





# Actual Wellpath Report

Packers Unit 3H AWP Proj: 17671'

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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Ritchie Petroleum Pad
Slot	Slot #10
Well	Packers Unit 3H
Wellbore	Packers Unit 3H AWB

REPORT SETUP INFORMATION	
Projection System	NAD27 / UTM Zone 17 North, US feet
North Reference	Grid
Scale	0.999600
Convergence at slot	0.02° East
Software System	WellArchitect® 5.0
User	Delaset
Report Generated	05/Oct/2017 at 13:27
Database/Source file	WA_MPL_EasternUS_Defn\Packers_Unit_3H_AWP_Proj_17671_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Northing[US ft]	Latitude	Longitude	
Slot Location	-30.36	-25.91	14292708.20	39°21'32.990"N	80°58'31.710"W	
Facility Reference Pt			14292738.54	39°21'33.290"N	80°58'31.380"W	
Field Reference Pt			0.00	0°00'00.000"	85°29'19.301"W	

WELLPATH DATUM	
Calculation method	Minimum curvature
Horizontal Reference Pt	Slot
Vertical Reference Pt	Frontier 32 (RKB)
MD Reference Pt	Frontier 32 (RKB)
Field Vertical Reference	Mean Sea Level
	Frontier 32 (RKB) to Facility Vertical Datum
	Frontier 32 (RKB) to Mean Sea Level
	Frontier 32 (RKB) to Mud Line at Slot (Slot #10)
	Section Origin
	Section Azimuth
	32.00ft
	1210.00ft
	32.00ft
	N 0.00, E 0.00 ft
	338.49°



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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #10
Area	Tyler County, WV	Well	Packers Unit 3H
Field	Tyler	Wellbore	Packers Unit 3H AWB
Facility	Richie Petroleum Pad		

WELLPATH DATA (215 stations) † = interpolated/extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
0.00	0.00	205.330	0.00	0.00	0.00	0.00	1647348.87	14292708.20	39°21'32.990"N	80°58'31.710"W	0.00	0.000	0.00	0.00	0.00	
32.00	0.00	205.330	32.00	0.00	0.00	0.00	1647348.87	14292708.20	39°21'32.990"N	80°58'31.710"W	0.00	0.000	0.00	0.00	0.00	
117.00	0.490	205.330	117.00	-0.25	-0.33	-0.16	1647348.71	14292707.87	39°21'32.987"N	80°58'31.712"W	0.36	205.330	0.58	0.58	-181.96	Gyrodatta MS Gyro <17-1/2"> (100'-354')
217.00	0.430	213.490	217.00	-0.76	-1.03	-0.55	1647348.32	14292707.17	39°21'32.980"N	80°58'31.717"W	1.16	207.953	0.09	-0.06	8.16	
317.00	0.170	199.430	316.99	-1.08	-1.48	-0.80	1647348.07	14292706.72	39°21'32.975"N	80°58'31.720"W	1.68	208.437	0.27	-0.26	-14.06	
371.00	0.340	171.740	370.99	-1.30	-1.71	-0.81	1647348.06	14292706.48	39°21'32.973"N	80°58'31.720"W	1.89	205.161	0.38	0.31	-51.28	
402.00	0.250	149.030	401.99	-1.46	-1.86	-0.76	1647348.11	14292706.33	39°21'32.972"N	80°58'31.720"W	2.01	202.117	0.47	-0.29	-73.26	Gyrodatta MS Gyro <12-1/4"> (354')(385'-564')
490.00	1.230	137.730	489.98	-2.53	-2.73	-0.02	1647348.84	14292705.47	39°21'32.963"N	80°58'31.710"W	2.73	180.492	1.12	1.11	-12.84	
581.00	3.500	142.660	580.90	-6.12	-5.66	2.32	1647351.18	14292702.54	39°21'32.934"N	80°58'31.681"W	6.12	157.729	2.50	2.49	5.44	
638.00	4.830	143.290	637.75	-10.11	-8.97	4.81	1647353.67	14292699.23	39°21'32.901"N	80°58'31.649"W	10.17	151.804	2.33	2.33	1.07	Directional ONE MWD <12-1/4"> (564')(621'-2413')
668.00	5.410	146.710	667.63	-12.71	-11.16	6.34	1647355.20	14292697.04	39°21'32.880"N	80°58'31.629"W	12.84	150.409	2.18	1.93	11.40	
729.00	6.490	144.100	728.30	-18.86	-16.36	9.94	1647358.80	14292691.84	39°21'32.828"N	80°58'31.584"W	19.14	148.719	1.82	1.77	-4.28	
789.00	6.720	139.860	787.90	-25.47	-21.79	14.19	1647363.05	14292686.42	39°21'32.775"N	80°58'31.529"W	26.00	146.926	0.90	0.38	-7.07	
849.00	6.910	140.360	847.48	-32.23	-27.25	18.76	1647367.62	14292680.96	39°21'32.721"N	80°58'31.471"W	33.08	145.463	0.33	0.32	0.83	
940.00	7.430	139.010	937.77	-42.98	-35.91	26.11	1647374.96	14292672.30	39°21'32.635"N	80°58'31.378"W	44.40	143.981	0.60	0.57	-1.48	
1028.00	7.280	137.560	1025.04	-53.55	-44.32	33.60	1647382.46	14292663.90	39°21'32.552"N	80°58'31.282"W	55.62	142.831	0.27	-0.17	-1.65	
1116.00	7.400	136.030	1112.32	-64.00	-52.51	41.30	1647390.15	14292655.71	39°21'32.471"N	80°58'31.184"W	66.81	141.816	0.26	0.14	-1.74	
1205.00	6.810	140.700	1200.64	-74.32	-60.72	48.62	1647397.47	14292647.50	39°21'32.390"N	80°58'31.091"W	77.79	141.315	0.93	-0.66	5.25	
1293.00	6.520	141.790	1288.04	-84.07	-68.68	55.02	1647403.86	14292639.54	39°21'32.311"N	80°58'31.010"W	88.00	141.305	0.36	-0.33	1.24	
1381.00	6.500	136.370	1375.48	-93.47	-76.21	61.54	1647410.39	14292632.01	39°21'32.237"N	80°58'30.927"W	97.96	141.079	0.70	-0.02	-6.16	
1469.00	6.550	133.530	1462.91	-102.64	-83.28	68.62	1647417.46	14292624.95	39°21'32.167"N	80°58'30.837"W	107.90	140.512	0.37	0.06	-3.23	
1557.00	7.050	141.060	1550.29	-112.34	-90.93	75.65	1647424.49	14292617.30	39°21'32.091"N	80°58'30.747"W	118.29	140.241	1.16	0.57	8.56	
1646.00	7.360	138.710	1638.59	-122.91	-99.47	82.85	1647431.68	14292608.77	39°21'32.007"N	80°58'30.656"W	129.45	140.209	0.48	0.35	-2.64	
1734.00	7.370	135.160	1725.86	-133.40	-107.70	90.55	1647439.38	14292600.54	39°21'31.925"N	80°58'30.558"W	140.71	139.946	0.52	0.01	-4.03	
1822.00	6.730	138.270	1813.20	-143.42	-115.55	97.96	1647446.79	14292592.69	39°21'31.848"N	80°58'30.463"W	151.49	139.711	0.85	-0.73	3.53	
1910.00	6.150	137.020	1900.64	-152.65	-122.85	104.60	1647453.43	14292585.40	39°21'31.776"N	80°58'30.379"W	161.35	139.586	0.68	-0.66	-1.42	
1998.00	6.540	132.660	1988.10	-161.55	-129.69	111.50	1647460.33	14292578.55	39°21'31.708"N	80°58'30.291"W	171.04	139.313	0.70	0.44	-4.95	
2086.00	7.540	142.450	2075.44	-171.61	-137.67	118.71	1647467.53	14292570.58	39°21'31.629"N	80°58'30.199"W	181.78	139.230	1.77	1.14	11.12	
2174.00	8.260	143.820	2162.60	-183.27	-147.35	125.96	1647474.77	14292560.91	39°21'31.533"N	80°58'30.107"W	193.85	139.475	0.85	0.82	1.56	
2263.00	8.900	142.560	2250.61	-196.08	-157.98	133.92	1647482.73	14292550.29	39°21'31.428"N	80°58'30.006"W	207.10	139.712	0.75	0.72	-1.42	



