



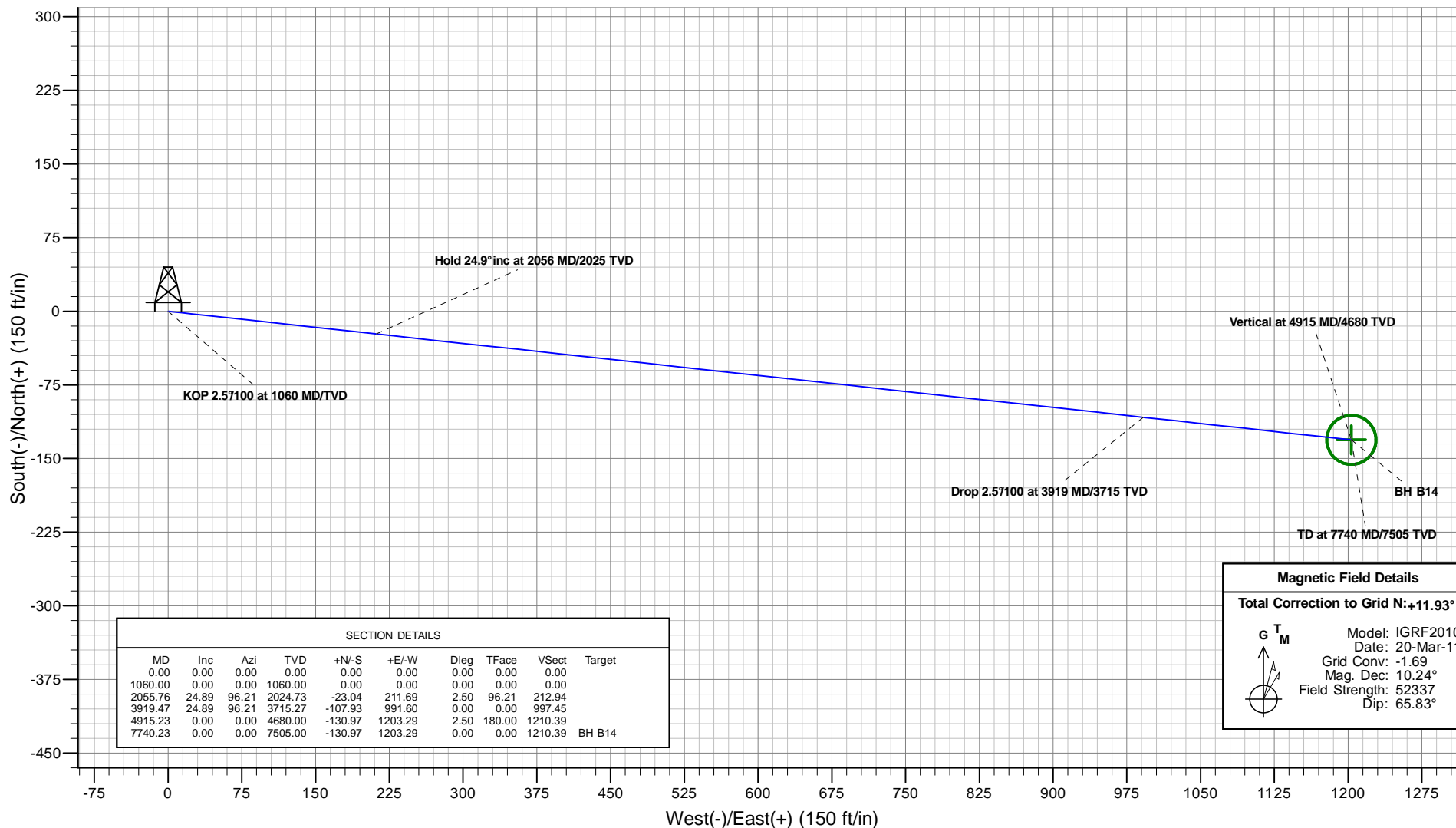
# Antero Resources

## Antero Dixon B14 (111313)



### PLAN VIEW

Project: Dixon (NAD 83)  
Site: Dixon B  
Well: Antero Dixon B14 (111313)  
Wellbore: Antero Dixon B14  
Design: Antero Dixon B14 P01

