



REFERENCE INFORMATION	
ordinate (N/E) Reference:	Well Dixon A11 (112016) - Slot A11, Grid North
erical (TVD) Reference:	KB @ 5559.00ft (Original Well Elev)
Section (VS) Reference:	Slot - A11(0.00N, 0.00E)
asured Depth Reference:	KB @ 5559.00ft (Original Well Elev)
Calculation Method:	Minimum Curvature

PROJECT DETAILS: Dixon	
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

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	
1150.00	0.00	0.00	1150.00	0.00	0.00	0.00	0.00	0.00	
1984.25	25.03	135.43	1857.97	-127.74	125.85	3.00	135.43	179.32	
4283.16	25.03	135.43	4041.03	-820.55	808.41	0.00	0.00	0.00	
5117.41	0.00	135.43	4849.00	-948.30	934.27	3.00	180.00	1331.21	BH A11
8017.41	0.00	135.43	7749.00	-948.30	934.27	0.00	135.43	1331.21	BH A11

Antero Resources

Dixon

Dixon A

Dixon A11 (112016) - Slot A11

Dixon A11

Plan: Dixon A11 P01

Standard Planning Report - Geographic

26 April, 2012

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Dixon A11 (112016) - Slot A11
Company:	Antero Resources	TVD Reference:	KB @ 5559.00ft (Original Well Elev)
Project:	Dixon	MD Reference:	KB @ 5559.00ft (Original Well Elev)
Site:	Dixon A	North Reference:	Gnd
Well:	Dixon A11 (112016)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dixon A11		
Design:	Dixon A11 P01		

Project	Dixon		
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 A		
Site Position:		Northing:	14,366,922.96 usft
From:	Map	Easting:	877,460.93 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	39.529609988°N
		Longitude:	107.705677999°W
		Grid Convergence:	-1.72 °

Well	Dixon A11 (112016) - Slot A11		
Well Position	+N-S	0.00 ft	Northing:
	+E-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	
		Latitude:	39.529608174°N
		Longitude:	107.705820296°W
		Ground Level:	5,535.00 ft

Wellbore	Dixon A11				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	07/25/12	10.08	65.79	52,197

Design	Dixon A11 P01			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	135.43

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	
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,984.25	25.03	135.43	1,957.97	-127.74	125.85	3.00	3.00	0.00	135.43	
4,283.16	25.03	135.43	4,041.03	-820.55	808.41	0.00	0.00	0.00	0.00	
5,117.41	0.00	135.43	4,849.00	-948.30	934.27	3.00	-3.00	0.00	180.00	
8,017.41	0.00	135.43	7,749.00	-948.30	934.27	0.00	0.00	0.00	135.43	BH A11