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Packers Unit 3H AWP Proj: 17671'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot #10
ANTERO RESOURCES CORPORATION	Packers Unit 3H
Area	Tyler County, WV
Field	Tyler
Facility	Ritchie Petroleum Pad

## WELLPATH DATA (215 stations)

MD ft	Inclination °	Azimuth °	TVD ft	Vert Sec	North ft	East ft	Grid East US ft	Grid North US ft	Latitude	Longitude	Closure ft	Dist ft	Dir °	DLS ft/100ft	Build Rate ft/100ft	Turn Rate °/100ft	Comments
2351.00	7.520	138.740	2337.71	-208.04	-167.71	141.85	1647490.66	14292540.55	39°21'31.332"N	80°58'29.905"W	219.66	139.774	1.69	-1.57	-4.34		
2430.00	6.140	128.760	2416.15	-216.58	-174.24	148.56	1647497.37	14292534.03	39°21'31.267"N	80°58'29.819"W	228.97	139.549	2.30	-1.75	-12.63		
2511.00	6.030	123.260	2496.69	-223.81	-179.29	155.49	1647504.30	14292528.98	39°21'31.218"N	80°58'29.731"W	237.32	139.065	0.73	-0.14	-6.79		Directional ONE MWD <8-3/4"> (2413')(2494'-6201')
2643.00	7.410	137.320	2627.79	-237.42	-189.35	167.06	1647515.86	14292518.93	39°21'31.118"N	80°58'29.584"W	252.51	138.578	1.62	1.05	10.65		
2731.00	8.320	132.010	2714.96	-248.41	-197.78	175.64	1647524.44	14292510.50	39°21'31.035"N	80°58'29.475"W	264.51	138.393	1.32	1.03	-6.03		
2819.00	7.690	137.510	2802.10	-259.60	-206.38	184.35	1647533.14	14292501.90	39°21'30.950"N	80°58'29.364"W	276.73	138.228	1.13	-0.72	6.25		
2908.00	7.580	155.070	2890.33	-271.02	-216.10	190.85	1647539.64	14292492.18	39°21'30.854"N	80°58'29.281"W	288.31	138.551	2.61	-0.12	19.73		
2998.00	7.120	168.750	2979.59	-282.44	-226.95	194.44	1647543.23	14292481.33	39°21'30.746"N	80°58'29.235"W	298.85	139.413	2.01	-0.51	15.20		
3086.00	6.780	161.140	3066.95	-292.99	-237.22	197.18	1647545.97	14292471.07	39°21'30.645"N	80°58'29.201"W	308.47	140.266	1.11	-0.39	-8.65		
3174.00	6.210	150.250	3154.39	-302.88	-246.27	201.22	1647550.71	14292462.03	39°21'30.555"N	80°58'29.149"W	318.02	140.748	1.54	-0.85	-12.38		
3263.00	6.440	138.080	3242.85	-312.34	-254.16	206.94	1647555.73	14292454.14	39°21'30.477"N	80°58'29.076"W	327.75	140.847	1.53	0.26	-13.67		
3351.00	6.880	129.950	3330.26	-321.59	-261.22	214.28	1647563.06	14292447.09	39°21'30.408"N	80°58'28.983"W	337.86	140.637	1.18	0.50	-9.24		
3439.00	8.670	134.510	3417.45	-332.28	-269.25	223.05	1647571.83	14292447.09	39°21'30.328"N	80°58'28.871"W	349.64	140.361	2.15	2.03	5.18		
3527.00	8.260	136.100	3504.49	-344.19	-278.46	232.17	1647580.84	14292429.85	39°21'30.237"N	80°58'28.755"W	362.54	140.180	0.54	-0.47	1.81		
3616.00	8.130	123.410	3592.59	-355.25	-286.53	241.85	1647590.62	14292421.78	39°21'30.157"N	80°58'28.632"W	374.96	139.833	2.03	-0.15	-14.26		
3704.00	5.890	132.910	3679.93	-364.42	-293.03	250.36	1647599.12	14292415.28	39°21'30.093"N	80°58'28.524"W	385.41	139.490	2.86	-2.55	10.80		
3792.00	5.070	151.420	3767.53	-372.35	-299.52	255.52	1647604.29	14292408.80	39°21'30.029"N	80°58'28.458"W	393.71	139.532	2.20	-0.93	21.03		
3880.00	6.690	166.320	3855.07	-381.29	-307.92	258.60	1647607.36	14292400.41	39°21'29.946"N	80°58'28.419"W	402.10	139.975	2.51	1.84	16.93		
3968.00	7.070	149.850	3942.44	-391.72	-317.58	262.53	1647611.29	14292390.74	39°21'29.850"N	80°58'28.369"W	412.04	140.421	2.27	0.43	-18.72		
4057.00	7.100	139.390	4030.77	-402.33	-326.49	268.86	1647617.62	14292381.84	39°21'29.782"N	80°58'28.288"W	422.95	140.529	1.45	0.03	-11.75		
4145.00	6.390	130.180	4118.16	-411.78	-333.78	276.14	1647624.90	14292374.55	39°21'29.690"N	80°58'28.196"W	433.20	140.398	1.47	-0.81	-10.47		
4233.00	5.740	124.980	4205.67	-419.77	-339.46	283.49	1647632.24	14292368.87	39°21'29.634"N	80°58'28.102"W	442.27	140.134	0.97	-0.74	-5.91		
4321.00	5.600	123.340	4293.24	-426.95	-344.35	290.68	1647639.43	14292363.99	39°21'29.586"N	80°58'28.011"W	450.63	139.830	0.24	-0.16	-1.86		
4409.00	7.080	120.330	4380.70	-434.72	-349.44	298.95	1647647.70	14292358.89	39°21'29.535"N	80°58'27.905"W	459.87	139.453	1.72	1.68	-3.42		
4498.00	7.790	121.710	4468.95	-443.86	-355.38	308.82	1647657.56	14292352.96	39°21'29.477"N	80°58'27.780"W	470.81	139.011	0.82	0.80	1.55		
4586.00	8.750	121.560	4556.03	-453.99	-362.02	319.59	1647668.33	14292346.32	39°21'29.411"N	80°58'27.643"W	482.91	138.562	1.09	1.09	-0.17		
4674.00	9.520	129.790	4642.92	-465.73	-370.16	330.89	1647679.62	14292338.16	39°21'29.330"N	80°58'27.499"W	496.51	138.208	1.72	0.88	9.35		
4763.00	10.900	135.900	4730.51	-479.95	-380.94	342.40	1647691.13	14292332.41	39°21'29.224"N	80°58'27.352"W	512.20	138.050	1.97	1.55	6.87		
4851.00	10.630	146.930	4816.97	-495.59	-393.72	352.62	1647701.35	14292314.64	39°21'29.098"N	80°58'27.222"W	528.54	138.152	2.36	-0.31	12.53		
4939.00	10.240	157.430	4903.92	-511.36	-407.74	360.05	1647708.78	14292300.62	39°21'28.959"N	80°58'27.128"W	543.96	138.554	2.20	-0.44	11.93		



