0.00
1,800.00	7.09	212.78	1,794.93	-75.00	-48.29	-49.67	0.00	0.00	0.00
1,900.00	7.09	212.78	1,894.16	-85.37	-54.97	-56.54	0.00	0.00	0.00
2,000.00	7.09	212.78	1,993.40	-95.75	-61.65	-63.41	0.00	0.00	0.00
2,100.00	7.09	212.78	2,092.64	-106.12	-68.33	-70.28	0.00	0.00	0.00
2,200.00	7.09	212.78	2,191.87	-116.49	-75.01	-77.15	0.00	0.00	0.00
2,300.00	7.09	212.78	2,291.11	-126.86	-81.69	-84.02	0.00	0.00	0.00
2,400.00	7.09	212.78	2,390.35	-137.24	-88.37	-90.89	0.00	0.00	0.00
2,500.00	7.09	212.78	2,489.58	-147.61	-95.05	-97.76	0.00	0.00	0.00
2,600.00	7.09	212.78	2,588.82	-157.98	-101.73	-104.63	0.00	0.00	0.00
2,700.00	7.09	212.78	2,688.05	-168.35	-108.41	-111.50	0.00	0.00	0.00
2,800.00	7.09	212.78	2,787.29	-178.73	-115.09	-118.37	0.00	0.00	0.00
2,900.00	7.09	212.78	2,886.53	-189.10	-121.77	-125.24	0.00	0.00	0.00
3,000.00	7.09	212.78	2,985.76	-199.47	-128.44	-132.11	0.00	0.00	0.00
3,100.00	7.09	212.78	3,085.00	-209.84	-135.12	-138.98	0.00	0.00	0.00
3,200.00	7.09	212.78	3,184.23	-220.22	-141.80	-145.85	0.00	0.00	0.00
3,300.00	7.09	212.78	3,283.47	-230.59	-148.48	-152.72	0.00	0.00	0.00
3,400.00	7.09	212.78	3,382.71	-240.96	-155.16	-159.59	0.00	0.00	0.00
3,500.00	7.09	212.78	3,481.94	-251.33	-161.84	-166.46	0.00	0.00	0.00
3,600.00	7.09	212.78	3,581.18	-261.71	-168.52	-173.33	0.00	0.00	0.00
3,700.00	7.09	212.78	3,680.41	-272.08	-175.20	-180.20	0.00	0.00	0.00
3,800.00	7.09	212.78	3,779.65	-282.45	-181.88	-187.07	0.00	0.00	0.00
3,900.00	7.09	212.78	3,878.89	-292.82	-188.56	-193.94	0.00	0.00	0.00
4,000.00	7.09	212.78	3,978.12	-303.20	-195.24	-200.81	0.00	0.00	0.00
4,100.00	7.09	212.78	4,077.36	-313.57	-201.92	-207.68	0.00	0.00	0.00
sussex									
4,169.66	7.09	212.78	4,146.48	-320.79	-206.57	-212.47	0.00	0.00	0.00
4,200.00	7.09	212.78	4,176.59	-323.94	-208.59	-214.55	0.00	0.00	0.00
4,300.00	7.09	212.78	4,275.83	-334.31	-215.27	-221.42	0.00	0.00	0.00
4,400.00	7.09	212.78	4,375.07	-344.69	-221.95	-228.29	0.00	0.00	0.00
4,500.00	7.09	212.78	4,474.30	-355.06	-228.63	-235.16	0.00	0.00	0.00
4,600.00	7.09	212.78	4,573.54	-365.43	-235.31	-242.03	0.00	0.00	0.00
4,700.00	7.09	212.78	4,672.77	-375.81	-241.99	-248.90	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-4841B2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4706.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4706.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-4841B2	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	7.09	212.78	4,772.01	-386.18	-248.67	-255.77	0.00	0.00	0.00
4,900.00	7.09	212.78	4,871.25	-396.55	-255.35	-262.64	0.00	0.00	0.00
