



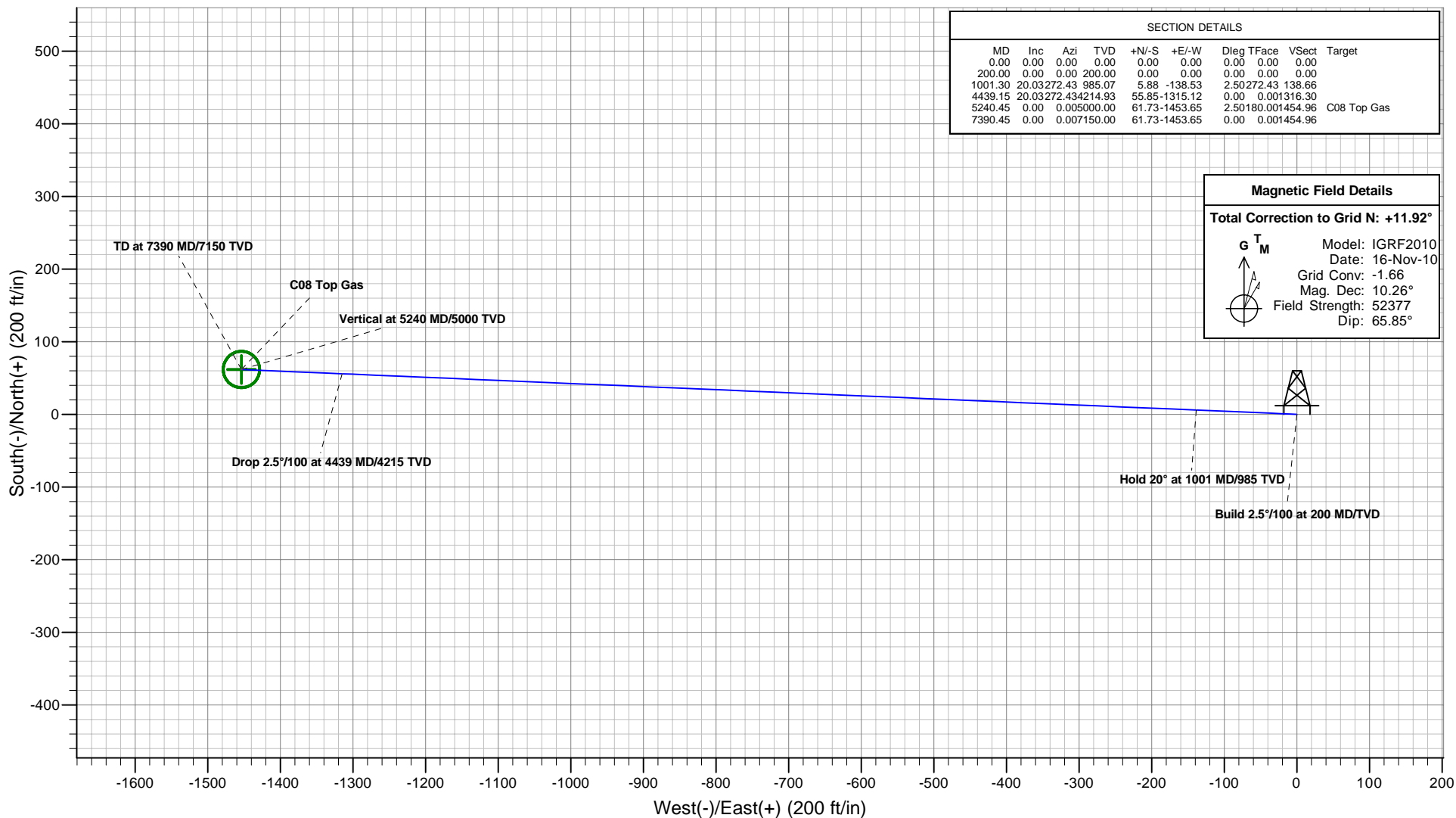
Antero Resources

McLin C08 (111227)



PLAN VIEW

Project: McLin
Site: McLin C
Well: McLin C08 (111227)
Wellbore: McLin C08
Design: McLin C08 P01



Plan: McLin C08 P01
Created By: ARK Directional Services
Date: 16:22, August 16 2010

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

REFERENCE INFORMATION
Co-ordinate (N/E) Reference: Well McLin C08 (111227) - Slot C08, Grid North
Vertical (TVD) Reference: KB @ 5750.00ft (Original Well Elev)
Section (VS) Reference: Slot - C08(0.00N, 0.00E)
Measured Depth Reference: KB @ 5750.00ft (Original Well Elev)
Calculation Method: Minimum Curvature

