



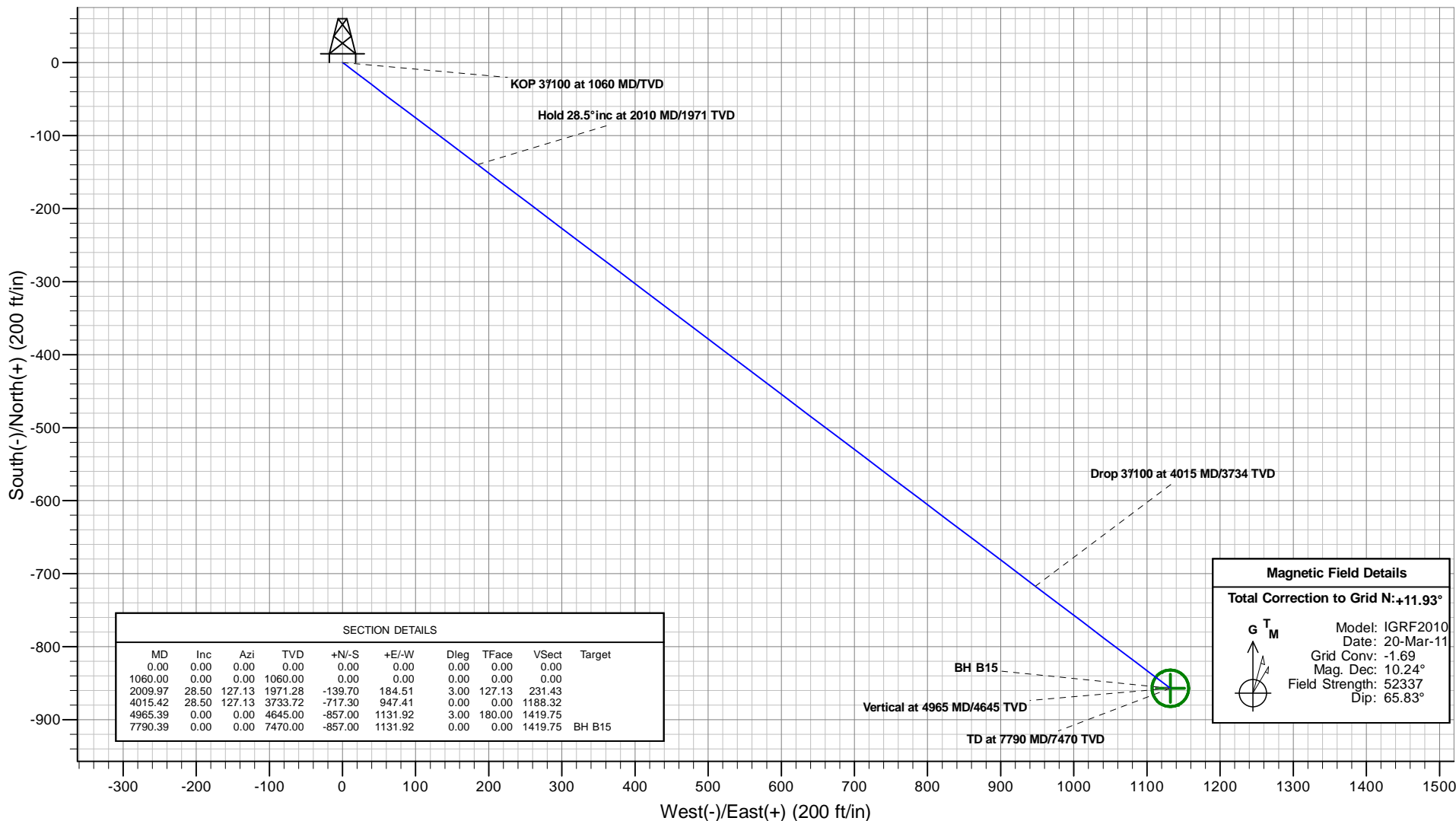
Antero Resources

Antero Dixon B15 (111314)



PLAN VIEW

Project: Dixon (NAD 83)
 Site: Dixon B
 Well: Antero Dixon B15 (111314)
 Wellbore: Antero Dixon B15
 Design: Antero Dixon B15 P01