Shannon									
4,984.54	7.09	212.78	4,955.14	-405.32	-261.00	-268.45	0.00	0.00	0.00
5,000.00	7.09	212.78	4,970.48	-406.92	-262.03	-269.51	0.00	0.00	0.00
Start Drop -2.00									
5,018.77	7.09	212.78	4,989.11	-408.87	-263.28	-270.80	0.00	0.00	0.00
5,100.00	5.46	212.78	5,069.85	-416.33	-268.09	-275.74	2.00	-2.00	0.00
5,200.00	3.46	212.78	5,169.54	-422.87	-272.30	-280.08	2.00	-2.00	0.00
5,300.00	1.46	212.78	5,269.44	-426.49	-274.63	-282.47	2.00	-2.00	0.00
Start 500.03 hold at 5373.10 MD									
5,373.10	0.00	0.00	5,342.54	-427.27	-275.13	-282.99	2.00	-2.00	0.00
5,400.00	0.00	0.00	5,369.44	-427.27	-275.13	-282.99	0.00	0.00	0.00
5,500.00	0.00	0.00	5,469.44	-427.27	-275.13	-282.99	0.00	0.00	0.00
5,600.00	0.00	0.00	5,569.44	-427.27	-275.13	-282.99	0.00	0.00	0.00
5,700.00	0.00	0.00	5,669.44	-427.27	-275.13	-282.99	0.00	0.00	0.00
5,800.00	0.00	0.00	5,769.44	-427.27	-275.13	-282.99	0.00	0.00	0.00
Start Build 12.00									
5,873.13	0.00	0.00	5,842.57	-427.27	-275.13	-282.99	0.00	0.00	0.00
5,875.00	0.22	88.94	5,844.44	-427.27	-275.13	-282.98	12.00	12.00	0.00
5,900.00	3.22	88.94	5,869.42	-427.26	-274.37	-282.23	12.00	12.00	0.00
5,925.00	6.22	88.94	5,894.33	-427.22	-272.32	-280.17	12.00	12.00	0.00
5,950.00	9.22	88.94	5,919.11	-427.16	-268.96	-276.81	12.00	12.00	0.00
5,975.00	12.22	88.94	5,943.67	-427.07	-264.31	-272.16	12.00	12.00	0.00
6,000.00	15.22	88.94	5,967.95	-426.96	-258.38	-266.23	12.00	12.00	0.00
6,025.00	18.22	88.94	5,991.89	-426.83	-251.18	-259.04	12.00	12.00	0.00
6,050.00	21.22	88.94	6,015.42	-426.67	-242.75	-250.60	12.00	12.00	0.00
6,075.00	24.22	88.94	6,038.48	-426.49	-233.10	-240.95	12.00	12.00	0.00
6,100.00	27.22	88.94	6,061.00	-426.29	-222.25	-230.10	12.00	12.00	0.00
6,125.00	30.22	88.94	6,082.92	-426.07	-210.24	-218.08	12.00	12.00	0.00
Sharon Springs									
6,126.88	30.45	88.94	6,084.54	-426.06	-209.29	-217.13	12.00	12.00	0.00
6,150.00	33.22	88.94	6,104.18	-425.83	-197.09	-204.94	12.00	12.00	0.00
6,175.00	36.22	88.94	6,124.73	-425.57	-182.86	-190.70	12.00	12.00	0.00
6,200.00	39.22	88.94	6,144.50	-425.29	-167.57	-175.40	12.00	12.00	0.00
6,225.00	42.22	88.94	6,163.44	-424.98	-151.26	-159.10	12.00	12.00	0.00
6,250.00	45.22	88.94	6,181.51	-424.67	-133.99	-141.82	12.00	12.00	0.00
Niobrara									
6,264.46	46.96	88.94	6,191.54	-424.47	-123.57	-131.40	12.00	12.00	0.00
6,275.00	48.22	88.94	6,198.64	-424.33	-115.79	-123.62	12.00	12.00	0.00
6,300.00	51.22	88.94	6,214.80	-423.98	-96.72	-104.55	12.00	12.00	0.00
6,325.00	54.22	88.94	6,229.94	-423.61	-76.83	-84.66	12.00	12.00	0.00