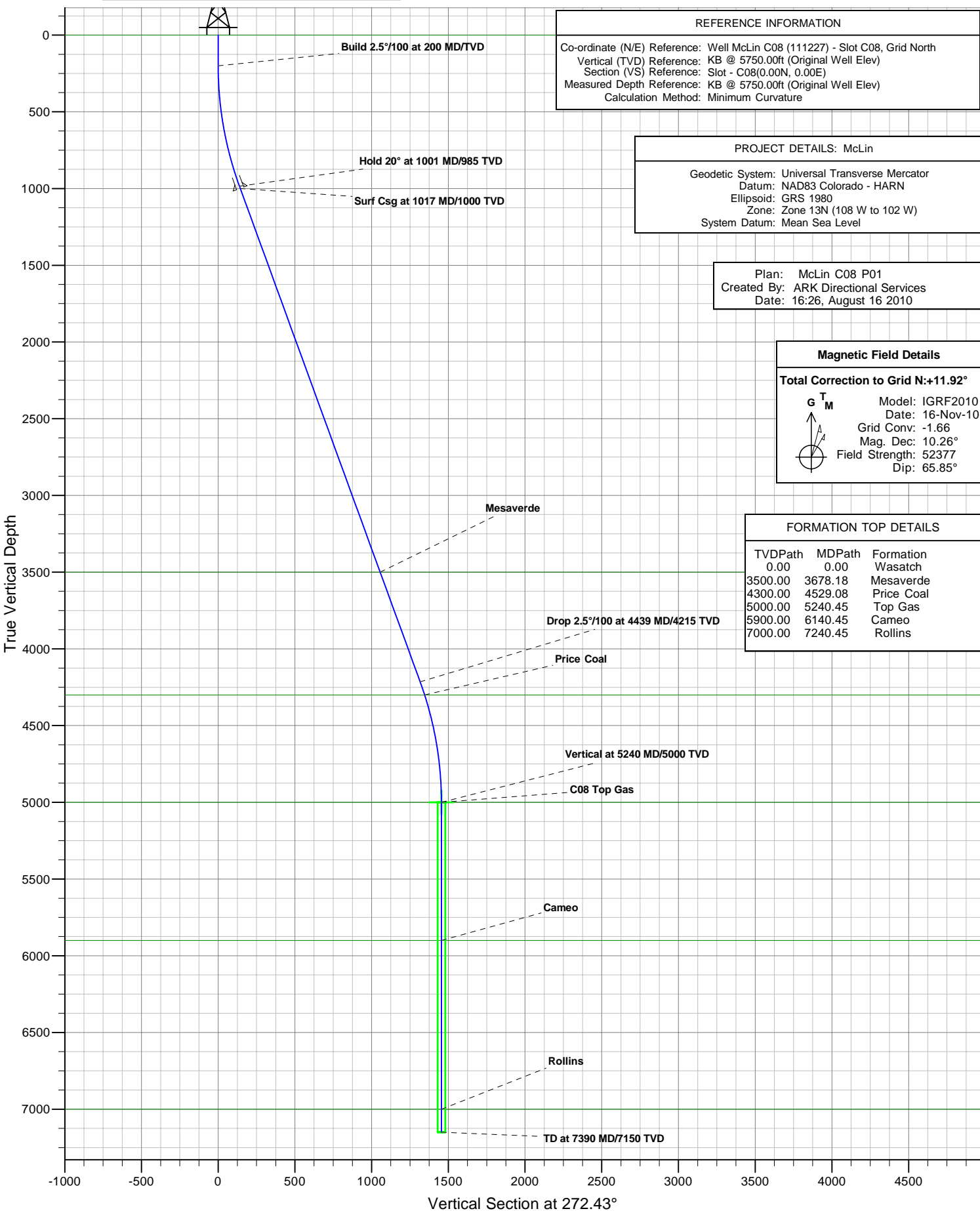


Antero Resources

McLin C08 (111227)



VERTICAL SECTION VIEW



Antero Resources

McLin

McLin C

McLin C08 (111227) - Slot C08

McLin C08

Plan: McLin C08 P01

Standard Planning Report - Geographic

16 August, 2010

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C08 (111227) - Slot C08
Company:	Antero Resources	TVD Reference:	KB @ 5750.00ft (Original Well Elev)
Project:	McLin	MD Reference:	KB @ 5750.00ft (Original Well Elev)
Site:	McLin C	North Reference:	Grid
Well:	McLin C08 (111227)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C08		
Design:	McLin C08 P01		