# Actual Wellpath Report

Packers Unit 3H AWP Proj: 17671'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #10
Area	Tyler County, WV	Packers Unit 3H
Field	Tyler	Packers Unit 3H AWB
Facility	Richie Petroleum Pad	

## WELLPATH DATA (215 stations) † = interpolated/extrapolated station

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
5028.00	7.950	164.070	4991.40	-525.40	-420.97	364.78	1647713.50	14292287.40	39°21'28.828"N	80°58'27.067"W	557.03	139.090	2.83	-2.57	7.46	
5116.00	6.020	154.080	5078.75	-536.06	-430.97	368.47	1647717.19	14292277.40	39°21'28.729"N	80°58'27.021"W	567.01	139.471	2.58	-2.19	-11.35	
5204.00	5.280	139.710	5166.32	-544.48	-438.20	373.09	1647721.81	14292270.17	39°21'28.658"N	80°58'26.962"W	575.51	139.588	1.82	-0.86	-16.33	
5292.00	5.750	127.990	5253.92	-552.10	-443.99	379.18	1647727.89	14292264.39	39°21'28.601"N	80°58'26.884"W	583.87	139.502	1.39	0.56	-13.32	
5380.00	7.230	140.060	5341.36	-561.15	-450.95	386.21	1647734.92	14292257.43	39°21'28.532"N	80°58'26.795"W	593.72	139.422	2.28	1.68	13.72	
5468.00	7.270	147.230	5428.66	-571.86	-459.88	392.77	1647741.48	14292248.51	39°21'28.444"N	80°58'26.711"W	604.78	139.500	1.03	0.05	8.15	
5557.00	6.190	138.390	5517.05	-581.89	-468.20	399.01	1647747.72	14292240.19	39°21'28.361"N	80°58'26.632"W	615.16	139.562	1.68	-1.21	-9.93	
5601.00	3.220	164.940	5560.90	-585.35	-471.17	400.91	1647749.61	14292237.22	39°21'28.332"N	80°58'26.608"W	618.65	139.606	8.20	-6.75	60.34	
5645.00	1.510	234.990	5604.86	-586.71	-472.69	400.75	1647749.46	14292235.69	39°21'28.317"N	80°58'26.610"W	619.71	139.708	6.94	-3.89	159.20	
5689.00	4.910	305.740	5648.80	-585.26	-471.93	398.75	1647747.46	14292236.46	39°21'28.325"N	80°58'26.635"W	617.83	139.804	10.54	7.73	160.80	
5733.00	9.420	320.770	5692.45	-580.25	-468.03	394.94	1647743.65	14292240.35	39°21'28.353"N	80°58'26.684"W	612.40	139.841	11.02	10.25	34.16	
5821.00	17.530	329.600	5777.85	-559.93	-450.93	382.92	1647731.64	14292247.44	39°21'28.433"N	80°58'26.753"W	603.45	139.804	10.66	10.59	6.00	
5865.00	20.910	333.730	5819.39	-545.55	-438.17	376.09	1647724.81	14292270.21	39°21'28.532"N	80°58'26.837"W	591.58	139.662	8.72	7.84	14.07	
5909.00	23.970	337.480	5860.06	-528.78	-422.87	369.19	1647717.91	14292285.50	39°21'28.658"N	80°58'27.011"W	577.44	139.359	8.28	7.68	9.39	
5954.00	26.370	340.490	5900.78	-509.65	-405.00	362.35	1647711.08	14292303.36	39°21'28.986"N	80°58'27.098"W	561.35	138.877	7.67	6.95	8.52	
5998.00	26.700	346.070	5940.15	-490.09	-386.19	356.71	1647705.43	14292322.16	39°21'29.172"N	80°58'27.170"W	543.44	138.181	6.04	5.33	6.69	
6042.00	27.090	346.040	5979.40	-470.36	-366.87	351.91	1647700.64	14292341.47	39°21'29.363"N	80°58'27.231"W	525.72	137.273	5.71	0.75	12.68	
6086.00	27.270	344.790	6018.84	-450.40	-347.42	346.85	1647695.58	14292360.91	39°21'29.555"N	80°58'27.295"W	508.37	136.192	0.89	0.89	-0.07	
6130.00	29.390	342.920	6057.27	-429.62	-327.37	341.03	1647689.76	14292380.95	39°21'29.753"N	80°58'27.369"W	490.93	135.047	1.36	0.41	-2.84	
6174.00	31.060	339.310	6095.29	-407.50	-306.43	333.85	1647682.59	14292401.89	39°21'29.960"N	80°58'27.461"W	472.73	133.829	5.22	4.82	-4.25	
6218.00	33.290	332.910	6132.54	-384.12	-285.05	324.34	1647673.08	14292423.26	39°21'30.172"N	80°58'27.582"W	453.16	132.548	5.61	3.80	-8.20	
6278.00	37.000	325.520	6181.61	-350.11	-255.49	306.60	1647665.35	14292452.81	39°21'30.464"N	80°58'27.808"W	431.80	131.311	9.25	5.07	-14.55	
6309.00	42.420	322.950	6241.88	-302.26	-215.56	277.42	1647626.17	14292492.73	39°21'30.899"N	80°58'28.179"W	399.10	129.804	9.40	6.18	-12.32	BHI AT Curve <-8-1/2"> (6218)-(17647)
6356.00	47.590	322.870	6276.52	-268.90	-187.93	256.52	1647605.29	14292520.35	39°21'31.132"N	80°58'28.445"W	380.79	129.073	5.93	4.81	-5.68	
6405.00	49.155	323.641	6286.48	-234.02	-158.77	235.39	1647584.16	14292549.49	39°21'31.420"N	80°58'28.714"W	351.32	127.848	8.44	8.36	-1.72	
6420.00†	52.510	325.170	6308.69	-234.02	-158.77	235.39	1647584.16	14292549.49	39°21'31.420"N	80°58'28.714"W	318.00	126.226	10.55	10.55	-0.16	
6452.00	56.200	326.950	6334.08	-196.72	-127.08	214.08	1647562.86	14292581.17	39°21'31.733"N	80°58'28.985"W	307.29	125.614	11.12	10.43	5.14	Middlesex: 6420' MD
6499.00	60.800	327.580	6358.63	-157.43	-93.38	192.42	1647541.21	14292614.86	39°21'32.067"N	80°58'29.261"W	283.93	123.999	11.12	10.48	4.78	
6546.00											248.96	120.694	8.43	7.85	3.79	
											213.88	115.886	9.85	9.79	1.34	



