



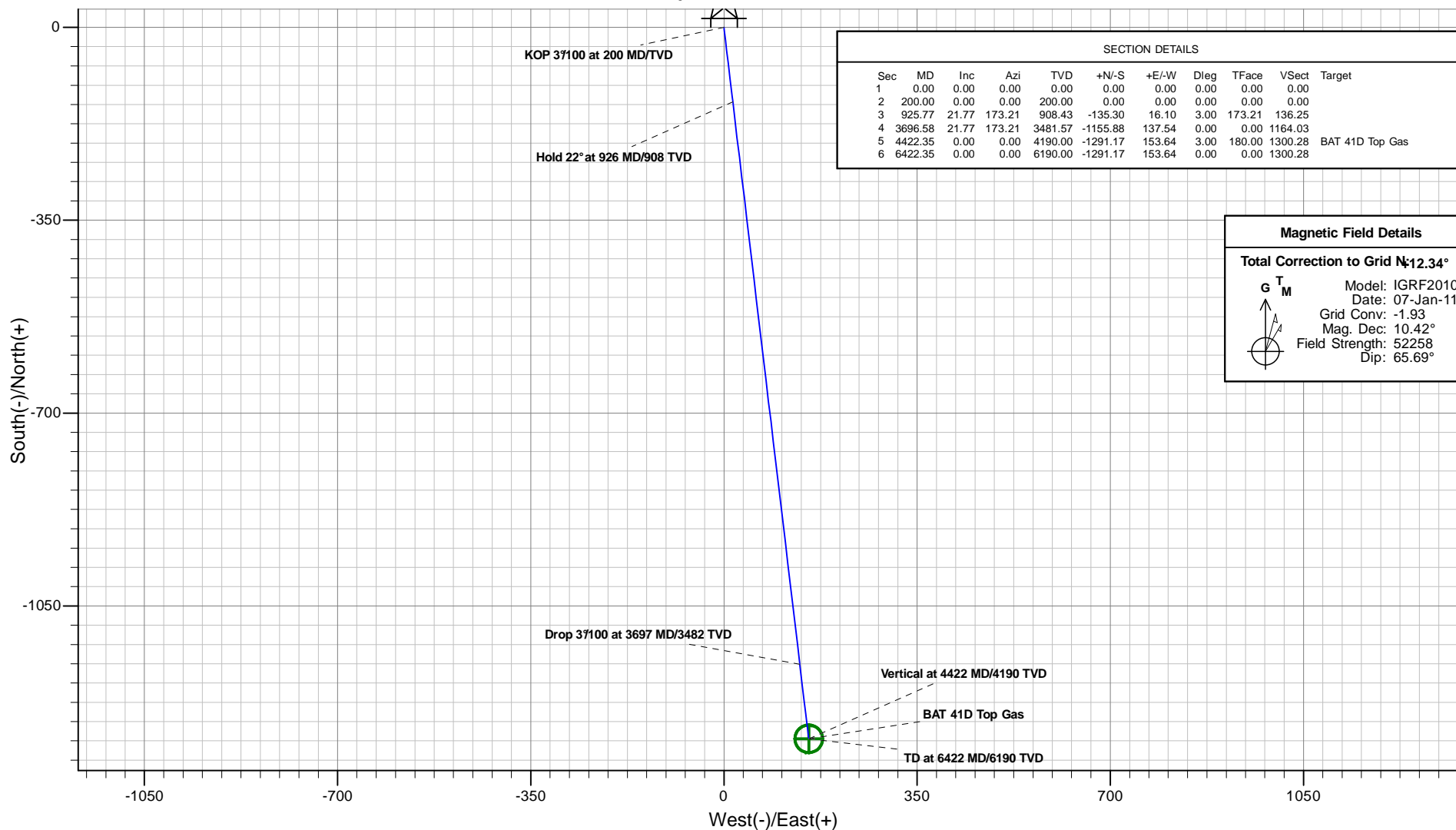
Antero Resources

BAT 41D-19-07-95 (111277)



