

Axia Energy

Mesa County, Colorado
Kimball Creek 23-4C-995 Pad
Kimball Creek 23-210D-995

Wellbore #1

Plan: plan1 08sept10 rbw

Standard Planning Report

08 September, 2010

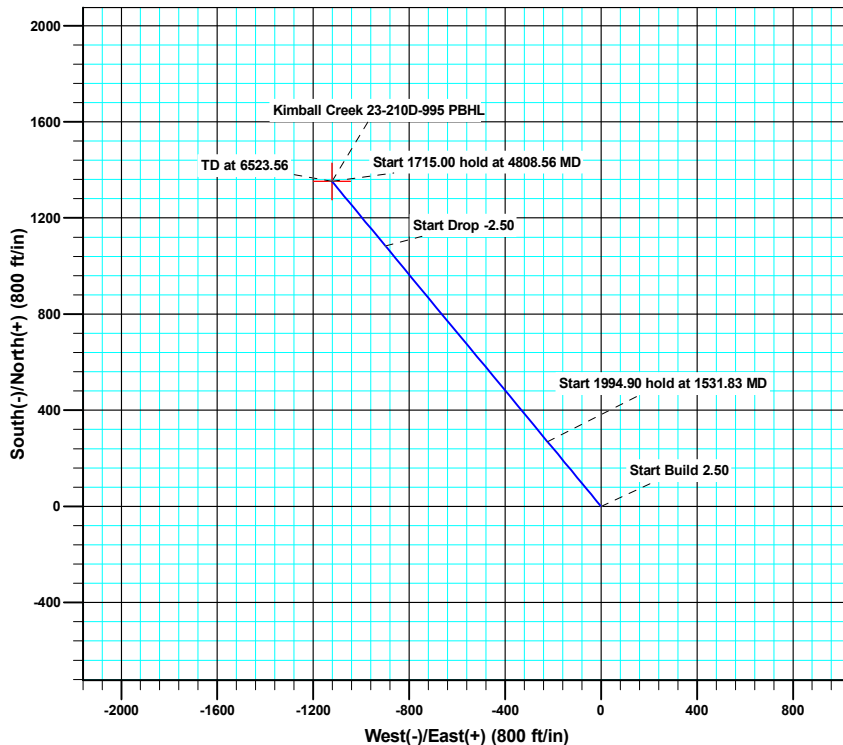
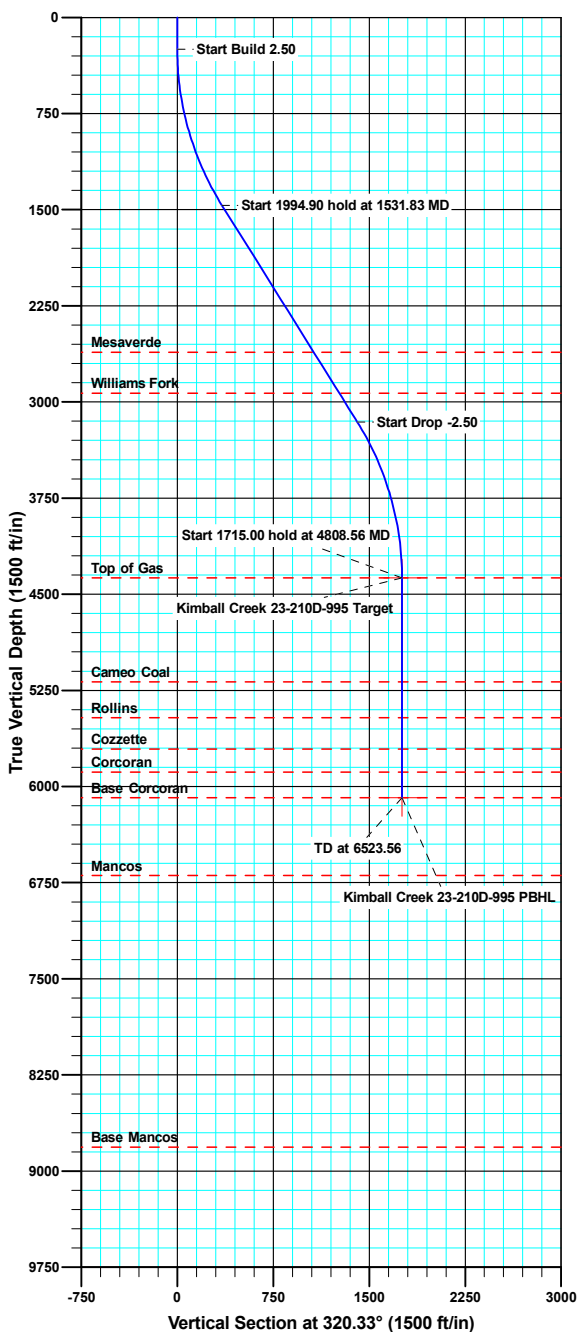




