



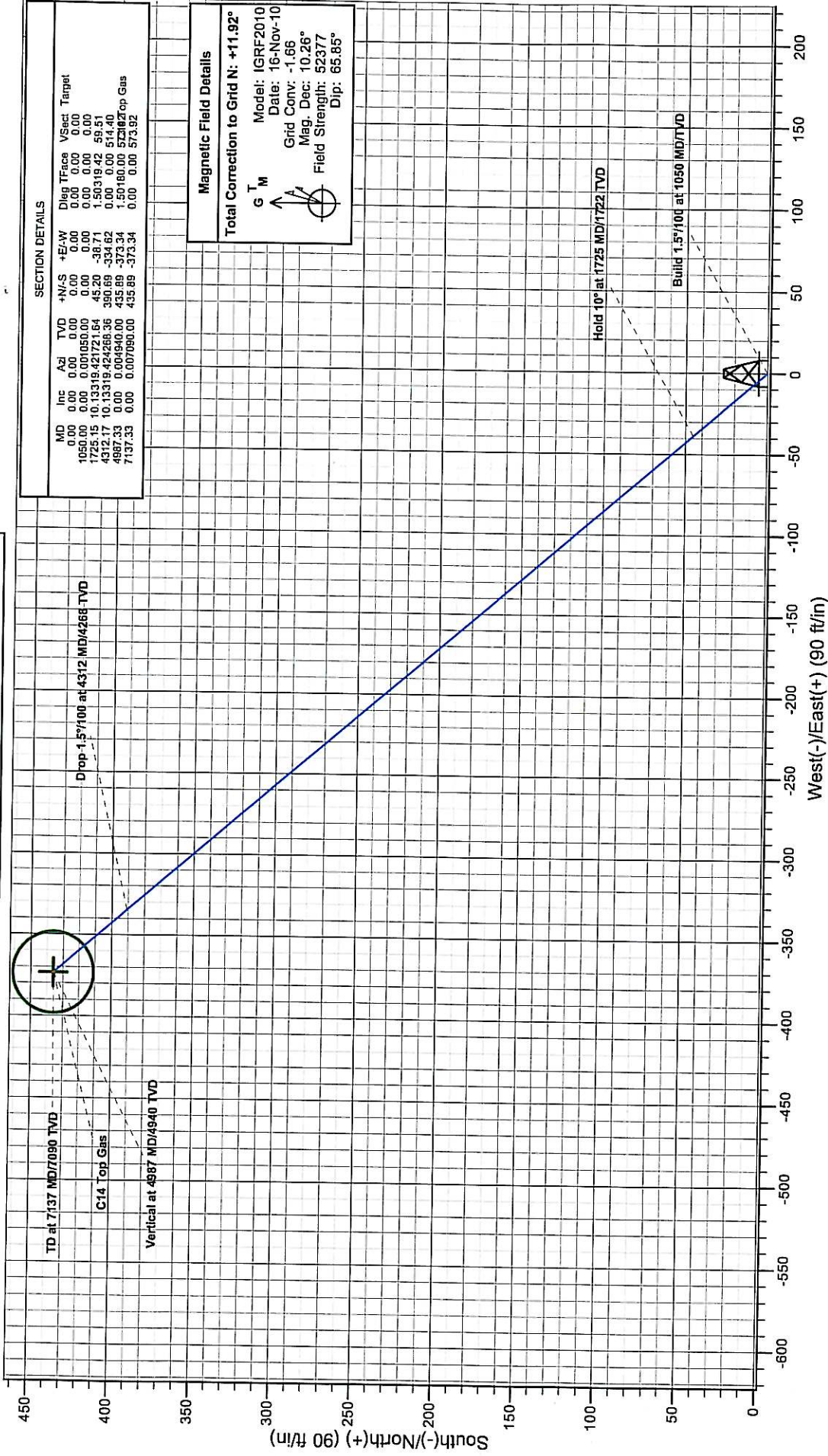
Antero Resources

McLin C14 (111233)



PLAN VIEW

Project: McLin C
Site: McLin C14 (111233)
Wellbore: McLin C14
Design: McLin C14 P01



