



ANTERO RESOURCES CORPORATION

Location: Ritchie County, WV
 Field: Ritchie
 Facility: Noland Pad

Slot: Slot #09
 Well: Piper Unit 2H
 Wellbore: Piper Unit 2H PWB



API: 47-085-10292-0000
 BHI Job #: 8499294
 Rig: Patterson 343
 Duration: 04/10/2017-04/12/2017

Scale 1 inch = 1000'

True Vertical Depth (ft)



Plot reference wellpath is Piper Unit 2H PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to Patterson 343 (RKB)	* = Wellpath was transformed from a different geodesic datum
Measured depths are referenced to Patterson 343 (RKB)	North Reference: Grid north
Patterson 343 (RKB) to Mean Sea Level: 1165 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #09): -1143 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: delaset on 2017-04-13
	Database: WA_MPL_EasternUS_Defn

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Noland Pad	1646547.130	14270759.740	39°17'55.974"N	80°58'41.988"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot #09	-38.82	69.83	1646616.930	14270720.940
Comment	Piper Unit 2H			
Patterson 343 (RKB) to Mud line (At Slot: Slot #09)	25ft			
Mean Sea Level to Mud line (At Slot: Slot #09)	-1143ft			
Patterson 343 (RKB) to Mean Sea Level	1165ft			

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	5736.00	22.190	55.630	5496.91	753.60	1086.25	0.00	-290.68
Proj to Bottom	5937.00	22.680	57.880	5682.70	795.63	1150.40	0.49	-305.55
Curve KOP	5976.00	22.680	57.880	5718.68	803.63	1163.14	0.00	-308.18
End of 3D Arc	6671.71	51.787	149.107	6301.36	626.23	1439.11	8.00	-40.16
POE	6868.83	69.928	157.951	6397.00	472.61	1514.29	10.00	130.44
End of Build	7035.90	90.000	157.951	6426.00	320.73	1575.80	12.00	294.31
BHL	15116.50	90.000	157.951	6426.00	-7168.90	4609.21	0.00	8374.92

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #09	Piper Unit 2H	Piper Unit 2H AWB	Piper Unit 2H AWP Proj: 15093
Slot #09	Piper Unit 2H	Piper Unit 2H PWB	Piper Unit 2H PWP Rev-A.0

BHI AT Curve <8-1/2"> (5724')(5830'-15068') : 22.67° Inc, 5830.00ft MD, 5583.80ft TVD, -297.99ft VS

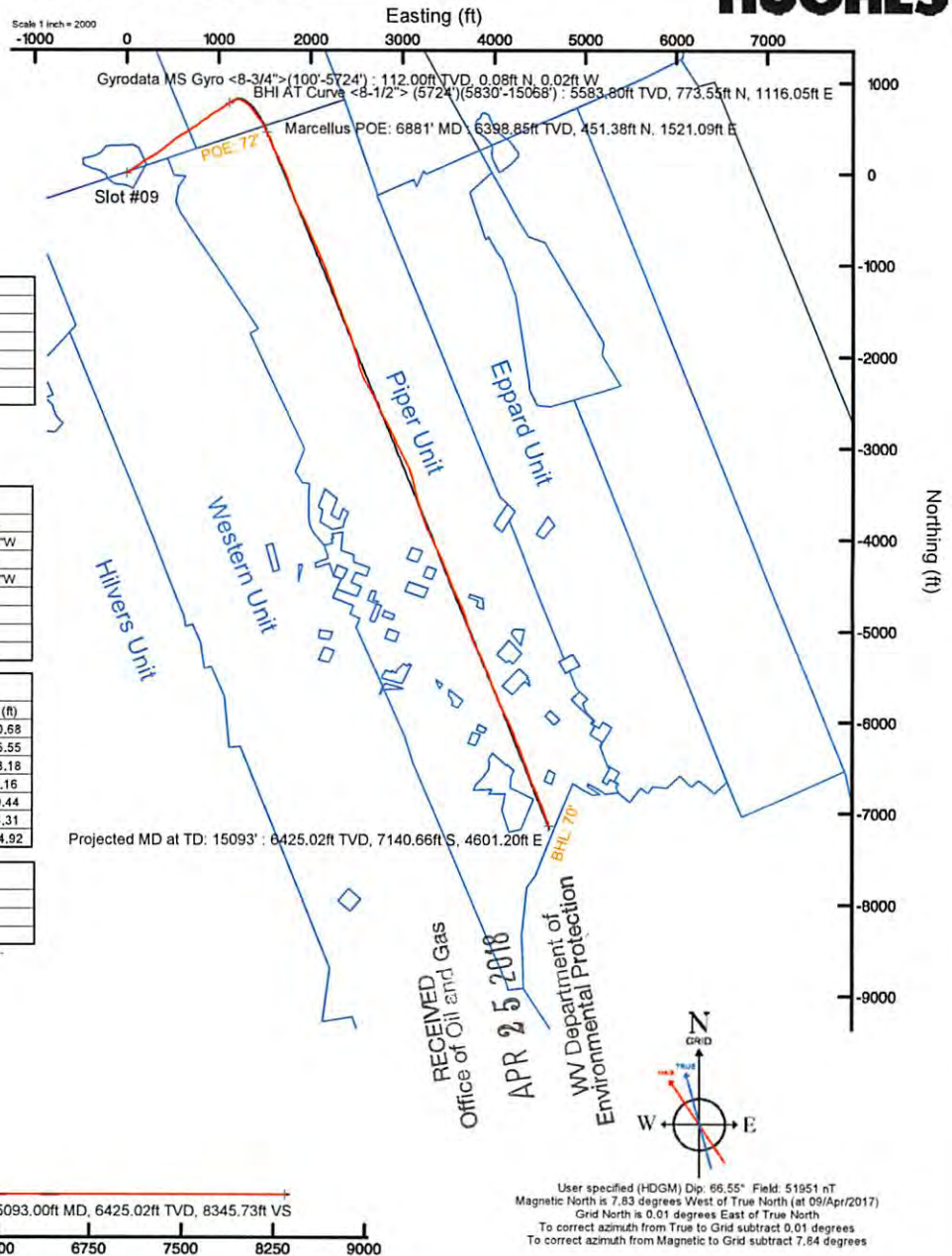
Marcellus POE: 6881' MD : 70.43° Inc, 6881.00ft MD, 6398.85ft TVD, 152.68ft VS

Projected MD at TD: 15093' : 90.06° Inc, 15093.00ft MD, 6425.02ft TVD, 8345.73ft VS

