



ANTERO RESOURCES CORPORATION

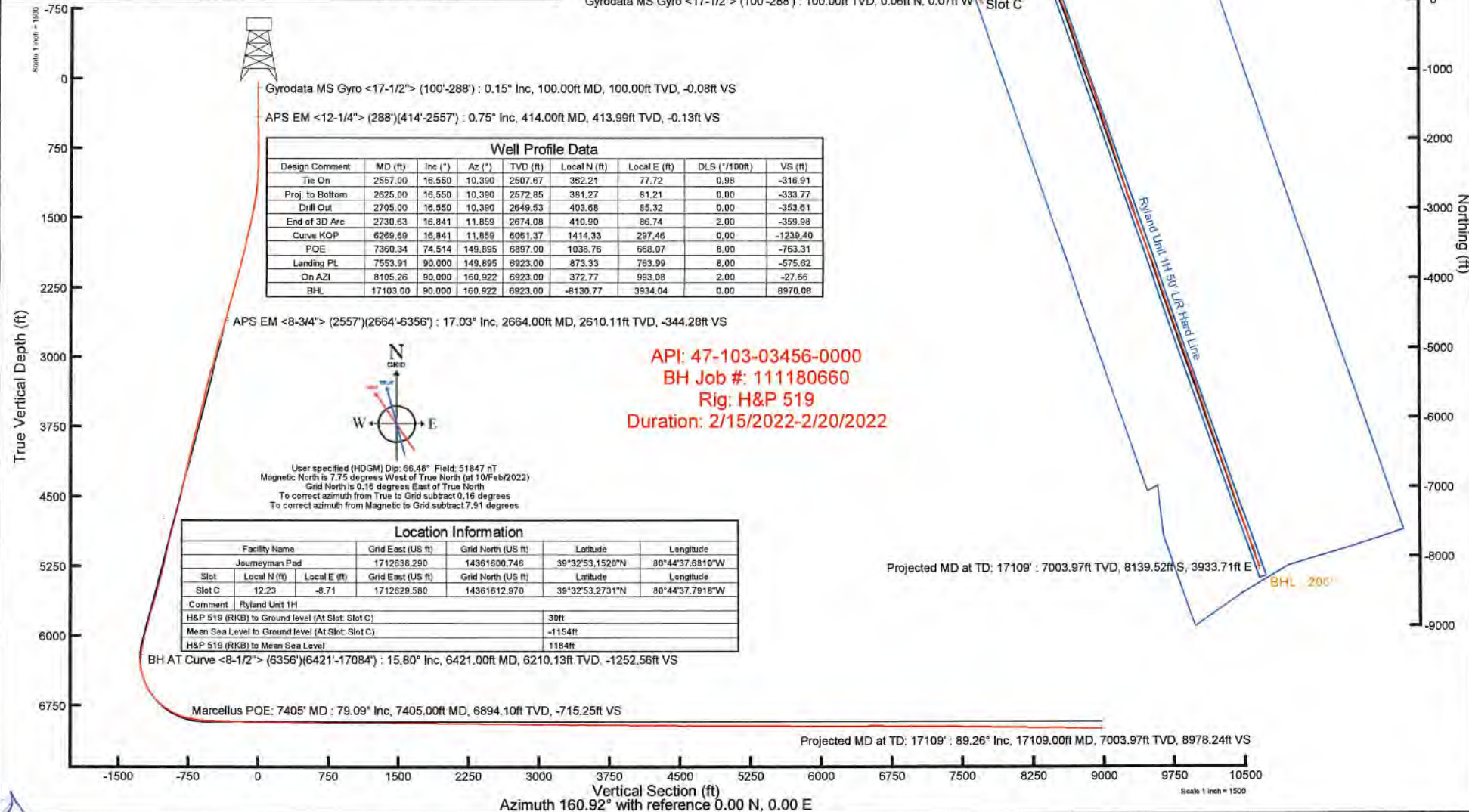


Location: Wetzel County, WV
 Field: Wetzel
 Facility: Journeyman Pad

Slot: Slot C
 Well: Ryland Unit 1H
 Wellbore: Ryland Unit 1H PWB

Plot reference wellpath is Ryland Unit 1H PWB Rev-B.0	Grid System: NAD27 / UTM Zone 17 North, US foot
True vertical depths are referenced to H&P 519 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 519 (RKB)	Scale: True distance
H&P 519 (RKB) to Mean Sea Level: 1184 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot C) : -1154 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: odsaysan on 2022-02-24; Database: WA, MPL, EASTERNUS_Datums

