



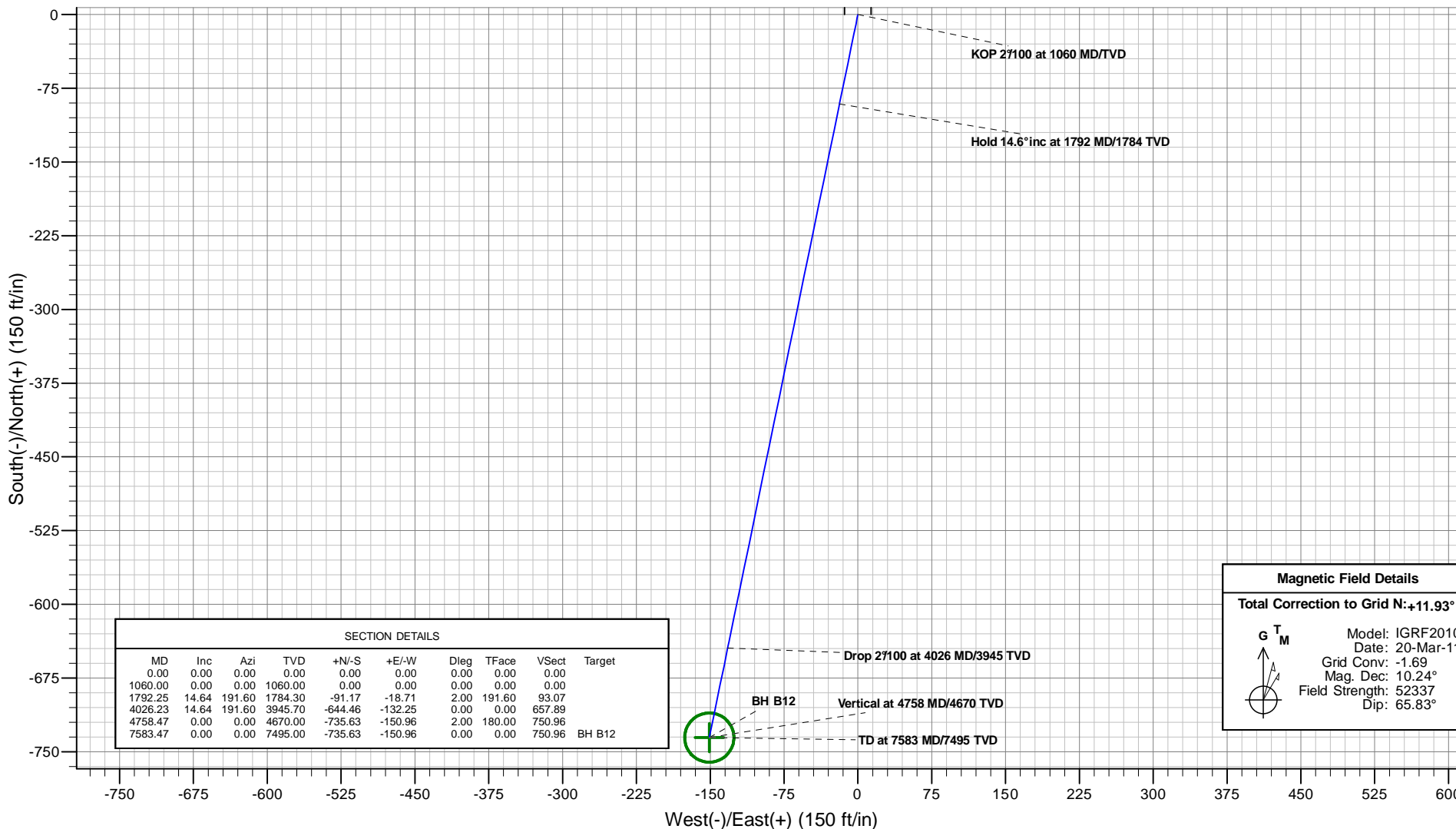
Antero Resources

Antero Dixon B12 (111311)