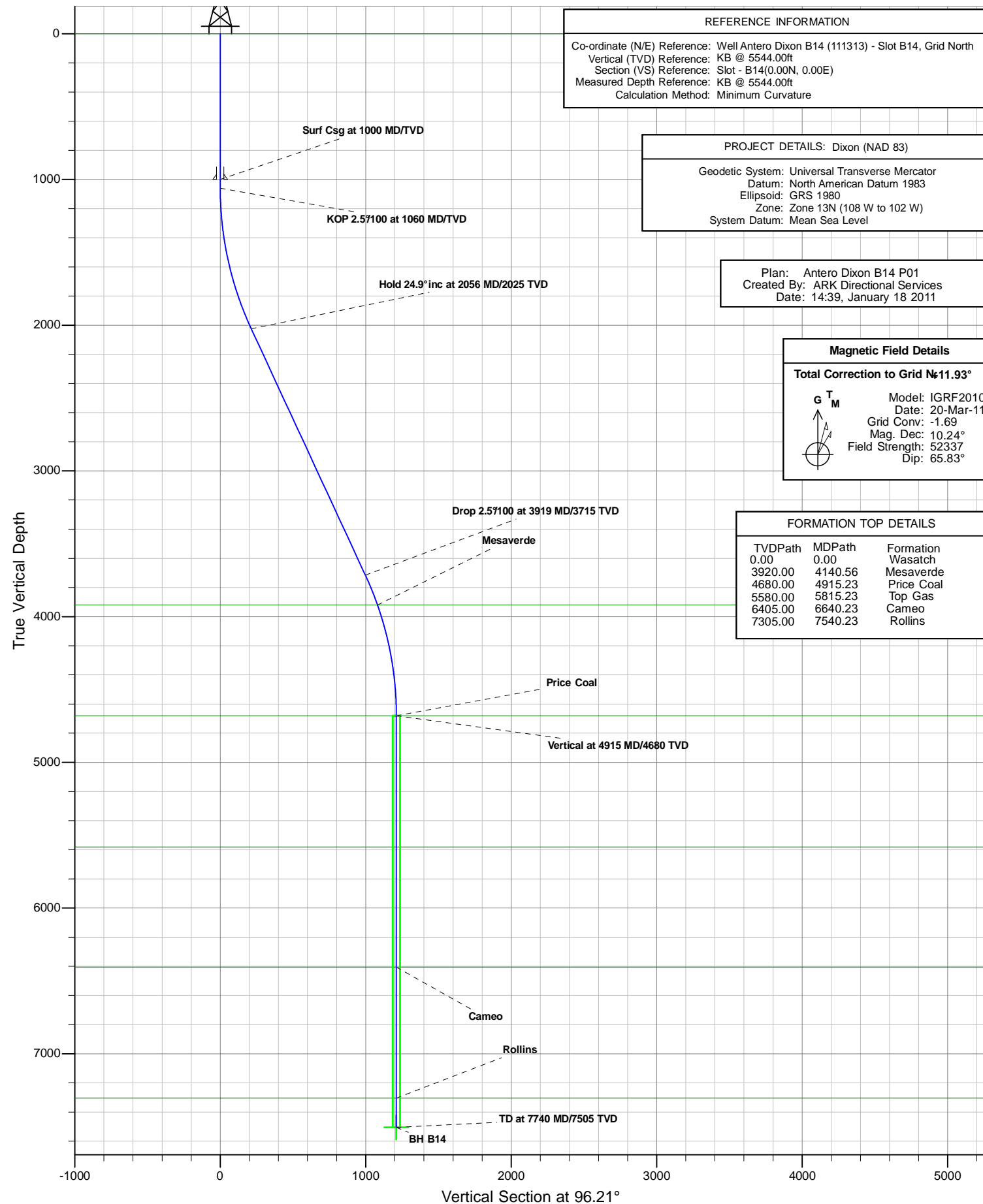


Plan: Antero Dixon B14 P01  
Created By: ARK Directional Services  
Date: 14:38, January 18 2011