Well Data			
Slot	Well	Wellbore	Wellpath
Slot C	Ryland Unit 1H	Ryland Unit 1H AWB	Ryland Unit 1H AWP Proj: 17109'
Slot C	Ryland Unit 1H	Ryland Unit 1H PWB	Ryland Unit 1H PWB Rev-B.0





Actual Wellpath Report

Ryland Unit 1H AWP Proj: 17109'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 1H
Field	Wetzel	API	47-103-03456-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 1H AWB
Slot	Slot C		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999606	Report Generated	24/Feb/2022 at 22:52
Convergence at slot	0.16° East	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	12.23	-8.71	1712629.58	14361612.97	39°32'53.2731"N	80°44'37.7918"W
Facility Reference Pt			1712638.29	14361600.75	39°32'53.1520"N	80°44'37.6810"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.3013"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 519 (RKB) to Facility Vertical Datum	1184.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	1184.00ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot C)	30.00ft
MD Reference Pt	H&P 519 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	160.92°



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Field	Wetzel	API	47-103-03456-0000
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WELLPATH DATA (187 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	311.570	0.00	0.00	0.00	0.00	1712629.58	14361612.97	39°32'53.2731"N	80°44'37.7918"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	311.570	30.00	0.00	0.00	0.00	1712629.58	14361612.97	39°32'53.2731"N	80°44'37.7918"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.150	311.570	100.00	-0.08	0.06	-0.07	1712629.51	14361613.03	39°32'53.2737"N	80°44'37.7927"W	0.09	311.570	0.21	0.21	0.00	Gyrodata MS Gyro <17-1/2"> (100'-288')
200.00	0.190	355.300	200.00	-0.35	0.31	-0.18	1712629.40	14361613.28	39°32'53.2762"N	80°44'37.7941"W	0.36	330.080	0.13	0.04	43.73	
288.00	0.420	242.790	288.00	-0.45	0.31	-0.48	1712629.10	14361613.28	39°32'53.2762"N	80°44'37.7979"W	0.57	302.988	0.59	0.26	-127.85	
414.00	0.750	232.910	413.99	-0.13	-0.40	-1.55	1712628.03	14361612.57	39°32'53.2692"N	80°44'37.8116"W	1.60	255.588	0.27	0.26	-7.84	APS EM <12-1/4"> (288')(414'-2557')
779.00	0.950	226.610	778.95	1.85	-3.92	-5.65	1712623.93	14361609.05	39°32'53.2346"N	80°44'37.8641"W	6.88	235.277	0.06	0.05	-1.73	
870.00	0.280	311.070	869.95	1.97	-4.29	-6.37	1712623.21	14361608.68	39°32'53.2309"N	80°44'37.8732"W	7.68	236.037	1.06	-0.74	92.81	
962.00	1.800	15.950	961.93	0.59	-2.75	-6.14	1712623.44	14361610.22	39°32'53.2461"N	80°44'37.8703"W	6.73	245.858	1.85	1.65	70.52	
1052.00	4.000	16.850	1051.81	-3.11	1.61	-4.84	1712624.74	14361614.58	39°32'53.2892"N	80°44'37.8536"W	5.10	288.414	2.44	2.44	1.00	
