



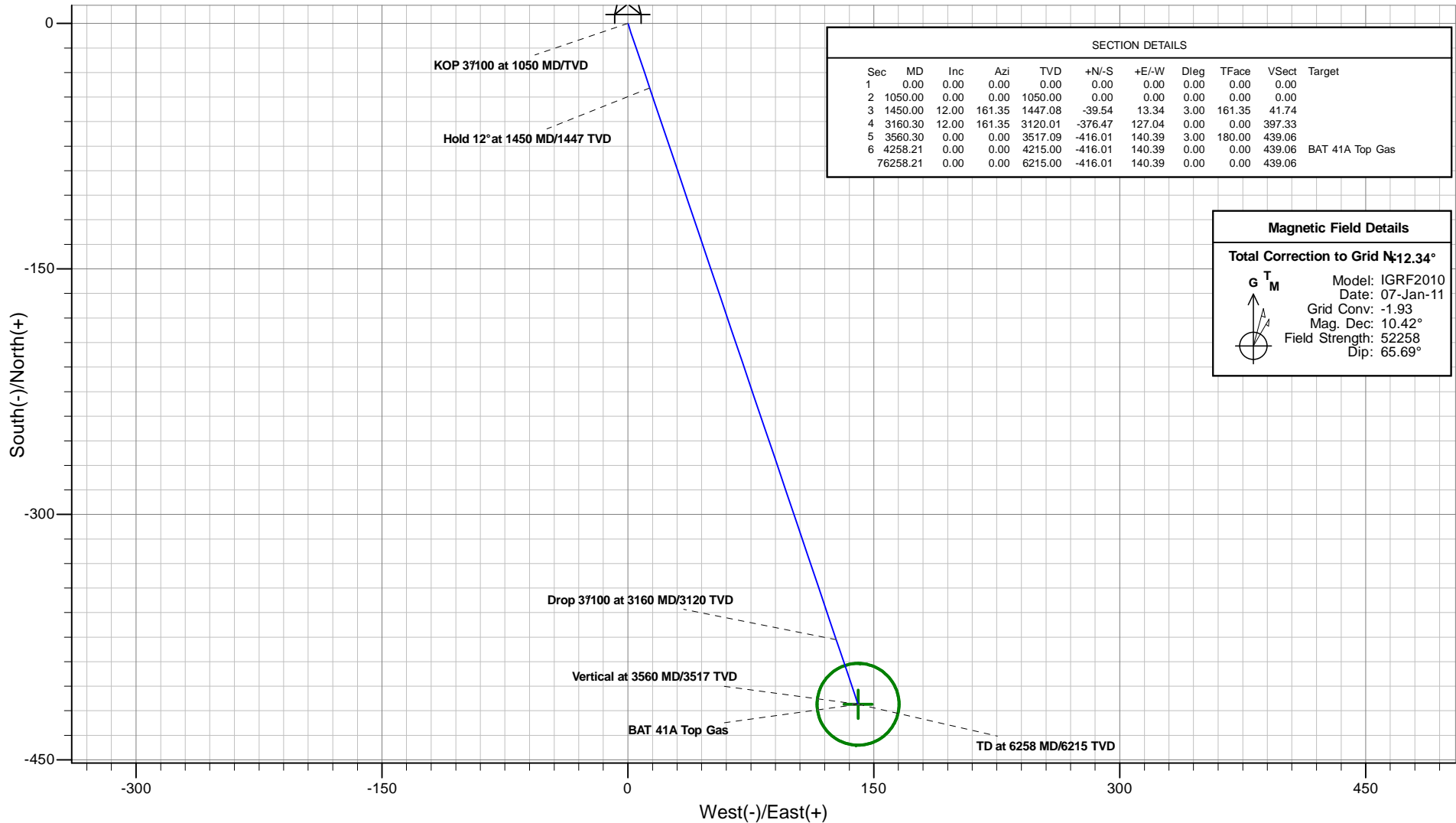
Antero Resources

BAT 41A-19-07-95 (111274)



PLAN VIEW

Project: Monument Ridge
 Site: Monument Ridge Pad
 Well: BAT 41A-19-07-95 (111274)
 Wellbore: BAT 41A
 Design: BAT 41A P01



Magnetic Field Details

Total Correction to Grid $N_{12.34}^{\circ}$

Model: IGRF2010
 Date: 07-Jan-11
 Grid Conv: -1.93
 Mag. Dec: 10.42°
 Field Strength: 52258
 Dip: 65.69°