PLAN VIEW

Project: Monument Ridge
Site: Monument Ridge Pad
Well: BAT 41D-19-07-95 (111277)
Wellbore: BAT 41D
Design: BAT 41D P01



Plan: BAT 41D P01
Created By: ARK Directional Services
Date: 9:51, October 13 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 41D-19-07-95 (111277), 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

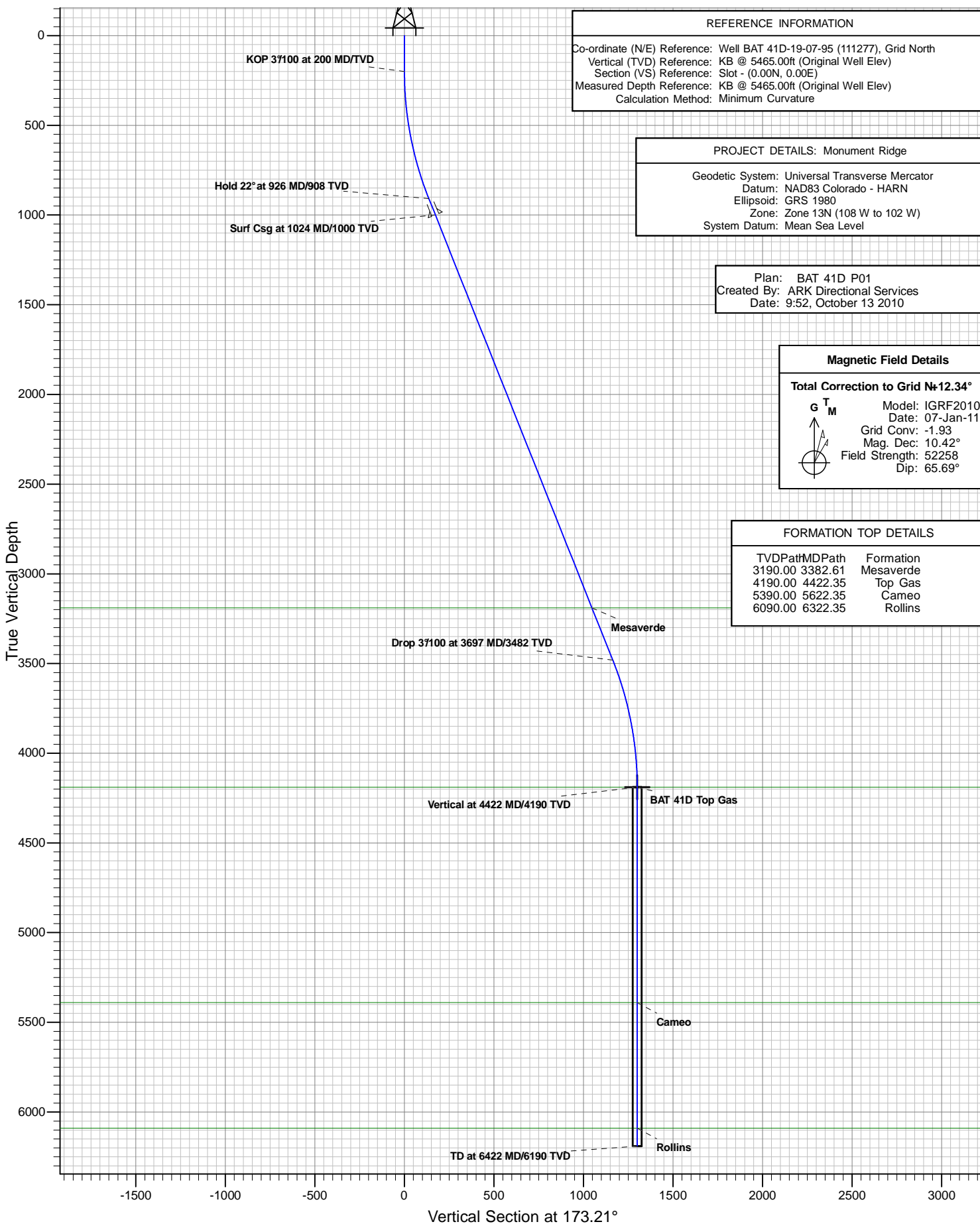


Antero Resources

BAT 41D-19-07-95 (111277)