PLAN VIEW

Project: Dixon (NAD 83)
 Site: Dixon B
 Well: Antero Dixon B12 (111311)
 Wellbore: Antero Dixon B12
 Design: Antero Dixon B12 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	
1792.25	14.64	191.60	1784.30	-91.17	-18.71	2.00	191.60	93.07	
4026.23	14.64	191.60	3945.70	-644.46	-132.25	0.00	0.00	657.89	
4758.47	0.00	0.00	4670.00	-735.63	-150.96	2.00	180.00	750.96	
7583.47	0.00	0.00	7495.00	-735.63	-150.96	0.00	0.00	750.96	BH B12

Magnetic Field Details

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

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

Plan: Antero Dixon B12 P01
 Created By: ARK Directional Services
 Date: 14:47, January 18 2011

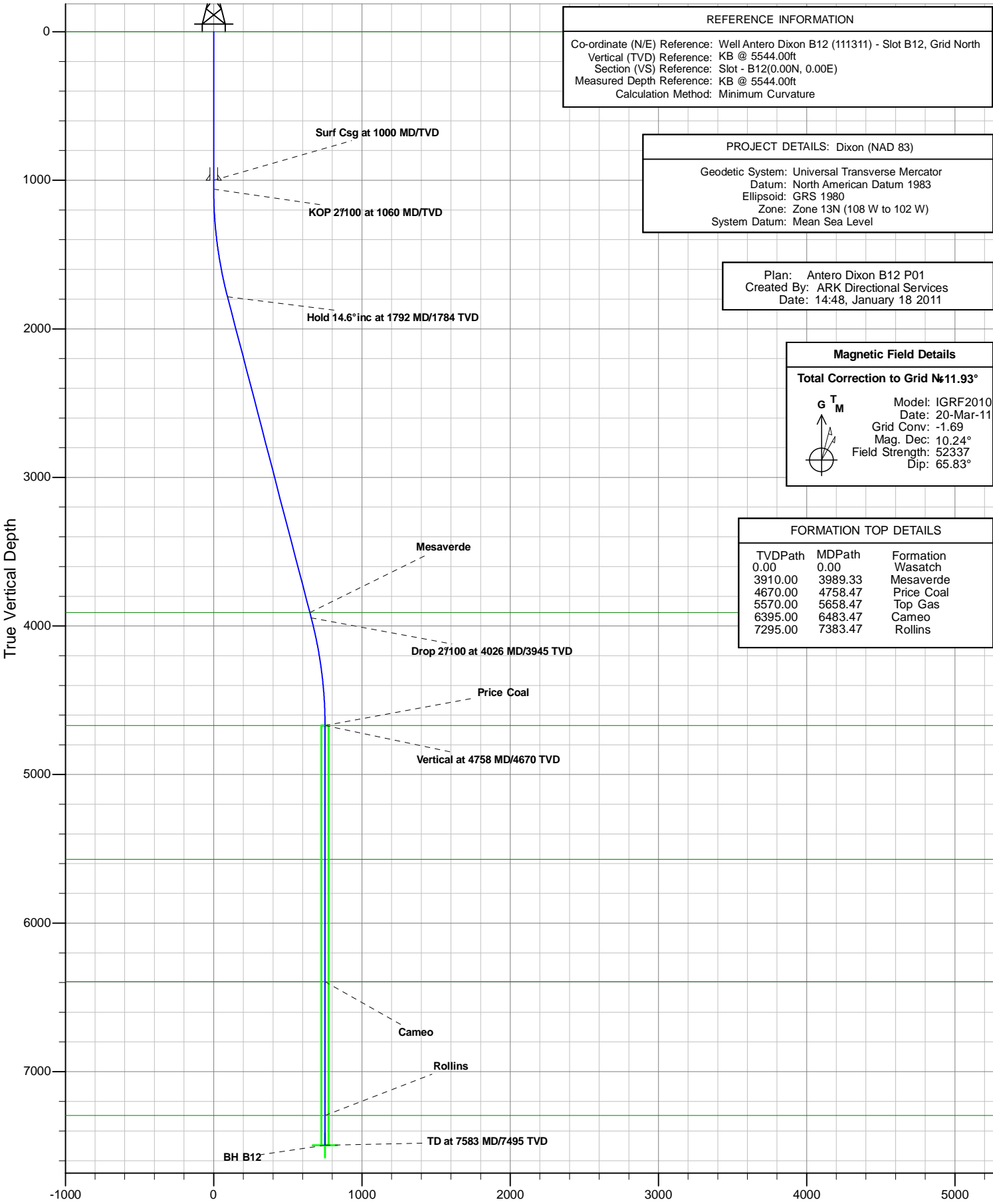
PROJECT DETAILS: Dixon (NAD 83)