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 C14 (111233) - Spot C14, Grid North
Vertical (TVD) Reference: KB @ 5750.00ft (Original Well Elev)
Section (VS) Reference: Spot - C14(0.00N, 0.00E)
Measured Depth Reference: KB @ 5750.00ft (Original Well Elev)
Calculation Method: Minimum Curvature

Plan: McLin C14 P01
Created By: ARK Directional Services
Date: 14:40, August 17 2010

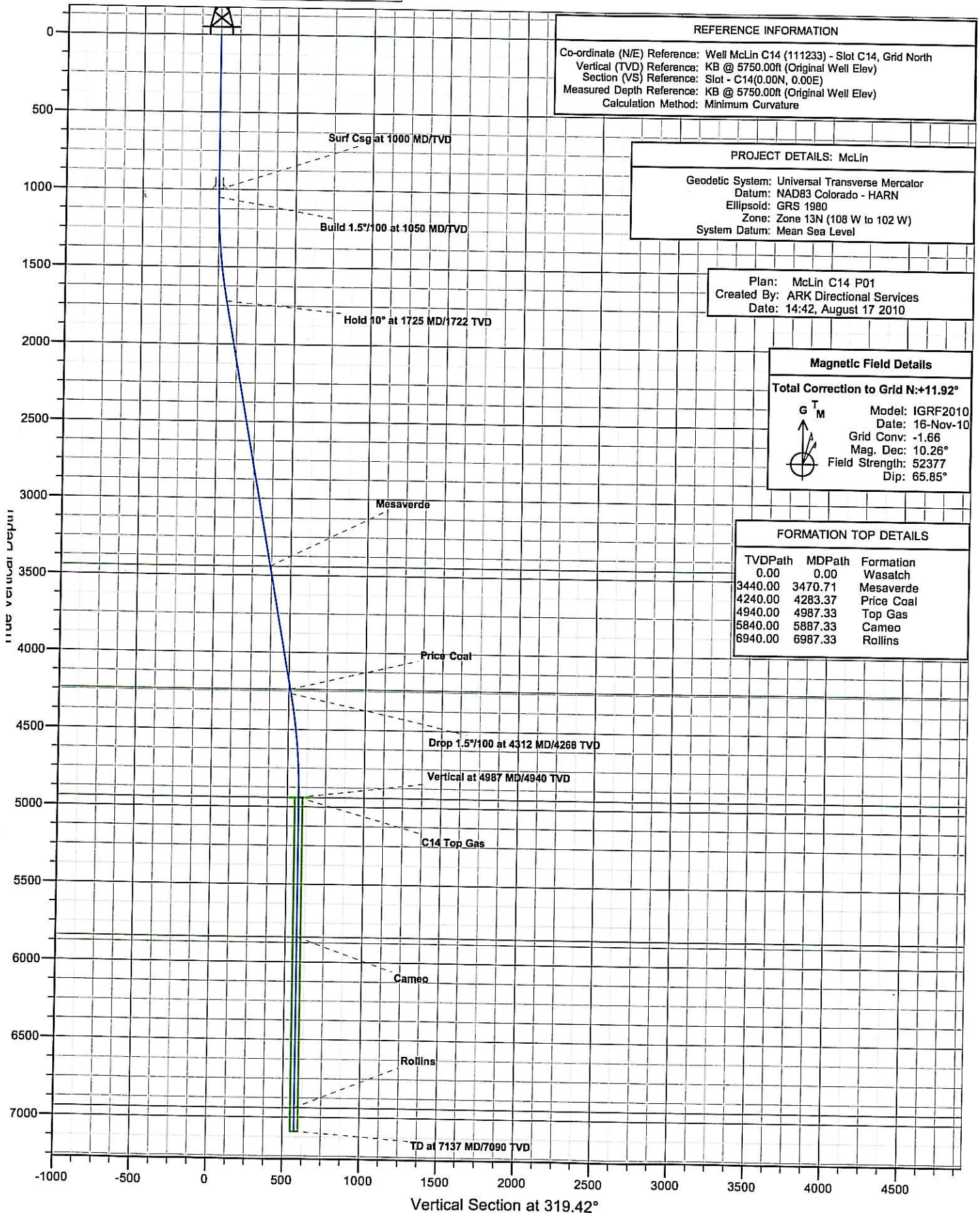


Antero Resources

McLin C14 (111233)