Plan: BAT 41A P01
 Created By: ARK Directional Services
 Date: 12:43, October 07 2010

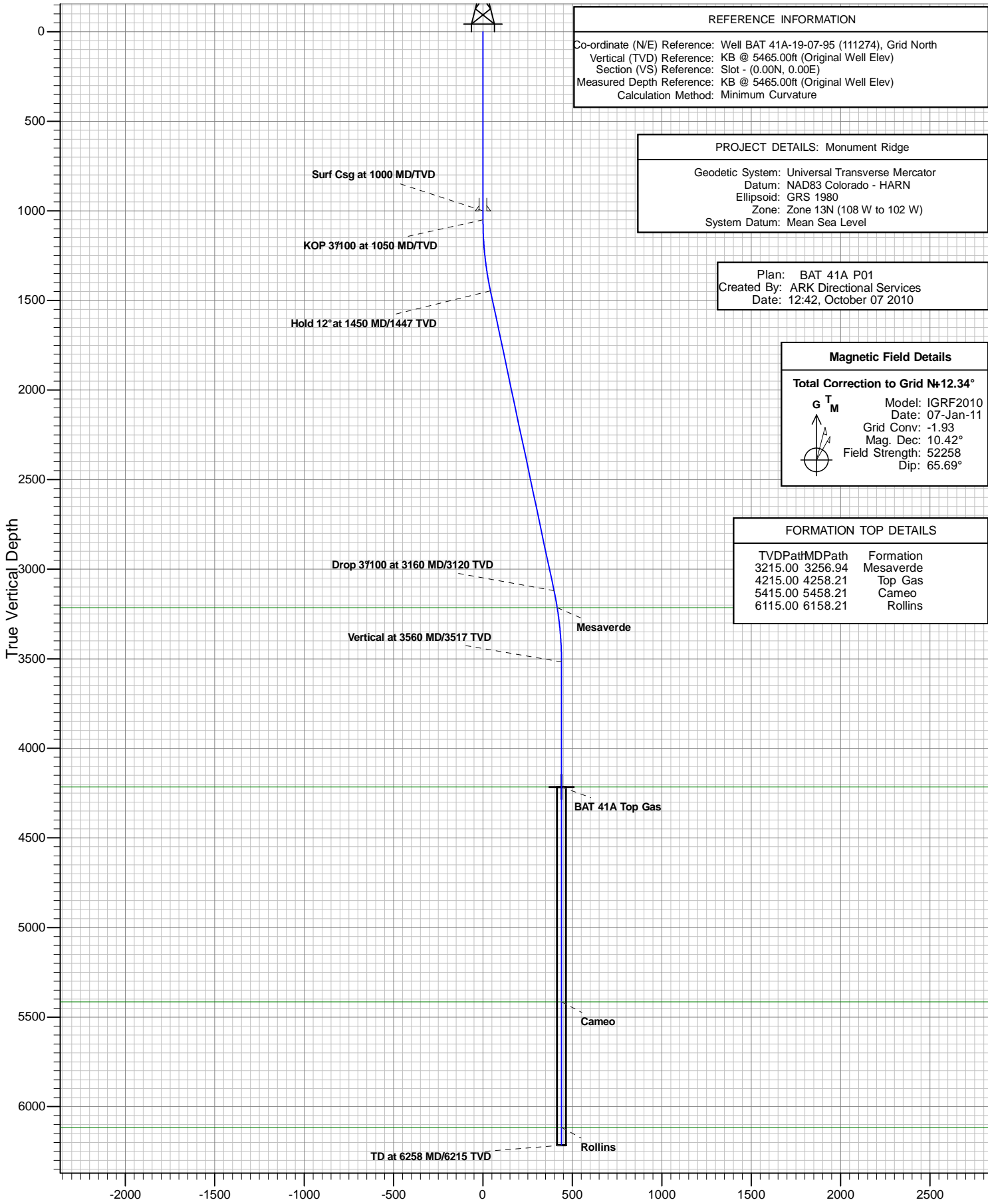
PROJECT DETAILS: Monument Ridge

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 BAT 41A-19-07-95 (111274), Grid North
 Vertical (TVD) Reference: KB @ 5465.00ft (Original Well Elev)
 Section (VS) Reference: Slot - (0.00N, 0.00E)
 Measured Depth Reference: KB @ 5465.00ft (Original Well Elev)
 Calculation Method: Minimum Curvature