A Chalk									
6,331.88	55.05	88.94	6,233.92	-423.51	-71.22	-79.04	12.00	12.00	0.00
6,350.00	57.22	88.94	6,244.02	-423.23	-56.18	-64.00	12.00	12.00	0.00
A Marl									
6,353.15	57.60	88.94	6,245.72	-423.18	-53.52	-61.34	12.00	12.00	0.00
6,375.00	60.22	88.94	6,257.00	-422.84	-34.82	-42.64	12.00	12.00	0.00
6,400.00	63.22	88.94	6,268.84	-422.43	-12.81	-20.62	12.00	12.00	0.00
6,425.00	66.22	88.94	6,279.51	-422.01	9.79	1.98	12.00	12.00	0.00
6,450.00	69.22	88.94	6,288.99	-421.59	32.92	25.11	12.00	12.00	0.00
Top B Target									
6,454.76	69.80	88.94	6,290.65	-421.50	37.38	29.57	12.00	12.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-4841B2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4706.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4706.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-4841B2	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)
6,475.00	72.22	88.94	6,297.24	-421.15	56.51	48.71	12.00	12.00	0.00
6,500.00	75.22	88.94	6,304.25	-420.71	80.50	72.70	12.00	12.00	0.00
6,525.00	78.22	88.94	6,309.99	-420.26	104.83	97.03	12.00	12.00	0.00
6,550.00	81.22	88.94	6,314.44	-419.81	129.42	121.63	12.00	12.00	0.00
6,575.00	84.22	88.94	6,317.61	-419.35	154.21	146.43	12.00	12.00	0.00
6,600.00	87.22	88.94	6,319.47	-418.89	179.13	171.35	12.00	12.00	0.00
6,625.00	90.22	88.94	6,320.03	-418.43	204.12	196.34	12.00	12.00	0.00
Start 9796.38 hold at 6628.69 MD - 7" Csg.									
6,628.69	90.67	88.94	6,320.00	-418.36	207.81	200.03	12.00	12.00	0.00
6,700.00	90.67	88.94	6,319.17	-417.05	279.10	271.34	0.00	0.00	0.00
6,800.00	90.67	88.94	6,318.01	-415.20	379.08	371.33	0.00	0.00	0.00
6,900.00	90.67	88.94	6,316.85	-413.36	479.05	471.33	0.00	0.00	0.00
7,000.00	90.67	88.94	6,315.68	-411.51	579.03	571.32	0.00	0.00	0.00
7,100.00	90.67	88.94	6,314.52	-409.67	679.01	671.31	0.00	0.00	0.00
7,200.00	90.67	88.94	6,313.35	-407.82	778.98	771.31	0.00	0.00	0.00
7,300.00	90.67	88.94	6,312.19	-405.98	878.96	871.30	0.00	0.00	0.00
7,400.00	90.67	88.94	6,311.03	-404.13	978.94	971.29	0.00	0.00	0.00
7,500.00	90.67	88.94	6,309.86	-402.29	1,078.91	1,071.29	0.00	0.00	0.00
7,600.00	90.67	88.94	6,308.70	-400.45	1,178.89	1,171.28	0.00	0.00	0.00
7,700.00	90.67	88.94	6,307.54	-398.60	1,278.86	1,271.27	0.00	0.00	0.00
7,800.00	90.67	88.94	6,306.37	-396.76	1,378.84	1,371.27	0.00	0.00	0.00
7,900.00	90.67	88.94	6,305.21	-394.91	1,478.82	1,471.26	0.00	0.00	0.00
8,000.00	90.67	88.94	6,304.04	-393.07	1,578.79	1,571.25	0.00	0.00	0.00
8,100.00	90.67	88.94	6,302.88	-391.22	1,678.77	1,671.24	0.00	0.00	0.00