# Actual Wellpath Report

Packers Unit 3H AWP Proj: 17671'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #10
Area	Tyler County, WV	Packers Unit 3H
Field	Tyler	Packers Unit 3H AWP
Facility	Ritchie Petroleum Pad	

## WELLPATH DATA (215 stations) † = interpolated/extrapolated station

MD	Inclination	Azimuth	TVD	VertSect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[°]	[°]	[ft]	[°]	["/100ft]	["/100ft]	["/100ft]	
6586.00†	64.283	327.949	6377.07	-122.56	-63.36	173.49	1647522.29	14292644.86	39°21'32.363"N	80°58'29.501"W	184.70	110.062	8.75	8.71	0.92	Burkett: 6586' MD
6594.00	64.980	328.020	6380.49	-115.45	-57.23	169.66	1647518.46	14292650.99	39°21'32.424"N	80°58'29.550"W	179.05	108.640	8.75	8.71	0.89	
6633.00†	68.000	328.362	6396.05	-80.27	-26.84	150.81	1647499.62	14292681.37	39°21'32.724"N	80°58'29.790"W	153.18	100.091	7.79	7.74	0.88	Tully: 6633' MD
6641.00	68.620	328.430	6399.01	-72.95	-20.51	146.92	1647495.72	14292687.70	39°21'32.787"N	80°58'29.840"W	148.34	97.947	7.79	7.75	0.85	
6653.00†	69.257	328.746	6403.32	-61.92	-10.95	141.08	1647489.89	14292697.25	39°21'32.881"N	80°58'29.914"W	141.50	94.439	5.85	5.31	2.64	Marcellus POE: 6653' MD
6689.00	71.170	329.680	6415.51	-28.49	18.15	123.74	1647472.56	14292726.34	39°21'33.169"N	80°58'30.135"W	125.07	81.657	5.85	5.31	2.59	
6736.00	75.900	332.300	6428.83	16.18	57.56	101.90	1647450.73	14292765.73	39°21'33.559"N	80°58'30.412"W	117.04	60.542	11.39	10.06	5.57	
6784.00	81.040	334.250	6438.42	63.00	99.55	80.77	1647429.60	14292801.12	39°21'33.974"N	80°58'30.681"W	128.19	39.054	11.42	10.71	4.06	
6831.00	84.760	336.730	6444.23	109.57	141.98	61.43	1647410.27	14292850.12	39°21'34.393"N	80°58'30.927"W	154.70	23.396	9.49	7.91	5.28	
6879.00	89.170	336.740	6446.77	157.46	186.00	42.50	1647391.35	14292894.12	39°21'34.828"N	80°58'31.168"W	190.80	12.871	9.19	9.19	0.02	
6974.00	89.970	331.390	6447.48	252.14	271.40	0.97	1647349.84	14292979.49	39°21'35.672"N	80°58'31.687"W	271.40	0.205	5.69	0.84	-5.63	
7069.00	89.450	324.560	6447.96	345.49	351.89	-49.38	1647299.51	14293059.95	39°21'36.466"N	80°58'32.337"W	355.34	352.012	7.21	-0.55	-7.19	
7163.00	89.880	327.060	6448.51	437.19	429.64	-102.19	1647246.71	14293137.67	39°21'37.237"N	80°58'33.010"W	441.63	346.620	2.70	0.46	2.66	
7258.00	90.460	336.240	6448.23	531.41	513.16	-147.26	1647201.67	14293221.15	39°21'38.062"N	80°58'33.583"W	533.87	343.988	9.68	0.61	9.66	
7353.00	90.520	339.660	6447.42	626.39	601.19	-182.92	1647166.03	14293309.15	39°21'38.932"N	80°58'34.037"W	628.40	343.077	3.60	0.06	3.60	
7449.00	90.250	341.060	6446.77	722.33	691.60	-215.18	1647133.77	14293399.52	39°21'39.826"N	80°58'34.447"W	724.31	342.717	1.49	-0.28	1.46	
7544.00	89.630	340.480	6446.87	817.26	781.30	-246.47	1647102.50	14293489.18	39°21'40.713"N	80°58'34.845"W	819.26	342.492	0.89	-0.65	-0.61	
7639.00	89.690	340.140	6447.43	912.21	870.75	-278.48	1647070.50	14293578.59	39°21'41.597"N	80°58'35.252"W	914.19	342.265	0.36	0.06	-0.36	
7734.00	89.850	341.550	6447.82	1007.13	960.48	-309.65	1647039.34	14293668.29	39°21'42.484"N	80°58'35.649"W	1009.16	342.131	1.49	0.17	1.48	
7829.00	89.850	343.760	6448.07	1101.87	1051.16	-337.97	1647011.04	14293758.93	39°21'43.380"N	80°58'36.009"W	1104.15	342.178	2.33	0.00	2.33	
7924.00	89.820	343.950	6448.34	1196.45	1142.41	-364.38	1646984.63	14293850.15	39°21'44.282"N	80°58'36.345"W	1199.11	342.309	0.20	-0.03	0.20	
8019.00	89.570	342.010	6448.84	1291.15	1233.24	-392.19	1646956.84	14293930.94	39°21'45.180"N	80°58'36.699"W	1294.10	342.359	2.06	-0.26	-2.04	
8114.00	89.450	339.100	6449.66	1386.08	1322.81	-423.81	1646925.23	14294030.48	39°21'46.065"N	80°58'37.101"W	1389.05	342.235	3.07	-0.13	-3.06	
8209.00	89.450	337.510	6450.57	1481.07	1411.08	-458.93	1646890.13	14294118.71	39°21'46.938"N	80°58'37.548"W	1483.83	341.984	1.67	0.00	-1.67	
8304.00	89.450	336.650	6451.48	1576.04	1498.57	-495.92	1646853.15	14294206.16	39°21'47.803"N	80°58'38.019"W	1578.50	341.689	0.91	0.00	-0.91	
8398.00	89.480	338.270	6452.36	1670.01	1585.38	-531.95	1646817.13	14294292.94	39°21'48.661"N	80°58'38.477"W	1672.25	341.452	1.72	0.03	1.72	
8493.00	89.630	337.900	6453.10	1765.01	1673.52	-567.41	1646781.69	14294368.04	39°21'49.532"N	80°58'38.928"W	1767.09	341.271	0.42	0.16	-0.39	
8588.00	89.570	337.240	6453.76	1859.99	1761.33	-603.65	1646745.46	14294446.81	39°21'50.400"N	80°58'39.390"W	1861.90	341.082	0.70	-0.06	-0.69	
8683.00	89.450	337.720	6454.57	1954.98	1849.08	-640.04	1646709.99	14294526.53	39°21'51.267"N	80°58'39.853"W	1956.72	340.907	0.52	-0.13	0.51	
8778.00	89.510	339.330	6455.43	2049.97	1937.48	-674.81	1646674.32	14294644.89	39°21'52.141"N	80°58'40.295"W	2051.63	340.797	1.70	0.06	1.69	



