



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well McLIN B02 (111146), Grid North
Vertical (TVD) Reference: RKB @ 5622.00ft
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: RKB @ 5622.00ft
Calculation Method: Minimum Curvature

PROJECT DETAILS: McLIN

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

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1150.00	0.00	0.00	1150.00	0.00	0.00	0.00	0.00	0.00	
2480.68	39.92	341.17	2375.60	421.28	-143.70	3.00	341.17	445.12	
3659.13	39.92	341.17	3279.40	1137.03	-387.84	0.00	0.00	1201.36	
4989.81	0.00	0.00	4505.00	1558.32	-531.54	3.00	180.00	1646.48	
7382.81	0.00	0.00	6898.00	1558.32	-531.54	0.00	0.00	1646.48	TD B2 P03

Antero Resources

McLin

McLin B

McLIN B02 (111146)

ANTERO McLIN B2

Plan: P03

Standard Planning Report - Geographic

20 March, 2012

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well McLIN B02 (111146)
Company:	Antero Resources	TVD Reference:	RKB @ 5622.00ft
Project:	McLin	MD Reference:	RKB @ 5622.00ft
Site:	McLin B	North Reference:	Grid
Well:	McLIN B02 (111146)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B2		
Design:	P03		

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

Well	McLIN B02 (111146)		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	
		Latitude:	39.531043682°N
		Longitude:	107.608092428°W
		Ground Level:	5,598.00 ft

Wellbore	ANTERO McLIN B2				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	06/13/12	10.05	65.81	52,222

Design	P03				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	341.17	

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100ft)	(°/100ft)	(°/100ft)		
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	
2,480.68	39.92	341.17	2,375.60	421.28	-143.70	3.00	3.00	0.00	341.17	
3,659.13	39.92	341.17	3,279.40	1,137.03	-387.84	0.00	0.00	0.00	0.00	
4,989.81	0.00	0.00	4,505.00	1,558.32	-531.54	3.00	-3.00	0.00	180.00	
7,382.81	0.00	0.00	6,898.00	1,558.32	-531.54	0.00	0.00	0.00	0.00	TD B2 P03

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well McLIN B02 (111146)
Company:	Antero Resources	TVD Reference:	RKB @ 5622.00ft
Project:	McLin	MD Reference:	RKB @ 5622.00ft
Site:	McLin B	North Reference:	Grid
Well:	McLIN B02 (111146)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B2		
Design:	P03		