8,200.00	90.67	88.94	6,301.72	-389.38	1,778.75	1,771.24	0.00	0.00	0.00
8,300.00	90.67	88.94	6,300.55	-387.54	1,878.72	1,871.23	0.00	0.00	0.00
8,400.00	90.67	88.94	6,299.39	-385.69	1,978.70	1,971.22	0.00	0.00	0.00
8,500.00	90.67	88.94	6,298.22	-383.85	2,078.67	2,071.22	0.00	0.00	0.00
8,600.00	90.67	88.94	6,297.06	-382.00	2,178.65	2,171.21	0.00	0.00	0.00
8,700.00	90.67	88.94	6,295.90	-380.16	2,278.63	2,271.20	0.00	0.00	0.00
8,800.00	90.67	88.94	6,294.73	-378.31	2,378.60	2,371.20	0.00	0.00	0.00
8,900.00	90.67	88.94	6,293.57	-376.47	2,478.58	2,471.19	0.00	0.00	0.00
9,000.00	90.67	88.94	6,292.41	-374.62	2,578.56	2,571.18	0.00	0.00	0.00
9,100.00	90.67	88.94	6,291.24	-372.78	2,678.53	2,671.18	0.00	0.00	0.00
9,200.00	90.67	88.94	6,290.08	-370.94	2,778.51	2,771.17	0.00	0.00	0.00
9,300.00	90.67	88.94	6,288.91	-369.09	2,878.48	2,871.16	0.00	0.00	0.00
9,400.00	90.67	88.94	6,287.75	-367.25	2,978.46	2,971.16	0.00	0.00	0.00
9,500.00	90.67	88.94	6,286.59	-365.40	3,078.44	3,071.15	0.00	0.00	0.00
9,600.00	90.67	88.94	6,285.42	-363.56	3,178.41	3,171.14	0.00	0.00	0.00
9,700.00	90.67	88.94	6,284.26	-361.71	3,278.39	3,271.14	0.00	0.00	0.00
9,800.00	90.67	88.94	6,283.10	-359.87	3,378.37	3,371.13	0.00	0.00	0.00
9,900.00	90.67	88.94	6,281.93	-358.03	3,478.34	3,471.12	0.00	0.00	0.00
10,000.00	90.67	88.94	6,280.77	-356.18	3,578.32	3,571.12	0.00	0.00	0.00
10,100.00	90.67	88.94	6,279.60	-354.34	3,678.29	3,671.11	0.00	0.00	0.00
10,200.00	90.67	88.94	6,278.44	-352.49	3,778.27	3,771.10	0.00	0.00	0.00
10,300.00	90.67	88.94	6,277.28	-350.65	3,878.25	3,871.10	0.00	0.00	0.00
10,400.00	90.67	88.94	6,276.11	-348.80	3,978.22	3,971.09	0.00	0.00	0.00
10,500.00	90.67	88.94	6,274.95	-346.96	4,078.20	4,071.08	0.00	0.00	0.00
10,600.00	90.67	88.94	6,273.79	-345.11	4,178.17	4,171.08	0.00	0.00	0.00
10,700.00	90.67	88.94	6,272.62	-343.27	4,278.15	4,271.07	0.00	0.00	0.00
10,800.00	90.67	88.94	6,271.46	-341.43	4,378.13	4,371.06	0.00	0.00	0.00
10,900.00	90.67	88.94	6,270.29	-339.58	4,478.10	4,471.06	0.00	0.00	0.00
11,000.00	90.67	88.94	6,269.13	-337.74	4,578.08	4,571.05	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-4841B2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4706.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4706.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-4841B2	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)
11,100.00	90.67	88.94	6,267.97	-335.89	4,678.06	4,671.04	0.00	0.00	0.00
11,200.00	90.67	88.94	6,266.80	-334.05	4,778.03	4,771.03	0.00	0.00	0.00