# Actual Wellpath Report

Packers Unit 3H AWP Proj: 17671'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #10
Area	Tyler County, WV	Packers Unit 3H
Field	Tyler	Packers Unit 3H AWB
Facility	Ritchie Petroleum Pad	

## WELLPATH DATA (215 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
8872.00	89.630	341.680	6456.14	2143.90	2026.08	-706.18	1646642.97	14294733.46	39°21'53.017"N	80°58'40.694"W	2145.62	340.784	2.50	0.13	2.50	
8967.00	89.510	341.220	6456.85	2238.77	2116.14	-736.40	1646612.76	14294823.49	39°21'53.907"N	80°58'41.079"W	2240.61	340.812	0.50	-0.13	-0.48	
9062.00	89.540	338.830	6457.64	2333.73	2205.42	-768.85	1646580.32	14294912.73	39°21'54.789"N	80°58'41.492"W	2335.59	340.780	2.52	0.03	-2.52	
9156.00	89.510	339.450	6458.42	2427.72	2293.25	-802.32	1646546.87	14295000.53	39°21'55.658"N	80°58'41.917"W	2429.55	340.717	0.66	-0.03	0.66	
9251.00	89.540	340.150	6459.21	2522.69	2382.40	-835.13	1646514.08	14295089.64	39°21'56.539"N	80°58'42.335"W	2524.54	340.682	0.74	0.03	0.74	
9347.00	89.510	339.630	6460.00	2618.66	2472.55	-868.13	1646481.09	14295179.75	39°21'57.430"N	80°58'42.755"W	2620.52	340.653	0.54	-0.03	-0.54	
9442.00	89.540	338.110	6460.79	2713.65	2561.16	-902.38	1646446.86	14295268.32	39°21'58.306"N	80°58'43.191"W	2715.47	340.591	1.60	0.03	-1.60	
9537.00	89.630	338.030	6461.48	2808.64	2649.28	-937.85	1646411.39	14295356.41	39°21'59.177"N	80°58'43.642"W	2810.38	340.506	0.13	0.09	-0.08	
9632.00	89.540	338.270	6462.17	2903.64	2737.45	-973.21	1646376.05	14295444.55	39°22'00.048"N	80°58'44.092"W	2905.30	340.429	0.27	-0.09	0.25	
9727.00	89.540	338.420	6462.93	2998.64	2825.74	-1008.27	1646341.01	14295532.80	39°22'00.921"N	80°58'44.538"W	3000.24	340.363	0.16	0.00	0.16	
9822.00	89.480	338.370	6463.74	3093.63	2914.07	-1043.24	1646306.04	14295621.09	39°22'01.794"N	80°58'44.983"W	3095.18	340.302	0.08	-0.06	-0.05	
9917.00	89.570	339.560	6464.53	3188.62	3002.73	-1077.34	1646271.96	14295709.72	39°22'02.670"N	80°58'45.417"W	3190.15	340.263	1.26	0.09	1.25	
10012.00	89.570	337.800	6465.24	3283.62	3091.22	-1111.88	1646237.44	14295798.18	39°22'03.545"N	80°58'45.856"W	3285.11	340.217	1.85	0.00	-1.85	
10107.00	89.940	337.360	6465.55	3378.60	3179.04	-1148.11	1646201.22	14295886.96	39°22'04.413"N	80°58'46.318"W	3380.01	340.143	0.61	0.39	-0.46	
10202.00	90.060	336.810	6465.65	3473.57	3266.54	-1185.10	1646164.24	14295973.43	39°22'05.278"N	80°58'46.788"W	3474.88	340.059	0.59	0.13	-0.58	
10297.00	89.880	338.010	6465.70	3568.56	3354.25	-1221.59	1646127.77	14296061.10	39°22'06.145"N	80°58'47.253"W	3569.78	339.989	1.28	-0.19	1.26	
10393.00	89.540	338.890	6466.18	3664.55	3443.54	-1256.85	1646092.52	14296150.35	39°22'07.028"N	80°58'47.701"W	3665.74	339.948	0.98	-0.35	0.92	
10488.00	89.660	338.410	6466.85	3759.55	3532.02	-1291.44	1646057.95	14296238.80	39°22'07.902"N	80°58'48.141"W	3760.71	339.916	0.52	0.13	-0.51	
10583.00	89.880	339.040	6467.23	3854.55	3620.54	-1325.91	1646023.49	14296327.29	39°22'08.777"N	80°58'48.580"W	3855.69	339.886	0.70	0.23	0.66	
10678.00	89.940	338.470	6467.38	3949.55	3709.09	-1360.33	1645989.08	14296415.79	39°22'09.652"N	80°58'49.018"W	3950.67	339.859	0.60	0.06	-0.60	
10772.00	90.000	337.130	6467.43	4043.54	3796.12	-1395.85	1645953.58	14296502.79	39°22'10.513"N	80°58'49.470"W	4044.61	339.811	1.43	0.06	-1.43	
10868.00	89.910	336.140	6467.50	4139.49	3884.24	-1433.92	1645915.52	14296590.88	39°22'11.384"N	80°58'49.955"W	4140.47	339.738	1.04	-0.09	-1.03	
10962.00	90.060	336.690	6467.53	4233.42	3970.39	-1471.53	1645877.93	14296676.99	39°22'12.235"N	80°58'50.433"W	4234.31	339.664	0.61	0.16	0.59	
11058.00	89.970	337.360	6467.50	4329.39	4058.78	-1509.00	1645840.47	14296765.34	39°22'13.109"N	80°58'50.910"W	4330.21	339.606	0.70	-0.09	0.70	
11152.00	90.060	338.650	6467.48	4423.39	4145.93	-1544.21	1645805.28	14296852.46	39°22'13.970"N	80°58'51.358"W	4424.18	339.572	1.38	0.10	1.37	
11247.00	90.120	339.250	6467.33	4518.38	4234.59	-1578.33	1645771.17	14296941.09	39°22'14.847"N	80°58'51.793"W	4519.17	339.558	0.63	0.06	0.63	
11343.00	90.030	339.840	6467.20	4614.37	4324.54	-1611.88	1645737.64	14297031.00	39°22'15.736"N	80°58'52.219"W	4615.17	339.558	0.62	-0.09	0.61	
11437.00	89.940	339.890	6467.23	4708.34	4412.79	-1644.24	1645705.29	14297119.22	39°22'16.608"N	80°58'52.631"W	4709.17	339.564	0.11	-0.10	0.05	
11533.00	90.180	339.190	6467.13	4804.32	4502.74	-1677.79	1645667.15	14297209.12	39°22'17.497"N	80°58'53.058"W	4805.17	339.564	0.77	0.25	-0.73	
11628.00	89.940	337.800	6467.03	4899.32	4591.12	-1712.62	1645636.94	14297297.47	39°22'18.371"N	80°58'53.502"W	4900.15	339.543	1.48	-0.25	-1.46	