1146.00	6.930	19.330	1145.37	-10.21	10.10	-2.01	1712627.57	14361623.07	39°32'53.3730"N	80°44'37.8171"W	10.30	348.728	3.13	3.12	2.64	
1241.00	9.390	17.470	1239.40	-20.92	22.91	2.21	1712631.79	14361635.87	39°32'53.4994"N	80°44'37.7627"W	23.01	5.513	2.60	2.59	-1.96	
1336.00	11.200	14.680	1332.87	-34.82	39.22	6.88	1712636.45	14361652.18	39°32'53.6606"N	80°44'37.7026"W	39.82	9.943	1.98	1.91	-2.94	
1431.00	12.480	13.300	1425.85	-51.16	58.14	11.58	1712641.15	14361671.09	39°32'53.8474"N	80°44'37.6419"W	59.28	11.260	1.38	1.35	-1.45	
1525.00	13.940	12.000	1517.36	-69.44	79.10	16.27	1712645.84	14361692.04	39°32'54.0544"N	80°44'37.5813"W	80.75	11.621	1.58	1.55	-1.38	
1620.00	15.190	9.700	1609.30	-90.15	102.56	20.74	1712650.31	14361715.49	39°32'54.2862"N	80°44'37.5233"W	104.64	11.434	1.45	1.32	-2.42	
1715.00	14.940	8.410	1701.04	-111.92	126.94	24.63	1712654.20	14361739.86	39°32'54.5270"N	80°44'37.4728"W	129.31	10.981	0.44	-0.26	-1.36	
1810.00	15.830	8.300	1792.63	-134.29	151.88	28.29	1712657.86	14361764.79	39°32'54.7734"N	80°44'37.4251"W	154.49	10.552	0.94	0.94	-0.12	
1904.00	16.510	13.310	1882.92	-156.95	177.57	33.22	1712662.79	14361790.47	39°32'55.0271"N	80°44'37.3613"W	180.65	10.596	1.65	0.72	5.33	
1999.00	16.500	14.130	1974.01	-179.64	203.78	39.62	1712669.18	14361816.67	39°32'55.2860"N	80°44'37.2786"W	207.60	11.002	0.25	-0.01	0.86	
2093.00	16.620	13.110	2064.11	-202.18	229.82	45.93	1712675.49	14361842.70	39°32'55.5432"N	80°44'37.1972"W	234.37	11.301	0.33	0.13	-1.09	
2188.00	17.410	12.430	2154.95	-225.80	256.93	52.07	1712681.63	14361869.80	39°32'55.8110"N	80°44'37.1178"W	262.16	11.456	0.86	0.83	-0.72	
2283.00	17.030	14.710	2245.69	-249.48	284.27	58.66	1712688.22	14361897.13	39°32'56.0810"N	80°44'37.0326"W	290.26	11.660	0.82	-0.40	2.40	
2377.00	17.370	15.400	2335.49	-272.48	311.11	65.88	1712695.44	14361923.96	39°32'56.3460"N	80°44'36.9395"W	318.01	11.956	0.42	0.36	0.73	
2472.00	16.920	12.990	2426.27	-295.89	338.25	72.75	1712702.31	14361951.09	39°32'56.6141"N	80°44'36.8507"W	345.99	12.139	0.89	-0.47	-2.54	
2557.00	16.550	10.390	2507.67	-316.91	362.21	77.72	1712707.27	14361975.04	39°32'56.8508"N	80°44'36.7865"W	370.46	12.110	0.98	-0.44	-3.06	
2664.00	17.030	6.740	2610.11	-344.28	392.77	82.31	1712711.85	14362005.58	39°32'57.1526"N	80°44'36.7268"W	401.30	11.835	1.08	0.45	-3.41	APS EM <8-3/4"> (2557')(2664'-6356')
2759.00	17.970	2.390	2700.71	-370.45	421.22	84.55	1712714.10	14362034.03	39°32'57.4338"N	80°44'36.6972"W	429.63	11.350	1.69	0.99	-4.58	
2853.00	18.410	0.250	2790.02	-397.95	450.56	85.22	1712714.77	14362063.35	39°32'57.7237"N	80°44'36.6875"W	458.54	10.711	0.85	0.47	-2.28	
2948.00	17.820	7.460	2880.32	-425.11	479.97	87.17	1712716.72	14362092.75	39°32'58.0143"N	80°44'36.6615"W	487.83	10.294	2.44	-0.62	7.59	