VERTICAL SECTION VIEW



Antero Resources

McLin

McLin C

McLin C14 (111233) - Slot C14

McLin C14

Plan: McLin C14 P01

Standard Planning Report - Geographic

17 August, 2010

ARK Directional Services
Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C14 (111233) - Slot C14
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 C14 (111233)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C14		
Design:	McLin C14 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 C14 (111233) - Slot C14		
Well Position	+N/-S	0.00 ft	Northing: 14,364,566.324 usft
	+E/-W	0.00 ft	Easting: 905,232.136 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	
		Latitude:	39.525394403°N
		Longitude:	107.607048201°W
		Ground Level:	5,726.00 ft

Wellbore	McLin C14				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2010/11/16	10.26	65.85	52,377

Design	McLin C14 P01			
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	319.42

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	
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,725.15	10.13	319.42	1,721.64	45.20	-38.71	1.50	1.50	0.00	319.42	
4,312.17	10.13	319.42	4,268.36	390.69	-334.62	0.00	0.00	0.00	0.00	
4,987.33	0.00	0.00	4,940.00	435.89	-373.34	1.50	-1.50	0.00	180.00	C14 Top Gas
7,137.33	0.00	0.00	7,090.00	435.89	-373.34	0.00	0.00	0.00	0.00	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C14 (111233) - Slot C14
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 C14 (111233)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C14		
Design:	McLin C14 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	14,364,566.324	905,232.136	39.525394403°N	107.607048201°W
Wasatch									
100.00	0.00	0.00	100.00	0.00	0.00	14,364,566.324	905,232.136	39.525394403°N	107.607048201°W
200.00	0.00	0.00	200.00	0.00	0.00	14,364,566.324	905,232.136	39.525394403°N	107.607048201°W
300.00	0.00	0.00	300.00	0.00	0.00	14,364,566.324	905,232.136	39.525394403°N	107.607048201°W
400.00	0.00	0.00	400.00	0.00	0.00	14,364,566.324	905,232.136	39.525394403°N	107.607048201°W
500.00	0.00	0.00	500.00	0.00	0.00	14,364,566.324	905,232.136	39.525394403°N	107.607048201°W
600.00	0.00	0.00	600.00	0.00	0.00	14,364,566.324	905,232.136	39.525394403°N	107.607048201°W
700.00	0.00	0.00	700.00	0.00	0.00	14,364,566.324	905,232.136	39.525394403°N	107.607048201°W
800.00	0.00	0.00	800.00	0.00	0.00	14,364,566.324	905,232.136	39.525394403°N	107.607048201°W
900.00	0.00	0.00	900.00	0.00	0.00	14,364,566.324	905,232.136	39.525394403°N	107.607048201°W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,364,566.324	905,232.136	39.525394403°N	107.607048201°W
Surf Csg at 1000 MD/TVD									
1,050.00	0.00	0.00	1,050.00	0.00	0.00	14,364,566.324	905,232.136	39.525394403°N	107.607048201°W
Build 1.5°/100 at 1050 MD/TVD									
1,100.00	0.75	319.42	1,100.00	0.25	-0.21	14,364,566.572	905,231.923	39.525395067°N	107.607048981°W
1,200.00	2.25	319.42	1,199.96	2.24	-1.92	14,364,568.560	905,230.220	39.525400387°N	107.607055217°W
1,300.00	3.75	319.42	1,299.82	6.21	-5.32	14,364,572.535	905,226.816	39.525411021°N	107.607067686°W
1,400.00	5.25	319.42	1,399.51	12.17	-10.42	14,364,578.494	905,221.712	39.525426964°N	107.607086378°W
1,500.00	6.75	319.42	1,498.96	20.11	-17.22	14,364,586.433	905,214.913	39.525448203°N	107.607111281°W