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1060.00	0.00	0.00	1060.00	0.00	0.00	0.00	0.00	0.00	
2009.97	28.50	127.13	1971.28	-139.70	184.51	3.00	127.13	231.43	
4015.42	28.50	127.13	3733.72	-717.30	947.41	0.00	0.00	1188.32	
4965.39	0.00	0.00	4645.00	-857.00	1131.92	3.00	180.00	1419.75	BH B15
7790.39	0.00	0.00	7470.00	-857.00	1131.92	0.00	0.00	1419.75	

Magnetic Field Details

Total Correction to Grid N: **+11.93°**

G T M

Model: IGRF2010
 Date: 20-Mar-11
 Grid Conv: -1.69
 Mag. Dec: 10.24°
 Field Strength: 52337
 Dip: 65.83°

Plan: Antero Dixon B15 P01
 Created By: ARK Directional Services
 Date: 14:33, January 18 2011

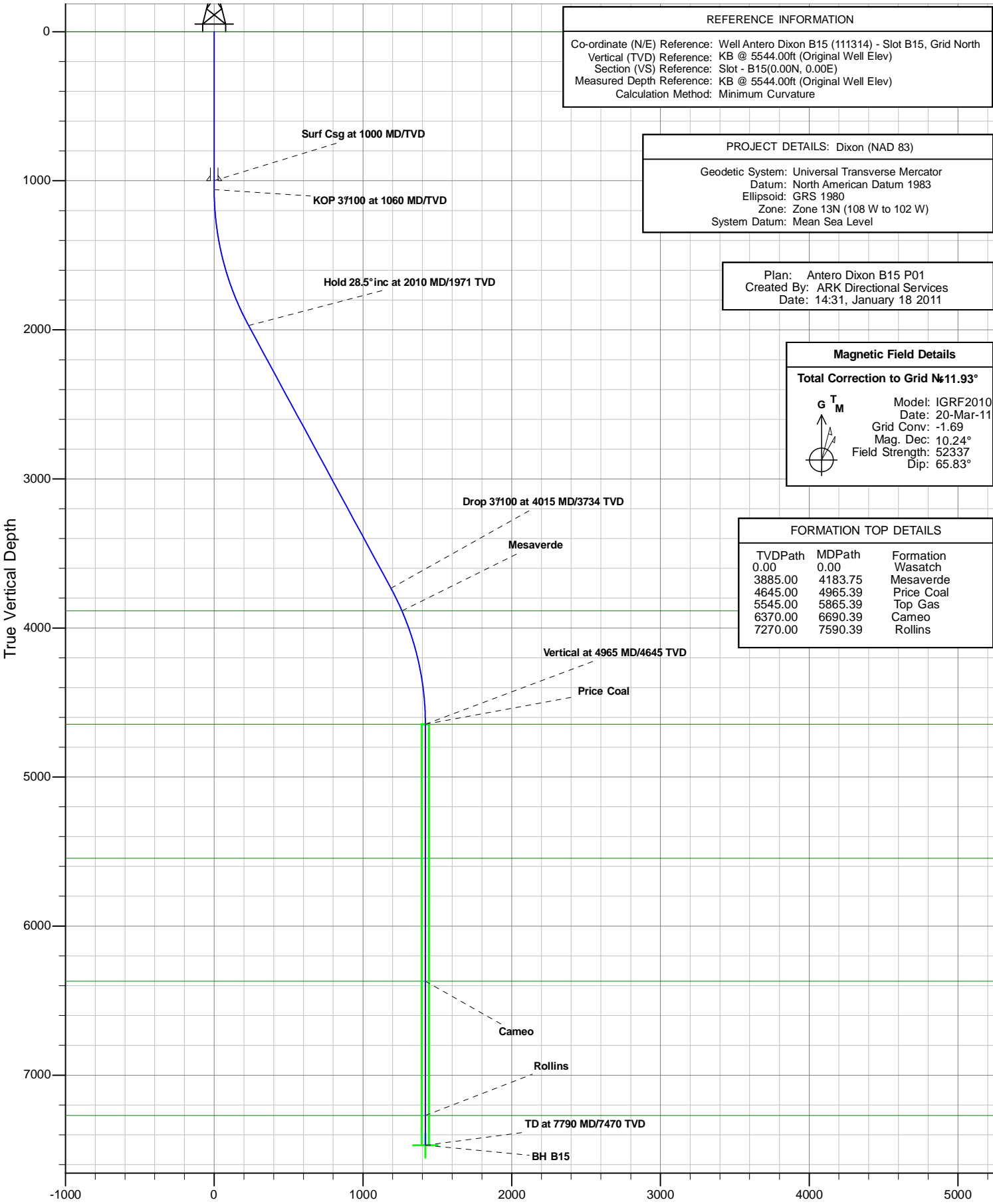
PROJECT DETAILS: Dixon (NAD 83)