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	14,366,632.23	904,997.27	39.531043682°N	107.608092428°W
Wasatch									
100.00	0.00	0.00	100.00	0.00	0.00	14,366,632.23	904,997.27	39.531043682°N	107.608092428°W
200.00	0.00	0.00	200.00	0.00	0.00	14,366,632.23	904,997.27	39.531043682°N	107.608092428°W
300.00	0.00	0.00	300.00	0.00	0.00	14,366,632.23	904,997.27	39.531043682°N	107.608092428°W
400.00	0.00	0.00	400.00	0.00	0.00	14,366,632.23	904,997.27	39.531043682°N	107.608092428°W
500.00	0.00	0.00	500.00	0.00	0.00	14,366,632.23	904,997.27	39.531043682°N	107.608092428°W
600.00	0.00	0.00	600.00	0.00	0.00	14,366,632.23	904,997.27	39.531043682°N	107.608092428°W
700.00	0.00	0.00	700.00	0.00	0.00	14,366,632.23	904,997.27	39.531043682°N	107.608092428°W
800.00	0.00	0.00	800.00	0.00	0.00	14,366,632.23	904,997.27	39.531043682°N	107.608092428°W
900.00	0.00	0.00	900.00	0.00	0.00	14,366,632.23	904,997.27	39.531043682°N	107.608092428°W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,366,632.23	904,997.27	39.531043682°N	107.608092428°W
Surf Csg at 1000 MD/TVD									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,366,632.23	904,997.27	39.531043682°N	107.608092428°W
1,150.00	0.00	0.00	1,150.00	0.00	0.00	14,366,632.23	904,997.27	39.531043682°N	107.608092428°W
KOP 3°/100 at 1150 MD/TVD									
1,200.00	1.50	341.17	1,199.99	0.62	-0.21	14,366,632.85	904,997.06	39.531045365°N	107.608093241°W
1,300.00	4.50	341.17	1,299.85	5.57	-1.90	14,366,637.81	904,995.37	39.531058819°N	107.608099735°W
1,400.00	7.50	341.17	1,399.29	15.46	-5.27	14,366,647.70	904,992.00	39.531085689°N	107.608112705°W
1,500.00	10.50	341.17	1,498.04	30.27	-10.32	14,366,662.50	904,986.95	39.531125904°N	107.608132117°W
1,600.00	13.50	341.17	1,595.85	49.94	-17.04	14,366,682.18	904,980.24	39.531179351°N	107.608157916°W
1,700.00	16.50	341.17	1,692.43	74.44	-25.39	14,366,706.67	904,971.88	39.531245885°N	107.608190032°W
1,800.00	19.50	341.17	1,787.52	103.68	-35.37	14,366,735.91	904,961.91	39.531325324°N	107.608228377°W
1,900.00	22.50	341.17	1,880.87	137.60	-46.93	14,366,769.83	904,950.34	39.531417449°N	107.608272847°W
2,000.00	25.50	341.17	1,972.22	176.09	-60.06	14,366,808.32	904,937.21	39.531522008°N	107.608323318°W
2,100.00	28.50	341.17	2,061.31	219.05	-74.72	14,366,851.28	904,922.56	39.531638714°N	107.608379653°W
2,200.00	31.50	341.17	2,147.90	266.37	-90.86	14,366,898.60	904,906.42	39.531767248°N	107.608441698°W
2,300.00	34.50	341.17	2,231.76	317.91	-108.44	14,366,950.14	904,888.83	39.531907257°N	107.608509282°W
2,400.00	37.50	341.17	2,312.65	373.53	-127.41	14,367,005.77	904,869.86	39.532058357°N	107.608582220°W
2,480.68	39.92	341.17	2,375.60	421.28	-143.70	14,367,053.52	904,853.57	39.532188066°N	107.608644833°W
Hold 40° at 2481 MD/2376 TVD									
2,500.00	39.92	341.17	2,390.42	433.02	-147.70	14,367,065.25	904,849.57	39.532219943°N	107.608660220°W
2,600.00	39.92	341.17	2,467.11	493.75	-168.42	14,367,125.99	904,828.85	39.532384928°N	107.608739862°W
2,700.00	39.92	341.17	2,543.80	554.49	-189.14	14,367,186.72	904,808.14	39.532549912°N	107.608819504°W
2,800.00	39.92	341.17	2,620.50	615.23	-209.85	14,367,247.46	904,787.42	39.532714897°N	107.608899146°W
2,900.00	39.92	341.17	2,697.19	675.96	-230.57	14,367,308.19	904,766.70	39.532879881°N	107.608978788°W
3,000.00	39.92	341.17	2,773.89	736.70	-251.29	14,367,368.93	904,745.99	39.533044866°N	107.609058431°W
3,100.00	39.92	341.17	2,850.58	797.44	-272.00	14,367,429.67	904,725.27	39.533209850°N	107.609138075°W
3,200.00	39.92	341.17	2,927.27	858.17	-292.72	14,367,490.40	904,704.55	39.533374834°N	107.609217718°W
3,300.00	39.92	341.17	3,003.97	918.91	-313.44	14,367,551.14	904,683.83	39.533539819°N	107.609297363°W
3,400.00	39.92	341.17	3,080.66	979.64	-334.16	14,367,611.87	904,663.12	39.533704803°N	107.609377007°W
3,500.00	39.92	341.17	3,157.35	1,040.38	-354.87	14,367,672.61	904,642.40	39.533869787°N	107.609456652°W
3,600.00	39.92	341.17	3,234.05	1,101.12	-375.59	14,367,733.35	904,621.68	39.534034771°N	107.609536297°W
3,618.19	39.92	341.17	3,248.00	1,112.16	-379.36	14,367,744.40	904,617.91	39.534064784°N	107.609550786°W
Mesaverde									
3,659.13	39.92	341.17	3,279.40	1,137.03	-387.84	14,367,769.26	904,609.43	39.534132334°N	107.609583396°W
Drop 3°/100 at 3659 MD/3279 TVD									
3,700.00	38.69	341.17	3,311.02	1,161.53	-396.20	14,367,793.76	904,601.08	39.534198887°N	107.609615524°W
3,800.00	35.69	341.17	3,390.67	1,218.74	-415.71	14,367,850.97	904,581.56	39.534354289°N	107.609690545°W
3,900.00	32.69	341.17	3,473.37	1,271.93	-433.85	14,367,904.16	904,563.42	39.534498761°N	107.609760289°W
4,000.00	29.69	341.17	3,558.91	1,320.94	-450.57	14,367,953.17	904,546.70	39.534631906°N	107.609824566°W
4,100.00	26.69	341.17	3,647.03	1,365.65	-465.82	14,367,997.88	904,531.45	39.534753361°N	107.609883199°W
4,200.00	23.69	341.17	3,737.51	1,405.94	-479.56	14,368,038.17	904,517.71	39.534862791°N	107.609936028°W
4,300.00	20.69	341.17	3,830.09	1,441.69	-491.76	14,368,073.92	904,505.52	39.534959898°N	107.609982907°W

