

Antero Resources

McLin

McLin B

McLIN B17 (111161)

ANTERO McLIN B17

Plan: P02

Standard Planning Report - Geographic

16 March, 2012

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well McLIN B17 (111161)
Company:	Antero Resources	TVD Reference:	RKB @ 5622.00ft
Project:	McLin	MD Reference:	RKB @ 5622.00ft
Site:	McLin B	North Reference:	Grid
Well:	McLIN B17 (111161)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B17		
Design:	P02		

Project	McLin		
Map System:	Universal Transverse Mercator	System Datum:	Mean Sea Level
Geo Datum:	NAD83 Colorado - HARN		
Map Zone:	Zone 13N (108 W to 102 W)		

Site	McLin B				
Site Position:		Northing:	14,366,636.75 usft	Latitude:	39.531054942°N
From:	Lat/Long	Easting:	904,982.97 usft	Longitude:	107.608143570°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	-1.66 °

Well	McLIN B17 (111161)					
Well Position	+N-S	0.00 ft	Northing:	14,366,624.33 usft	Latitude:	39.531018055°N
	+E-W	0.00 ft	Easting:	904,947.59 usft	Longitude:	107.608267657°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,598.00 ft

Wellbore	ANTERO McLIN B17				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	06/16/12	10.05	65.81	52,221

Design	P02			
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	216.42

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	
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,825.65	20.27	216.42	1,811.64	-95.17	-70.22	3.00	3.00	0.00	216.42	
3,572.54	20.27	216.42	3,450.36	-582.16	-429.52	0.00	0.00	0.00	0.00	
4,248.19	0.00	216.42	4,112.00	-677.33	-499.74	3.00	-3.00	0.00	180.00	
7,098.19	0.00	216.42	6,962.00	-677.33	-499.74	0.00	0.00	0.00	216.42	TD B17 P02