Geodetic System: Universal Transverse Mercator
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Zone 13N (108 W to 102 W)
 System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (NE) Reference: Well Antero Dixon B15 (111314) - Slot B15, Grid North
 Vertical (TVD) Reference: KB @ 5544.00ft (Original Well Elev)
 Section (VS) Reference: Slot - B15(0.00N, 0.00E)
 Measured Depth Reference: KB @ 5544.00ft (Original Well Elev)
 Calculation Method: Minimum Curvature

VERTICAL SECTION VIEW



REFERENCE INFORMATION	
Co-ordinate (N/E) Reference:	Well Antero Dixon B15 (111314) - Slot B15, Grid North
Vertical (TVD) Reference:	KB @ 5544.00ft (Original Well Elev)
Section (VS) Reference:	Slot - B15(0.00N, 0.00E)
Measured Depth Reference:	KB @ 5544.00ft (Original Well Elev)
Calculation Method:	Minimum Curvature

PROJECT DETAILS: Dixon (NAD 83)	
Geodetic System:	Universal Transverse Mercator
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	Zone 13N (108 W to 102 W)
System Datum:	Mean Sea Level

Plan:	Antero Dixon B15 P01
Created By:	ARK Directional Services
Date:	14:31, January 18 2011

Magnetic Field Details	
Total Correction to Grid N=11.93°	
G T M	Model: IGRF2010
	Date: 20-Mar-11
	Grid Conv: -1.69
	Mag. Dec: 10.24°
	Field Strength: 52337
	Dip: 65.83°

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
0.00	0.00	Wasatch
3885.00	4183.75	Mesaverde
4645.00	4965.39	Price Coal
5545.00	5865.39	Top Gas
6370.00	6690.39	Cameo
7270.00	7590.39	Rollins

Vertical Section at 127.13°

Antero Resources

Dixon (NAD 83)

Dixon B

Antero Dixon B15 (111314) - Slot B15

Antero Dixon B15

Plan: Antero Dixon B15 P01

Standard Planning Report - Geographic

18 January, 2011

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well Antero Dixon B15 (111314) - Slot B15
Company:	Antero Resources	TVD Reference:	KB @ 5544.00ft (Original Well Elev)
Project:	Dixon (NAD 83)	MD Reference:	KB @ 5544.00ft (Original Well Elev)
Site:	Dixon B	North Reference:	Grid
Well:	Antero Dixon B15 (111314)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Antero Dixon B15		
Design:	Antero Dixon B15 P01		

Project	Dixon (NAD 83)		
Map System:	Universal Transverse Mercator	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site	Dixon B				
Site Position:		Northing:	14,364,517.556 usft	Latitude:	39.524071000°N
From:	Lat/Long	Easting:	890,418.038 usft	Longitude:	107.659523000°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	-1.69 °

Well	Antero Dixon B15 (111314) - Slot B15					
Well Position	+N/-S	0.00 ft	Northing:	14,364,520.345 usft	Latitude:	39.524077868°N
	+E/-W	0.00 ft	Easting:	890,408.375 usft	Longitude:	107.659557523°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,520.00 ft

Wellbore	Antero Dixon B15				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	2011/03/20	(°) 10.24	(°) 65.83	(nT) 52,337

Design	Antero Dixon B15 P01			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	7,470.00	0.00	0.00	127.13

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	
1,060.00	0.00	0.00	1,060.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,009.97	28.50	127.13	1,971.28	-139.70	184.51	3.00	3.00	0.00	127.13	
4,015.42	28.50	127.13	3,733.72	-717.30	947.41	0.00	0.00	0.00	0.00	
4,965.39	0.00	0.00	4,645.00	-857.00	1,131.92	3.00	-3.00	0.00	180.00	
7,790.39	0.00	0.00	7,470.00	-857.00	1,131.92	0.00	0.00	0.00	0.00	BH B15