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 C		
Site Position:		Northing:	14,364,522.752 usft
From:	Map	Easting:	905,235.880 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in
		Latitude:	39.525275157°N
		Longitude:	107.607030464°W
		Grid Convergence:	-1.66 °

Well	McLin C08 (111227) - Slot C08		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	McLin C08				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	2010/11/16	10.26	65.85	52,377

Design	McLin C08 P01			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	272.43

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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,001.30	20.03	272.43	985.07	5.88	-138.53	2.50	2.50	0.00	272.43	
4,439.15	20.03	272.43	4,214.93	55.85	-1,315.12	0.00	0.00	0.00	0.00	
5,240.45	0.00	0.00	5,000.00	61.73	-1,453.65	2.50	-2.50	0.00	180.00	C08 Top Gas
7,390.45	0.00	0.00	7,150.00	61.73	-1,453.65	0.00	0.00	0.00	0.00	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C08 (111227) - Slot C08
Company:	Antero Resources	TVD Reference:	KB @ 5750.00ft (Original Well Elev)
Project:	McLin	MD Reference:	KB @ 5750.00ft (Original Well Elev)
Site:	McLin C	North Reference:	Grid
Well:	McLin C08 (111227)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C08		
Design:	McLin C08 P01		

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	14,364,498.945	905,199.196	39.525206925°N	107.607157979°W
Wasatch									
100.00	0.00	0.00	100.00	0.00	0.00	14,364,498.945	905,199.196	39.525206925°N	107.607157979°W
200.00	0.00	0.00	200.00	0.00	0.00	14,364,498.945	905,199.196	39.525206925°N	107.607157979°W
Build 2.5°/100 at 200 MD/TVD									
300.00	2.50	272.43	299.97	0.09	-2.18	14,364,499.037	905,197.017	39.525207005°N	107.607165709°W
400.00	5.00	272.43	399.75	0.37	-8.71	14,364,499.315	905,190.483	39.525207247°N	107.607188885°W
500.00	7.50	272.43	499.14	0.83	-19.59	14,364,499.777	905,179.607	39.525207650°N	107.607227462°W
600.00	10.00	272.43	597.97	1.48	-34.79	14,364,500.422	905,164.409	39.525208212°N	107.607281368°W
700.00	12.50	272.43	696.04	2.31	-54.28	14,364,501.250	905,144.919	39.525208933°N	107.607350499°W
800.00	15.00	272.43	793.17	3.31	-78.02	14,364,502.258	905,121.174	39.525209812°N	107.607434724°W
900.00	17.50	272.43	889.17	4.50	-105.98	14,364,503.445	905,093.219	39.525210846°N	107.607533882°W
1,000.00	20.00	272.43	983.85	5.86	-138.09	14,364,504.809	905,061.106	39.525212034°N	107.607647785°W
1,001.30	20.03	272.43	985.07	5.88	-138.53	14,364,504.828	905,060.662	39.525212050°N	107.607649362°W
Hold 20° at 1001 MD/985 TVD									
1,017.00	20.03	272.43	999.82	6.11	-143.91	14,364,505.056	905,055.289	39.525212249°N	107.607668421°W
Surf Csg at 1017 MD/1000 TVD									
1,100.00	20.03	272.43	1,077.80	7.32	-172.31	14,364,506.262	905,026.882	39.525213300°N	107.607769179°W
1,200.00	20.03	272.43	1,171.75	8.77	-206.54	14,364,507.716	904,992.658	39.525214565°N	107.607890573°W
1,300.00	20.03	272.43	1,265.70	10.22	-240.76	14,364,509.169	904,958.434	39.525215831°N	107.608011968°W
1,400.00	20.03	272.43	1,359.65	11.68	-274.99	14,364,510.623	904,924.209	39.525217097°N	107.608133362°W
1,500.00	20.03	272.43	1,453.60	13.13	-309.21	14,364,512.076	904,889.985	39.525218362°N	107.608254757°W