VERTICAL SECTION VIEW



REFERENCE INFORMATION
Co-ordinate (N/E) Reference: Well BAT 41A-19-07-95 (111274), Grid North
Vertical (TVD) Reference: KB @ 5465.00ft (Original Well Elev)
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: KB @ 5465.00ft (Original Well Elev)
Calculation Method: Minimum Curvature

PROJECT DETAILS: Monument Ridge
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

Plan: BAT 41A P01
Created By: ARK Directional Services
Date: 12:42, October 07 2010

Magnetic Field Details					
Total Correction to Grid N=12.34°					
<table border="0"> <tr> <td rowspan="4"> </td> <td>Model: IGRF2010</td> </tr> <tr> <td>Date: 07-Jan-11</td> </tr> <tr> <td>Grid Conv: -1.93</td> </tr> <tr> <td>Mag. Dec: 10.42°</td> </tr> </table>		Model: IGRF2010	Date: 07-Jan-11	Grid Conv: -1.93	Mag. Dec: 10.42°
		Model: IGRF2010			
		Date: 07-Jan-11			
		Grid Conv: -1.93			
	Mag. Dec: 10.42°				
Field Strength: 52258					
Dip: 65.69°					

FORMATION TOP DETAILS	
TVDPathMDPath	Formation
3215.00 3256.94	Mesaverde
4215.00 4258.21	Top Gas
5415.00 5458.21	Cameo
6115.00 6158.21	Rollins

Vertical Section at 161.35°

Antero Resources

**Monument Ridge
Monument Ridge Pad
BAT 41A-19-07-95 (111274)**

BAT 41A

Plan: BAT 41A P01

Standard Planning Report - Geographic

07 October, 2010

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 41A-19-07-95 (111274)
Company:	Antero Resources	TVD Reference:	KB @ 5465.00ft (Original Well Elev)
Project:	Monument Ridge	MD Reference:	KB @ 5465.00ft (Original Well Elev)
Site:	Monument Ridge Pad	North Reference:	Grid
Well:	BAT 41A-19-07-95 (111274)	Survey Calculation Method:	Minimum Curvature
Wellbore:	BAT 41A		
Design:	BAT 41A P01		

Project	Monument Ridge		
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	Monument Ridge Pad				
Site Position:		Northing:	14,334,067.020 usft	Latitude:	39.431305000°N
From:	Lat/Long	Easting:	783,868.932 usft	Longitude:	108.033251000°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	-1.93 °

Well	BAT 41A-19-07-95 (111274)					
Well Position	+N/-S	0.00 ft	Northing:	14,334,004.297 usft	Latitude:	39.431135000°N
	+E/-W	0.00 ft	Easting:	783,890.856 usft	Longitude:	108.033166000°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,441.00 ft

Wellbore	BAT 41A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/01/07	10.42	65.69	52,258

Design	BAT 41A P01				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	4,215.00	0.00	0.00	161.35	