# Actual Wellpath Report

Packers Unit 3H AWP Proj: 17671'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot #10
ANTERO RESOURCES CORPORATION	Packers Unit 3H
Tyler County, WV	Packers Unit 3H AWB
Tyler	
Field	Wellbore
Facility	Ritchie Petroleum Pad

## WELLPATH DATA (215 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
11723.00	90.090	336.310	6467.00	4994.29	4678.60	-1749.65	1645599.92	14297384.92	39°22'19.235"N	80°58'53.973"W	4995.06	339.496	1.58	0.16	-1.57	
11818.00	90.000	336.390	6466.93	5089.22	4765.62	-1787.76	1645561.83	14297471.90	39°22'20.096"N	80°58'54.458"W	5089.92	339.437	0.13	-0.09	0.08	
11913.00	90.150	334.070	6466.80	5184.06	4851.88	-1827.56	1645522.04	14297558.12	39°22'20.948"N	80°58'54.964"W	5184.66	339.360	2.45	0.16	-2.44	
12008.00	90.580	333.540	6466.20	5278.74	4937.12	-1869.49	1645480.12	14297643.33	39°22'21.791"N	80°58'55.498"W	5279.22	339.260	0.72	0.45	-0.56	
12103.00	90.830	335.370	6465.03	5373.49	5022.82	-1910.46	1645439.18	14297729.00	39°22'22.638"N	80°58'56.020"W	5373.88	339.175	1.94	0.26	1.93	
12198.00	91.200	339.010	6463.35	5468.44	5110.36	-1947.27	1645402.38	14297816.51	39°22'23.503"N	80°58'56.488"W	5468.79	339.141	3.85	0.39	3.83	
12293.00	91.260	345.850	6461.30	5563.14	5200.86	-1975.93	1645373.73	14297906.96	39°22'24.398"N	80°58'56.853"W	5563.56	339.197	7.20	0.06	7.20	
12388.00	91.450	343.890	6459.06	5657.52	5292.53	-2000.72	1645348.96	14297998.60	39°22'25.304"N	80°58'57.168"W	5658.07	339.292	2.07	0.20	-2.06	
12483.00	91.510	337.580	6456.60	5752.36	5382.14	-2032.03	1645317.65	14298088.17	39°22'26.190"N	80°58'57.567"W	5752.96	339.316	6.64	0.06	-6.64	
12579.00	91.260	334.680	6454.28	5848.24	5469.89	-2070.86	1645278.84	14298175.89	39°22'27.057"N	80°58'58.061"W	5848.78	339.264	3.03	-0.26	-3.02	
12674.00	91.260	337.650	6452.19	5943.13	5556.76	-2109.24	1645240.47	14298262.72	39°22'27.916"N	80°58'58.550"W	5943.61	339.214	3.13	0.00	3.13	
12769.00	90.580	338.090	6450.67	6038.11	5644.75	-2145.02	1645204.71	14298350.68	39°22'28.785"N	80°58'59.005"W	6038.57	339.193	0.85	-0.72	0.46	
12864.00	90.550	335.990	6449.73	6133.07	5732.21	-2182.08	1645167.67	14298438.11	39°22'29.650"N	80°58'59.477"W	6133.49	339.160	2.21	-0.03	-2.21	
12960.00	90.030	335.050	6449.24	6228.94	5819.58	-2221.86	1645127.90	14298525.44	39°22'30.513"N	80°58'59.983"W	6229.30	339.104	1.12	-0.54	-0.98	
13055.00	89.850	336.720	6449.34	6323.84	5906.29	-2260.67	1645089.11	14298612.11	39°22'31.370"N	80°59'00.477"W	6324.15	339.055	1.77	-0.19	1.76	
13150.00	89.850	338.800	6449.59	6418.83	5994.21	-2296.62	1645053.17	14298700.00	39°22'32.239"N	80°59'00.935"W	6419.12	339.036	2.19	0.00	2.19	
13245.00	90.090	339.630	6449.64	6513.82	6083.03	-2330.34	1645019.47	14298788.78	39°22'33.117"N	80°59'01.364"W	6514.12	339.039	0.91	0.25	0.87	
13341.00	89.970	338.250	6449.59	6609.81	6172.62	-2364.83	1644984.99	14298878.33	39°22'34.003"N	80°59'01.803"W	6610.11	339.037	1.44	-0.13	-1.44	
13436.00	89.910	340.230	6449.69	6704.80	6261.44	-2398.50	1644951.33	14298967.12	39°22'34.881"N	80°59'02.231"W	6705.11	339.040	2.09	-0.06	2.08	
13531.00	90.030	341.020	6449.74	6799.73	6351.06	-2430.02	1644919.83	14299056.71	39°22'35.767"N	80°59'02.633"W	6800.07	339.062	0.84	0.13	0.83	
13626.00	89.970	340.580	6449.74	6894.66	6440.78	-2461.26	1644888.60	14299146.39	39°22'36.653"N	80°59'03.030"W	6895.03	339.086	0.47	-0.06	-0.46	
13721.00	90.060	339.080	6449.72	6989.63	6529.95	-2494.02	1644855.85	14299235.52	39°22'37.535"N	80°59'03.447"W	6990.02	339.096	1.58	0.09	-1.58	
13816.00	90.060	338.360	6449.62	7084.63	6618.47	-2528.50	1644821.39	14299324.01	39°22'38.410"N	80°59'03.886"W	7085.02	339.091	0.76	0.00	-0.76	
13912.00	90.060	337.790	6449.52	7180.62	6707.53	-2564.34	1644785.56	14299413.03	39°22'39.290"N	80°59'04.342"W	7181.00	339.078	0.59	0.00	-0.59	
14007.00	90.090	338.850	6449.39	7275.62	6795.81	-2599.44	1644750.48	14299501.27	39°22'40.163"N	80°59'04.789"W	7275.99	339.068	1.12	0.03	1.12	
14102.00	90.030	339.490	6449.29	7370.61	6884.60	-2633.22	1644716.71	14299590.03	39°22'41.040"N	80°59'05.219"W	7370.99	339.069	0.68	-0.06	0.67	
14197.00	90.030	339.640	6449.24	7465.60	6973.62	-2666.39	1644683.55	14299679.01	39°22'41.920"N	80°59'05.641"W	7465.99	339.075	0.16	0.00	0.16	
14292.00	90.000	339.440	6449.22	7560.58	7062.63	-2699.59	1644650.36	14299767.98	39°22'42.800"N	80°59'06.064"W	7560.98	339.081	0.21	-0.03	-0.21	
14387.00	90.060	339.910	6449.17	7655.56	7151.71	-2732.59	1644617.38	14299857.03	39°22'43.680"N	80°59'06.484"W	7655.98	339.089	0.50	0.06	0.49	
14482.00	90.030	337.260	6449.09	7750.55	7240.14	-2767.27	1644582.71	14299945.43	39°22'44.555"N	80°59'06.925"W	7750.97	339.083	2.79	-0.03	-2.79	