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well Antero Dixon B15 (111314) - Slot B15
Company:	Antero Resources	TVD Reference:	KB @ 5544.00ft (Original Well Elev)
Project:	Dixon (NAD 83)	MD Reference:	KB @ 5544.00ft (Original Well Elev)
Site:	Dixon B	North Reference:	Grid
Well:	Antero Dixon B15 (111314)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Antero Dixon B15		
Design:	Antero Dixon B15 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	14,364,520.345	890,408.375	39.524077868°N	107.659557523°W	
Wasatch										
100.00	0.00	0.00	100.00	0.00	0.00	14,364,520.345	890,408.375	39.524077868°N	107.659557523°W	
200.00	0.00	0.00	200.00	0.00	0.00	14,364,520.345	890,408.375	39.524077868°N	107.659557523°W	
300.00	0.00	0.00	300.00	0.00	0.00	14,364,520.345	890,408.375	39.524077868°N	107.659557523°W	
400.00	0.00	0.00	400.00	0.00	0.00	14,364,520.345	890,408.375	39.524077868°N	107.659557523°W	
500.00	0.00	0.00	500.00	0.00	0.00	14,364,520.345	890,408.375	39.524077868°N	107.659557523°W	
600.00	0.00	0.00	600.00	0.00	0.00	14,364,520.345	890,408.375	39.524077868°N	107.659557523°W	
700.00	0.00	0.00	700.00	0.00	0.00	14,364,520.345	890,408.375	39.524077868°N	107.659557523°W	
800.00	0.00	0.00	800.00	0.00	0.00	14,364,520.345	890,408.375	39.524077868°N	107.659557523°W	
900.00	0.00	0.00	900.00	0.00	0.00	14,364,520.345	890,408.375	39.524077868°N	107.659557523°W	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,364,520.345	890,408.375	39.524077868°N	107.659557523°W	
Surf Csg at 1000 MD/TVD										
1,060.00	0.00	0.00	1,060.00	0.00	0.00	14,364,520.345	890,408.375	39.524077868°N	107.659557523°W	
KOP 3°/100 at 1060 MD/TVD										
1,100.00	1.20	127.13	1,100.00	-0.25	0.33	14,364,520.092	890,408.709	39.524077201°N	107.659556314°W	
1,200.00	4.20	127.13	1,199.87	-3.10	4.09	14,364,517.249	890,412.464	39.524069706°N	107.659542713°W	
1,300.00	7.20	127.13	1,299.37	-9.09	12.01	14,364,511.254	890,420.381	39.524053902°N	107.659514038°W	
1,400.00	10.20	127.13	1,398.21	-18.22	24.06	14,364,502.125	890,432.440	39.524029834°N	107.659470367°W	
1,500.00	13.20	127.13	1,496.12	-30.46	40.23	14,364,489.885	890,448.605	39.523997567°N	107.659411819°W	
1,600.00	16.20	127.13	1,592.83	-45.78	60.46	14,364,474.570	890,468.834	39.523957190°N	107.659338555°W	
1,700.00	19.20	127.13	1,688.09	-64.13	84.70	14,364,456.220	890,493.071	39.523908812°N	107.659250776°W	
1,800.00	22.20	127.13	1,781.62	-85.46	112.87	14,364,434.885	890,521.249	39.523852568°N	107.659148723°W	
1,900.00	25.20	127.13	1,873.18	-109.72	144.92	14,364,410.626	890,553.291	39.523788610°N	107.659032675°W	
2,000.00	28.20	127.13	1,962.51	-136.84	180.74	14,364,383.507	890,589.110	39.523717115°N	107.658902951°W	
2,009.97	28.50	127.13	1,971.28	-139.70	184.51	14,364,380.649	890,592.885	39.523709580°N	107.658889278°W	
Hold 28.5° inc at 2010 MD/1971 TVD										
2,100.00	28.50	127.13	2,050.40	-165.63	218.76	14,364,354.719	890,627.133	39.523641220°N	107.658765243°W	
2,200.00	28.50	127.13	2,138.28	-194.43	256.80	14,364,325.917	890,665.174	39.523565288°N	107.658627470°W	
2,300.00	28.50	127.13	2,226.17	-223.23	294.84	14,364,297.115	890,703.215	39.523489356°N	107.658489696°W	
2,400.00	28.50	127.13	2,314.05	-252.03	332.88	14,364,268.314	890,741.256	39.523413423°N	107.658351923°W	
2,500.00	28.50	127.13	2,401.93	-280.83	370.92	14,364,239.512	890,779.298	39.523337491°N	107.658214151°W	
2,600.00	28.50	127.13	2,489.81	-309.64	408.96	14,364,210.710	890,817.339	39.523261558°N	107.658076378°W	
2,700.00	28.50	127.13	2,577.69	-338.44	447.01	14,364,181.909	890,855.380	39.523185625°N	107.657938606°W	
2,800.00	28.50	127.13	2,665.58	-367.24	485.05	14,364,153.107	890,893.421	39.523109692°N	107.657800835°W	
2,900.00	28.50	127.13	2,753.46	-396.04	523.09	14,364,124.305	890,931.462	39.523033758°N	107.657663063°W	
3,000.00	28.50	127.13	2,841.34	-424.84	561.13	14,364,095.503	890,969.504	39.522957825°N	107.657525292°W	
3,100.00	28.50	127.13	2,929.22	-453.64	599.17	14,364,066.702	891,007.545	39.522881891°N	107.657387521°W	
3,200.00	28.50	127.13	3,017.11	-482.45	637.21	14,364,037.900	891,045.586	39.522805958°N	107.657249751°W	
3,300.00	28.50	127.13	3,104.99	-511.25	675.25	14,364,009.098	891,083.627	39.522730024°N	107.657111981°W	
3,400.00	28.50	127.13	3,192.87	-540.05	713.30	14,363,980.297	891,121.668	39.522654090°N	107.656974211°W	
3,500.00	28.50	127.13	3,280.75	-568.85	751.34	14,363,951.495	891,159.710	39.522578155°N	107.656836441°W	
3,600.00	28.50	127.13	3,368.64	-597.65	789.38	14,363,922.693	891,197.751	39.522502221°N	107.656698672°W	
3,700.00	28.50	127.13	3,456.52	-626.45	827.42	14,363,893.892	891,235.792	39.522426286°N	107.656560903°W	
3,800.00	28.50	127.13	3,544.40	-655.26	865.46	14,363,865.090	891,273.833	39.522350351°N	107.656423134°W	