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	
1,450.00	12.00	161.35	1,447.08	-39.54	13.34	3.00	3.00	0.00	161.35	
3,160.30	12.00	161.35	3,120.01	-376.47	127.04	0.00	0.00	0.00	0.00	
3,560.30	0.00	0.00	3,517.09	-416.01	140.39	3.00	-3.00	0.00	180.00	
4,258.21	0.00	0.00	4,215.00	-416.01	140.39	0.00	0.00	0.00	0.00	BAT 41A Top Gas
6,258.21	0.00	0.00	6,215.00	-416.01	140.39	0.00	0.00	0.00	0.00	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 41A-19-07-95 (111274)
Company:	Antero Resources	TVD Reference:	KB @ 5465.00ft (Original Well Elev)
Project:	Monument Ridge	MD Reference:	KB @ 5465.00ft (Original Well Elev)
Site:	Monument Ridge Pad	North Reference:	Grid
Well:	BAT 41A-19-07-95 (111274)	Survey Calculation Method:	Minimum Curvature
Wellbore:	BAT 41A		
Design:	BAT 41A 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	14,334,004.297	783,890.856	39.431135000°N	108.033166000°W	
100.00	0.00	0.00	100.00	0.00	0.00	14,334,004.297	783,890.856	39.431135000°N	108.033166000°W	
200.00	0.00	0.00	200.00	0.00	0.00	14,334,004.297	783,890.856	39.431135000°N	108.033166000°W	
300.00	0.00	0.00	300.00	0.00	0.00	14,334,004.297	783,890.856	39.431135000°N	108.033166000°W	
400.00	0.00	0.00	400.00	0.00	0.00	14,334,004.297	783,890.856	39.431135000°N	108.033166000°W	
500.00	0.00	0.00	500.00	0.00	0.00	14,334,004.297	783,890.856	39.431135000°N	108.033166000°W	
600.00	0.00	0.00	600.00	0.00	0.00	14,334,004.297	783,890.856	39.431135000°N	108.033166000°W	
700.00	0.00	0.00	700.00	0.00	0.00	14,334,004.297	783,890.856	39.431135000°N	108.033166000°W	
800.00	0.00	0.00	800.00	0.00	0.00	14,334,004.297	783,890.856	39.431135000°N	108.033166000°W	
900.00	0.00	0.00	900.00	0.00	0.00	14,334,004.297	783,890.856	39.431135000°N	108.033166000°W	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,334,004.297	783,890.856	39.431135000°N	108.033166000°W	
Surf Csg at 1000 MD/TVD										
1,050.00	0.00	0.00	1,050.00	0.00	0.00	14,334,004.297	783,890.856	39.431135000°N	108.033166000°W	
KOP 3°/100 at 1050 MD/TVD										
1,100.00	1.50	161.35	1,099.99	-0.62	0.21	14,334,003.677	783,891.065	39.431133319°N	108.033165187°W	
1,200.00	4.50	161.35	1,199.85	-5.58	1.88	14,333,998.719	783,892.738	39.431119875°N	108.033158679°W	
1,300.00	7.50	161.35	1,299.29	-15.48	5.22	14,333,988.816	783,896.080	39.431093023°N	108.033145681°W	
1,400.00	10.50	161.35	1,398.04	-30.30	10.23	14,333,973.995	783,901.081	39.431052838°N	108.033126230°W	
1,450.00	12.00	161.35	1,447.08	-39.54	13.34	14,333,964.753	783,904.200	39.431027778°N	108.033114100°W	
Hold 12° at 1450 MD/1447 TVD										
1,500.00	12.00	161.35	1,495.99	-49.39	16.67	14,333,954.903	783,907.524	39.431001071°N	108.033101172°W	
1,600.00	12.00	161.35	1,593.80	-69.09	23.32	14,333,935.204	783,914.172	39.430947656°N	108.033075316°W	
1,700.00	12.00	161.35	1,691.62	-88.79	29.96	14,333,915.504	783,920.820	39.430894241°N	108.033049461°W	
1,800.00	12.00	161.35	1,789.43	-108.49	36.61	14,333,895.804	783,927.468	39.430840826°N	108.033023606°W	
1,900.00	12.00	161.35	1,887.25	-128.19	43.26	14,333,876.105	783,934.116	39.430787411°N	108.032997751°W	
2,000.00	12.00	161.35	1,985.06	-147.89	49.91	14,333,856.405	783,940.763	39.430733997°N	108.032971895°W	
2,100.00	12.00	161.35	2,082.88	-167.59	56.56	14,333,836.705	783,947.411	39.430680582°N	108.032946040°W	
2,200.00	12.00	161.35	2,180.69	-187.29	63.20	14,333,817.006	783,954.059	39.430627167°N	108.032920185°W	
2,300.00	12.00	161.35	2,278.51	-206.99	69.85	14,333,797.306	783,960.707	39.430573752°N	108.032894330°W	
2,400.00	12.00	161.35	2,376.32	-226.69	76.50	14,333,777.606	783,967.355	39.430520337°N	108.032868475°W	
2,500.00	12.00	161.35	2,474.14	-246.39	83.15	14,333,757.907	783,974.003	39.430466922°N	108.032842620°W	
2,600.00	12.00	161.35	2,571.95	-266.09	89.79	14,333,738.207	783,980.651	39.430413507°N	108.032816765°W	
2,700.00	12.00	161.35	2,669.77	-285.79	96.44	14,333,718.507	783,987.298	39.430360092°N	108.032790910°W	
2,800.00	12.00	161.35	2,767.58	-305.49	103.09	14,333,698.807	783,993.946	39.430306677°N	108.032765055°W	
2,900.00	12.00	161.35	2,865.40	-325.19	109.74	14,333,679.108	784,000.594	39.430253262°N	108.032739200°W	
3,000.00	12.00	161.35	2,963.21	-344.89	116.39	14,333,659.408	784,007.242	39.430199847°N	108.032713345°W	
3,100.00	12.00	161.35	3,061.03	-364.59	123.03	14,333,639.708	784,013.890	39.430146432°N	108.032687490°W	
3,160.30	12.00	161.35	3,120.01	-376.47	127.04	14,333,627.829	784,017.899	39.430114222°N	108.032671900°W	
Drop 3°/100 at 3160 MD/3120 TVD										
3,200.00	10.81	161.35	3,158.92	-383.91	129.55	14,333,620.392	784,020.408	39.430094056°N	108.032662138°W	
3,256.94	9.10	161.35	3,215.00	-393.23	132.70	14,333,611.066	784,023.556	39.430068769°N	108.032649899°W	