VERTICAL SECTION VIEW



Antero Resources

Monument Ridge

Monument Ridge Pad

BAT 41D-19-07-95 (111277)

BAT 41D

Plan: BAT 41D P01

Standard Planning Report - Geographic

13 October, 2010

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 41D-19-07-95 (111277)
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 41D-19-07-95 (111277)	Survey Calculation Method:	Minimum Curvature
Wellbore:	BAT 41D		
Design:	BAT 41D 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
From:	Lat/Long	Easting:	783,868.932 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in
		Latitude:	39.431305000°N
		Longitude:	108.033251000°W
		Grid Convergence:	-1.93 °

Well	BAT 41D-19-07-95 (111277)		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	
		Latitude:	39.431031000°N
		Longitude:	108.033242000°W
		Ground Level:	5,441.00 ft

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

Design	BAT 41D P01				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	4,190.00	0.00	0.00	173.21	

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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
925.77	21.77	173.21	908.43	-135.30	16.10	3.00	3.00	0.00	173.21	
3,696.58	21.77	173.21	3,481.57	-1,155.88	137.54	0.00	0.00	0.00	0.00	
4,422.36	0.00	0.00	4,190.00	-1,291.17	153.64	3.00	-3.00	0.00	180.00	BAT 41D Top Gas
6,422.36	0.00	0.00	6,190.00	-1,291.17	153.64	0.00	0.00	0.00	0.00	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 41D-19-07-95 (111277)
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 41D-19-07-95 (111277)	Survey Calculation Method:	Minimum Curvature
Wellbore:	BAT 41D		
Design:	BAT 41D P01		