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Dixon A11 (112016) - Slot A11
Company:	Antero Resources	TVD Reference:	KB @ 5559 00ft (Original Well Elev)
Project:	Dixon	MD Reference:	KB @ 5559 00ft (Original Well Elev)
Site:	Dixon A	North Reference:	Grid
Well:	Dixon A11 (112016)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dixon A11		
Design:	Dixon A11 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	14,366,923.51	877,420.78	39.529608174°N	107.705820296°W
Wasatch									
100.00	0.00	0.00	100.00	0.00	0.00	14,366,923.51	877,420.78	39.529608174°N	107.705820296°W
200.00	0.00	0.00	200.00	0.00	0.00	14,366,923.51	877,420.78	39.529608174°N	107.705820296°W
300.00	0.00	0.00	300.00	0.00	0.00	14,366,923.51	877,420.78	39.529608174°N	107.705820296°W
400.00	0.00	0.00	400.00	0.00	0.00	14,366,923.51	877,420.78	39.529608174°N	107.705820296°W
500.00	0.00	0.00	500.00	0.00	0.00	14,366,923.51	877,420.78	39.529608174°N	107.705820296°W
600.00	0.00	0.00	600.00	0.00	0.00	14,366,923.51	877,420.78	39.529608174°N	107.705820296°W
700.00	0.00	0.00	700.00	0.00	0.00	14,366,923.51	877,420.78	39.529608174°N	107.705820296°W
800.00	0.00	0.00	800.00	0.00	0.00	14,366,923.51	877,420.78	39.529608174°N	107.705820296°W
900.00	0.00	0.00	900.00	0.00	0.00	14,366,923.51	877,420.78	39.529608174°N	107.705820296°W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,366,923.51	877,420.78	39.529608174°N	107.705820296°W
Surf Csg at 1000 MD/TVD									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,366,923.51	877,420.78	39.529608174°N	107.705820296°W
1,150.00	0.00	0.00	1,150.00	0.00	0.00	14,366,923.51	877,420.78	39.529608174°N	107.705820296°W
KOP 3°/100 at 1150 MD/TVD									
1,200.00	1.50	135.43	1,199.99	-0.47	0.46	14,366,923.04	877,421.24	39.529606933°N	107.705818619°W
1,300.00	4.50	135.43	1,299.85	-4.19	4.13	14,366,919.32	877,424.91	39.529597009°N	107.705805212°W
1,400.00	7.50	135.43	1,399.29	-11.64	11.47	14,366,911.87	877,432.25	39.529577190°N	107.705778433°W
1,500.00	10.50	135.43	1,498.04	-22.78	22.44	14,366,900.73	877,443.23	39.529547528°N	107.705738356°W
1,600.00	13.50	135.43	1,595.85	-37.59	37.03	14,366,885.92	877,457.82	39.529508106°N	107.705685092°W
1,700.00	16.50	135.43	1,692.43	-56.03	55.20	14,366,867.48	877,475.98	39.529459031°N	107.705618786°W
1,800.00	19.50	135.43	1,787.52	-78.04	76.88	14,366,845.47	877,497.66	39.529400438°N	107.705539621°W
1,900.00	22.50	135.43	1,880.87	-103.56	102.03	14,366,819.95	877,522.81	39.529332487°N	107.705447812°W
1,984.25	25.03	135.43	1,957.97	-127.74	125.85	14,366,795.77	877,546.63	39.529268115°N	107.705360839°W
Hold 25° at 1984 MD/1958 TVD									
2,000.00	25.03	135.43	1,972.24	-132.49	130.53	14,366,791.02	877,551.31	39.529255476°N	107.705343763°W
2,100.00	25.03	135.43	2,062.85	-162.63	160.22	14,366,760.88	877,581.00	39.529175251°N	107.705235371°W
2,200.00	25.03	135.43	2,153.46	-192.76	189.91	14,366,730.75	877,610.69	39.529095026°N	107.705126980°W
2,300.00	25.03	135.43	2,244.08	-222.90	219.60	14,366,700.61	877,640.38	39.529014801°N	107.705018589°W
2,400.00	25.03	135.43	2,334.69	-253.04	249.29	14,366,670.47	877,670.07	39.528934576°N	107.704910199°W
2,500.00	25.03	135.43	2,425.30	-283.17	278.98	14,366,640.34	877,699.76	39.528854351°N	107.704801808°W
2,600.00	25.03	135.43	2,515.91	-313.31	308.67	14,366,610.20	877,729.45	39.528774126°N	107.704693416°W
2,700.00	25.03	135.43	2,606.52	-343.45	338.36	14,366,580.06	877,759.14	39.528693900°N	107.704585028°W
2,800.00	25.03	135.43	2,697.13	-373.58	368.05	14,366,549.93	877,788.84	39.528613674°N	107.704476638°W
2,900.00	25.03	135.43	2,787.74	-403.72	397.75	14,366,519.79	877,818.53	39.528533449°N	107.704368249°W
3,000.00	25.03	135.43	2,878.35	-433.85	427.44	14,366,489.66	877,848.22	39.528453223°N	107.704259859°W
3,100.00	25.03	135.43	2,968.96	-463.99	457.13	14,366,459.52	877,877.91	39.528372997°N	107.704151471°W
3,200.00	25.03	135.43	3,059.57	-494.13	486.82	14,366,429.38	877,907.60	39.528292771°N	107.704043082°W
3,300.00	25.03	135.43	3,150.18	-524.26	516.51	14,366,399.25	877,937.29	39.528212545°N	107.703934693°W
3,400.00	25.03	135.43	3,240.79	-554.40	546.20	14,366,369.11	877,966.98	39.528132319°N	107.703826305°W
3,500.00	25.03	135.43	3,331.40	-584.54	575.89	14,366,338.97	877,996.67	39.528052092°N	107.703717917°W
3,600.00	25.03	135.43	3,422.01	-614.67	605.58	14,366,308.84	878,026.36	39.527971866°N	107.703609529°W
3,700.00	25.03	135.43	3,512.62	-644.81	635.27	14,366,278.70	878,056.05	39.527891639°N	107.703501142°W
3,800.00	25.03	135.43	3,603.23	-674.95	664.96	14,366,248.56	878,085.74	39.527811412°N	107.703392755°W
3,900.00	25.03	135.43	3,693.84	-705.08	694.65	14,366,218.43	878,115.43	39.527731186°N	107.703284368°W
4,000.00	25.03	135.43	3,784.45	-735.22	724.34	14,366,188.29	878,145.12	39.527650959°N	107.703175981°W
4,100.00	25.03	135.43	3,875.07	-765.35	754.03	14,366,158.16	878,174.81	39.527570732°N	107.703067594°W
4,200.00	25.03	135.43	3,965.68	-795.49	783.72	14,366,128.02	878,204.50	39.527490504°N	107.702959208°W
4,283.16	25.03	135.43	4,041.03	-820.55	808.41	14,366,102.96	878,229.19	39.527423784°N	107.702869070°W
Drop 3°/100 at 4283 MD/4041 TVD									
4,291.95	24.76	135.43	4,049.00	-823.19	811.01	14,366,100.32	878,231.79	39.527416771°N	107.702859595°W
Mesaverde									
4,300.00	24.52	135.43	4,056.32	-825.58	813.36	14,366,097.93	878,234.14	39.527410405°N	107.702850995°W