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 (N/E) Reference: Well Antero Dixon B14 (111313) - Slot B14, Grid North  
Vertical (TVD) Reference: KB @ 5544.00ft  
Section (VS) Reference: Slot - B14(0.00N, 0.00E)  
Measured Depth Reference: KB @ 5544.00ft  
Calculation Method: Minimum Curvature

### VERTICAL SECTION VIEW



# **Antero Resources**

**Dixon (NAD 83)**

**Dixon B**

**Antero Dixon B14 (111313) - Slot B14**

**Antero Dixon B14**

**Plan: Antero Dixon B14 P01**

## **Standard Planning Report - Geographic**

**18 January, 2011**

# ARK Directional Services

## Planning Report - Geographic

<b>Database:</b>	EDM SERVER DB	<b>Local Co-ordinate Reference:</b>	Well Antero Dixon B14 (111313) - Slot B14
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	KB @ 5544.00ft
<b>Project:</b>	Dixon (NAD 83)	<b>MD Reference:</b>	KB @ 5544.00ft
<b>Site:</b>	Dixon B	<b>North Reference:</b>	Grid
<b>Well:</b>	Antero Dixon B14 (111313)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Antero Dixon B14		
<b>Design:</b>	Antero Dixon B14 P01		

<b>Project</b>	Dixon (NAD 83)		
<b>Map System:</b>	Universal Transverse Mercator	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	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 B14 (111313) - Slot B14					
Well Position	+N/-S	0.00 ft	Northing:	14,364,538.917 usft	Latitude:	39.524123346°N
	+E/-W	0.00 ft	Easting:	890,340.884 usft	Longitude:	107.659798552°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,520.00 ft

<b>Wellbore</b>	Antero Dixon B14				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	2011/03/20	10.24	65.83	52,337

<b>Design</b>	Antero Dixon B14 P01				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	7,505.00	0.00	0.00	96.21	

<b>Plan Sections</b>										
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	
2,055.76	24.89	96.21	2,024.73	-23.04	211.69	2.50	2.50	0.00	96.21	
3,919.47	24.89	96.21	3,715.27	-107.93	991.60	0.00	0.00	0.00	0.00	
4,915.23	0.00	0.00	4,680.00	-130.97	1,203.29	2.50	-2.50	0.00	180.00	
7,740.23	0.00	0.00	7,505.00	-130.97	1,203.29	0.00	0.00	0.00	0.00	BH B14