# Actual Wellpath Report

Packers Unit 3H AWP Proj: 17671'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #10
Area	Tyler County, WV	Packers Unit 3H
Field	Tyler	Packers Unit 3H AWB
Facility	Ritchie Petroleum Pad	

## WELLPATH DATA (215 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 (°/100ft)	Comments
14577.00	90.030	337.850	6449.04	7845.54	7327.95	-2803.54	16445446.45	14300033.20	39°22'45.422"N	80°59'07.387"W	7845.93	339.064	0.62	0.00	0.62	
14672.00	90.060	339.330	6448.97	7940.54	7416.39	-2838.22	1644511.79	14300121.60	39°22'46.297"N	80°59'07.829"W	7940.93	339.058	1.56	0.03	1.56	
14766.00	89.780	340.860	6449.10	8034.50	7504.71	-2870.38	1644479.64	14300209.89	39°22'47.170"N	80°59'08.238"W	8034.91	339.069	1.45	-0.30	1.41	
14862.00	89.660	340.980	6449.57	8130.42	7595.38	-2901.92	1644448.12	14300300.53	39°22'48.066"N	80°59'08.639"W	8130.87	339.090	0.36	-0.12	0.33	
14957.00	90.000	340.290	6449.85	8225.35	7685.01	-2933.42	1644416.63	14300390.12	39°22'48.952"N	80°59'09.040"W	8225.83	339.108	0.81	0.36	-0.73	
15052.00	89.970	340.850	6449.88	8320.29	7774.60	-2965.02	1644385.04	14300479.67	39°22'49.837"N	80°59'09.443"W	8320.80	339.125	0.59	-0.03	0.59	
15147.00	90.030	339.750	6449.88	8415.24	7864.04	-2997.04	1644353.03	14300569.07	39°22'50.721"N	80°59'09.850"W	8415.78	339.138	1.16	0.06	-1.16	
15242.00	90.150	340.040	6449.73	8510.21	7953.25	-3029.70	1644320.39	14300658.25	39°22'51.603"N	80°59'10.266"W	8510.77	339.146	0.33	0.13	0.31	
15337.00	90.060	340.110	6449.55	8605.18	8042.56	-3062.07	1644288.02	14300747.52	39°22'52.486"N	80°59'10.678"W	8605.76	339.156	0.12	-0.09	0.07	
15433.00	90.220	340.070	6449.32	8701.14	8132.82	-3094.77	1644255.35	14300837.75	39°22'53.378"N	80°59'11.094"W	8701.75	339.167	0.17	0.17	-0.04	
15528.00	90.370	335.800	6448.78	8796.13	8221.43	-3129.01	1644221.12	14300926.32	39°22'54.254"N	80°59'11.530"W	8796.74	339.164	2.53	-0.20	-2.53	
15623.00	90.370	335.800	6448.78	8891.08	8308.70	-3166.53	1644183.61	14301013.56	39°22'55.116"N	80°59'12.008"W	8891.65	339.138	2.00	0.36	-1.97	
15718.00	90.340	335.940	6448.19	8985.98	8395.40	-3205.37	1644144.79	14301100.22	39°22'55.973"N	80°59'12.502"W	8986.49	339.103	0.15	-0.03	0.15	
15813.00	90.220	333.830	6447.73	9080.78	8481.41	-3245.69	1644104.49	14301186.20	39°22'56.823"N	80°59'13.016"W	9081.23	339.059	2.22	-0.13	-2.22	
15907.00	90.250	333.650	6447.34	9174.46	8565.71	-3287.28	1644062.91	14301270.46	39°22'57.657"N	80°59'13.545"W	9174.83	339.005	0.19	0.03	-0.19	
16003.00	90.220	336.000	6446.95	9270.26	8652.58	-3328.11	1644022.10	14301357.30	39°22'58.515"N	80°59'14.065"W	9270.57	338.961	2.45	-0.03	2.45	
16098.00	90.550	339.400	6446.31	9365.23	8740.46	-3364.15	1643986.07	14301445.14	39°22'59.384"N	80°59'14.524"W	9365.53	338.949	3.60	0.35	3.58	
16194.00	91.140	341.390	6444.89	9461.16	8830.88	-3396.36	1643953.88	14301535.53	39°23'00.278"N	80°59'14.934"W	9461.49	338.963	2.16	0.61	2.07	
16289.00	90.920	338.370	6443.18	9556.11	8920.06	-3429.03	1643921.22	14301624.67	39°23'01.159"N	80°59'15.350"W	9556.45	338.972	3.19	-0.23	-3.18	
16383.00	90.550	335.820	6441.98	9650.06	9006.63	-3465.61	1643884.65	14301711.21	39°23'02.015"N	80°59'15.815"W	9650.38	338.954	2.74	-0.39	-2.71	
16478.00	90.400	335.800	6441.19	9744.96	9093.29	-3504.53	1643845.74	14301797.83	39°23'02.871"N	80°59'16.311"W	9745.24	338.923	0.16	-0.16	-0.02	
16573.00	90.370	336.410	6440.55	9839.87	9180.14	-3543.01	1643807.28	14301884.65	39°23'03.730"N	80°59'16.801"W	9840.12	338.896	0.64	-0.03	0.64	
16668.00	90.550	341.760	6439.79	9934.83	9268.85	-3576.91	1643773.39	14301973.32	39°23'04.607"N	80°59'17.232"W	9935.08	338.898	5.63	0.19	5.63	
16763.00	90.490	338.620	6438.93	10029.77	9358.21	-3609.10	1643741.22	14302062.65	39°23'05.490"N	80°59'17.642"W	10030.04	338.910	3.31	-0.06	-3.31	
16858.00	90.520	337.210	6438.09	10124.76	9446.23	-3644.82	1643705.51	14302150.63	39°23'06.360"N	80°59'18.097"W	10125.02	338.901	1.48	0.03	-1.48	
16954.00	90.490	337.470	6437.24	10220.74	9534.82	-3681.80	1643668.54	14302239.19	39°23'07.235"N	80°59'18.568"W	10220.98	338.886	0.27	-0.03	0.27	
17049.00	90.460	337.260	6436.43	10315.72	9622.50	-3718.36	1643632.00	14302326.83	39°23'08.102"N	80°59'19.033"W	10315.95	338.872	0.22	0.00	-0.22	
17144.00	90.460	339.400	6435.64	10410.71	9710.78	-3753.44	1643596.94	14302415.07	39°23'08.975"N	80°59'19.480"W	10410.93	338.867	2.25	-0.03	2.25	
17239.00	90.550	340.010	6434.81	10505.68	9799.88	-3786.39	1643564.00	14302504.13	39°23'09.855"N	80°59'19.899"W	10505.92	338.875	0.65	0.09	0.64	
17334.00	90.490	338.510	6433.94	10600.67	9888.71	-3820.03	1643530.37	14302592.94	39°23'10.733"N	80°59'20.328"W	10600.91	338.878	1.58	-0.06	-1.58	