Actual Wellpath Report

Ryland Unit 1H AWP Proj: 17109'

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Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 1H
Field	Wetzel	API	47-103-03456-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 1H AWB
Slot	Slot C		

WELLPATH DATA (187 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
3043.00	17.630	16.480	2970.83	-449.82	508.19	93.14	1712722.69	14362120.96	39°32'58.2930"N	80°44'36.5843"W	516.65	10.386	2.89	-0.20	9.49	
3137.00	18.650	15.070	3060.15	-473.84	536.35	101.09	1712730.63	14362149.11	39°32'58.5712"N	80°44'36.4818"W	545.79	10.674	1.18	1.09	-1.50	
3232.00	19.540	11.660	3149.93	-500.07	566.58	108.25	1712737.79	14362179.33	39°32'58.8697"N	80°44'36.3893"W	576.83	10.816	1.50	0.94	-3.59	
3329.00	17.360	9.960	3241.94	-526.67	596.72	114.03	1712743.57	14362209.46	39°32'59.1675"N	80°44'36.3144"W	607.52	10.819	2.31	-2.25	-1.75	
3423.00	16.100	16.290	3331.96	-549.56	623.05	120.11	1712749.65	14362235.77	39°32'59.4275"N	80°44'36.2358"W	634.52	10.912	2.35	-1.34	6.73	
3518.00	15.840	17.350	3423.30	-570.73	648.07	127.67	1712757.20	14362260.78	39°32'59.6745"N	80°44'36.1384"W	660.53	11.145	0.41	-0.27	1.12	
3612.00	15.680	14.130	3513.77	-591.68	672.63	134.60	1712764.13	14362285.34	39°32'59.9171"N	80°44'36.0491"W	685.97	11.316	0.95	-0.17	-3.43	
3707.00	15.860	9.550	3605.19	-613.82	697.88	139.89	1712769.41	14362310.58	39°33'0.1665"N	80°44'35.9806"W	711.77	11.335	1.32	0.19	-4.82	
3802.00	15.740	13.800	3696.61	-636.03	723.20	145.12	1712774.64	14362335.88	39°33'0.4166"N	80°44'35.9130"W	737.62	11.346	1.22	-0.13	4.47	
3896.00	16.570	12.560	3786.90	-658.15	748.66	151.07	1712780.59	14362361.34	39°33'0.6681"N	80°44'35.8360"W	763.76	11.408	0.96	0.88	-1.32	
3991.00	16.740	9.370	3877.91	-681.71	775.39	156.25	1712785.76	14362388.05	39°33'0.9320"N	80°44'35.7690"W	790.97	11.393	0.98	0.18	-3.36	
4086.00	16.310	15.750	3969.00	-704.70	801.73	162.09	1712791.61	14362414.38	39°33'1.1922"N	80°44'35.6934"W	817.95	11.430	1.96	-0.45	6.72	
4180.00	15.710	15.440	4059.35	-726.02	826.70	169.07	1712798.58	14362439.34	39°33'1.4388"N	80°44'35.6035"W	843.81	11.558	0.64	-0.64	-0.33	
4275.00	15.530	10.570	4150.85	-747.67	851.60	174.82	1712804.33	14362464.23	39°33'1.6847"N	80°44'35.5291"W	869.36	11.601	1.39	-0.19	-5.13	