11,300.00	90.67	88.94	6,265.64	-332.20	4,878.01	4,871.03	0.00	0.00	0.00
11,400.00	90.67	88.94	6,264.48	-330.36	4,977.98	4,971.02	0.00	0.00	0.00
11,500.00	90.67	88.94	6,263.31	-328.51	5,077.96	5,071.01	0.00	0.00	0.00
11,600.00	90.67	88.94	6,262.15	-326.67	5,177.94	5,171.01	0.00	0.00	0.00
11,700.00	90.67	88.94	6,260.98	-324.83	5,277.91	5,271.00	0.00	0.00	0.00
11,800.00	90.67	88.94	6,259.82	-322.98	5,377.89	5,370.99	0.00	0.00	0.00
11,900.00	90.67	88.94	6,258.66	-321.14	5,477.87	5,470.99	0.00	0.00	0.00
12,000.00	90.67	88.94	6,257.49	-319.29	5,577.84	5,570.98	0.00	0.00	0.00
12,100.00	90.67	88.94	6,256.33	-317.45	5,677.82	5,670.97	0.00	0.00	0.00
12,200.00	90.67	88.94	6,255.17	-315.60	5,777.79	5,770.97	0.00	0.00	0.00
12,300.00	90.67	88.94	6,254.00	-313.76	5,877.77	5,870.96	0.00	0.00	0.00
12,400.00	90.67	88.94	6,252.84	-311.92	5,977.75	5,970.95	0.00	0.00	0.00
12,500.00	90.67	88.94	6,251.67	-310.07	6,077.72	6,070.95	0.00	0.00	0.00
12,600.00	90.67	88.94	6,250.51	-308.23	6,177.70	6,170.94	0.00	0.00	0.00
12,700.00	90.67	88.94	6,249.35	-306.38	6,277.68	6,270.93	0.00	0.00	0.00
12,800.00	90.67	88.94	6,248.18	-304.54	6,377.65	6,370.93	0.00	0.00	0.00
12,900.00	90.67	88.94	6,247.02	-302.69	6,477.63	6,470.92	0.00	0.00	0.00
13,000.00	90.67	88.94	6,245.86	-300.85	6,577.60	6,570.91	0.00	0.00	0.00
13,100.00	90.67	88.94	6,244.69	-299.00	6,677.58	6,670.91	0.00	0.00	0.00
13,200.00	90.67	88.94	6,243.53	-297.16	6,777.56	6,770.90	0.00	0.00	0.00
13,300.00	90.67	88.94	6,242.36	-295.32	6,877.53	6,870.89	0.00	0.00	0.00
13,400.00	90.67	88.94	6,241.20	-293.47	6,977.51	6,970.89	0.00	0.00	0.00
13,500.00	90.67	88.94	6,240.04	-291.63	7,077.49	7,070.88	0.00	0.00	0.00
13,600.00	90.67	88.94	6,238.87	-289.78	7,177.46	7,170.87	0.00	0.00	0.00
13,700.00	90.67	88.94	6,237.71	-287.94	7,277.44	7,270.87	0.00	0.00	0.00
13,800.00	90.67	88.94	6,236.55	-286.09	7,377.41	7,370.86	0.00	0.00	0.00
13,900.00	90.67	88.94	6,235.38	-284.25	7,477.39	7,470.85	0.00	0.00	0.00
14,000.00	90.67	88.94	6,234.22	-282.41	7,577.37	7,570.85	0.00	0.00	0.00
14,100.00	90.67	88.94	6,233.05	-280.56	7,677.34	7,670.84	0.00	0.00	0.00
14,200.00	90.67	88.94	6,231.89	-278.72	7,777.32	7,770.83	0.00	0.00	0.00
14,300.00	90.67	88.94	6,230.73	-276.87	7,877.29	7,870.82	0.00	0.00	0.00
14,400.00	90.67	88.94	6,229.56	-275.03	7,977.27	7,970.82	0.00	0.00	0.00
14,500.00	90.67	88.94	6,228.40	-273.18	8,077.25	8,070.81	0.00	0.00	0.00
14,600.00	90.67	88.94	6,227.24	-271.34	8,177.22	8,170.80	0.00	0.00	0.00
14,700.00	90.67	88.94	6,226.07	-269.49	8,277.20	8,270.80	0.00	0.00	0.00