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 B12 (111311) - Slot B12, Grid North
 Vertical (TVD) Reference: KB @ 5544.00ft
 Section (VS) Reference: Slot - B12(0.00N, 0.00E)
 Measured Depth Reference: KB @ 5544.00ft
 Calculation Method: Minimum Curvature

VERTICAL SECTION VIEW



REFERENCE INFORMATION	
Co-ordinate (N/E) Reference:	Well Antero Dixon B12 (111311) - Slot B12, Grid North
Vertical (TVD) Reference:	KB @ 5544.00ft
Section (VS) Reference:	Slot - B12(0.00N, 0.00E)
Measured Depth Reference:	KB @ 5544.00ft
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 B12 P01
Created By:	ARK Directional Services
Date:	14:48, 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
3910.00	3989.33	Mesaverde
4670.00	4758.47	Price Coal
5570.00	5658.47	Top Gas
6395.00	6483.47	Cameo
7295.00	7383.47	Rollins

Vertical Section at 191.60°

Antero Resources

Dixon (NAD 83)

Dixon B

Antero Dixon B12 (111311) - Slot B12

Antero Dixon B12

Plan: Antero Dixon B12 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 B12 (111311) - Slot B12
Company:	Antero Resources	TVD Reference:	KB @ 5544.00ft
Project:	Dixon (NAD 83)	MD Reference:	KB @ 5544.00ft
Site:	Dixon B	North Reference:	Grid
Well:	Antero Dixon B12 (111311)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Antero Dixon B12		
Design:	Antero Dixon B12 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 B12 (111311) - Slot B12					
Well Position	+N/-S	0.00 ft	Northing:	14,364,525.652 usft	Latitude:	39.524090864°N
	+E/-W	0.00 ft	Easting:	890,389.092 usft	Longitude:	107.659626388°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,520.00 ft

Wellbore	Antero Dixon B12				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	2011/03/20	(°)	(°)	(nT)
			10.24	65.83	52,337

Design	Antero Dixon B12 P01			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	7,495.00	0.00	0.00	191.60

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	
1,792.25	14.64	191.60	1,784.30	-91.17	-18.71	2.00	2.00	0.00	191.60	
4,026.23	14.64	191.60	3,945.70	-644.46	-132.25	0.00	0.00	0.00	0.00	
4,758.47	0.00	0.00	4,670.00	-735.63	-150.96	2.00	-2.00	0.00	180.00	
7,583.47	0.00	0.00	7,495.00	-735.63	-150.96	0.00	0.00	0.00	0.00	BH B12