3,900.00	28.50	127.13	3,632.28	-684.06	903.50	14,363,836.288	891,311.874	39.522274416°N	107.656285365°W	
4,000.00	28.50	127.13	3,720.17	-712.86	941.54	14,363,807.486	891,349.916	39.522198481°N	107.656147597°W	
4,015.42	28.50	127.13	3,733.72	-717.30	947.41	14,363,803.045	891,355.782	39.522186771°N	107.656126352°W	
Drop 3°/100 at 4015 MD/3734 TVD										
4,100.00	25.96	127.13	3,808.92	-740.66	978.26	14,363,779.686	891,386.634	39.522125186°N	107.656014619°W	
4,183.75	23.45	127.13	3,885.00	-761.79	1,006.17	14,363,758.557	891,414.541	39.522069480°N	107.655913554°W	
Mesaverde										
4,200.00	22.96	127.13	3,899.93	-765.65	1,011.27	14,363,754.694	891,419.644	39.522059293°N	107.655895072°W	
4,300.00	19.96	127.13	3,992.99	-787.74	1,040.44	14,363,732.611	891,448.811	39.522001071°N	107.655789443°W	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well Antero Dixon B15 (111314) - Slot B15
Company:	Antero Resources	TVD Reference:	KB @ 5544.00ft (Original Well Elev)
Project:	Dixon (NAD 83)	MD Reference:	KB @ 5544.00ft (Original Well Elev)
Site:	Dixon B	North Reference:	Grid
Well:	Antero Dixon B15 (111314)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Antero Dixon B15		
Design:	Antero Dixon B15 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	
4,400.00	16.96	127.13	4,087.83	-806.85	1,065.68	14,363,713.498	891,474.056	39.521950680°N	107.655698020°W	
4,500.00	13.96	127.13	4,184.20	-822.94	1,086.94	14,363,697.407	891,495.308	39.521908257°N	107.655621054°W	
4,600.00	10.96	127.13	4,281.83	-835.96	1,104.14	14,363,684.383	891,512.510	39.521873919°N	107.655558756°W	
4,700.00	7.96	127.13	4,380.46	-845.89	1,117.24	14,363,674.461	891,525.615	39.521847760°N	107.655511297°W	
4,800.00	4.96	127.13	4,479.81	-852.68	1,126.21	14,363,667.669	891,534.586	39.521829852°N	107.655478807°W	
4,900.00	1.96	127.13	4,579.62	-856.32	1,131.03	14,363,664.024	891,539.400	39.521820243°N	107.655461375°W	
4,965.39	0.00	0.00	4,645.00	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
Vertical at 4965 MD/4645 TVD - Price Coal										
5,000.00	0.00	0.00	4,679.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
5,100.00	0.00	0.00	4,779.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
5,200.00	0.00	0.00	4,879.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
5,300.00	0.00	0.00	4,979.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
5,400.00	0.00	0.00	5,079.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
5,500.00	0.00	0.00	5,179.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
5,600.00	0.00	0.00	5,279.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
5,700.00	0.00	0.00	5,379.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
5,800.00	0.00	0.00	5,479.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
5,865.39	0.00	0.00	5,545.00	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
Top Gas										
5,900.00	0.00	0.00	5,579.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
6,000.00	0.00	0.00	5,679.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
6,100.00	0.00	0.00	5,779.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
6,200.00	0.00	0.00	5,879.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
6,300.00	0.00	0.00	5,979.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
6,400.00	0.00	0.00	6,079.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
6,500.00	0.00	0.00	6,179.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
6,600.00	0.00	0.00	6,279.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
6,690.39	0.00	0.00	6,370.00	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
Cameo										
6,700.00	0.00	0.00	6,379.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
6,800.00	0.00	0.00	6,479.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
6,900.00	0.00	0.00	6,579.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
7,000.00	0.00	0.00	6,679.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
7,100.00	0.00	0.00	6,779.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
7,200.00	0.00	0.00	6,879.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
7,300.00	0.00	0.00	6,979.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
7,400.00	0.00	0.00	7,079.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
7,500.00	0.00	0.00	7,179.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
7,590.39	0.00	0.00	7,270.00	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
Rollins										
7,600.00	0.00	0.00	7,279.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
7,700.00	0.00	0.00	7,379.61	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
7,790.39	0.00	0.00	7,470.00	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W	
TD at 7790 MD/7470 TVD - BH B15										