WELL DETAILS: Kimball Creek 23-210D-995

Ground Level: 6367.00

North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 +N/-S +E/-W Northing Easting Latitude Longitude
 0.00 0.00 1527977.54 2303769.36 39° 15' 25.77 N 107° 57' 32.78 W



Azimuths to True North
 Magnetic North: 10.40°

Magnetic Field
 Strength: 52198.7snT
 Dip Angle: 65.57°
 Date: 09/08/2010
 Model: IGRF2010



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	
1531.83	32.05	320.33	1466.04	268.81	-222.92	2.50	320.33	349.22	
3526.73	32.05	320.33	3156.96	1083.58	-898.61	0.00	0.00	1407.70	
4808.56	0.00	0.00	4373.00	1352.38	-1121.53	2.50	180.00	1756.92	Kimball Creek 23-210D-995 Target
6523.56	0.00	0.00	6088.00	1352.38	-1121.53	0.00	0.00	1756.92	Kimball Creek 23-210D-995 PBHL

Database:	CompassVM	Local Co-ordinate Reference:	Well Kimball Creek 23-210D-995
Company:	Axia Energy	TVD Reference:	KB @ 6383.00ft
Project:	Mesa County, Colorado	MD Reference:	KB @ 6383.00ft
Site:	Kimball Creek 23-4C-995 Pad	North Reference:	True
Well:	Kimball Creek 23-210D-995	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	plan1 08sept10 rbw		

Project	Mesa County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Kimball Creek 23-4C-995 Pad			
Site Position:		Northing:	1,527,967.87 usft	Latitude:	39° 15' 25.68 N
From:	Lat/Long	Easting:	2,303,777.31 usft	Longitude:	107° 57' 32.68 W
Position Uncertainty:	0.00 ft	Slot Radius:	1.10 ft	Grid Convergence:	-1.55 °

Well	Kimball Creek 23-210D-995					
Well Position	+N/-S	9.45 ft	Northing:	1,527,977.54 usft	Latitude:	39° 15' 25.77 N
	+E/-W	-8.21 ft	Easting:	2,303,769.36 usft	Longitude:	107° 57' 32.78 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	6,367.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/8/2010	10.40	65.57	52,199

Design	plan1 08sept10 rbw			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	320.33

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,531.83	32.05	320.33	1,466.04	268.81	-222.92	2.50	2.50	0.00	320.33	
3,526.73	32.05	320.33	3,156.96	1,083.58	-898.61	0.00	0.00	0.00	0.00	
4,808.56	0.00	0.00	4,373.00	1,352.38	-1,121.53	2.50	-2.50	0.00	180.00	Kimball Creek 23-210
6,523.56	0.00	0.00	6,088.00	1,352.38	-1,121.53	0.00	0.00	0.00	0.00	Kimball Creek 23-210

Database:	CompassVM	Local Co-ordinate Reference:	Well Kimball Creek 23-210D-995
Company:	Axia Energy	TVD Reference:	KB @ 6383.00ft
Project:	Mesa County, Colorado	MD Reference:	KB @ 6383.00ft
Site:	Kimball Creek 23-4C-995 Pad	North Reference:	True
Well:	Kimball Creek 23-210D-995	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	plan1 08sept10 rbw		