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well Antero Dixon B12 (111311) - Slot B12
Company:	Antero Resources	TVD Reference:	KB @ 5544.00ft
Project:	Dixon (NAD 83)	MD Reference:	KB @ 5544.00ft
Site:	Dixon B	North Reference:	Grid
Well:	Antero Dixon B12 (111311)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Antero Dixon B12		
Design:	Antero Dixon B12 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	14,364,525.652	890,389.092	39.524090864°N	107.659626388°W	
Wasatch										
100.00	0.00	0.00	100.00	0.00	0.00	14,364,525.652	890,389.092	39.524090864°N	107.659626388°W	
200.00	0.00	0.00	200.00	0.00	0.00	14,364,525.652	890,389.092	39.524090864°N	107.659626388°W	
300.00	0.00	0.00	300.00	0.00	0.00	14,364,525.652	890,389.092	39.524090864°N	107.659626388°W	
400.00	0.00	0.00	400.00	0.00	0.00	14,364,525.652	890,389.092	39.524090864°N	107.659626388°W	
500.00	0.00	0.00	500.00	0.00	0.00	14,364,525.652	890,389.092	39.524090864°N	107.659626388°W	
600.00	0.00	0.00	600.00	0.00	0.00	14,364,525.652	890,389.092	39.524090864°N	107.659626388°W	
700.00	0.00	0.00	700.00	0.00	0.00	14,364,525.652	890,389.092	39.524090864°N	107.659626388°W	
800.00	0.00	0.00	800.00	0.00	0.00	14,364,525.652	890,389.092	39.524090864°N	107.659626388°W	
900.00	0.00	0.00	900.00	0.00	0.00	14,364,525.652	890,389.092	39.524090864°N	107.659626388°W	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,364,525.652	890,389.092	39.524090864°N	107.659626388°W	
Surf Csg at 1000 MD/TVD										
1,060.00	0.00	0.00	1,060.00	0.00	0.00	14,364,525.652	890,389.092	39.524090864°N	107.659626388°W	
KOP 2°/100 at 1060 MD/TVD										
1,100.00	0.80	191.60	1,100.00	-0.27	-0.06	14,364,525.378	890,389.036	39.524090109°N	107.659626558°W	
1,200.00	2.80	191.60	1,199.94	-3.35	-0.69	14,364,522.301	890,388.404	39.524081616°N	107.659628473°W	
1,300.00	4.80	191.60	1,299.72	-9.84	-2.02	14,364,515.810	890,387.072	39.524063698°N	107.659632512°W	
1,400.00	6.80	191.60	1,399.20	-19.74	-4.05	14,364,505.911	890,385.041	39.524036377°N	107.659638672°W	
1,500.00	8.80	191.60	1,498.27	-33.03	-6.78	14,364,492.617	890,382.312	39.523999685°N	107.659646944°W	
1,600.00	10.80	191.60	1,596.81	-49.71	-10.20	14,364,475.944	890,378.891	39.523953667°N	107.659657318°W	
1,700.00	12.80	191.60	1,694.69	-69.74	-14.31	14,364,455.913	890,374.780	39.523898379°N	107.659669782°W	
1,792.25	14.64	191.60	1,784.30	-91.17	-18.71	14,364,434.478	890,370.382	39.523839216°N	107.659683120°W	
Hold 14.6° inc at 1792 MD/1784 TVD										
1,800.00	14.64	191.60	1,791.80	-93.09	-19.10	14,364,432.558	890,369.987	39.523833916°N	107.659684315°W	
1,900.00	14.64	191.60	1,888.55	-117.86	-24.19	14,364,407.791	890,364.905	39.523765558°N	107.659699725°W	
2,000.00	14.64	191.60	1,985.30	-142.63	-29.27	14,364,383.025	890,359.822	39.523697199°N	107.659715136°W	
2,100.00	14.64	191.60	2,082.05	-167.39	-34.35	14,364,358.258	890,354.740	39.523628841°N	107.659730547°W	
2,200.00	14.64	191.60	2,178.81	-192.16	-39.43	14,364,333.492	890,349.657	39.523560483°N	107.659745957°W	
2,300.00	14.64	191.60	2,275.56	-216.93	-44.52	14,364,308.725	890,344.575	39.523492125°N	107.659761368°W	
2,400.00	14.64	191.60	2,372.31	-241.69	-49.60	14,364,283.958	890,339.492	39.523423766°N	107.659776779°W	
2,500.00	14.64	191.60	2,469.06	-266.46	-54.68	14,364,259.192	890,334.410	39.523355408°N	107.659792189°W	
2,600.00	14.64	191.60	2,565.81	-291.23	-59.76	14,364,234.425	890,329.327	39.523287050°N	107.659807600°W	