4369.00	15.670	13.940	4241.38	-769.25	876.29	180.19	1712809.70	14362488.91	39°33'1.9286"N	80°44'35.4597"W	894.62	11.620	0.98	0.15	3.59	
4464.00	14.490	11.240	4333.11	-790.26	900.40	185.60	1712815.10	14362513.01	39°33'2.1667"N	80°44'35.3898"W	919.33	11.647	1.45	-1.24	-2.84	
4558.00	15.590	13.200	4423.89	-811.10	924.23	190.77	1712820.28	14362536.84	39°33'2.4021"N	80°44'35.3228"W	943.72	11.663	1.29	1.17	2.09	
4653.00	17.090	14.060	4515.05	-833.58	950.20	197.08	1712826.58	14362562.80	39°33'2.6586"N	80°44'35.2413"W	970.43	11.718	1.60	1.58	0.91	
4748.00	16.350	9.090	4606.04	-857.06	976.95	202.58	1712832.08	14362589.53	39°33'2.9228"N	80°44'35.1701"W	997.73	11.715	1.69	-0.78	-5.23	
4842.00	16.010	11.510	4696.32	-879.88	1002.72	207.26	1712836.76	14362615.29	39°33'3.1773"N	80°44'35.1095"W	1023.91	11.679	0.80	-0.36	2.57	
4937.00	16.170	11.650	4787.60	-902.53	1028.51	212.55	1712842.04	14362641.07	39°33'3.4321"N	80°44'35.0410"W	1050.24	11.676	0.17	0.17	0.15	
5031.00	15.680	6.040	4877.99	-925.28	1053.96	216.53	1712846.02	14362666.51	39°33'3.6836"N	80°44'34.9893"W	1075.97	11.609	1.72	-0.52	-5.97	
5125.00	16.020	9.740	4968.42	-948.15	1079.38	220.06	1712849.55	14362691.92	39°33'3.9347"N	80°44'34.9433"W	1101.58	11.523	1.13	0.36	3.94	
5220.00	16.430	18.880	5059.65	-970.23	1105.01	226.62	1712856.11	14362717.55	39°33'4.1878"N	80°44'34.8585"W	1128.01	11.590	2.72	0.43	9.62	
5314.00	14.750	15.500	5150.19	-990.56	1129.13	234.12	1712863.61	14362741.65	39°33'4.4259"N	80°44'34.7619"W	1153.14	11.714	2.03	-1.79	-3.60	
5409.00	15.450	15.850	5241.91	-1010.89	1152.95	240.81	1712870.30	14362765.47	39°33'4.6612"N	80°44'34.6757"W	1177.83	11.798	0.74	0.74	0.37	
5504.00	18.380	17.040	5332.79	-1033.37	1179.45	248.66	1712878.14	14362791.95	39°33'4.9229"N	80°44'34.5745"W	1205.38	11.905	3.11	3.08	1.25	
5598.00	18.340	14.810	5422.01	-1057.62	1207.92	256.78	1712886.26	14362820.41	39°33'5.2040"N	80°44'34.4698"W	1234.91	12.001	0.75	-0.04	-2.37	
5693.00	17.160	10.290	5512.49	-1082.24	1236.16	263.11	1712892.58	14362848.64	39°33'5.4829"N	80°44'34.3880"W	1263.85	12.016	1.91	-1.24	-4.76	
5788.00	18.190	13.060	5603.01	-1107.01	1264.39	268.96	1712898.43	14362876.86	39°33'5.7618"N	80°44'34.3123"W	1292.68	12.009	1.40	1.08	2.92	