Vertical Section (ft)

Azimuth 157.95° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500'



User specified (HDGM) Dip: 66.55° Field: 51951 nT
 Magnetic North is 7.83 degrees West of True North (at 09/Apr/2017)
 Grid North is 0.01 degrees East of True North
 To correct azimuth from True to Grid subtract 0.01 degrees
 To correct azimuth from Magnetic to Grid subtract 7.84 degrees



Actual Wellpath Report

Piper Unit 2H AWP Proj: 15093'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Ritchie County, WV	Well	Piper Unit 2H
Field	Ritchie	Wellbore	Piper Unit 2H AWB
Facility	Noland Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Delaset
Scale	0.999600	Report Generated	13/Apr/2017 at 14:37
Convergence at slot	0.02° East	Database/Source file	WA_MPL_EasternUS_Defn/Piper_Unit_2H_AWP_Proj_15093_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-38.82	69.83	1646616.93	14270720.94	39°17'55.590"N	80°58'41.100"W
Facility Reference Pt			1646547.13	14270759.74	39°17'55.974"N	80°58'41.988"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Patterson 343 (RKB) to Facility Vertical Datum	25.00ft
Horizontal Reference Pt	Slot	Patterson 343 (RKB) to Mean Sea Level	1168.00ft
Vertical Reference Pt	Patterson 343 (RKB)	Patterson 343 (RKB) to Mud Line at Slot (Slot #09)	25.00ft
MD Reference Pt	Patterson 343 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	157.95°

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REFERENCE WELLPATH IDENTIFICATION				
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Area	Ritchie County, WV		Well	Piper Unit 2H
Field	Ritchie		Wellbore	Piper Unit 2H AWB
Facility	Noland Pad			

WELLPATH DATA (176 stations) † = interpolated/extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
0.00†	0.000	344.560	0.00	0.00	0.00	0.00	1646616.93	14270720.94	39°17'55.590"N	80°58'41.100"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.000	344.560	25.00	0.00	0.00	0.00	1646616.93	14270720.94	39°17'55.590"N	80°58'41.100"W	0.00	0.000	0.00	0.00	0.00	
112.00	0.110	344.560	112.00	-0.08	0.08	-0.02	1646616.91	14270721.02	39°17'55.591"N	80°58'41.100"W	0.08	344.560	0.13	0.13	-17.75	Gyrodatta MS Gyro <8-3/4">(100'-5724')
212.00	0.040	44.990	212.00	-0.19	0.20	-0.02	1646616.91	14270721.14	39°17'55.592"N	80°58'41.100"W	0.20	353.333	0.10	-0.07	60.43	
312.00	0.180	137.480	312.00	-0.06	0.11	0.11	1646617.04	14270721.05	39°17'55.591"N	80°58'41.099"W	0.15	45.294	0.19	0.14	92.49	
412.00	0.160	131.320	412.00	0.21	-0.10	0.32	1646617.25	14270720.84	39°17'55.589"N	80°58'41.096"W	0.33	107.636	0.03	-0.02	-6.16	
512.00	0.240	132.300	512.00	0.53	-0.33	0.58	1646617.51	14270720.61	39°17'55.587"N	80°58'41.093"W	0.67	120.035	0.08	0.08	0.98	
612.00	0.270	146.390	612.00	0.95	-0.67	0.86	1646617.79	14270720.27	39°17'55.583"N	80°58'41.089"W	1.09	127.866	0.07	0.03	14.09	
712.00	0.230	144.860	712.00	1.37	-1.03	1.11	1646618.04	14270719.91	39°17'55.580"N	80°58'41.086"W	1.52	132.920	0.04	-0.04	-1.53	
812.00	0.320	303.560	812.00	1.34	-1.04	0.99	1646617.92	14270719.90	39°17'55.580"N	80°58'41.087"W	1.44	136.384	0.54	0.09	158.70	
912.00	0.450	310.810	911.99	0.76	-0.63	0.46	1646617.39	14270720.31	39°17'55.584"N	80°58'41.094"W	0.78	143.738	0.14	0.13	7.25	
1012.00	0.410	306.940	1011.99	0.10	-0.16	-0.12	1646616.81	14270720.78	39°17'55.588"N	80°58'41.102"W	0.20	217.138	0.05	-0.04	-3.87	
1112.00	0.270	301.080	1111.99	-0.39	0.18	-0.61	1646616.32	14270721.12	39°17'55.592"N	80°58'41.108"W	0.63	286.274	0.14	-0.14	-5.86	
1212.00	0.190	111.240	1211.99	-0.47	0.24	-0.66	1646616.27	14270721.18	39°17'55.592"N	80°58'41.108"W	0.70	290.042	0.46	-0.08	170.16	
1312.00	0.410	116.380	1311.99	-0.09	0.02	-0.18	1646616.75	14270720.96	39°17'55.590"N	80°58'41.102"W	0.18	276.353	0.22	0.22	5.14	
1412.00	1.100	58.470	1411.98	0.02	0.36	0.96	1646617.89	14270721.30	39°17'55.594"N	80°58'41.088"W	1.02	69.249	0.95	0.69	-57.91	
1512.00	2.300	46.260	1511.93	-0.88	2.25	3.23	1646620.15	14270723.19	39°17'55.612"N	80°58'41.059"W	3.93	55.079	1.25	1.20	-12.21	
1612.00	3.480	49.200	1611.81	-2.59	5.62	6.97	1646623.90	14270726.56	39°17'55.646"N	80°58'41.011"W	8.96	51.120	1.19	1.18	2.94	
1712.00	5.530	55.970	1711.49	-4.57	10.30	13.26	1646630.19	14270731.24	39°17'55.692"N	80°58'40.931"W	16.80	52.163	2.11	2.05	6.77	
1812.00	9.450	53.180	1810.62	-7.66	17.92	23.83	1646640.75	14270738.86	39°17'55.767"N	80°58'40.797"W	29.82	53.058	3.94	3.92	-2.79	
1912.00	10.770	53.180	1909.06	-12.14	28.44	37.89	1646654.80	14270749.37	39°17'55.871"N	80°58'40.618"W	47.37	53.103	1.32	1.32	0.00	
2012.00	11.910	57.480	2007.11	-16.40	39.59	54.07	1646670.98	14270760.51	39°17'55.981"N	80°58'40.412"W	67.01	53.787	1.42	1.14	4.30	
2112.00	13.850	60.140	2104.59	-19.90	51.10	73.15	1646690.05	14270772.02	39°17'56.095"N	80°58'40.169"W	89.23	55.065	2.03	1.94	2.66	
2212.00	14.140	59.800	2201.62	-23.26	63.20	94.09	1646710.98	14270784.12	39°17'56.214"N	80°58'39.903"W	113.34	56.110	0.30	0.29	-0.34	
2312.00	10.460	54.900	2299.31	-27.04	74.57	112.08	1646728.96	14270795.48	39°17'56.327"N	80°58'39.674"W	134.62	56.363	3.82	-3.68	-4.90	
2412.00	10.180	51.970	2397.70	-31.52	85.23	126.46	1646743.34	14270806.14	39°17'56.432"N	80°58'39.491"W	152.51	56.021	0.59	-0.28	-2.93	
2512.00	10.090	52.810	2496.14	-36.24	95.97	140.40	1646757.28	14270816.87	39°17'56.538"N	80°58'39.314"W	170.07	55.646	0.17	-0.09	0.84	
2612.00	8.640	51.050	2594.80	-40.71	105.99	153.22	1646770.09	14270826.89	39°17'56.637"N	80°58'39.151"W	186.31	55.327	1.48	-1.45	-1.76	
2712.00	9.190	54.080	2693.59	-44.81	115.40	165.53	1646782.40	14270836.29	39°17'56.730"N	80°58'38.994"W	201.79	55.119	0.72	0.55	3.03	
2812.00	11.910	58.090	2791.90	-48.49	125.54	180.76	1646797.62	14270846.43	39°17'56.830"N	80°58'38.800"W	220.08	55.221	2.82	2.72	4.01	