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Dixon A11 (112016) - Slot A11
Company:	Aniero Resources	TVD Reference:	KB @ 5559 00ft (Original Well Elev)
Project:	Dixon	MD Reference:	KB @ 5559 00ft (Original Well Elev)
Site:	Dixon A	North Reference:	Gnd
Well:	Dixon A11 (112016)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dixon A11		
Design:	Dixon A11 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	21.52	135.43	4,148.34	-853.44	840.81	14,366,070.07	878,261.59	39.527336247°N	107.702750809°W
4,500.00	18.52	135.43	4,242.29	-877.82	864.84	14,366,045.69	878,285.61	39.527271324°N	107.702663100°W
4,600.00	15.52	135.43	4,337.90	-898.67	885.38	14,366,024.84	878,306.16	39.527215815°N	107.702588108°W
4,700.00	12.52	135.43	4,434.90	-915.93	902.38	14,366,007.58	878,323.16	39.527169870°N	107.702526038°W
4,800.00	9.52	135.43	4,533.05	-929.55	915.80	14,365,993.96	878,336.58	39.527133617°N	107.702477061°W
4,900.00	6.52	135.43	4,632.06	-939.49	925.59	14,365,984.02	878,346.37	39.527107154°N	107.702441310°W
5,000.00	3.52	135.43	4,731.66	-945.73	931.73	14,365,977.78	878,352.51	39.527090554°N	107.702418884°W
5,100.00	0.52	135.43	4,831.59	-948.24	934.21	14,365,975.27	878,354.99	39.527083862°N	107.702409844°W
5,117.41	0.00	135.43	4,849.00	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
Vertical at 5117 MD/4849 TVD - Price Coal									
5,200.00	0.00	135.43	4,931.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
5,300.00	0.00	135.43	5,031.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
5,400.00	0.00	135.43	5,131.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
5,500.00	0.00	135.43	5,231.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
5,600.00	0.00	135.43	5,331.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
5,700.00	0.00	135.43	5,431.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
5,800.00	0.00	135.43	5,531.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
5,817.41	0.00	135.43	5,549.00	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
Top Gas									
5,900.00	0.00	135.43	5,631.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
6,000.00	0.00	135.43	5,731.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
6,100.00	0.00	135.43	5,831.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
6,200.00	0.00	135.43	5,931.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
6,300.00	0.00	135.43	6,031.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
6,400.00	0.00	135.43	6,131.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
6,500.00	0.00	135.43	6,231.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
6,600.00	0.00	135.43	6,331.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
6,700.00	0.00	135.43	6,431.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
6,717.41	0.00	135.43	6,449.00	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
Cameo									
6,800.00	0.00	135.43	6,531.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
6,900.00	0.00	135.43	6,631.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
7,000.00	0.00	135.43	6,731.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
7,100.00	0.00	135.43	6,831.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
7,200.00	0.00	135.43	6,931.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
7,300.00	0.00	135.43	7,031.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
7,400.00	0.00	135.43	7,131.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
7,500.00	0.00	135.43	7,231.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
7,600.00	0.00	135.43	7,331.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
7,700.00	0.00	135.43	7,431.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
7,800.00	0.00	135.43	7,531.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
7,817.41	0.00	135.43	7,549.00	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
Rollins									
7,900.00	0.00	135.43	7,631.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
8,000.00	0.00	135.43	7,731.59	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
8,017.41	0.00	135.43	7,749.00	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
TD at 8017 MD/7749 TVD									

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Dixon A11 (112016) - Slot A11
Company:	Antero Resources	TVD Reference:	KB @ 5559 00ft (Original Well Elev)
Project:	Dixon	MD Reference:	KB @ 5559 00ft (Original Well Elev)
Site:	Dixon A	North Reference:	Grid
Well:	Dixon A11 (112016)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dixon A11		
Design:	Dixon A11 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 A11	0.00	360.00	7,749.00	-948.30	934.27	14,365,975.21	878,355.05	39.527083712°N	107.702409641°W
- plan hits target center									
- Circle (radius 20.00)									

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	5.500	6.000

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
0.00	0.00	Wasatch				
4,291.95	4,049.00	Mesaverde				
5,117.41	4,849.00	Price Coal				
5,817.41	5,549.00	Top Gas				
6,717.41	6,449.00	Cameo				
7,817.41	7,549.00	Rollins				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
1,150.00	1,150.00	0.00	0.00	KOP 3°/100 at 1150 MD/TVD
1,984.25	1,957.97	-127.74	125.85	Hold 25° at 1984 MD/1958 TVD
4,283.16	4,041.03	-820.55	808.41	Drop 3°/100 at 4283 MD/4041 TVD
5,117.41	4,849.00	-948.30	934.27	Vertical at 5117 MD/4849 TVD
8,017.41	7,749.00	-948.30	934.27	TD at 8017 MD/7749 TVD