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well McLIN B17 (111161)
Company:	Antero Resources	TVD Reference:	RKB @ 5622.00ft
Project:	McLin	MD Reference:	RKB @ 5622.00ft
Site:	McLin B	North Reference:	Grid
Well:	McLIN B17 (111161)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B17		
Design:	P02		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	14,366,624.33	904,947.59	39.531018055°N	107.608267657°W	
Wasatch										
100.00	0.00	0.00	100.00	0.00	0.00	14,366,624.33	904,947.59	39.531018055°N	107.608267657°W	
200.00	0.00	0.00	200.00	0.00	0.00	14,366,624.33	904,947.59	39.531018055°N	107.608267657°W	
300.00	0.00	0.00	300.00	0.00	0.00	14,366,624.33	904,947.59	39.531018055°N	107.608267657°W	
400.00	0.00	0.00	400.00	0.00	0.00	14,366,624.33	904,947.59	39.531018055°N	107.608267657°W	
500.00	0.00	0.00	500.00	0.00	0.00	14,366,624.33	904,947.59	39.531018055°N	107.608267657°W	
600.00	0.00	0.00	600.00	0.00	0.00	14,366,624.33	904,947.59	39.531018055°N	107.608267657°W	
700.00	0.00	0.00	700.00	0.00	0.00	14,366,624.33	904,947.59	39.531018055°N	107.608267657°W	
800.00	0.00	0.00	800.00	0.00	0.00	14,366,624.33	904,947.59	39.531018055°N	107.608267657°W	
900.00	0.00	0.00	900.00	0.00	0.00	14,366,624.33	904,947.59	39.531018055°N	107.608267657°W	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,366,624.33	904,947.59	39.531018055°N	107.608267657°W	
Surf Csg at 1000 MD/TVD										
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,366,624.33	904,947.59	39.531018055°N	107.608267657°W	
1,150.00	0.00	0.00	1,150.00	0.00	0.00	14,366,624.33	904,947.59	39.531018055°N	107.608267657°W	
KOP 3°/100 at 1150 MD/TVD										
1,200.00	1.50	216.42	1,199.99	-0.53	-0.39	14,366,623.81	904,947.20	39.531016579°N	107.608268980°W	
1,300.00	4.50	216.42	1,299.85	-4.74	-3.50	14,366,619.60	904,944.09	39.531004779°N	107.608279555°W	
1,400.00	7.50	216.42	1,399.29	-13.15	-9.70	14,366,611.19	904,937.88	39.530981211°N	107.608300675°W	
1,500.00	10.50	216.42	1,498.04	-25.73	-18.99	14,366,598.60	904,928.60	39.530945941°N	107.608332284°W	
1,600.00	13.50	216.42	1,595.85	-42.46	-31.33	14,366,581.87	904,916.26	39.530899063°N	107.608374293°W	
1,700.00	16.50	216.42	1,692.43	-63.29	-46.69	14,366,561.05	904,900.89	39.530840708°N	107.608426589°W	
1,800.00	19.50	216.42	1,787.52	-88.15	-65.04	14,366,536.18	904,882.55	39.530771035°N	107.608489027°W	
1,825.65	20.27	216.42	1,811.64	-95.17	-70.22	14,366,529.16	904,877.37	39.530751362°N	107.608506657°W	
Hold 20° at 1826 MD/1812 TVD										
1,900.00	20.27	216.42	1,881.39	-115.90	-85.51	14,366,508.44	904,862.08	39.530693281°N	107.608558707°W	
2,000.00	20.27	216.42	1,975.20	-143.77	-106.08	14,366,480.56	904,841.51	39.530615161°N	107.608628714°W	
2,100.00	20.27	216.42	2,069.01	-171.65	-126.65	14,366,452.68	904,820.94	39.530537042°N	107.608698721°W	
2,200.00	20.27	216.42	2,162.81	-199.53	-147.21	14,366,424.80	904,800.37	39.530458923°N	107.608768727°W	
2,300.00	20.27	216.42	2,256.62	-227.41	-167.78	14,366,396.93	904,779.80	39.530380804°N	107.608838733°W	
2,400.00	20.27	216.42	2,350.43	-255.28	-188.35	14,366,369.05	904,759.24	39.530302684°N	107.608908739°W	
2,500.00	20.27	216.42	2,444.23	-283.16	-208.92	14,366,341.17	904,738.67	39.530224565°N	107.608978745°W	
2,600.00	20.27	216.42	2,538.04	-311.04	-229.49	14,366,313.30	904,718.10	39.530146446°N	107.609048751°W	
2,700.00	20.27	216.42	2,631.85	-338.92	-250.05	14,366,285.42	904,697.53	39.530068326°N	107.609118757°W	
2,800.00	20.27	216.42	2,725.66	-366.79	-270.62	14,366,257.54	904,676.96	39.529990207°N	107.609188763°W	
2,900.00	20.27	216.42	2,819.46	-394.67	-291.19	14,366,229.66	904,656.40	39.529912087°N	107.609258768°W	
3,000.00	20.27	216.42	2,913.27	-422.55	-311.76	14,366,201.79	904,635.83	39.529833968°N	107.609328773°W	
3,100.00	20.27	216.42	3,007.08	-450.42	-332.33	14,366,173.91	904,615.26	39.529755848°N	107.609398778°W	
3,200.00	20.27	216.42	3,100.89	-478.30	-352.89	14,366,146.03	904,594.69	39.529677728°N	107.609468783°W	
3,300.00	20.27	216.42	3,194.69	-506.18	-373.46	14,366,118.16	904,574.12	39.529599609°N	107.609538788°W	
3,400.00	20.27	216.42	3,288.50	-534.06	-394.03	14,366,090.28	904,553.56	39.529521489°N	107.609608793°W	
3,425.05	20.27	216.42	3,312.00	-541.04	-399.18	14,366,083.29	904,548.40	39.529501919°N	107.609626329°W	
Mesaverde										
3,500.00	20.27	216.42	3,382.31	-561.93	-414.60	14,366,062.40	904,532.99	39.529443369°N	107.609678797°W	
3,572.54	20.27	216.42	3,450.36	-582.16	-429.52	14,366,042.18	904,518.07	39.529386702°N	107.609729578°W	
Drop 3°/100 at 3573 MD/3450 TVD										
3,600.00	19.45	216.42	3,476.18	-589.66	-435.06	14,366,034.67	904,512.53	39.529365668°N	107.609748426°W	
3,700.00	16.45	216.42	3,571.31	-614.45	-453.35	14,366,009.88	904,494.24	39.529296197°N	107.609810680°W	
3,800.00	13.45	216.42	3,667.91	-635.20	-468.66	14,365,989.13	904,478.93	39.529238048°N	107.609862788°W	
3,900.00	10.45	216.42	3,765.74	-651.86	-480.94	14,365,972.48	904,466.64	39.529191379°N	107.609904608°W	
4,000.00	7.45	216.42	3,864.51	-664.37	-490.17	14,365,959.97	904,457.41	39.529156319°N	107.609936026°W	
4,100.00	4.45	216.42	3,963.96	-672.70	-496.32	14,365,951.63	904,451.26	39.529132964°N	107.609956955°W	
4,200.00	1.45	216.42	4,063.82	-676.84	-499.37	14,365,947.50	904,448.21	39.529121377°N	107.609967338°W	