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Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #09
Area	Ritchie County, WV		Well	Piper Unit 2H
Field	Ritchie		Wellbore	Piper Unit 2H AWB
Facility	Noland Pad			

WELLPATH DATA (176 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
2912.00	14.830	55.990	2889.17	-52.91	138.15	200.13	1646816.98	14270859.04	39°17'56.955"N	80°58'38.554"W	243.19	55.383	2.96	2.92	-2.10	
3012.00	17.700	60.130	2985.17	-57.64	152.89	223.93	1646840.77	14270873.76	39°17'57.101"N	80°58'38.251"W	271.14	55.677	3.09	2.87	4.14	
3112.00	20.510	60.420	3079.65	-62.00	169.11	252.35	1646869.18	14270889.98	39°17'57.261"N	80°58'37.889"W	303.78	56.173	2.81	2.81	0.29	
3212.00	23.830	59.930	3172.24	-67.12	187.88	285.08	1646901.90	14270908.75	39°17'57.446"N	80°58'37.473"W	341.43	56.613	3.33	3.32	-0.49	
3312.00	25.230	55.900	3263.22	-74.38	209.96	320.22	1646937.02	14270930.81	39°17'57.664"N	80°58'37.026"W	382.91	56.748	2.18	1.40	-4.03	
3412.00	24.720	52.860	3353.87	-84.28	234.53	354.53	1646971.32	14270955.38	39°17'57.907"N	80°58'36.590"W	425.09	56.515	1.38	-0.51	-3.04	
3512.00	24.340	52.270	3444.85	-95.29	259.76	387.50	1647004.27	14270980.60	39°17'58.156"N	80°58'36.170"W	466.51	56.164	0.45	-0.38	-0.59	
3612.00	22.920	52.970	3536.46	-105.89	284.10	419.35	1647036.11	14271004.93	39°17'58.397"N	80°58'35.765"W	506.52	55.883	1.45	-1.42	0.70	
3712.00	23.150	52.200	3628.49	-116.26	307.88	450.42	1647067.17	14271028.69	39°17'58.632"N	80°58'35.370"W	545.59	55.646	0.38	0.23	-0.77	
3812.00	22.580	50.300	3720.63	-127.42	332.19	480.73	1647097.46	14271053.00	39°17'58.872"N	80°58'34.984"W	584.34	55.355	0.93	-0.57	-1.90	
3912.00	22.000	48.070	3813.16	-139.61	356.97	509.43	1647126.16	14271077.77	39°17'59.117"N	80°58'34.619"W	622.05	54.980	1.03	-0.58	-2.23	
4012.00	20.720	52.470	3906.30	-150.70	380.27	537.40	1647154.11	14271101.05	39°17'59.347"N	80°58'34.263"W	658.33	54.717	2.05	-1.28	4.40	
4112.00	21.390	57.690	3999.63	-158.67	400.79	566.84	1647183.55	14271121.57	39°17'59.550"N	80°58'33.888"W	694.22	54.738	1.99	0.67	5.22	
4212.00	21.530	61.440	4092.70	-164.00	419.31	598.38	1647215.06	14271140.08	39°17'59.733"N	80°58'33.487"W	730.67	54.979	1.38	0.14	3.75	
4312.00	23.290	59.940	4185.14	-168.84	437.99	631.61	1647248.28	14271158.75	39°17'59.917"N	80°58'33.064"W	768.61	55.261	1.85	1.76	-1.50	
4412.00	23.800	57.200	4276.82	-175.36	458.82	665.68	1647282.34	14271179.58	39°18'00.123"N	80°58'32.631"W	808.48	55.423	1.21	0.51	-2.74	
4512.00	22.980	56.480	4368.60	-183.00	480.53	698.91	1647315.56	14271201.28	39°18'00.338"N	80°58'32.208"W	848.17	55.490	0.87	-0.82	-0.72	
4612.00	22.860	53.730	4460.71	-191.65	502.80	730.85	1647347.48	14271223.54	39°18'00.558"N	80°58'31.802"W	887.10	55.473	1.08	-0.12	-2.75	
4712.00	22.170	52.150	4553.09	-201.56	525.87	761.41	1647378.03	14271246.60	39°18'00.786"N	80°58'31.413"W	925.35	55.369	0.92	-0.69	-1.58	
4812.00	23.060	54.220	4645.40	-211.35	548.90	792.19	1647408.81	14271269.62	39°18'01.013"N	80°58'31.021"W	963.78	55.282	1.19	0.89	2.07	
4912.00	23.540	53.880	4737.24	-220.85	572.12	824.21	1647440.81	14271292.83	39°18'01.243"N	80°58'30.614"W	1003.32	55.234	0.50	0.48	-0.34	
5012.00	23.090	51.840	4829.08	-231.15	596.01	855.76	1647472.35	14271316.71	39°18'01.479"N	80°58'30.212"W	1042.86	55.144	0.92	-0.45	-2.04	
5112.00	22.570	49.870	4921.25	-242.55	620.50	885.86	1647502.43	14271341.19	39°18'01.721"N	80°58'29.830"W	1081.55	54.991	0.92	-0.52	-1.97	
5212.00	23.650	54.220	5013.23	-253.26	644.59	916.80	1647533.37	14271365.27	39°18'01.959"N	80°58'29.436"W	1120.73	54.889	2.02	1.08	4.35	
5312.00	23.210	58.480	5104.99	-261.27	666.62	949.88	1647566.42	14271387.30	39°18'02.176"N	80°58'29.015"W	1160.45	54.939	1.75	-0.44	4.26	
5412.00	21.960	57.660	5197.32	-267.85	686.93	982.47	1647599.01	14271407.59	39°18'02.377"N	80°58'28.600"W	1198.80	55.039	1.29	-1.25	-0.82	
5512.00	23.120	58.460	5289.68	-274.43	707.20	1015.00	1647631.53	14271427.86	39°18'02.577"N	80°58'28.186"W	1237.08	55.133	1.20	1.16	0.80	
5612.00	21.900	56.660	5382.06	-281.31	727.72	1047.32	1647663.83	14271448.37	39°18'02.780"N	80°58'27.775"W	1275.33	55.207	1.40	-1.22	-1.80	
5712.00	22.340	56.330	5474.70	-288.79	748.51	1078.72	1647695.21	14271469.15	39°18'02.985"N	80°58'27.376"W	1312.97	55.244	0.46	0.44	-0.33	
5736.00	22.190	55.630	5496.91	-290.68	753.60	1086.25	1647702.75	14271474.23	39°18'03.036"N	80°58'27.280"W	1322.06	55.249	1.27	-0.62	-2.92	