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well McLIN B02 (111146)
Company:	Antero Resources	TVD Reference:	RKB @ 5622.00ft
Project:	McLin	MD Reference:	RKB @ 5622.00ft
Site:	McLin B	North Reference:	Grid
Well:	McLIN B02 (111146)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B2		
Design:	P03		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,400.00	17.69	341.17	3,924.52	1,472.80	-502.37	14,368,105.03	904,494.90	39.535044415°N	107.610023708°W
4,500.00	14.69	341.17	4,020.54	1,499.19	-511.37	14,368,131.42	904,485.90	39.535116110°N	107.610058320°W
4,528.34	13.84	341.17	4,048.00	1,505.80	-513.63	14,368,138.03	904,483.65	39.535134066°N	107.610066989°W
Price Coal									
4,600.00	11.69	341.17	4,117.89	1,520.79	-518.74	14,368,153.02	904,478.53	39.535174786°N	107.610086647°W
4,700.00	8.69	341.17	4,216.30	1,537.54	-524.46	14,368,169.77	904,472.82	39.535220284°N	107.610108612°W
4,800.00	5.69	341.17	4,315.50	1,549.40	-528.50	14,368,181.63	904,468.78	39.535252478°N	107.610124154°W
4,900.00	2.69	341.17	4,415.22	1,556.32	-530.86	14,368,188.55	904,466.42	39.535271280°N	107.610133231°W
4,989.81	0.00	0.00	4,505.00	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
Vertical at 4990 MD/4505 TVD									
5,000.00	0.00	0.00	4,515.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
5,100.00	0.00	0.00	4,615.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
5,200.00	0.00	0.00	4,715.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
5,232.81	0.00	0.00	4,748.00	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
Top Gas									
5,300.00	0.00	0.00	4,815.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
5,400.00	0.00	0.00	4,915.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
5,500.00	0.00	0.00	5,015.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
5,600.00	0.00	0.00	5,115.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
5,700.00	0.00	0.00	5,215.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
5,800.00	0.00	0.00	5,315.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
5,900.00	0.00	0.00	5,415.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
6,000.00	0.00	0.00	5,515.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
6,100.00	0.00	0.00	5,615.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
6,132.81	0.00	0.00	5,648.00	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
Cameo									
6,200.00	0.00	0.00	5,715.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
6,300.00	0.00	0.00	5,815.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
6,400.00	0.00	0.00	5,915.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
6,500.00	0.00	0.00	6,015.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
6,600.00	0.00	0.00	6,115.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
6,700.00	0.00	0.00	6,215.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
6,800.00	0.00	0.00	6,315.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
6,900.00	0.00	0.00	6,415.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
7,000.00	0.00	0.00	6,515.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
7,100.00	0.00	0.00	6,615.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
7,200.00	0.00	0.00	6,715.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
7,232.81	0.00	0.00	6,748.00	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
Rollins									
7,300.00	0.00	0.00	6,815.19	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
7,382.81	0.00	0.00	6,898.00	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
TD at 7383 MD/6898 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 B2 P03	0.00	0.00	6,898.00	1,558.32	-531.54	14,368,190.55	904,465.73	39.535276708°N	107.610135851°W
- plan hits target center									
- Circle (radius 20.00)									

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well McLIN B02 (111146)
Company:	Antero Resources	TVD Reference:	RKB @ 5622.00ft
Project:	McLin	MD Reference:	RKB @ 5622.00ft
Site:	McLin B	North Reference:	Grid
Well:	McLIN B02 (111146)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B2		
Design:	P03		

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	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
0.00	0.00	Wasatch				
3,618.19	3,248.00	Mesaverde				
4,528.34	4,048.00	Price Coal				
5,232.81	4,748.00	Top Gas				
6,132.81	5,648.00	Cameo				
7,232.81	6,748.00	Rollins				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,150.00	1,150.00	0.00	0.00	KOP 3°/100 at 1150 MD/TVD	
2,480.68	2,375.60	421.28	-143.70	Hold 40° at 2481 MD/2376 TVD	
3,659.13	3,279.40	1,137.03	-387.84	Drop 3°/100 at 3659 MD/3279 TVD	
4,989.81	4,505.00	1,558.32	-531.54	Vertical at 4990 MD/4505 TVD	
7,382.81	6,898.00	1,558.32	-531.54	TD at 7383 MD/6898 TVD	