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well Antero Dixon B15 (111314) - Slot B15
Company:	Antero Resources	TVD Reference:	KB @ 5544.00ft (Original Well Elev)
Project:	Dixon (NAD 83)	MD Reference:	KB @ 5544.00ft (Original Well Elev)
Site:	Dixon B	North Reference:	Grid
Well:	Antero Dixon B15 (111314)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Antero Dixon B15		
Design:	Antero Dixon B15 P01		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
BH B15	0.00	360.00	7,470.00	-857.00	1,131.92	14,363,663.349	891,540.292	39.521818462°N	107.655458143°W
- plan hits target center - Circle (radius 25.00)									

Casing Points					
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter	
(ft)	(ft)		(in)	(in)	
1,000.00	1,000.00	Surf Csg at 1000 MD/TVD	5.50	6.00	

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
0.00	0.00	Wasatch			
4,183.75	3,885.00	Mesaverde			
4,965.39	4,645.00	Price Coal			
5,865.39	5,545.00	Top Gas			
6,690.39	6,370.00	Cameo			
7,590.39	7,270.00	Rollins			

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S	+E/-W		
		(ft)	(ft)		
1,060.00	1,060.00	0.00	0.00	KOP 3°/100 at 1060 MD/TVD	
2,009.97	1,971.28	-139.70	184.51	Hold 28.5° inc at 2010 MD/1971 TVD	
4,015.42	3,733.72	-717.30	947.41	Drop 3°/100 at 4015 MD/3734 TVD	
4,965.39	4,645.00	-857.00	1,131.92	Vertical at 4965 MD/4645 TVD	
7,790.39	7,470.00	-857.00	1,131.92	TD at 7790 MD/7470 TVD	