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Operator	ANTERO RESOURCES CORPORATION		Slot #09
Area	Ritchie County, WV		Well
Field	Ritchie		Wellbore
Facility	Noland Pad		Piper Unit 2H AWB

WELLPATH DATA (176 stations) † = interpolated/extrapolated station																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)			(ft)	(°)	("/100ft)	("/100ft)	("/100ft)	
5830.00	22.670	56.740	5583.80	-297.99	773.55	1116.05	1647732.53	14271494.18	39°18'03.233"N	80°58'26.901"W	1357.92	55.274	0.68	0.51	1.18	BHI AT Curve <8-1/2"> (5724')(5830'-15068')
5924.00	22.840	54.930	5670.48	-305.62	793.97	1146.13	1647762.60	14271514.59	39°18'03.434"N	80°58'26.518"W	1394.28	55.288	0.77	0.18	-1.93	
5971.00	19.590	55.500	5714.29	-309.38	803.68	1160.10	1647776.56	14271524.29	39°18'03.530"N	80°58'26.340"W	1411.28	55.287	6.93	-6.91	1.21	
6018.00	18.590	67.820	5758.72	-311.09	810.97	1173.53	1647789.99	14271531.59	39°18'03.602"N	80°58'26.170"W	1426.48	55.354	8.82	-2.13	26.21	
6065.00	19.410	82.540	5803.19	-309.14	814.82	1188.22	1647804.67	14271535.43	39°18'03.640"N	80°58'25.983"W	1440.76	55.560	10.32	1.74	31.32	
6112.00	19.900	95.510	5847.47	-303.47	815.06	1203.93	1647820.38	14271535.67	39°18'03.643"N	80°58'25.783"W	1453.89	55.902	9.32	1.04	27.60	
6159.00	20.630	103.370	5891.57	-294.97	812.38	1219.96	1647836.39	14271532.99	39°18'03.616"N	80°58'25.579"W	1465.69	56.340	5.99	1.55	16.72	
6207.00	22.380	109.950	5936.23	-283.95	807.30	1236.78	1647853.21	14271527.92	39°18'03.566"N	80°58'25.365"W	1476.94	56.866	6.20	3.65	13.71	
6254.00	25.200	116.790	5979.24	-270.42	799.74	1254.12	1647870.55	14271520.36	39°18'03.491"N	80°58'25.144"W	1487.42	57.475	8.39	6.00	14.55	
6301.00	29.030	122.310	6021.08	-253.62	789.13	1272.70	1647889.12	14271509.75	39°18'03.386"N	80°58'24.908"W	1497.50	58.199	9.74	8.15	11.74	
6348.00	30.720	127.280	6061.84	-234.02	775.76	1291.90	1647908.31	14271496.39	39°18'03.254"N	80°58'24.664"W	1506.92	59.016	6.37	3.60	10.57	
6395.00	34.800	130.320	6101.36	-211.80	759.80	1311.69	1647928.09	14271480.44	39°18'03.096"N	80°58'24.412"W	1515.86	59.918	9.36	8.68	6.47	
6442.00	37.750	133.410	6139.25	-186.82	741.23	1332.37	1647948.76	14271461.87	39°18'02.913"N	80°58'24.149"W	1524.67	60.912	7.38	6.28	6.57	
6489.00	40.960	139.490	6175.60	-159.10	719.62	1352.84	1647969.23	14271440.27	39°18'02.699"N	80°58'23.889"W	1532.33	61.990	10.67	6.83	12.94	
6536.00	43.830	143.480	6210.31	-128.72	694.82	1372.54	1647988.92	14271415.48	39°18'02.454"N	80°58'23.638"W	1538.39	63.150	8.37	6.11	8.49	
6582.00	47.900	145.320	6242.34	-96.63	667.97	1391.74	1648008.11	14271388.64	39°18'02.188"N	80°58'23.394"W	1543.74	64.361	9.30	8.85	4.00	
6600.00†	49.130	145.120	6254.26	-83.48	656.89	1399.43	1648015.80	14271377.57	39°18'02.079"N	80°58'23.297"W	1545.94	64.855	6.88	6.83	-1.11	Middlesex: 6600' MD
6636.00	51.590	144.740	6277.22	-56.47	634.21	1415.36	1648031.72	14271354.89	39°18'01.855"N	80°58'23.094"W	1550.95	65.863	6.88	6.83	-1.05	
6677.00	55.490	145.570	6301.58	-24.32	607.15	1434.19	1648050.54	14271327.84	39°18'01.587"N	80°58'22.855"W	1557.41	67.055	9.65	9.51	2.02	
6724.00	59.070	146.730	6326.99	14.38	574.31	1456.21	1648072.55	14271295.02	39°18'01.262"N	80°58'22.575"W	1565.36	68.476	7.89	7.62	2.47	
6772.00	59.570	148.760	6351.48	55.01	539.40	1478.23	1648094.57	14271260.12	39°18'00.917"N	80°58'22.295"W	1573.57	69.953	3.78	1.04	4.23	
6782.00†	60.206	150.036	6356.50	63.56	531.95	1482.64	1648098.97	14271252.68	39°18'00.844"N	80°58'22.239"W	1575.18	70.263	12.74	6.36	12.76	Burket: 6782' MD
6814.00	62.320	154.010	6371.89	91.46	507.18	1495.79	1648112.12	14271227.91	39°18'00.599"N	80°58'22.071"W	1579.43	71.270	12.74	6.61	12.42	
6838.00†	65.102	155.204	6382.51	112.94	487.74	1505.01	1648121.34	14271208.49	39°18'00.407"N	80°58'21.954"W	1582.07	72.044	12.42	11.59	4.97	Tully: 6838' MD
6866.00	68.360	156.530	6393.57	138.64	464.27	1515.52	1648131.84	14271185.02	39°18'00.175"N	80°58'21.821"W	1585.04	72.968	12.42	11.63	4.74	
6881.00†	70.428	156.733	6398.85	152.68	451.38	1521.09	1648137.41	14271172.14	39°18'00.047"N	80°58'21.750"W	1586.65	73.472	13.84	13.79	1.35	Marcellus POE: 6881' MD
6913.00	74.840	157.150	6408.40	183.20	423.29	1533.05	1648149.36	14271144.06	39°17'59.770"N	80°58'21.598"W	1590.41	74.565	13.84	13.79	1.30	
6961.00	80.410	157.490	6418.69	230.07	380.04	1551.12	1648167.43	14271100.83	39°17'59.342"N	80°58'21.368"W	1597.00	76.233	11.62	11.60	0.71	
7008.00	85.500	156.860	6424.45	276.69	337.07	1569.21	1648185.51	14271057.87	39°17'58.917"N	80°58'21.138"W	1605.00	77.877	10.91	10.83	-1.34	
7055.00	89.880	156.640	6426.34	323.63	293.93	1587.74	1648204.03	14271014.75	39°17'58.491"N	80°58'20.903"W	1614.72	79.512	9.33	9.32	-0.47	