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Company:	Antero Resources	TVD Reference:	RKB @ 5622.00ft
Project:	McLin	MD Reference:	RKB @ 5622.00ft
Site:	McLin B	North Reference:	Gnd
Well:	McLIN B17 (111161)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B17		
Design:	P02		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,248.19	0.00	216.42	4,112.00	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
Vertical at 4248 MD/4112 TVD - Price Coal									
4,300.00	0.00	216.42	4,163.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
4,400.00	0.00	216.42	4,263.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
4,500.00	0.00	216.42	4,363.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
4,600.00	0.00	216.42	4,463.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
4,700.00	0.00	216.42	4,563.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
4,800.00	0.00	216.42	4,663.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
4,900.00	0.00	216.42	4,763.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
4,948.19	0.00	216.42	4,812.00	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
Top Gas									
5,000.00	0.00	216.42	4,863.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
5,100.00	0.00	216.42	4,963.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
5,200.00	0.00	216.42	5,063.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
5,300.00	0.00	216.42	5,163.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
5,400.00	0.00	216.42	5,263.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
5,500.00	0.00	216.42	5,363.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
5,600.00	0.00	216.42	5,463.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
5,700.00	0.00	216.42	5,563.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
5,800.00	0.00	216.42	5,663.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
5,848.19	0.00	216.42	5,712.00	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
Cameo									
5,900.00	0.00	216.42	5,763.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
6,000.00	0.00	216.42	5,863.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
6,100.00	0.00	216.42	5,963.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
6,200.00	0.00	216.42	6,063.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
6,300.00	0.00	216.42	6,163.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
6,400.00	0.00	216.42	6,263.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
6,500.00	0.00	216.42	6,363.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
6,600.00	0.00	216.42	6,463.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
6,700.00	0.00	216.42	6,563.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
6,800.00	0.00	216.42	6,663.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
6,900.00	0.00	216.42	6,763.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
6,948.19	0.00	216.42	6,812.00	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
Rollins									
7,000.00	0.00	216.42	6,863.81	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
7,098.19	0.00	216.42	6,962.00	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
TD at 7098 MD/6962 TVD									

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									
TD B17 P02	0.00	360.00	6,962.00	-677.33	-499.74	14,365,947.01	904,447.85	39.529120006°N	107.609968566°W
- plan hits target center									
- Circle (radius 20.00)									

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well McLIN B17 (111161)
Company:	Antero Resources	TVD Reference:	RKB @ 5622.00ft
Project:	McLin	MD Reference:	RKB @ 5622.00ft
Site:	McLin B	North Reference:	Grd
Well:	McLIN B17 (111161)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B17		
Design:	P02		