14,800.00	90.67	88.94	6,224.91	-267.65	8,377.18	8,370.79	0.00	0.00	0.00
14,900.00	90.67	88.94	6,223.74	-265.81	8,477.15	8,470.78	0.00	0.00	0.00
15,000.00	90.67	88.94	6,222.58	-263.96	8,577.13	8,570.78	0.00	0.00	0.00
15,100.00	90.67	88.94	6,221.42	-262.12	8,677.10	8,670.77	0.00	0.00	0.00
15,200.00	90.67	88.94	6,220.25	-260.27	8,777.08	8,770.76	0.00	0.00	0.00
15,300.00	90.67	88.94	6,219.09	-258.43	8,877.06	8,870.76	0.00	0.00	0.00
15,400.00	90.67	88.94	6,217.93	-256.58	8,977.03	8,970.75	0.00	0.00	0.00
15,500.00	90.67	88.94	6,216.76	-254.74	9,077.01	9,070.74	0.00	0.00	0.00
15,600.00	90.67	88.94	6,215.60	-252.90	9,176.99	9,170.74	0.00	0.00	0.00
15,700.00	90.67	88.94	6,214.43	-251.05	9,276.96	9,270.73	0.00	0.00	0.00
15,800.00	90.67	88.94	6,213.27	-249.21	9,376.94	9,370.72	0.00	0.00	0.00
15,900.00	90.67	88.94	6,212.11	-247.36	9,476.91	9,470.72	0.00	0.00	0.00
16,000.00	90.67	88.94	6,210.94	-245.52	9,576.89	9,570.71	0.00	0.00	0.00
16,100.00	90.67	88.94	6,209.78	-243.67	9,676.87	9,670.70	0.00	0.00	0.00
16,200.00	90.67	88.94	6,208.62	-241.83	9,776.84	9,770.70	0.00	0.00	0.00
16,300.00	90.67	88.94	6,207.45	-239.98	9,876.82	9,870.69	0.00	0.00	0.00
16,400.00	90.67	88.94	6,206.29	-238.14	9,976.80	9,970.68	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-4841B2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4706.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4706.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-4841B2	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 16425.07									
16,425.07	90.67	88.94	6,206.00	-237.68	10,001.86	9,995.75	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	6,206.00	-237.68	10,001.86	1,384,717.164	3,339,103.881	40° 22' 59.020 N	104° 16' 57.731 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
6,628.69	6,320.00	7" Csg.	7	8-3/4	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,169.66	4,144.00	sussex		-0.67	88.94
4,984.54	4,952.00	Shannon		-0.67	88.94
6,126.88	6,082.00	Sharon Springs		-0.67	88.94
6,264.46	6,190.00	Niobrara		-0.67	88.94
6,331.88	6,233.00	A Chalk		-0.67	88.94
6,353.15	6,245.00	A Marl		-0.67	88.94
6,454.76	6,291.00	Top B Target		-0.67	88.94

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
1,254.33	1,253.43	-18.40	-11.85	Start 3764.44 hold at 1254.33 MD
5,018.77	4,989.11	-408.87	-263.28	Start Drop -2.00
5,373.10	5,342.54	-427.27	-275.13	Start 500.03 hold at 5373.10 MD
5,873.13	5,842.57	-427.27	-275.13	Start Build 12.00
6,628.69	6,320.00	-418.36	207.81	Start 9796.38 hold at 6628.69 MD
16,425.07	6,206.00	-237.68	10,001.86	TD at 16425.07