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Actual Wellpath Report

Piper Unit 2H AWP Proj: 15093'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #09
Area	Ritchie County, WV		Well	Piper Unit 2H
Field	Ritchie		Wellbore	Piper Unit 2H AWB
Facility	Noland Pad			

WELLPATH DATA (176 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
7149.00	89.940	153.570	6426.49	417.51	208.67	1627.31	1648243.58	14270929.53	39°17'57.648"N	80°58'20.400"W	1640.63	82.693	3.27	0.06	-3.27	
7243.00	89.850	156.020	6426.66	511.36	123.63	1667.33	1648283.59	14270844.52	39°17'56.807"N	80°58'19.891"W	1671.91	85.759	2.61	-0.10	2.61	
7338.00	90.000	156.080	6426.79	606.30	36.81	1705.90	1648322.14	14270757.73	39°17'55.949"N	80°58'19.401"W	1706.30	88.764	0.17	0.16	0.06	
7432.00	89.450	158.340	6427.24	700.29	-49.85	1742.31	1648358.54	14270671.11	39°17'55.093"N	80°58'18.938"W	1743.02	91.639	2.47	-0.59	2.40	
7526.00	90.180	162.610	6427.54	794.17	-138.42	1773.72	1648389.93	14270582.58	39°17'54.217"N	80°58'18.539"W	1779.11	94.462	4.61	0.78	4.54	
7621.00	90.430	161.240	6427.04	888.94	-228.73	1803.19	1648419.39	14270492.31	39°17'53.324"N	80°58'18.164"W	1817.64	97.229	1.47	0.26	-1.44	
7715.00	90.550	157.530	6426.23	982.89	-316.69	1836.28	1648452.47	14270404.38	39°17'52.455"N	80°58'17.744"W	1863.39	99.785	3.95	0.13	-3.95	
7809.00	90.340	154.270	6425.50	1076.82	-402.48	1874.66	1648490.83	14270318.62	39°17'51.607"N	80°58'17.256"W	1917.37	102.117	3.48	-0.22	-3.47	
7903.00	90.120	152.400	6425.12	1170.51	-486.48	1916.84	1648533.00	14270234.66	39°17'50.776"N	80°58'16.720"W	1977.61	104.241	2.00	-0.23	-1.99	
7998.00	89.290	156.440	6425.61	1265.31	-572.15	1957.85	1648573.99	14270149.02	39°17'49.930"N	80°58'16.198"W	2039.73	106.290	4.34	-0.87	4.25	
8092.00	90.340	157.230	6425.92	1359.29	-658.57	1994.82	1648610.95	14270062.64	39°17'49.075"N	80°58'15.728"W	2100.72	108.270	1.40	1.12	0.84	
8186.00	89.970	155.490	6425.66	1453.24	-744.68	2032.51	1648648.63	14269976.56	39°17'48.224"N	80°58'15.249"W	2164.64	110.122	1.89	-0.39	-1.85	
8280.00	89.850	156.880	6425.81	1547.20	-830.67	2070.47	1648686.57	14269890.60	39°17'47.374"N	80°58'14.767"W	2230.89	111.861	1.48	-0.13	1.48	
8374.00	89.970	157.980	6425.96	1641.19	-917.47	2106.55	1648722.63	14269803.84	39°17'46.516"N	80°58'14.308"W	2297.67	113.535	1.18	0.13	1.17	
8468.00	90.000	158.080	6425.98	1735.19	-1004.64	2141.71	1648757.78	14269716.70	39°17'45.654"N	80°58'13.861"W	2365.64	115.130	0.11	0.03	0.11	
8562.00	89.970	158.110	6426.01	1829.19	-1091.86	2176.78	1648792.84	14269629.52	39°17'44.792"N	80°58'13.416"W	2435.27	116.638	0.05	-0.03	0.03	
8656.00	89.910	159.690	6426.10	1923.18	-1179.55	2210.62	1648826.66	14269541.86	39°17'43.925"N	80°58'12.985"W	2505.63	118.084	1.68	-0.06	1.68	
8750.00	90.000	161.500	6426.18	2017.07	-1268.21	2241.85	1648857.88	14269453.24	39°17'43.049"N	80°58'12.589"W	2575.70	119.497	1.93	0.10	1.93	
8844.00	90.000	160.440	6426.18	2110.94	-1357.07	2272.50	1648888.52	14269364.42	39°17'42.171"N	80°58'12.199"W	2646.87	120.844	1.13	0.00	-1.13	
8938.00	89.940	159.420	6426.23	2204.88	-1445.36	2304.76	1648920.76	14269276.16	39°17'41.298"N	80°58'11.789"W	2720.47	122.093	1.09	-0.06	-1.09	
9032.00	90.030	160.090	6426.25	2298.84	-1533.55	2337.29	1648953.28	14269188.01	39°17'40.426"N	80°58'11.376"W	2795.48	123.270	0.72	0.10	0.71	
9127.00	89.940	157.100	6426.28	2393.82	-1621.99	2371.95	1648987.93	14269099.60	39°17'39.552"N	80°58'10.935"W	2873.50	124.365	3.15	-0.09	-3.15	
9221.00	90.340	158.690	6426.05	2487.82	-1709.08	2407.32	1649023.29	14269012.55	39°17'38.691"N	80°58'10.486"W	2952.31	125.373	1.74	0.43	1.69	
9315.00	90.280	161.620	6425.54	2581.73	-1797.48	2439.23	1649055.18	14268924.18	39°17'37.817"N	80°58'10.080"W	3029.98	126.387	3.12	-0.06	3.12	
9409.00	90.400	162.110	6424.98	2675.51	-1886.81	2468.49	1649084.43	14268834.89	39°17'36.934"N	80°58'09.709"W	3107.01	127.393	0.54	0.13	0.52	
9503.00	90.460	163.610	6424.28	2769.16	-1976.63	2496.19	1649112.12	14268745.10	39°17'36.046"N	80°58'09.357"W	3184.03	128.374	1.60	0.06	1.60	
9598.00	90.400	167.220	6423.56	2863.34	-2068.55	2520.11	1649136.02	14268653.22	39°17'35.138"N	80°58'09.053"W	3260.34	129.380	3.80	-0.06	3.80	
9692.00	91.230	162.540	6422.22	2956.62	-2159.26	2544.62	1649160.52	14268562.54	39°17'34.241"N	80°58'08.741"W	3337.29	130.317	5.06	0.88	-4.98	
9786.00	91.350	153.210	6420.10	3050.49	-2246.22	2579.97	1649195.86	14268475.62	39°17'33.382"N	80°58'08.292"W	3420.79	131.044	9.92	0.13	-9.93	
9881.00	89.910	149.780	6419.06	3144.86	-2329.69	2625.30	1649241.17	14268392.19	39°17'32.556"N	80°58'07.716"W	3509.93	131.586	3.92	-1.52	-3.61	