1,600.00	8.25	319.42	1,598.10	30.02	-25.71	14,364,596.346	905,206.422	39.525474726°N	107.607142378°W
1,700.00	9.75	319.42	1,696.87	41.90	-35.89	14,364,608.227	905,196.247	39.525506513°N	107.607179647°W
1,725.15	10.13	319.42	1,721.64	45.20	-38.71	14,364,611.524	905,193.422	39.525515335°N	107.607189991°W
Hold 10° at 1725 MD/1722 TVD									
1,800.00	10.13	319.42	1,795.32	55.20	-47.27	14,364,621.520	905,184.861	39.525542077°N	107.607221346°W
1,900.00	10.13	319.42	1,893.77	68.55	-58.71	14,364,634.874	905,173.423	39.525577808°N	107.607263239°W
2,000.00	10.13	319.42	1,992.21	81.91	-70.15	14,364,648.229	905,161.985	39.525613538°N	107.607305132°W
2,100.00	10.13	319.42	2,090.65	95.26	-81.59	14,364,661.584	905,150.547	39.525649268°N	107.607347025°W
2,200.00	10.13	319.42	2,189.09	108.62	-93.03	14,364,674.939	905,139.109	39.525684998°N	107.607388918°W
2,300.00	10.13	319.42	2,287.53	121.97	-104.47	14,364,688.293	905,127.670	39.525720728°N	107.607430811°W
2,400.00	10.13	319.42	2,385.98	135.32	-115.90	14,364,701.648	905,116.232	39.525756458°N	107.607472704°W
2,500.00	10.13	319.42	2,484.42	148.68	-127.34	14,364,715.003	905,104.794	39.525792189°N	107.607514597°W
2,600.00	10.13	319.42	2,582.86	162.03	-138.78	14,364,728.358	905,093.356	39.525827919°N	107.607556491°W
2,700.00	10.13	319.42	2,681.30	175.39	-150.22	14,364,741.712	905,081.918	39.525863649°N	107.607598384°W
2,800.00	10.13	319.42	2,779.74	188.74	-161.66	14,364,755.067	905,070.480	39.525899379°N	107.607640277°W
2,900.00	10.13	319.42	2,878.19	202.10	-173.10	14,364,768.422	905,059.041	39.525935109°N	107.607682171°W
3,000.00	10.13	319.42	2,976.63	215.45	-184.53	14,364,781.776	905,047.603	39.525970839°N	107.607724064°W
3,100.00	10.13	319.42	3,075.07	228.81	-195.97	14,364,795.131	905,036.165	39.526006569°N	107.607765958°W
3,200.00	10.13	319.42	3,173.51	242.16	-207.41	14,364,808.486	905,024.727	39.526042299°N	107.607807851°W
3,300.00	10.13	319.42	3,271.95	255.52	-218.85	14,364,821.841	905,013.289	39.526078029°N	107.607849745°W
3,400.00	10.13	319.42	3,370.40	268.87	-230.29	14,364,835.195	905,001.850	39.526113759°N	107.607891638°W
3,470.71	10.13	319.42	3,440.00	278.32	-238.37	14,364,844.638	904,993.763	39.526139022°N	107.607921260°W
Mesaverde									
3,500.00	10.13	319.42	3,468.84	282.23	-241.72	14,364,848.550	904,990.412	39.526149489°N	107.607933532°W
3,600.00	10.13	319.42	3,567.28	295.58	-253.16	14,364,861.905	904,978.974	39.526185219°N	107.607975425°W
3,700.00	10.13	319.42	3,665.72	308.94	-264.60	14,364,875.260	904,967.536	39.526220949°N	107.608017319°W
3,800.00	10.13	319.42	3,764.16	322.29	-276.04	14,364,888.614	904,956.098	39.526256679°N	107.608059213°W
3,900.00	10.13	319.42	3,862.60	335.65	-287.48	14,364,901.969	904,944.659	39.526292408°N	107.608101107°W
4,000.00	10.13	319.42	3,961.05	349.00	-298.92	14,364,915.324	904,933.221	39.526328138°N	107.608143001°W
4,100.00	10.13	319.42	4,059.49	362.36	-310.35	14,364,928.679	904,921.783	39.526363868°N	107.608184894°W
4,200.00	10.13	319.42	4,157.93	375.71	-321.79	14,364,942.033	904,910.345	39.526399598°N	107.608226788°W
4,283.37	10.13	319.42	4,240.00	386.84	-331.33	14,364,953.167	904,900.809	39.526429385°N	107.608261715°W
Price Coal									
4,300.00	10.13	319.42	4,256.37	389.07	-333.23	14,364,955.388	904,898.907	39.526435328°N	107.608268682°W