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Slot	Slot C		

WELLPATH DATA (187 stations) † = interpolated, ‡ = extrapolated station																	
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid North	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)	(US ft)			(ft)	(°)	(°/100ft)	(°/100ft)	(°/100ft)	
5882.00	17.410	10.140	5692.51	-1131.71	1292.53	274.75	1712904.22	14362904.99	39°33'6.0398"N	80°44'34.2373"W	1321.41	12.001	1.26	-0.83	-3.11		
5977.00	18.020	9.000	5783.00	-1157.08	1321.04	279.55	1712909.02	14362933.48	39°33'6.3213"N	80°44'34.1750"W	1350.29	11.948	0.74	0.64	-1.20		
6072.00	15.270	4.600	5874.02	-1181.51	1348.02	282.86	1712912.32	14362960.46	39°33'6.5880"N	80°44'34.1318"W	1377.38	11.850	3.18	-2.89	-4.63		
6166.00	15.600	5.790	5964.63	-1204.31	1372.94	285.12	1712914.59	14362985.36	39°33'6.8341"N	80°44'34.1020"W	1402.23	11.732	0.49	0.35	1.27		
6261.00	15.450	17.150	6056.18	-1226.11	1397.74	290.15	1712919.61	14363010.16	39°33'7.0791"N	80°44'34.0370"W	1427.54	11.727	3.20	-0.16	11.96		
6356.00	16.230	36.910	6147.64	-1243.76	1420.47	301.86	1712931.32	14363032.87	39°33'7.3034"N	80°44'33.8866"W	1452.19	11.997	5.71	0.82	20.80		
6421.00	15.800	46.040	6210.13	-1252.56	1433.87	313.69	1712943.14	14363046.28	39°33'7.4356"N	80°44'33.7351"W	1467.79	12.340	3.93	-0.66	14.05	BH AT Curve <8-1/2"> (6356')(6421'-17084')	
6454.00	14.520	48.050	6241.98	-1256.06	1439.76	320.00	1712949.45	14363052.16	39°33'7.4936"N	80°44'33.6543"W	1474.89	12.531	4.19	-3.88	6.09		
6548.00	15.070	92.930	6333.15	-1256.06	1447.03	341.03	1712970.48	14363059.43	39°33'7.5649"N	80°44'33.3855"W	1486.68	13.261	11.91	0.59	47.74		
6643.00	20.030	121.250	6423.86	-1238.87	1437.94	367.34	1712996.77	14363050.34	39°33'7.4743"N	80°44'33.0500"W	1484.12	14.330	10.25	5.22	29.81		
6738.00	26.320	137.290	6511.24	-1206.99	1413.98	395.59	1713025.01	14363026.39	39°33'7.2366"N	80°44'32.6903"W	1468.27	15.630	9.33	6.62	16.88		
6797.00†	30.767	139.786	6563.06	-1180.91	1392.83	414.21	1713043.63	14363005.25	39°33'7.0271"N	80°44'32.4533"W	1453.12	16.562	7.80	7.54	4.23	Sycamore: 6797' MD	
6833.00	33.500	141.010	6593.54	-1162.98	1378.08	426.41	1713055.82	14362990.50	39°33'6.8809"N	80°44'32.2981"W	1442.54	17.193	7.80	7.59	3.40		
6927.00	41.730	140.390	6667.94	-1109.20	1333.73	462.74	1713092.14	14362946.18	39°33'6.4417"N	80°44'31.8359"W	1411.73	19.134	8.76	8.76	-0.66		