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Actual Wellpath Report

Piper Unit 2H AWP Proj: 15093'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #09
Area	Ritchie County, WV		Well	Piper Unit 2H
Field	Ritchie		Wellbore	Piper Unit 2H AWB
Facility	Noland Pad			

WELLPATH DATA (176 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
9975.00	90.180	152.280	6418.99	3238.17	-2411.92	2670.82	1649286.68	14268309.99	39°17'31.744"N	80°58'07.137"W	3598.70	132.084	2.68	0.29	2.66	
10069.00	90.180	157.280	6418.69	3332.00	-2496.93	2710.86	1649326.70	14268225.01	39°17'30.903"N	80°58'06.628"W	3685.57	132.648	5.32	0.00	5.32	
10164.00	90.220	154.470	6418.36	3426.92	-2583.62	2749.69	1649365.51	14268138.35	39°17'30.046"N	80°58'06.135"W	3773.05	133.217	2.96	0.04	-2.96	
10258.00	90.120	150.250	6418.08	3520.46	-2666.88	2793.29	1649409.09	14268055.13	39°17'29.223"N	80°58'05.581"W	3861.95	133.674	4.49	-0.11	-4.49	
10352.00	89.910	152.710	6418.05	3613.85	-2749.46	2838.16	1649453.95	14267972.58	39°17'28.407"N	80°58'05.010"W	3951.55	134.091	2.63	-0.22	2.62	
10446.00	90.030	155.340	6418.10	3707.62	-2833.96	2879.33	1649495.10	14267888.12	39°17'27.571"N	80°58'04.487"W	4040.04	134.545	2.80	0.13	2.80	
10540.00	89.880	155.100	6418.18	3801.51	-2919.31	2918.73	1649534.49	14267802.81	39°17'26.728"N	80°58'03.987"W	4128.11	135.006	0.30	-0.16	-0.26	
10635.00	88.890	154.110	6419.20	3896.35	-3005.12	2959.47	1649575.21	14267717.03	39°17'25.879"N	80°58'03.469"W	4217.72	135.439	1.47	-1.04	-1.04	
10729.00	91.020	152.590	6419.27	3990.03	-3089.13	3001.63	1649617.35	14267633.06	39°17'25.049"N	80°58'02.933"W	4307.26	135.823	2.78	2.27	-1.62	
10823.00	90.400	154.090	6418.11	4083.72	-3173.12	3043.80	1649659.51	14267549.09	39°17'24.219"N	80°58'02.397"W	4396.98	136.192	1.73	-0.66	1.60	
10918.00	89.720	161.340	6418.01	4178.65	-3260.97	3079.80	1649695.49	14267461.28	39°17'23.350"N	80°58'01.940"W	4485.43	136.637	7.67	-0.72	7.63	
11012.00	89.880	164.280	6418.33	4272.31	-3350.76	3107.58	1649723.26	14267371.53	39°17'22.463"N	80°58'01.587"W	4569.97	137.156	3.13	0.17	3.13	
11106.00	89.230	167.470	6419.06	4365.39	-3441.90	3130.51	1649746.19	14267280.42	39°17'21.562"N	80°58'01.295"W	4652.61	137.713	3.46	-0.69	3.39	
11200.00	89.290	165.450	6420.28	4458.35	-3533.28	3152.52	1649768.18	14267189.08	39°17'20.659"N	80°58'01.016"W	4735.23	138.259	2.15	0.06	-2.15	
11294.00	89.320	163.410	6421.42	4551.73	-3623.82	3177.75	1649793.40	14267098.58	39°17'19.764"N	80°58'00.695"W	4819.76	138.752	2.17	0.03	-2.17	
11388.00	89.350	162.910	6422.51	4645.34	-3713.78	3204.98	1649820.62	14267008.65	39°17'18.874"N	80°58'00.350"W	4905.51	139.206	0.53	0.03	-0.53	
11483.00	89.260	160.470	6423.66	4740.12	-3803.96	3234.82	1649850.45	14266918.51	39°17'17.983"N	80°57'59.970"W	4993.41	139.623	2.57	-0.09	-2.57	
11577.00	89.320	157.100	6424.83	4834.09	-3891.57	3268.83	1649884.44	14266830.94	39°17'17.117"N	80°57'59.538"W	5082.27	139.971	3.59	0.06	-3.59	
11671.00	89.320	154.490	6425.94	4928.01	-3977.29	3307.36	1649922.96	14266745.25	39°17'16.270"N	80°57'59.049"W	5172.76	140.254	2.78	0.00	-2.78	
11765.00	89.880	151.780	6426.60	5021.67	-4061.13	3349.83	1649965.42	14266661.44	39°17'15.441"N	80°57'58.509"W	5264.43	140.482	2.94	0.60	-2.88	
11860.00	89.820	155.780	6426.85	5116.40	-4146.34	3391.80	1650007.36	14266576.27	39°17'14.598"N	80°57'57.976"W	5356.90	140.716	4.21	-0.06	4.21	
11953.00	90.030	156.990	6426.97	5209.36	-4231.55	3429.05	1650044.60	14266491.09	39°17'13.756"N	80°57'57.502"W	5446.50	140.980	1.32	0.23	1.30	
12048.00	89.880	156.930	6427.05	5304.34	-4318.97	3466.23	1650081.77	14266403.70	39°17'12.892"N	80°57'57.030"W	5537.89	141.251	0.17	-0.16	-0.06	
12142.00	89.970	159.360	6427.17	5398.34	-4406.21	3501.22	1650116.74	14266316.50	39°17'12.030"N	80°57'56.585"W	5627.90	141.529	2.59	0.10	2.59	
12236.00	89.940	157.140	6427.24	5492.33	-4493.51	3536.05	1650151.56	14266229.23	39°17'11.167"N	80°57'56.143"W	5717.98	141.800	2.36	-0.03	-2.36	
12331.00	89.820	155.150	6427.44	5587.28	-4580.39	3574.47	1650189.96	14266142.39	39°17'10.308"N	80°57'55.654"W	5810.06	142.032	2.10	-0.13	-2.09	
12425.00	89.940	154.730	6427.64	5681.15	-4665.54	3614.28	1650229.76	14266057.27	39°17'09.466"N	80°57'55.149"W	5901.72	142.236	0.46	0.13	-0.45	
12519.00	89.880	157.680	6427.79	5775.09	-4751.54	3652.21	1650267.67	14265971.31	39°17'08.616"N	80°57'54.667"W	5992.98	142.453	3.14	-0.06	3.14	
12613.00	90.060	164.150	6427.84	5868.92	-4840.33	3682.92	1650298.37	14265882.56	39°17'07.738"N	80°57'54.276"W	6082.16	142.733	6.89	0.19	6.88	
12708.00	90.090	166.640	6427.71	5963.11	-4932.25	3706.88	1650322.32	14265790.67	39°17'06.830"N	80°57'53.972"W	6169.93	143.073	2.62	0.03	2.62	