2,700.00	14.64	191.60	2,662.56	-315.99	-64.85	14,364,209.658	890,324.245	39.523218691°N	107.659823010°W	
2,800.00	14.64	191.60	2,759.31	-340.76	-69.93	14,364,184.892	890,319.162	39.523150333°N	107.659838421°W	
2,900.00	14.64	191.60	2,856.06	-365.53	-75.01	14,364,160.125	890,314.080	39.523081975°N	107.659853831°W	
3,000.00	14.64	191.60	2,952.81	-390.29	-80.09	14,364,135.359	890,308.997	39.523013616°N	107.659869242°W	
3,100.00	14.64	191.60	3,049.57	-415.06	-85.18	14,364,110.592	890,303.915	39.522945258°N	107.659884652°W	
3,200.00	14.64	191.60	3,146.32	-439.83	-90.26	14,364,085.825	890,298.832	39.522876900°N	107.659900063°W	
3,300.00	14.64	191.60	3,243.07	-464.59	-95.34	14,364,061.059	890,293.750	39.522808541°N	107.659915473°W	
3,400.00	14.64	191.60	3,339.82	-489.36	-100.42	14,364,036.292	890,288.667	39.522740183°N	107.659930883°W	
3,500.00	14.64	191.60	3,436.57	-514.13	-105.51	14,364,011.525	890,283.585	39.522671825°N	107.659946294°W	
3,600.00	14.64	191.60	3,533.32	-538.89	-110.59	14,363,986.759	890,278.502	39.522603466°N	107.659961704°W	
3,700.00	14.64	191.60	3,630.07	-563.66	-115.67	14,363,961.992	890,273.420	39.522535108°N	107.659977114°W	
3,800.00	14.64	191.60	3,726.82	-588.43	-120.75	14,363,937.226	890,268.337	39.522466749°N	107.659992525°W	
3,900.00	14.64	191.60	3,823.57	-613.19	-125.84	14,363,912.459	890,263.255	39.522398391°N	107.660007935°W	
3,989.33	14.64	191.60	3,910.00	-635.32	-130.38	14,363,890.336	890,258.715	39.522337328°N	107.660021700°W	
Mesaverde										
4,000.00	14.64	191.60	3,920.33	-637.96	-130.92	14,363,887.692	890,258.172	39.522330033°N	107.660023345°W	
4,026.23	14.64	191.60	3,945.70	-644.46	-132.25	14,363,881.197	890,256.839	39.522312104°N	107.660027387°W	
Drop 2°/100 at 4026 MD/3945 TVD										
4,100.00	13.17	191.60	4,017.31	-661.83	-135.82	14,363,863.828	890,253.275	39.522264165°N	107.660038194°W	
4,200.00	11.17	191.60	4,115.06	-682.47	-140.05	14,363,843.179	890,249.038	39.522207171°N	107.660051042°W	
4,300.00	9.17	191.60	4,213.48	-699.77	-143.60	14,363,825.884	890,245.488	39.522159436°N	107.660061803°W	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well Antero Dixon B12 (111311) - Slot B12
Company:	Antero Resources	TVD Reference:	KB @ 5544.00ft
Project:	Dixon (NAD 83)	MD Reference:	KB @ 5544.00ft
Site:	Dixon B	North Reference:	Grid
Well:	Antero Dixon B12 (111311)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Antero Dixon B12		
Design:	Antero Dixon B12 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	7.17	191.60	4,312.46	-713.69	-146.46	14,363,811.965	890,242.632	39.522121018°N	107.660070464°W	
4,500.00	5.17	191.60	4,411.88	-724.22	-148.62	14,363,801.438	890,240.472	39.522091962°N	107.660077014°W	
4,600.00	3.17	191.60	4,511.61	-731.34	-150.08	14,363,794.316	890,239.010	39.522072305°N	107.660081445°W	
4,700.00	1.17	191.60	4,611.53	-735.05	-150.84	14,363,790.608	890,238.249	39.522062070°N	107.660083752°W	
4,758.47	0.00	0.00	4,670.00	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
Vertical at 4758 MD/4670 TVD - Price Coal										
4,800.00	0.00	0.00	4,711.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
4,900.00	0.00	0.00	4,811.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
5,000.00	0.00	0.00	4,911.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
5,100.00	0.00	0.00	5,011.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
5,200.00	0.00	0.00	5,111.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