Planned Survey										
Measured			Vertical			Map		Map		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		Latitude	Longitude
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)			
0.00	0.00	0.00	0.00	0.00	0.00	14,333,967.142	783,868.116		39.431031000°N	108.033242000°W
100.00	0.00	0.00	100.00	0.00	0.00	14,333,967.142	783,868.116		39.431031000°N	108.033242000°W
200.00	0.00	0.00	200.00	0.00	0.00	14,333,967.142	783,868.116		39.431031000°N	108.033242000°W
KOP 3°/100 at 200 MD/TVD										
300.00	3.00	173.21	299.95	-2.60	0.31	14,333,964.543	783,868.425		39.431023901°N	108.033240597°W
400.00	6.00	173.21	399.63	-10.39	1.24	14,333,956.753	783,869.352		39.431002621°N	108.033236392°W
500.00	9.00	173.21	498.77	-23.35	2.78	14,333,943.793	783,870.894		39.430967220°N	108.033229396°W
600.00	12.00	173.21	597.08	-41.44	4.93	14,333,925.700	783,873.047		39.430917795°N	108.033219628°W
700.00	15.00	173.21	694.31	-64.62	7.69	14,333,902.521	783,875.805		39.430854480°N	108.033207115°W
800.00	18.00	173.21	790.18	-92.82	11.04	14,333,874.322	783,879.160		39.430777450°N	108.033191892°W
900.00	21.00	173.21	884.43	-125.96	14.99	14,333,841.179	783,883.104		39.430686916°N	108.033173999°W
925.77	21.77	173.21	908.43	-135.30	16.10	14,333,831.847	783,884.215		39.430661425°N	108.033168962°W
Hold 22° at 926 MD/908 TVD										
1,000.00	21.77	173.21	977.36	-162.64	19.35	14,333,804.506	783,887.468		39.430586740°N	108.033154202°W
1,024.00	21.77	173.21	999.65	-171.48	20.40	14,333,795.666	783,888.520		39.430562593°N	108.033149430°W
Surf Csg at 1024 MD/1000 TVD										
1,100.00	21.77	173.21	1,070.23	-199.47	23.74	14,333,767.673	783,891.851		39.430486125°N	108.033134318°W
1,200.00	21.77	173.21	1,163.09	-236.30	28.12	14,333,730.840	783,896.234		39.430385511°N	108.033114434°W
1,300.00	21.77	173.21	1,255.96	-273.14	32.50	14,333,694.006	783,900.616		39.430284896°N	108.033094550°W
1,400.00	21.77	173.21	1,348.83	-309.97	36.88	14,333,657.173	783,904.999		39.430184281°N	108.033074666°W
1,500.00	21.77	173.21	1,441.69	-346.80	41.27	14,333,620.340	783,909.382		39.430083666°N	108.033054782°W
1,600.00	21.77	173.21	1,534.56	-383.64	45.65	14,333,583.506	783,913.765		39.429983051°N	108.033034898°W
1,700.00	21.77	173.21	1,627.42	-420.47	50.03	14,333,546.673	783,918.148		39.429882437°N	108.033015014°W
1,800.00	21.77	173.21	1,720.29	-457.30	54.41	14,333,509.840	783,922.531		39.429781822°N	108.032995130°W
1,900.00	21.77	173.21	1,813.16	-494.14	58.80	14,333,473.006	783,926.913		39.429681207°N	108.032975247°W
2,000.00	21.77	173.21	1,906.02	-530.97	63.18	14,333,436.173	783,931.296		39.429580592°N	108.032955363°W
2,100.00	21.77	173.21	1,998.89	-567.80	67.56	14,333,399.340	783,935.679		39.429479977°N	108.032935480°W
2,200.00	21.77	173.21	2,091.75	-604.64	71.95	14,333,362.506	783,940.062		39.429379362°N	108.032915596°W
2,300.00	21.77	173.21	2,184.62	-641.47	76.33	14,333,325.673	783,944.445		39.429278747°N	108.032895713°W
2,400.00	21.77	173.21	2,277.49	-678.30	80.71	14,333,288.840	783,948.828		39.429178133°N	108.032875829°W
2,500.00	21.77	173.21	2,370.35	-715.14	85.09	14,333,252.007	783,953.210		39.429077518°N	108.032855946°W
2,600.00	21.77	173.21	2,463.22	-751.97	89.48	14,333,215.173	783,957.593		39.428976903°N	108.032836063°W
2,700.00	21.77	173.21	2,556.08	-788.80	93.86	14,333,178.340	783,961.976		39.428876288°N	108.032816180°W
2,800.00	21.77	173.21	2,648.95	-825.64	98.24	14,333,141.507	783,966.359		39.428775673°N	108.032796297°W
2,900.00	21.77	173.21	2,741.82	-862.47	102.63	14,333,104.673	783,970.742		39.428675058°N	108.032776414°W
3,000.00	21.77	173.21	2,834.68	-899.30	107.01	14,333,067.840	783,975.125		39.428574443°N	108.032756531°W
3,100.00	21.77	173.21	2,927.55	-936.14	111.39	14,333,031.007	783,979.507		39.428473828°N	108.032736648°W
3,200.00	21.77	173.21	3,020.41	-972.97	115.77	14,332,994.173	783,983.890		39.428373213°N	108.032716765°W
3,300.00	21.77	173.21	3,113.28	-1,009.80	120.16	14,332,957.340	783,988.273		39.428272598°N	108.032696882°W
3,382.61	21.77	173.21	3,190.00	-1,040.23	123.78	14,332,926.910	783,991.894		39.428189476°N	108.032680457°W
Mesaverde										
3,400.00	21.77	173.21	3,206.15	-1,046.64	124.54	14,332,920.507	783,992.656		39.428171983°N	108.032677000°W
3,500.00	21.77	173.21	3,299.01	-1,083.47	128.92	14,332,883.673	783,997.039		39.428071368°N	108.032657117°W
3,600.00	21.77	173.21	3,391.88	-1,120.30	133.31	14,332,846.840	784,001.422		39.427970753°N	108.032637235°W
3,696.58	21.77	173.21	3,481.57	-1,155.88	137.54	14,332,811.265	784,005.655		39.427873576°N	108.032618031°W
Drop 3°/100 at 3697 MD/3482 TVD										
3,700.00	21.67	173.21	3,484.74	-1,157.14	137.69	14,332,810.009	784,005.804		39.427870146°N	108.032617354°W
3,800.00	18.67	173.21	3,578.60	-1,191.37	141.76	14,332,775.773	784,009.878		39.427776626°N	108.032598873°W
3,900.00	15.67	173.21	3,674.13	-1,220.68	145.25	14,332,746.462	784,013.366		39.427696557°N	108.032583051°W
4,000.00	12.67	173.21	3,771.08	-1,244.99	148.14	14,332,722.155	784,016.258		39.427630160°N	108.032569930°W
4,100.00	9.67	173.21	3,869.17	-1,264.23	150.43	14,332,702.920	784,018.547		39.427577616°N	108.032559547°W
4,200.00	6.67	173.21	3,968.15	-1,278.34	152.11	14,332,688.809	784,020.226		39.427539070°N	108.032551931°W
4,300.00	3.67	173.21	4,067.73	-1,287.28	153.18	14,332,679.861	784,021.291		39.427514628°N	108.032547100°W
4,400.00	0.67	173.21	4,167.65	-1,291.05	153.62	14,332,676.100	784,021.738		39.427504355°N	108.032545071°W