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Actual Wellpath Report

Piper Unit 2H AWP Proj: 15093'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION		Slot #09
Area	Ritchie County, WV		Well
Field	Ritchie		Piper Unit 2H
Facility	Noland Pad		Wellbore
			Piper Unit 2H AWB

WELLPATH DATA (176 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
12802.00	90.180	161.970	6427.49	6056.51	-5022.72	3732.30	1650347.73	14265700.24	39°17'05.935"N	80°57'53.649"W	6257.62	143.385	4.97	0.10	-4.97	
12896.00	90.090	155.440	6427.27	6150.45	-5110.26	3766.42	1650381.83	14265612.74	39°17'05.070"N	80°57'53.216"W	6348.28	143.609	6.95	-0.10	-6.95	
12990.00	89.970	153.010	6427.22	6244.24	-5194.90	3807.29	1650422.69	14265528.13	39°17'04.233"N	80°57'52.697"W	6440.68	143.763	2.59	-0.13	-2.59	
13085.00	89.780	154.490	6427.43	6338.98	-5280.10	3849.31	1650464.69	14265442.96	39°17'03.391"N	80°57'52.163"W	6534.26	143.907	1.57	-0.20	1.56	
13179.00	90.060	158.450	6427.56	6432.93	-5366.26	3886.83	1650502.19	14265356.83	39°17'02.539"N	80°57'51.686"W	6626.03	144.084	4.22	0.30	4.21	
13273.00	90.090	158.150	6427.43	6526.93	-5453.60	3921.58	1650536.94	14265269.53	39°17'01.676"N	80°57'51.244"W	6717.19	144.281	0.32	0.03	-0.32	
13367.00	90.060	158.550	6427.31	6620.93	-5540.97	3956.26	1650571.60	14265182.20	39°17'00.812"N	80°57'50.804"W	6808.40	144.473	0.43	-0.03	0.43	
13461.00	89.910	159.520	6427.34	6714.91	-5628.75	3989.89	1650605.22	14265094.46	39°16'59.944"N	80°57'50.376"W	6899.42	144.669	1.04	-0.16	1.03	
13555.00	90.060	160.760	6427.36	6808.84	-5717.15	4021.83	1650637.14	14265006.08	39°16'59.071"N	80°57'49.971"W	6990.06	144.875	1.33	0.16	1.32	
13650.00	90.740	155.890	6426.70	6903.81	-5805.41	4056.90	1650672.20	14264917.86	39°16'58.198"N	80°57'49.525"W	7082.46	145.054	5.18	0.72	-5.13	
13744.00	90.060	153.710	6426.04	6997.66	-5890.45	4096.92	1650712.21	14264832.85	39°16'57.357"N	80°57'49.017"W	7175.11	145.181	2.43	-0.72	-2.32	
13838.00	89.970	153.920	6426.02	7091.41	-5974.81	4138.40	1650753.67	14264748.53	39°16'56.523"N	80°57'48.490"W	7268.06	145.292	0.24	-0.10	0.22	
13932.00	90.060	156.120	6425.99	7185.28	-6060.01	4178.10	1650793.35	14264663.37	39°16'55.681"N	80°57'47.985"W	7360.72	145.416	2.34	0.10	2.34	
14027.00	90.090	158.000	6425.87	7280.27	-6147.49	4215.12	1650830.36	14264575.92	39°16'54.816"N	80°57'47.515"W	7453.79	145.563	1.98	0.03	1.98	
14121.00	90.030	158.990	6425.77	7374.26	-6234.95	4249.58	1650864.80	14264488.50	39°16'53.952"N	80°57'47.077"W	7545.43	145.723	1.06	-0.06	1.05	
14215.00	90.030	158.830	6425.72	7468.25	-6322.65	4283.41	1650898.61	14264400.83	39°16'53.085"N	80°57'46.647"W	7636.98	145.884	0.17	0.00	-0.17	
14310.00	90.060	158.310	6425.64	7563.24	-6411.08	4318.11	1650933.31	14264312.43	39°16'52.211"N	80°57'46.206"W	7729.69	146.038	0.55	0.03	-0.55	
14404.00	90.150	160.290	6425.47	7657.21	-6499.01	4351.34	1650966.52	14264224.54	39°16'51.342"N	80°57'45.784"W	7821.21	146.196	2.11	0.10	2.11	
14498.00	89.940	160.150	6425.40	7751.14	-6587.46	4383.15	1650998.32	14264136.12	39°16'50.467"N	80°57'45.380"W	7912.44	146.361	0.27	-0.22	-0.15	
14592.00	90.090	155.130	6425.37	7845.11	-6674.37	4418.90	1651034.05	14264049.25	39°16'49.608"N	80°57'44.926"W	8004.61	146.493	5.34	0.16	-5.34	
14686.00	90.000	155.440	6425.30	7939.00	-6759.76	4458.20	1651073.34	14263963.90	39°16'48.764"N	80°57'44.427"W	8097.52	146.594	0.34	-0.10	0.33	
14780.00	90.030	158.510	6425.27	8032.98	-6846.26	4494.96	1651110.09	14263877.43	39°16'47.909"N	80°57'43.960"W	8189.99	146.713	3.27	0.03	3.27	
14875.00	90.060	160.600	6425.20	8127.94	-6935.27	4528.14	1651143.25	14263788.46	39°16'47.029"N	80°57'43.538"W	8282.64	146.859	2.20	0.03	2.20	
14969.00	90.030	160.810	6425.13	8221.83	-7023.99	4559.21	1651174.30	14263699.77	39°16'46.152"N	80°57'43.144"W	8373.93	147.013	0.23	-0.03	0.22	
15068.00	90.060	159.800	6425.05	8320.74	-7117.20	4592.57	1651207.65	14263606.60	39°16'45.231"N	80°57'42.720"W	8470.31	147.167	1.02	0.03	-1.02	
15093.00	90.060	159.800	6425.02	8345.73	-7140.66	4601.20	1651216.28	14263583.15	39°16'44.999"N	80°57'42.610"W	8494.71	147.204	0.00	0.00	0.00	Projected MD at TD: 15093'