5,300.00	0.00	0.00	5,211.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
5,400.00	0.00	0.00	5,311.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
5,500.00	0.00	0.00	5,411.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
5,600.00	0.00	0.00	5,511.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
5,658.47	0.00	0.00	5,570.00	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
Top Gas										
5,700.00	0.00	0.00	5,611.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
5,800.00	0.00	0.00	5,711.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
5,900.00	0.00	0.00	5,811.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
6,000.00	0.00	0.00	5,911.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
6,100.00	0.00	0.00	6,011.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
6,200.00	0.00	0.00	6,111.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
6,300.00	0.00	0.00	6,211.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
6,400.00	0.00	0.00	6,311.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
6,483.47	0.00	0.00	6,395.00	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
Cameo										
6,500.00	0.00	0.00	6,411.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
6,600.00	0.00	0.00	6,511.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
6,700.00	0.00	0.00	6,611.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
6,800.00	0.00	0.00	6,711.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
6,900.00	0.00	0.00	6,811.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
7,000.00	0.00	0.00	6,911.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
7,100.00	0.00	0.00	7,011.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
7,200.00	0.00	0.00	7,111.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
7,300.00	0.00	0.00	7,211.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
7,383.47	0.00	0.00	7,295.00	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
Rollins										
7,400.00	0.00	0.00	7,311.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
7,500.00	0.00	0.00	7,411.53	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
7,583.47	0.00	0.00	7,495.00	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
TD at 7583 MD/7495 TVD - BH B12										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
BH B12	0.00	360.00	7,495.00	-735.63	-150.96	14,363,790.023	890,238.129	39.522060457°N	107.660084116°W	
<ul style="list-style-type: none"> - hit/miss target - Shape - plan hits target center - Circle (radius 25.00) 										

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well Antero Dixon B12 (111311) - Slot B12
Company:	Antero Resources	TVD Reference:	KB @ 5544.00ft
Project:	Dixon (NAD 83)	MD Reference:	KB @ 5544.00ft
Site:	Dixon B	North Reference:	Grid
Well:	Antero Dixon B12 (111311)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Antero Dixon B12		
Design:	Antero Dixon B12 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			
3,989.33	3,910.00	Mesaverde			
4,758.47	4,670.00	Price Coal			
5,658.47	5,570.00	Top Gas			
6,483.47	6,395.00	Cameo			
7,383.47	7,295.00	Rollins			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,060.00	1,060.00	0.00	0.00	KOP 2°/100 at 1060 MD/TVD	
1,792.25	1,784.30	-91.17	-18.71	Hold 14.6° inc at 1792 MD/1784 TVD	
4,026.23	3,945.70	-644.46	-132.25	Drop 2°/100 at 4026 MD/3945 TVD	
4,758.47	4,670.00	-735.63	-150.96	Vertical at 4758 MD/4670 TVD	
7,583.47	7,495.00	-735.63	-150.96	TD at 7583 MD/7495 TVD	