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 41D-19-07-95 (111277)
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 41D-19-07-95 (111277)	Survey Calculation Method:	Minimum Curvature
Wellbore:	BAT 41D		
Design:	BAT 41D 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
4,422.36	0.00	0.00	4,190.00	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
Vertical at 4422 MD/4190 TVD - Top Gas - BAT 41D Top Gas									
4,500.00	0.00	0.00	4,267.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
4,600.00	0.00	0.00	4,367.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
4,700.00	0.00	0.00	4,467.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
4,800.00	0.00	0.00	4,567.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
4,900.00	0.00	0.00	4,667.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
5,000.00	0.00	0.00	4,767.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
5,100.00	0.00	0.00	4,867.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
5,200.00	0.00	0.00	4,967.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
5,300.00	0.00	0.00	5,067.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
5,400.00	0.00	0.00	5,167.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
5,500.00	0.00	0.00	5,267.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
5,600.00	0.00	0.00	5,367.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
5,622.36	0.00	0.00	5,390.00	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
Cameo									
5,700.00	0.00	0.00	5,467.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
5,800.00	0.00	0.00	5,567.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
5,900.00	0.00	0.00	5,667.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
6,000.00	0.00	0.00	5,767.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
6,100.00	0.00	0.00	5,867.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
6,200.00	0.00	0.00	5,967.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
6,300.00	0.00	0.00	6,067.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
6,322.36	0.00	0.00	6,090.00	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
Rollins									
6,400.00	0.00	0.00	6,167.65	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
6,422.35	0.00	0.00	6,190.00	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W
TD at 6422 MD/6190 TVD									

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
BAT 41D Top Gas	0.00	360.00	4,190.00	-1,291.17	153.64	14,332,675.970	784,021.754	39.427504000°N	108.032545000°W	
- plan hits target center										
- Circle (radius 25.00)										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,024.00	999.65	Surf Csg at 1024 MD/1000 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 41D-19-07-95 (111277)	Survey Calculation Method:	Minimum Curvature
Wellbore:	BAT 41D		
Design:	BAT 41D P01		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,382.61	3,190.00	Mesaverde			
4,422.36	4,190.00	Top Gas			
5,622.36	5,390.00	Cameo			
6,322.36	6,090.00	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	KOP 3°/100 at 200 MD/TVD	
925.77	908.43	-135.30	16.10	Hold 22° at 926 MD/908 TVD	
3,696.58	3,481.57	-1,155.88	137.54	Drop 3°/100 at 3697 MD/3482 TVD	
4,422.36	4,190.00	-1,291.17	153.64	Vertical at 4422 MD/4190 TVD	
6,422.35	6,190.00	-1,291.17	153.64	TD at 6422 MD/6190 TVD	