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C14 (111233) - Slot C14
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 C14 (111233)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C14		
Design:	McLin C14 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
4,312.17	10.13	319.42	4,268.36	390.69	-334.62	14,364,957.014	904,897.514	39.526439677°N	107.608273782°W
Drop 1.5°/100 at 4312 MD/4268 TVD									
4,400.00	8.81	319.42	4,354.98	401.66	-344.02	14,364,967.987	904,888.116	39.526469035°N	107.608308205°W
4,500.00	7.31	319.42	4,453.99	412.31	-353.14	14,364,978.636	904,878.996	39.526497525°N	107.608341610°W
4,600.00	5.81	319.42	4,553.34	420.99	-360.57	14,364,987.312	904,871.564	39.526520738°N	107.608368828°W
4,700.00	4.31	319.42	4,652.94	427.69	-366.31	14,364,994.010	904,865.827	39.526538659°N	107.608389841°W
4,800.00	2.81	319.42	4,752.75	432.40	-370.35	14,364,998.726	904,861.788	39.526551276°N	107.608404634°W
4,900.00	1.31	319.42	4,852.68	435.13	-372.69	14,365,001.456	904,859.450	39.526558580°N	107.608413198°W
4,987.33	0.00	0.00	4,940.00	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
Vertical at 4987 MD/4940 TVD - Top Gas									
5,000.00	0.00	0.00	4,952.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
5,100.00	0.00	0.00	5,052.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
5,200.00	0.00	0.00	5,152.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
5,300.00	0.00	0.00	5,252.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
5,400.00	0.00	0.00	5,352.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
5,500.00	0.00	0.00	5,452.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
5,600.00	0.00	0.00	5,552.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
5,700.00	0.00	0.00	5,652.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
5,800.00	0.00	0.00	5,752.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
5,887.33	0.00	0.00	5,840.00	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
Cameo									
5,900.00	0.00	0.00	5,852.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
6,000.00	0.00	0.00	5,952.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
6,100.00	0.00	0.00	6,052.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
6,200.00	0.00	0.00	6,152.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
6,300.00	0.00	0.00	6,252.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
6,400.00	0.00	0.00	6,352.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
6,500.00	0.00	0.00	6,452.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
6,600.00	0.00	0.00	6,552.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
6,700.00	0.00	0.00	6,652.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
6,800.00	0.00	0.00	6,752.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
6,900.00	0.00	0.00	6,852.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
6,987.33	0.00	0.00	6,940.00	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
Rollins									
7,000.00	0.00	0.00	6,952.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
7,100.00	0.00	0.00	7,052.67	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
7,137.33	0.00	0.00	7,090.00	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
TD at 7137 MD/7090 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									
C14 Top Gas	0.00	0.00	4,940.00	435.89	-373.34	14,365,002.214	904,858.801	39.526560608°N	107.608415576°W
- plan hits target center									
- Circle (radius 25.00)									

ARK Directional Services Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C14 (111233) - Slot C14
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 C14 (111233)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C14		
Design:	McLin C14 P01		

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	5.50	6.00

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
0.00	0.00	Wasatch			
3,470.71	3,440.00	Mesaverde			
4,283.37	4,240.00	Price Coal			
4,987.33	4,940.00	Top Gas			
5,887.33	5,840.00	Cameo			
6,987.33	6,940.00	Rollins			

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,050.00	1,050.00	0.00	0.00	Build 1.5°/100 at 1050 MD/TVD
1,725.15	1,721.64	45.20	-38.71	Hold 10° at 1725 MD/1722 TVD
4,312.17	4,268.36	390.69	-334.62	Drop 1.5°/100 at 4312 MD/4268 TVD
4,987.33	4,940.00	435.89	-373.34	Vertical at 4987 MD/4940 TVD
7,137.33	7,090.00	435.89	-373.34	TD at 7137 MD/7090 TVD