1,600.00	20.03	272.43	1,547.55	14.58	-343.44	14,364,513.530	904,855.761	39.525219627°N	107.608376151°W
1,700.00	20.03	272.43	1,641.50	16.04	-377.66	14,364,514.983	904,821.536	39.525220893°N	107.608497546°W
1,800.00	20.03	272.43	1,735.45	17.49	-411.89	14,364,516.436	904,787.312	39.525222158°N	107.608618941°W
1,900.00	20.03	272.43	1,829.40	18.95	-446.11	14,364,517.890	904,753.087	39.525223423°N	107.608740335°W
2,000.00	20.03	272.43	1,923.35	20.40	-480.33	14,364,519.343	904,718.863	39.525224687°N	107.608861730°W
2,100.00	20.03	272.43	2,017.30	21.85	-514.56	14,364,520.797	904,684.639	39.525225952°N	107.608983124°W
2,200.00	20.03	272.43	2,111.25	23.31	-548.78	14,364,522.250	904,650.414	39.525227217°N	107.609104519°W
2,300.00	20.03	272.43	2,205.20	24.76	-583.01	14,364,523.704	904,616.190	39.525228481°N	107.609225913°W
2,400.00	20.03	272.43	2,299.15	26.21	-617.23	14,364,525.157	904,581.965	39.525229745°N	107.609347308°W
2,500.00	20.03	272.43	2,393.10	27.67	-651.46	14,364,526.610	904,547.741	39.525231009°N	107.609468702°W
2,600.00	20.03	272.43	2,487.05	29.12	-685.68	14,364,528.064	904,513.517	39.525232273°N	107.609590097°W
2,700.00	20.03	272.43	2,581.00	30.57	-719.91	14,364,529.517	904,479.292	39.525233537°N	107.609711491°W
2,800.00	20.03	272.43	2,674.95	32.03	-754.13	14,364,530.971	904,445.068	39.525234801°N	107.609832886°W
2,900.00	20.03	272.43	2,768.90	33.48	-788.35	14,364,532.424	904,410.844	39.525236065°N	107.609954280°W
3,000.00	20.03	272.43	2,862.85	34.93	-822.58	14,364,533.878	904,376.619	39.525237328°N	107.610075675°W
3,100.00	20.03	272.43	2,956.80	36.39	-856.80	14,364,535.331	904,342.395	39.525238592°N	107.610197069°W
3,200.00	20.03	272.43	3,050.75	37.84	-891.03	14,364,536.784	904,308.170	39.525239855°N	107.610318464°W
3,300.00	20.03	272.43	3,144.70	39.29	-925.25	14,364,538.238	904,273.946	39.525241118°N	107.610439858°W
3,400.00	20.03	272.43	3,238.65	40.75	-959.48	14,364,539.691	904,239.722	39.525242381°N	107.610561253°W
3,500.00	20.03	272.43	3,332.60	42.20	-993.70	14,364,541.145	904,205.497	39.525243644°N	107.610682647°W
3,600.00	20.03	272.43	3,426.55	43.65	-1,027.93	14,364,542.598	904,171.273	39.525244907°N	107.610804041°W
3,678.18	20.03	272.43	3,500.00	44.79	-1,054.68	14,364,543.735	904,144.516	39.525245894°N	107.610898949°W
Mesaverde									
3,700.00	20.03	272.43	3,520.50	45.11	-1,062.15	14,364,544.052	904,137.049	39.525246169°N	107.610925436°W
3,800.00	20.03	272.43	3,614.45	46.56	-1,096.37	14,364,545.505	904,102.824	39.525247432°N	107.611046830°W
3,900.00	20.03	272.43	3,708.40	48.01	-1,130.60	14,364,546.958	904,068.600	39.525248694°N	107.611168225°W
4,000.00	20.03	272.43	3,802.35	49.47	-1,164.82	14,364,548.412	904,034.375	39.525249956°N	107.611289619°W
4,100.00	20.03	272.43	3,896.30	50.92	-1,199.05	14,364,549.865	904,000.151	39.525251219°N	107.611411014°W
4,200.00	20.03	272.43	3,990.25	52.37	-1,233.27	14,364,551.319	903,965.927	39.525252481°N	107.611532408°W
4,300.00	20.03	272.43	4,084.20	53.83	-1,267.50	14,364,552.772	903,931.702	39.525253742°N	107.611653803°W
4,400.00	20.03	272.43	4,178.15	55.28	-1,301.72	14,364,554.226	903,897.478	39.525255004°N	107.611775197°W