# ARK Directional Services

## Planning Report - Geographic

<b>Database:</b>	EDM SERVER DB	<b>Local Co-ordinate Reference:</b>	Well Antero Dixon B14 (111313) - Slot B14
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	KB @ 5544.00ft
<b>Project:</b>	Dixon (NAD 83)	<b>MD Reference:</b>	KB @ 5544.00ft
<b>Site:</b>	Dixon B	<b>North Reference:</b>	Grid
<b>Well:</b>	Antero Dixon B14 (111313)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Antero Dixon B14		
<b>Design:</b>	Antero Dixon B14 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	14,364,538.917	890,340.884	39.524123346°N	107.659798552°W
<b>Wasatch</b>									
100.00	0.00	0.00	100.00	0.00	0.00	14,364,538.917	890,340.884	39.524123346°N	107.659798552°W
200.00	0.00	0.00	200.00	0.00	0.00	14,364,538.917	890,340.884	39.524123346°N	107.659798552°W
300.00	0.00	0.00	300.00	0.00	0.00	14,364,538.917	890,340.884	39.524123346°N	107.659798552°W
400.00	0.00	0.00	400.00	0.00	0.00	14,364,538.917	890,340.884	39.524123346°N	107.659798552°W
500.00	0.00	0.00	500.00	0.00	0.00	14,364,538.917	890,340.884	39.524123346°N	107.659798552°W
600.00	0.00	0.00	600.00	0.00	0.00	14,364,538.917	890,340.884	39.524123346°N	107.659798552°W
700.00	0.00	0.00	700.00	0.00	0.00	14,364,538.917	890,340.884	39.524123346°N	107.659798552°W
800.00	0.00	0.00	800.00	0.00	0.00	14,364,538.917	890,340.884	39.524123346°N	107.659798552°W
900.00	0.00	0.00	900.00	0.00	0.00	14,364,538.917	890,340.884	39.524123346°N	107.659798552°W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,364,538.917	890,340.884	39.524123346°N	107.659798552°W
<b>Surf Csg at 1000 MD/TVD</b>									
1,060.00	0.00	0.00	1,060.00	0.00	0.00	14,364,538.917	890,340.884	39.524123346°N	107.659798552°W
<b>KOP 2.5°/100 at 1060 MD/TVD</b>									
1,100.00	1.00	96.21	1,100.00	-0.04	0.35	14,364,538.879	890,341.231	39.524123270°N	107.659797319°W
1,200.00	3.50	96.21	1,199.91	-0.46	4.25	14,364,538.454	890,345.133	39.524122421°N	107.659783449°W
1,300.00	6.00	96.21	1,299.56	-1.36	12.48	14,364,537.558	890,353.365	39.524120631°N	107.659754196°W
1,400.00	8.50	96.21	1,398.75	-2.72	25.03	14,364,536.193	890,365.910	39.524117903°N	107.659709613°W
1,500.00	11.00	96.21	1,497.30	-4.56	41.86	14,364,534.361	890,382.744	39.524114241°N	107.659649787°W
1,600.00	13.50	96.21	1,595.02	-6.85	62.95	14,364,532.065	890,403.835	39.524109654°N	107.659574831°W
1,700.00	16.00	96.21	1,691.71	-9.61	88.26	14,364,529.310	890,429.144	39.524104149°N	107.659484888°W
1,800.00	18.50	96.21	1,787.21	-12.81	117.74	14,364,526.102	890,458.622	39.524097738°N	107.659380129°W
1,900.00	21.00	96.21	1,881.32	-16.47	151.33	14,364,522.446	890,492.212	39.524090431°N	107.659260753°W
2,000.00	23.50	96.21	1,973.87	-20.57	188.97	14,364,518.349	890,529.852	39.524082244°N	107.659126988°W