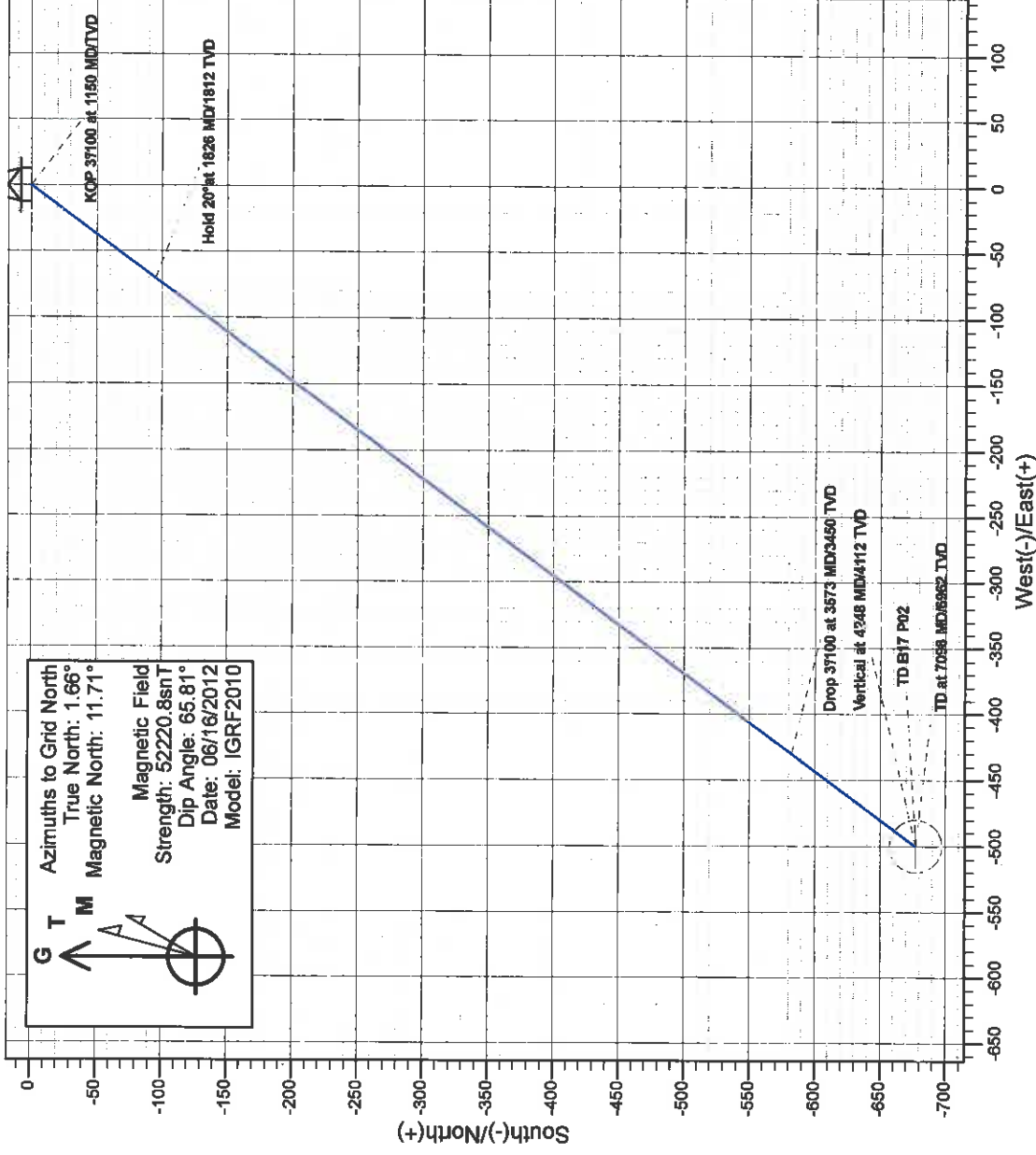
Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (In)	Hole Diameter (In)
1,000.00	1,000.00	Surf Csg at 1000 MD/TVD	9.62	12.25

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
0.00	0.00	Wasatch			
3,425.05	3,312.00	Mesaverde			
4,248.19	4,112.00	Price Coal			
4,948.19	4,812.00	Top Gas			
5,848.19	5,712.00	Cameo			
6,948.19	6,812.00	Rollins			

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,150.00	1,150.00	0.00	0.00	KOP 3°/100 at 1150 MD/TVD
1,825.65	1,811.64	-95.17	-70.22	Hold 20° at 1826 MD/1812 TVD
3,572.54	3,450.36	-582.16	-429.52	Drop 3°/100 at 3573 MD/3450 TVD
4,248.19	4,112.00	-677.33	-499.74	Vertical at 4248 MD/4112 TVD
7,098.19	6,962.00	-677.33	-499.74	TD at 7098 MD/6962 TVD



McLIN B17 (111161)
P02



ordinate (N/E) Reference: Well McJIN B17 ('11161'), Grid North
 erical (TVD) Reference: RKB @ 5622.00ft
 Section (VS) Reference: Slot - (0.00N, 0.00E)
 ured Depth Reference: RKB @ 5622.00ft
 Calculation Method: Minimum Curvature

Geodetic System: Universal Transverse Mercator
Datum: NAD83 Colorado - HARN
Ellipsoid: GRS 1980
Zone: Zone 13N (108 W to 102 W)
System Datum: Mean Sea Level

[illegible]