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)
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.50									
300.00	1.25	320.33	300.00	0.42	-0.35	0.55	2.50	2.50	0.00
400.00	3.75	320.33	399.89	3.78	-3.13	4.91	2.50	2.50	0.00
500.00	6.25	320.33	499.50	10.49	-8.70	13.62	2.50	2.50	0.00
600.00	8.75	320.33	598.64	20.53	-17.03	26.67	2.50	2.50	0.00
700.00	11.25	320.33	697.11	33.90	-28.11	44.04	2.50	2.50	0.00
800.00	13.75	320.33	794.74	50.56	-41.93	65.68	2.50	2.50	0.00
900.00	16.25	320.33	891.32	70.48	-58.45	91.56	2.50	2.50	0.00
1,000.00	18.75	320.33	986.69	93.62	-77.64	121.63	2.50	2.50	0.00
1,100.00	21.25	320.33	1,080.65	119.95	-99.47	155.83	2.50	2.50	0.00
1,200.00	23.75	320.33	1,173.03	149.40	-123.90	194.09	2.50	2.50	0.00
1,300.00	26.25	320.33	1,263.65	181.93	-150.87	236.35	2.50	2.50	0.00
1,400.00	28.75	320.33	1,352.35	217.47	-180.35	282.52	2.50	2.50	0.00
1,500.00	31.25	320.33	1,438.94	255.95	-212.26	332.52	2.50	2.50	0.00
1,531.83	32.05	320.33	1,466.04	268.81	-222.92	349.22	2.50	2.50	0.00
Start 1994.90 hold at 1531.83 MD									
1,600.00	32.05	320.33	1,523.82	296.65	-246.01	385.39	0.00	0.00	0.00
1,700.00	32.05	320.33	1,608.58	337.49	-279.88	438.45	0.00	0.00	0.00
1,800.00	32.05	320.33	1,693.34	378.34	-313.75	491.51	0.00	0.00	0.00
1,900.00	32.05	320.33	1,778.11	419.18	-347.63	544.57	0.00	0.00	0.00
2,000.00	32.05	320.33	1,862.87	460.02	-381.50	597.63	0.00	0.00	0.00
2,100.00	32.05	320.33	1,947.63	500.86	-415.37	650.69	0.00	0.00	0.00
2,200.00	32.05	320.33	2,032.39	541.71	-449.24	703.75	0.00	0.00	0.00
2,300.00	32.05	320.33	2,117.16	582.55	-483.11	756.81	0.00	0.00	0.00
2,400.00	32.05	320.33	2,201.92	623.39	-516.98	809.87	0.00	0.00	0.00
2,500.00	32.05	320.33	2,286.68	664.23	-550.85	862.93	0.00	0.00	0.00
2,600.00	32.05	320.33	2,371.44	705.08	-584.72	915.99	0.00	0.00	0.00
2,700.00	32.05	320.33	2,456.21	745.92	-618.59	969.05	0.00	0.00	0.00
2,800.00	32.05	320.33	2,540.97	786.76	-652.46	1,022.10	0.00	0.00	0.00
2,884.98	32.05	320.33	2,613.00	821.47	-681.24	1,067.19	0.00	0.00	0.00
Mesaverde									
2,900.00	32.05	320.33	2,625.73	827.60	-686.33	1,075.16	0.00	0.00	0.00
3,000.00	32.05	320.33	2,710.49	868.45	-720.20	1,128.22	0.00	0.00	0.00
3,100.00	32.05	320.33	2,795.26	909.29	-754.07	1,181.28	0.00	0.00	0.00
3,200.00	32.05	320.33	2,880.02	950.13	-787.94	1,234.34	0.00	0.00	0.00
3,262.51	32.05	320.33	2,933.00	975.66	-809.11	1,267.51	0.00	0.00	0.00
Williams Fork									
3,300.00	32.05	320.33	2,964.78	990.97	-821.81	1,287.40	0.00	0.00	0.00
3,400.00	32.05	320.33	3,049.54	1,031.82	-855.68	1,340.46	0.00	0.00	0.00
3,500.00	32.05	320.33	3,134.31	1,072.66	-889.56	1,393.52	0.00	0.00	0.00
3,526.73	32.05	320.33	3,156.96	1,083.58	-898.61	1,407.70	0.00	0.00	0.00
Start Drop -2.50									
3,600.00	30.21	320.33	3,219.68	1,112.73	-922.79	1,445.58	2.50	-2.50	0.00
3,700.00	27.71	320.33	3,307.17	1,150.00	-953.70	1,494.00	2.50	-2.50	0.00
3,800.00	25.21	320.33	3,396.68	1,184.30	-982.14	1,538.56	2.50	-2.50	0.00
3,900.00	22.71	320.33	3,488.05	1,215.57	-1,008.07	1,579.18	2.50	-2.50	0.00
4,000.00	20.21	320.33	3,581.11	1,243.73	-1,031.42	1,615.77	2.50	-2.50	0.00
4,100.00	17.71	320.33	3,675.67	1,268.74	-1,052.17	1,648.26	2.50	-2.50	0.00
4,200.00	15.21	320.33	3,771.57	1,290.56	-1,070.26	1,676.60	2.50	-2.50	0.00
4,300.00	12.71	320.33	3,868.60	1,309.13	-1,085.66	1,700.73	2.50	-2.50	0.00
4,400.00	10.21	320.33	3,966.60	1,324.43	-1,098.35	1,720.60	2.50	-2.50	0.00
4,500.00	7.71	320.33	4,065.37	1,336.42	-1,108.29	1,736.18	2.50	-2.50	0.00