2,055.76	24.89	96.21	2,024.73	-23.04	211.69	14,364,515.876	890,552.573	39.524077302°N	107.659046240°W
<b>Hold 24.9° inc at 2056 MD/2025 TVD</b>									
2,100.00	24.89	96.21	2,064.85	-25.06	230.20	14,364,513.861	890,571.085	39.524073276°N	107.658980452°W
2,200.00	24.89	96.21	2,155.56	-29.61	272.05	14,364,509.307	890,612.932	39.524064173°N	107.658831734°W
2,300.00	24.89	96.21	2,246.27	-34.16	313.90	14,364,504.752	890,654.779	39.524055070°N	107.658683016°W
2,400.00	24.89	96.21	2,336.98	-38.72	355.74	14,364,500.197	890,696.626	39.524045967°N	107.658534298°W
2,500.00	24.89	96.21	2,427.69	-43.27	397.59	14,364,495.642	890,738.473	39.524036864°N	107.658385580°W
2,600.00	24.89	96.21	2,518.40	-47.83	439.44	14,364,491.088	890,780.319	39.524027761°N	107.658236863°W
2,700.00	24.89	96.21	2,609.11	-52.38	481.28	14,364,486.533	890,822.166	39.524018657°N	107.658088145°W
2,800.00	24.89	96.21	2,699.82	-56.94	523.13	14,364,481.978	890,864.013	39.524009554°N	107.657939427°W
2,900.00	24.89	96.21	2,790.52	-61.49	564.98	14,364,477.424	890,905.860	39.524000450°N	107.657790709°W
3,000.00	24.89	96.21	2,881.23	-66.05	606.82	14,364,472.869	890,947.707	39.523991345°N	107.657641992°W
3,100.00	24.89	96.21	2,971.94	-70.60	648.67	14,364,468.314	890,989.554	39.523982241°N	107.657493274°W
3,200.00	24.89	96.21	3,062.65	-75.16	690.52	14,364,463.760	891,031.401	39.523973137°N	107.657344556°W
3,300.00	24.89	96.21	3,153.36	-79.71	732.37	14,364,459.205	891,073.248	39.523964032°N	107.657195839°W
3,400.00	24.89	96.21	3,244.07	-84.27	774.21	14,364,454.650	891,115.095	39.523954927°N	107.657047121°W
3,500.00	24.89	96.21	3,334.78	-88.82	816.06	14,364,450.096	891,156.942	39.523945822°N	107.656898404°W
3,600.00	24.89	96.21	3,425.49	-93.38	857.91	14,364,445.541	891,198.789	39.523936717°N	107.656749686°W
3,700.00	24.89	96.21	3,516.19	-97.93	899.75	14,364,440.986	891,240.636	39.523927611°N	107.656600969°W
3,800.00	24.89	96.21	3,606.90	-102.49	941.60	14,364,436.431	891,282.483	39.523918506°N	107.656452251°W
3,900.00	24.89	96.21	3,697.61	-107.04	983.45	14,364,431.877	891,324.330	39.523909400°N	107.656303534°W
3,919.47	24.89	96.21	3,715.27	-107.93	991.60	14,364,430.990	891,332.477	39.523907627°N	107.656274581°W
<b>Drop 2.5°/100 at 3919 MD/3715 TVD</b>									
4,000.00	22.88	96.21	3,788.90	-111.46	1,024.01	14,364,427.462	891,364.895	39.523900573°N	107.656159375°W
4,100.00	20.38	96.21	3,881.85	-115.44	1,060.66	14,364,423.473	891,401.538	39.523892599°N	107.656029152°W
4,140.56	19.37	96.21	3,920.00	-116.94	1,074.36	14,364,421.981	891,415.246	39.523889616°N	107.655980434°W
<b>Mesaverde</b>									
4,200.00	17.88	96.21	3,976.32	-118.99	1,093.23	14,364,419.928	891,434.115	39.523885510°N	107.655913377°W
4,300.00	15.38	96.21	4,072.13	-122.09	1,121.68	14,364,416.831	891,462.565	39.523879319°N	107.655812270°W