# Actual Wellpath Report

Packers Unit 3H AWP Proj: 17671'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot #10
ANTERO RESOURCES CORPORATION	Packers Unit 3H
Area	Well
Tyler County, WV	Packers Unit 3H AWP
Field	Wellbore
Tyler	
Facility	Ritchie Petroleum Pad

## WELLPATH DATA (215 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert.Sect [ft]	North [ft]	East [ft]	Grid East [JUS ft]	Grid North [JUS ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
17429.00	90.550	337.780	6433.08	10695.66	9976.88	-3855.39	1643495.03	143026681.07	39°23'11.605"N	80°59'20.778"W	10695.90	338.872	0.77	0.06	-0.77	
17524.00	90.520	337.930	6432.19	10790.65	10064.87	-3891.20	1643459.23	14302769.02	39°23'12.474"N	80°59'21.234"W	10790.88	338.863	0.16	-0.03	0.16	
17619.00	90.430	337.900	6431.41	10885.64	10152.90	-3926.92	1643423.53	14302887.01	39°23'13.345"N	80°59'21.689"W	10885.86	338.855	0.10	-0.09	-0.03	
17647.00	90.490	338.150	6431.18	10913.64	10178.86	-3937.40	1643413.06	14302882.97	39°23'13.801"N	80°59'21.822"W	10913.86	338.852	0.92	0.21	0.89	
17671.00	90.490	338.150	6430.98	10937.84	10201.14	-3946.33	1643404.13	14302905.23	39°23'13.821"N	80°59'21.936"W	10937.86	338.851	0.00	0.00	0.00	Projected MD at TD: 17671'

## HOLE & CASING SECTIONS - Ref Wellbore: Packers Unit 3H AWP Proj: 17671'

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]
	Start MD	End MD	Start MD	End MD		Start TVD	End TVD	Start N/S	Start E/W				
20in Conductor	32.00	112.00	112.00	112.00	80.00	32.00	112.00	32.00	112.00	0.00	0.00	-0.29	-0.14
17.5in Open Hole	112.00	411.00	411.00	411.00	299.00	112.00	410.99	112.00	410.99	-0.29	-0.14	-1.90	-0.73
13.375in Casing Surface	32.00	411.00	411.00	411.00	379.00	32.00	410.99	32.00	410.99	0.00	0.00	-1.90	-0.73
12.25in Open Hole	411.00	2461.30	2461.30	2461.30	2050.30	410.99	2447.27	410.99	2447.27	-1.90	-0.73	-176.28	151.19
9.625in Casing Intermediate	32.00	2461.30	2461.30	2461.30	2429.30	32.00	2447.27	32.00	2447.27	0.00	0.00	-176.28	151.19
8.75in Open Hole	2461.30	6304.00	6304.00	6304.00	3842.70	2447.27	6202.21	2447.27	6202.21	-176.28	151.19	-242.52	297.45
8.5in Open Hole	6304.00	17671.00	17671.00	17671.00	11367.00	6202.21	6430.98	6202.21	6430.98	-242.52	297.45	10201.14	-3946.33
5.5in Casing Production	32.00	17671.00	17671.00	17671.00	17639.00	32.00	6430.98	32.00	6430.98	0.00	0.00	10201.14	-3946.33



# Actual Wellpath Report

Packers Unit 3H AWP Proj: 17671'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Area	Field	Facility	Slot	Slot #10
ANTERO RESOURCES CORPORATION	Tyler County, WV	Tyler	Ritchie Petroleum Pad	Well	Packers Unit 3H
				Wellbore	Packers Unit 3H AWB

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Packers Unit 3H LP - Rev-1	6454.00	211.69	38.93	1647387.78	14292919.81	39°21'35.082"N	80°58'31.214"W	point
Packers Unit 3H BHL - Rev-2	6510.36	10214.09	-3932.02	1643418.43	14302918.18	39°23'13.949"N	80°59'21.754"W	point

## WELLPATH COMPOSITION - Ref Wellbore: Packers Unit 3H AWB Ref Wellpath: Packers Unit 3H AWP Proj: 17671'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	371.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(100-354)	Packers Unit 3H AWB
371.00	581.00	Gyrodata standard - Drop gyro or Multi-shot	02 Gyrodata MS Gyro <12-1/4">(354)(385-564)	Packers Unit 3H AWB
581.00	2430.00	ISCWSA MWD, Rev. 4 (Standard)	03 Directional ONE MWD <12-1/4">(564)(621-2413)	Packers Unit 3H AWB
2430.00	6218.00	ISCWSA MWD, Rev. 4 (Standard)	04 Directional ONE MWD <8-3/4">(2413)(2494-6201)	Packers Unit 3H AWB
6218.00	17647.00	BHI AutoTrak Curve (Short)	05 BHI AT Curve<8-1/2">(6218)(6278-17647)	Packers Unit 3H AWB
17647.00	17671.00	Blind Drilling (std)	Projection to bit	Packers Unit 3H AWB



# Actual Wellpath Report

Packers Unit 3H AWP Proj: 17671'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Slot	Slot #10	
ANTERO RESOURCES CORPORATION	Well	Packers Unit 3H	
Area: Tyler County, WV	Wellbore	Packers Unit 3H AWB	
Field: Tyler			
Facility: Ritchie Petroleum Pad			

### COMMENTS

#### Wellpath general comments

API: 47-095-02392-0000

BHI Job #: 8696425

Rig: Frontier 32

Duration: 08/23/2017-08/26/2017

Gyrodatta MS Gyro <17-1/2"> (100'-354')

Gyrodatta MS Gyro <12-1/4"> (354')(385'-564')

Directional ONE MWD <12-1/4"> (564')(621'-2413')

Directional ONE MWD <8-3/4"> (2413')(2494'-6201')

BHI AT Curve <8-1/2"> (6218')(6278'-17647')

Middlesex: 6420' MD

Burkett: 6586' MD

Tully: 6633' MD

Marcellus POE: 6653' MD

Projected MD at TD: 17671'