Database:	CompassVM	Local Co-ordinate Reference:	Well Kimball Creek 23-210D-995
Company:	Axia Energy	TVD Reference:	KB @ 6383.00ft
Project:	Mesa County, Colorado	MD Reference:	KB @ 6383.00ft
Site:	Kimball Creek 23-4C-995 Pad	North Reference:	True
Well:	Kimball Creek 23-210D-995	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	plan1 08sept10 rbw		

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	5.21	320.33	4,164.73	1,345.09	-1,115.48	1,747.44	2.50	-2.50	0.00
4,700.00	2.71	320.33	4,264.48	1,350.41	-1,119.89	1,754.35	2.50	-2.50	0.00
4,800.00	0.21	320.33	4,364.44	1,352.37	-1,121.52	1,756.91	2.50	-2.50	0.00
4,808.56	0.00	0.00	4,373.00	1,352.38	-1,121.53	1,756.92	2.50	-2.50	0.00
Start 1715.00 hold at 4808.56 MD - Top of Gas - Kimball Creek 23-210D-995 Target									
4,900.00	0.00	0.00	4,464.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
5,000.00	0.00	0.00	4,564.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
5,100.00	0.00	0.00	4,664.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
5,200.00	0.00	0.00	4,764.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
5,300.00	0.00	0.00	4,864.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
5,400.00	0.00	0.00	4,964.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
5,500.00	0.00	0.00	5,064.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
5,600.00	0.00	0.00	5,164.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
5,618.56	0.00	0.00	5,183.00	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
Cameo Coal									
5,700.00	0.00	0.00	5,264.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
5,800.00	0.00	0.00	5,364.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
5,898.56	0.00	0.00	5,463.00	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
Rollins									
5,900.00	0.00	0.00	5,464.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
6,000.00	0.00	0.00	5,564.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
6,100.00	0.00	0.00	5,664.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
6,143.56	0.00	0.00	5,708.00	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
Cozzette									
6,200.00	0.00	0.00	5,764.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
6,300.00	0.00	0.00	5,864.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
6,323.56	0.00	0.00	5,888.00	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
Corcoran									
6,400.00	0.00	0.00	5,964.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
6,500.00	0.00	0.00	6,064.44	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
6,523.56	0.00	0.00	6,088.00	1,352.38	-1,121.53	1,756.92	0.00	0.00	0.00
TD at 6523.56 - Base Corcoran - Kimball Creek 23-210D-995 PBHL									

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									
Kimball Creek 23-210D- - plan hits target center - Point	0.00	0.00	4,373.00	1,352.38	-1,121.53	1,529,359.78	2,302,684.84	39° 15' 39.14 N	107° 57' 47.04 W
Kimball Creek 23-210D- - plan hits target center - Point	0.00	0.00	6,088.00	1,352.38	-1,121.53	1,529,359.78	2,302,684.84	39° 15' 39.14 N	107° 57' 47.04 W

Database:	CompassVM	Local Co-ordinate Reference:	Well Kimball Creek 23-210D-995
Company:	Axia Energy	TVD Reference:	KB @ 6383.00ft
Project:	Mesa County, Colorado	MD Reference:	KB @ 6383.00ft
Site:	Kimball Creek 23-4C-995 Pad	North Reference:	True
Well:	Kimball Creek 23-210D-995	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	plan1 08sept10 rbw		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,884.98	2,613.00	Mesaverde		0.00	
3,262.51	2,933.00	Williams Fork		0.00	
4,808.56	4,373.00	Top of Gas		0.00	
5,618.56	5,183.00	Cameo Coal		0.00	
5,898.56	5,463.00	Rollins		0.00	
6,143.56	5,708.00	Cozzette		0.00	
6,323.56	5,888.00	Corcoran		0.00	
6,523.56	6,088.00	Base Corcoran		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
250.00	250.00	0.00	0.00	Start Build 2.50	
1,531.83	1,466.04	268.81	-222.92	Start 1994.90 hold at 1531.83 MD	
3,526.73	3,156.96	1,083.58	-898.61	Start Drop -2.50	
4,808.56	4,373.00	1,352.38	-1,121.53	Start 1715.00 hold at 4808.56 MD	
6,523.56	6,088.00	1,352.38	-1,121.53	TD at 6523.56	