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C08 (111227) - Slot C08
Company:	Antero Resources	TVD Reference:	KB @ 5750.00ft (Original Well Elev)
Project:	McLin	MD Reference:	KB @ 5750.00ft (Original Well Elev)
Site:	McLin C	North Reference:	Grid
Well:	McLin C08 (111227)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C08		
Design:	McLin C08 P01		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,439.15	20.03	272.43	4,214.93	55.85	-1,315.12	14,364,554.795	903,884.080	39.525255498°N	107.611822720°W	
Drop 2.5°/100 at 4439 MD/4215 TVD										
4,500.00	18.51	272.43	4,272.37	56.70	-1,335.18	14,364,555.647	903,864.014	39.525256238°N	107.611893893°W	
4,529.08	17.78	272.43	4,300.00	57.09	-1,344.23	14,364,556.031	903,854.965	39.525256571°N	107.611925990°W	
Price Coal										
4,600.00	16.01	272.43	4,367.86	57.96	-1,364.83	14,364,556.906	903,834.371	39.525257330°N	107.611999040°W	
4,700.00	13.51	272.43	4,464.55	59.04	-1,390.28	14,364,557.987	903,808.917	39.525258269°N	107.612089326°W	
4,800.00	11.01	272.43	4,562.26	59.94	-1,411.50	14,364,558.888	903,787.701	39.525259050°N	107.612164579°W	
4,900.00	8.51	272.43	4,660.80	60.66	-1,428.44	14,364,559.607	903,770.763	39.525259675°N	107.612224657°W	
5,000.00	6.01	272.43	4,759.99	61.20	-1,441.06	14,364,560.143	903,758.136	39.525260140°N	107.612269445°W	
5,100.00	3.51	272.43	4,859.64	61.55	-1,449.35	14,364,560.495	903,749.844	39.525260445°N	107.612298857°W	
5,200.00	1.01	272.43	4,959.56	61.72	-1,453.30	14,364,560.663	903,745.903	39.525260591°N	107.612312838°W	
5,240.45	0.00	0.00	5,000.00	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
Vertical at 5240 MD/5000 TVD - Top Gas										
5,300.00	0.00	0.00	5,059.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
5,400.00	0.00	0.00	5,159.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
5,500.00	0.00	0.00	5,259.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
5,600.00	0.00	0.00	5,359.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
5,700.00	0.00	0.00	5,459.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
5,800.00	0.00	0.00	5,559.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
5,900.00	0.00	0.00	5,659.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
6,000.00	0.00	0.00	5,759.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
6,100.00	0.00	0.00	5,859.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
6,140.45	0.00	0.00	5,900.00	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
Cameo										
6,200.00	0.00	0.00	5,959.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
6,300.00	0.00	0.00	6,059.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
6,400.00	0.00	0.00	6,159.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
6,500.00	0.00	0.00	6,259.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
6,600.00	0.00	0.00	6,359.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
6,700.00	0.00	0.00	6,459.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
6,800.00	0.00	0.00	6,559.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
6,900.00	0.00	0.00	6,659.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
7,000.00	0.00	0.00	6,759.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
7,100.00	0.00	0.00	6,859.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
7,200.00	0.00	0.00	6,959.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
7,240.45	0.00	0.00	7,000.00	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
Rollins										
7,300.00	0.00	0.00	7,059.55	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
7,390.45	0.00	0.00	7,150.00	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	
TD at 7390 MD/7150 TVD										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
C08 Top Gas - plan hits target center - Circle (radius 25.00)	0.00	360.00	5,000.00	61.73	-1,453.65	14,364,560.678	903,745.546	39.525260604°N	107.612314102°W	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C08 (111227) - Slot C08
Company:	Antero Resources	TVD Reference:	KB @ 5750.00ft (Original Well Elev)
Project:	McLin	MD Reference:	KB @ 5750.00ft (Original Well Elev)
Site:	McLin C	North Reference:	Grid
Well:	McLin C08 (111227)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C08		
Design:	McLin C08 P01		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,017.00	999.82	Surf Csg at 1017 MD/1000 TVD	5.50	6.00	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
0.00	0.00	Wasatch			
3,678.18	3,500.00	Mesaverde			
4,529.08	4,300.00	Price Coal			
5,240.45	5,000.00	Top Gas			
6,140.45	5,900.00	Cameo			
7,240.45	7,000.00	Rollins			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.00	200.00	0.00	0.00	Build 2.5°/100 at 200 MD/TVD	
1,001.30	985.07	5.88	-138.53	Hold 20° at 1001 MD/985 TVD	
4,439.15	4,214.93	55.85	-1,315.12	Drop 2.5°/100 at 4439 MD/4215 TVD	
5,240.45	5,000.00	61.73	-1,453.65	Vertical at 5240 MD/5000 TVD	
7,390.45	7,150.00	61.73	-1,453.65	TD at 7390 MD/7150 TVD	