Actual Wellpath Report

Piper Unit 2H AWP Proj: 15093'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Ritchie County, WV	Well	Piper Unit 2H
Field	Ritchie	Wellbore	Piper Unit 2H AWB
Facility	Noland Pad		

HOLE & CASING SECTIONS - Ref Wellbore: Piper Unit 2H AWB Ref Wellpath: Piper Unit 2H AWP Proj: 15093'										
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]	
20in Casing Surface	25.00	65.00	40.00	25.00	65.00	0.00	0.00	0.02	0.00	0.00
17.5in Open Hole	65.00	364.70	299.70	65.00	364.70	0.02	0.00	-0.01	0.00	0.22
13.375in Casing Surface	25.00	364.70	339.70	25.00	364.70	0.00	0.00	-0.01	0.00	0.22
12.25in Open Hole	364.70	2532.10	2167.40	364.70	2515.93	-0.01	0.22	98.08	0.00	143.16
9.625in Casing Intermediate	25.00	2532.10	2507.10	25.00	2515.93	0.00	0.00	98.08	0.00	143.16
8.75in Open Hole	2532.10	5937.00	3404.90	2515.93	5682.50	98.08	143.16	796.81	0.00	1150.19
8.5in Open Hole	5937.00	15093.00	9156.00	5682.50	6425.02	796.81	1150.19	-7140.66	0.00	4601.20
5.5in Casing Production	25.00	15093.00	15068.00	25.00	6425.02	0.00	0.00	-7140.66	0.00	4601.20

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Piper Unit 2H POE Rev-2	6397.00	472.61	1514.29	1648130.61	14271193.36	39°18'00.257"N	80°58'21.836"W	point
Piper Unit 2H BHL Rev-2	6426.00	-7168.90	4609.21	1651224.29	14263554.92	39°16'44.719"N	80°57'42.509"W	point
Piper Unit 2H LP Rev-2	6426.00	320.73	1575.80	1648192.10	14271041.54	39°17'58.756"N	80°58'21.054"W	point
Piper Unit 2H 25' L/R Hard Line	6500.00	-3424.08	3092.51	1649708.19	14267298.23	39°17'21.738"N	80°58'01.779"W	rectangle

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Piper Unit 2H AWP Proj: 15093'

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Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Ritchie County, WV	Well	Piper Unit 2H
Field	Ritchie	Wellbore	Piper Unit 2H AWB
Facility	Noland Pad		

WELLPATH COMPOSITION - Ref Wellbore: Piper Unit 2H AWB Ref Wellpath: Piper Unit 2H AWP Proj: 15093'				
Start MD (ft)	End MD (ft)	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	5736.00	Gyrodatta standard - Drop gyro or Multi-shot	03_Gyrodatta MS Gyro <8-3/4"> (100'-5724')	Piper Unit 2H AWB
5736.00	15068.00	BHI AutoTrak Curve (Short)	04_BHI AT Curve <8-1/2"> (5736')(5830'-15068')	Piper Unit 2H AWB
15068.00	15093.00	Blind Drilling (std)	Projection to bit	Piper Unit 2H AWB

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Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
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Field	Ritchie	Wellbore	Piper Unit 2H AWB
Facility	Noland Pad		

COMMENTS
<p>Wellpath general comments API: 47-085-10292-0000 BHI Job #: 8499294 Rig: Patterson 343 Duration: 04/10/2017-04/12/2017 Gyrodatta MS Gyro <8-3/4">(100'-5724') BHI AT Curve <8-1/2"> (5724')(5830'-15068') Middlesex: 6600' MD Burket: 6782' MD Tully: 6838' MD Marcellus POE: 6881' MD Projected MD at TD: 15093'</p>

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