# ARK Directional Services

## Planning Report - Geographic

<b>Database:</b>	EDM SERVER DB	<b>Local Co-ordinate Reference:</b>	Well Antero Dixon B14 (111313) - Slot B14
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	KB @ 5544.00ft
<b>Project:</b>	Dixon (NAD 83)	<b>MD Reference:</b>	KB @ 5544.00ft
<b>Site:</b>	Dixon B	<b>North Reference:</b>	Grid
<b>Well:</b>	Antero Dixon B14 (111313)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Antero Dixon B14		
<b>Design:</b>	Antero Dixon B14 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	12.88	96.21	4,169.10	-124.73	1,145.95	14,364,414.190	891,486.833	39.523874038°N	107.655726024°W
4,500.00	10.38	96.21	4,267.04	-126.91	1,165.99	14,364,412.008	891,506.874	39.523869677°N	107.655654804°W
4,600.00	7.88	96.21	4,365.76	-128.63	1,181.77	14,364,410.291	891,522.648	39.523866244°N	107.655598744°W
4,700.00	5.38	96.21	4,465.08	-129.87	1,193.25	14,364,409.042	891,534.127	39.523863746°N	107.65557952°W
4,800.00	2.88	96.21	4,564.82	-130.65	1,200.41	14,364,408.263	891,541.287	39.523862187°N	107.655532505°W
4,900.00	0.38	96.21	4,664.77	-130.96	1,203.23	14,364,407.955	891,544.116	39.523861572°N	107.655522452°W
4,915.23	0.00	0.00	4,680.00	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
Vertical at 4915 MD/4680 TVD - Price Coal									
5,000.00	0.00	0.00	4,764.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
5,100.00	0.00	0.00	4,864.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
5,200.00	0.00	0.00	4,964.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
5,300.00	0.00	0.00	5,064.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
5,400.00	0.00	0.00	5,164.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
5,500.00	0.00	0.00	5,264.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
5,600.00	0.00	0.00	5,364.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
5,700.00	0.00	0.00	5,464.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
5,800.00	0.00	0.00	5,564.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
5,815.23	0.00	0.00	5,580.00	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
Top Gas									
5,900.00	0.00	0.00	5,664.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
6,000.00	0.00	0.00	5,764.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
6,100.00	0.00	0.00	5,864.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
6,200.00	0.00	0.00	5,964.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
6,300.00	0.00	0.00	6,064.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
6,400.00	0.00	0.00	6,164.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
6,500.00	0.00	0.00	6,264.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
6,600.00	0.00	0.00	6,364.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
6,640.23	0.00	0.00	6,405.00	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
Cameo									
6,700.00	0.00	0.00	6,464.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
6,800.00	0.00	0.00	6,564.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
6,900.00	0.00	0.00	6,664.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
7,000.00	0.00	0.00	6,764.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
7,100.00	0.00	0.00	6,864.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
7,200.00	0.00	0.00	6,964.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
7,300.00	0.00	0.00	7,064.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
7,400.00	0.00	0.00	7,164.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
7,500.00	0.00	0.00	7,264.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
7,540.23	0.00	0.00	7,305.00	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
Rollins									
7,600.00	0.00	0.00	7,364.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
7,700.00	0.00	0.00	7,464.77	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
7,740.23	0.00	0.00	7,505.00	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
TD at 7740 MD/7505 TVD - BH B14									

# ARK Directional Services

## Planning Report - Geographic

<b>Database:</b>	EDM SERVER DB	<b>Local Co-ordinate Reference:</b>	Well Antero Dixon B14 (111313) - Slot B14
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	KB @ 5544.00ft
<b>Project:</b>	Dixon (NAD 83)	<b>MD Reference:</b>	KB @ 5544.00ft
<b>Site:</b>	Dixon B	<b>North Reference:</b>	Grid
<b>Well:</b>	Antero Dixon B14 (111313)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Antero Dixon B14		
<b>Design:</b>	Antero Dixon B14 P01		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
BH B14	0.00	360.00	7,505.00	-130.97	1,203.29	14,364,407.949	891,544.166	39.523861561°N	107.655522273°W
- plan hits target center									
- Circle (radius 25.00)									

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

Formations						
Measured Depth	Vertical Depth				Dip	Dip Direction
(ft)	(ft)	Name	Lithology		(°)	(°)
0.00	0.00	Wasatch				
4,140.56	3,920.00	Mesaverde				
4,915.23	4,680.00	Price Coal				
5,815.23	5,580.00	Top Gas				
6,640.23	6,405.00	Cameo				
7,540.23	7,305.00	Rollins				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
1,060.00	1,060.00	0.00	0.00	KOP 2.5°/100 at 1060 MD/TVD	
2,055.76	2,024.73	-23.04	211.69	Hold 24.9° inc at 2056 MD/2025 TVD	
3,919.47	3,715.27	-107.93	991.60	Drop 2.5°/100 at 3919 MD/3715 TVD	
4,915.23	4,680.00	-130.97	1,203.29	Vertical at 4915 MD/4680 TVD	
7,740.23	7,505.00	-130.97	1,203.29	TD at 7740 MD/7505 TVD	