6952.00†	43.937	140.659	6686.27	-1093.27	1320.62	473.55	1713102.94	14362933.06	39°33'6.3117"N	80°44'31.6985"W	1402.95	19.727	8.86	8.83	1.07	Middlesex: 6952' MD	
7022.00	50.120	141.310	6733.96	-1045.14	1280.83	505.76	1713135.14	14362893.29	39°33'5.9176"N	80°44'31.2886"W	1377.07	21.548	8.86	8.83	0.93		
7112.00†	57.732	142.089	6786.92	-976.49	1223.77	550.79	1713180.16	14362836.26	39°33'5.3524"N	80°44'30.7158"W	1342.01	24.232	8.49	8.46	0.87	Burkett: 7112' MD	
7116.00	58.070	142.120	6789.04	-973.29	1221.10	552.88	1713182.24	14362833.58	39°33'5.3259"N	80°44'30.6894"W	1340.43	24.360	8.49	8.46	0.78		
7168.00†	61.095	143.028	6815.37	-930.73	1185.49	580.12	1713209.47	14362797.99	39°33'4.9732"N	80°44'30.3428"W	1319.82	26.075	6.01	5.82	1.75	Fully: 7168' MD	
7211.00	63.600	143.740	6835.32	-894.41	1154.92	602.83	1713232.17	14362767.43	39°33'4.6704"N	80°44'30.0540"W	1302.78	27.563	6.01	5.83	1.66		
7306.00	73.080	147.720	6870.36	-809.30	1082.00	652.40	1713281.72	14362694.54	39°33'3.9483"N	80°44'29.4239"W	1263.46	31.088	10.71	9.98	4.19		
7400.00	78.860	150.480	6893.14	-720.08	1003.77	699.18	1713328.48	14362616.35	39°33'3.1739"N	80°44'28.8296"W	1223.28	34.859	6.78	6.15	2.94		
7405.00†	79.094	150.476	6894.10	-715.25	999.50	701.60	1713330.90	14362612.08	39°33'3.1316"N	80°44'28.7989"W	1221.17	35.067	4.67	4.67	-0.08	Marcellus POE: 7405' MD	
7494.00	83.250	150.410	6907.75	-628.79	923.02	744.97	1713374.26	14362535.62	39°33'2.3745"N	80°44'28.2480"W	1186.15	38.907	4.67	4.67	-0.07		
7589.00	88.710	150.650	6914.41	-535.61	840.55	791.58	1713420.84	14362453.18	39°33'1.5580"N	80°44'27.6560"W	1154.60	43.281	5.75	5.75	0.25		
7684.00	88.000	152.120	6917.14	-441.97	757.19	837.05	1713466.30	14362369.86	39°33'0.7329"N	80°44'27.0785"W	1128.71	47.868	1.72	-0.75	1.55		
7778.00	88.400	153.530	6920.09	-348.95	673.61	879.96	1713509.19	14362286.31	39°32'59.9056"N	80°44'26.5339"W	1108.19	52.566	1.56	0.43	1.50		
7873.00	88.370	156.320	6922.77	-254.52	587.60	920.20	1713549.42	14362200.34	39°32'59.0545"N	80°44'26.0233"W	1091.81	57.439	2.94	-0.03	2.94		
7968.00	87.810	158.220	6925.94	-159.77	500.03	956.89	1713586.09	14362112.80	39°32'58.1879"N	80°44'25.5582"W	1079.66	62.410	2.08	-0.59	2.00		
8062.00	88.090	160.380	6929.30	-65.87	412.16	990.09	1713619.28	14362024.97	39°32'57.3186"N	80°44'25.1376"W	1072.46	67.399	2.32	0.30	2.30		