Mesaverde										
3,300.00	7.81	161.35	3,257.60	-399.23	134.72	14,333,605.067	784,025.580	39.430052503°N	108.032642025°W	
3,400.00	4.81	161.35	3,356.98	-409.64	138.24	14,333,594.656	784,029.093	39.430024273°N	108.032628361°W	
3,500.00	1.81	161.35	3,456.80	-415.11	140.08	14,333,589.187	784,030.939	39.430009446°N	108.032621184°W	
3,560.30	0.00	0.00	3,517.09	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
Vertical at 3560 MD/3517 TVD										
3,600.00	0.00	0.00	3,556.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
3,700.00	0.00	0.00	3,656.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
3,800.00	0.00	0.00	3,756.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
3,900.00	0.00	0.00	3,856.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
4,000.00	0.00	0.00	3,956.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
4,100.00	0.00	0.00	4,056.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
4,200.00	0.00	0.00	4,156.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 41A-19-07-95 (111274)
Company:	Antero Resources	TVD Reference:	KB @ 5465.00ft (Original Well Elev)
Project:	Monument Ridge	MD Reference:	KB @ 5465.00ft (Original Well Elev)
Site:	Monument Ridge Pad	North Reference:	Grid
Well:	BAT 41A-19-07-95 (111274)	Survey Calculation Method:	Minimum Curvature
Wellbore:	BAT 41A		
Design:	BAT 41A 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	
4,258.21	0.00	0.00	4,215.00	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
Top Gas - BAT 41A Top Gas										
4,300.00	0.00	0.00	4,256.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
4,400.00	0.00	0.00	4,356.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
4,500.00	0.00	0.00	4,456.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
4,600.00	0.00	0.00	4,556.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
4,700.00	0.00	0.00	4,656.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
4,800.00	0.00	0.00	4,756.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
4,900.00	0.00	0.00	4,856.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
5,000.00	0.00	0.00	4,956.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
5,100.00	0.00	0.00	5,056.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
5,200.00	0.00	0.00	5,156.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
5,300.00	0.00	0.00	5,256.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
5,400.00	0.00	0.00	5,356.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
5,458.21	0.00	0.00	5,415.00	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
Cameo										
5,500.00	0.00	0.00	5,456.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
5,600.00	0.00	0.00	5,556.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
5,700.00	0.00	0.00	5,656.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
5,800.00	0.00	0.00	5,756.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
5,900.00	0.00	0.00	5,856.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
6,000.00	0.00	0.00	5,956.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
6,100.00	0.00	0.00	6,056.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
6,158.21	0.00	0.00	6,115.00	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
Rollins										
6,200.00	0.00	0.00	6,156.79	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
6,258.21	0.00	0.00	6,215.00	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
TD at 6258 MD/6215 TVD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
BAT 41A Top Gas	0.00	0.00	4,215.00	-416.01	140.39	14,333,588.285	784,031.243	39.430007000°N	108.032620000°W	
- hit/miss target										
- Shape										
- plan hits target center										
- Circle (radius 25.00)										

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	

ARK Directional Services

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Company:	Antero Resources	TVD Reference:	KB @ 5465.00ft (Original Well Elev)
Project:	Monument Ridge	MD Reference:	KB @ 5465.00ft (Original Well Elev)
Site:	Monument Ridge Pad	North Reference:	Grid
Well:	BAT 41A-19-07-95 (111274)	Survey Calculation Method:	Minimum Curvature
Wellbore:	BAT 41A		
Design:	BAT 41A P01		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,256.94	3,215.00	Mesaverde			
4,258.21	4,215.00	Top Gas			
5,458.21	5,415.00	Cameo			
6,158.21	6,115.00	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		KOP 3°/100 at 1050 MD/TVD
1,450.00	1,447.08	-39.54	13.34		Hold 12° at 1450 MD/1447 TVD
3,160.30	3,120.01	-376.47	127.04		Drop 3°/100 at 3160 MD/3120 TVD
3,560.30	3,517.09	-416.01	140.39		Vertical at 3560 MD/3517 TVD
6,258.21	6,215.00	-416.01	140.39		TD at 6258 MD/6215 TVD