Actual Wellpath Report

Ryland Unit 1H AWP Proj: 17109'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 1H
Field	Wetzel	API	47-103-03456-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 1H AWB
Slot	Slot C		

WELLPATH DATA (187 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
8157.00	91.320	163.830	6929.79	29.08	321.79	1019.27	1713648.45	14361934.63	39°32'56.4245"N	80°44'24.7684"W	1068.86	72.479	4.97	3.40	3.63	
8252.00	90.800	159.430	6928.03	124.03	231.66	1049.20	1713678.37	14361844.54	39°32'55.5330"N	80°44'24.3897"W	1074.47	77.549	4.66	-0.55	-4.63	
8347.00	89.170	158.610	6928.05	218.98	142.97	1083.21	1713712.36	14361755.88	39°32'54.6554"N	80°44'23.9588"W	1092.61	82.481	1.92	-1.72	-0.86	
8442.00	88.280	158.880	6930.17	313.88	54.45	1117.64	1713746.78	14361667.40	39°32'53.7796"N	80°44'23.5225"W	1118.97	87.211	0.98	-0.94	0.28	
8536.00	89.170	157.650	6932.26	407.76	-32.84	1152.44	1713781.57	14361580.14	39°32'52.9158"N	80°44'23.0815"W	1152.91	91.632	1.61	0.95	-1.31	
8631.00	89.380	161.640	6933.46	502.71	-121.88	1185.48	1713814.59	14361491.13	39°32'52.0349"N	80°44'22.6631"W	1191.73	95.870	4.21	0.22	4.20	
8725.00	88.800	158.520	6934.96	596.67	-210.24	1217.50	1713846.60	14361402.82	39°32'51.1607"N	80°44'22.2576"W	1235.52	99.797	3.38	-0.62	-3.32	
8819.00	88.950	161.960	6936.80	690.63	-298.67	1249.27	1713878.35	14361314.42	39°32'50.2858"N	80°44'21.8553"W	1284.47	103.446	3.66	0.16	3.66	
8914.00	89.510	160.470	6938.08	785.62	-388.60	1279.85	1713908.93	14361224.52	39°32'49.3961"N	80°44'21.4682"W	1337.55	106.890	1.68	0.59	-1.57	
9008.00	90.280	161.260	6938.25	879.62	-477.41	1310.67	1713939.73	14361135.75	39°32'48.5176"N	80°44'21.0782"W	1394.91	110.014	1.17	0.82	0.84	
9103.00	88.980	160.380	6938.86	974.61	-567.13	1341.88	1713970.92	14361046.07	39°32'47.6299"N	80°44'20.6831"W	1456.80	112.911	1.65	-1.37	-0.93	
9197.00	90.280	160.040	6939.47	1068.60	-655.57	1373.70	1714002.74	14360957.66	39°32'46.7549"N	80°44'20.2801"W	1522.11	115.512	1.43	1.38	-0.36	
9292.00	89.140	160.820	6939.95	1163.60	-745.08	1405.52	1714034.54	14360868.18	39°32'45.8694"N	80°44'19.8772"W	1590.80	117.929	1.45	-1.20	0.82	
9386.00	89.420	161.220	6941.13	1257.59	-833.96	1436.09	1714065.10	14360779.34	39°32'44.9900"N	80°44'19.4903"W	1660.68	120.145	0.52	0.30	0.43	
9481.00	90.430	158.490	6941.26	1352.56	-923.14	1468.80	1714097.80	14360690.19	39°32'44.1077"N	80°44'19.0760"W	1734.81	122.149	3.06	1.06	-2.87	
9576.00	88.770	155.910	6941.92	1447.35	-1010.71	1505.61	1714134.60	14360602.66	39°32'43.2413"N	80°44'18.6094"W	1813.39	123.873	3.23	-1.75	-2.72	
9670.00	89.720	160.760	6943.16	1541.22	-1098.03	1540.30	1714169.27	14360515.37	39°32'42.3772"N	80°44'18.1698"W	1891.61	125.484	5.26	1.01	5.16	
9764.00	89.320	161.530	6943.95	1635.21	-1186.98	1570.68	1714199.64	14360426.46	39°32'41.4972"N	80°44'17.7854"W	1968.75	127.079	0.92	-0.43	0.82	
9858.00	89.630	161.400	6944.81	1729.20	-1276.10	1600.56	1714229.50	14360337.37	39°32'40.6155"N	80°44'17.4073"W	2047.00	128.565	0.36	0.33	-0.14	
9953.00	90.030	162.620	6945.09	1824.18	-1366.46	1629.90	1714258.83	14360247.05	39°32'39.7217"N	80°44'17.0361"W	2126.92	129.975	1.35	0.42	1.28	
10047.00	88.490	161.400	6946.31	1918.15	-1455.85	1658.93	1714287.85	14360157.70	39°32'38.8374"N	80°44'16.6689"W	2207.16	131.270	2.09	-1.64	-1.30	
10142.00	89.820	162.640	6947.71	2013.12	-1546.20	1688.25	1714317.16	14360067.39	39°32'37.9436"N	80°44'16.2980"W	2289.30	132.485	1.91	1.40	1.31	
10236.00	89.780	163.040	6948.03	2107.07	-1636.01	1715.98	1714344.88	14359977.61	39°32'37.0552"N	80°44'15.9473"W	2370.89	133.633	0.43	-0.04	0.43	
10331.00	89.420	163.070	6948.70	2202.00	-1726.88	1743.67	1714372.56	14359886.77	39°32'36.1562"N	80°44'15.5973"W	2454.08	134.723	0.38	-0.38	0.03	
10425.00	89.050	162.400	6949.95	2295.94	-1816.64	1771.56	1714400.44	14359797.05	39°32'35.2684"N	80°44'15.2445"W	2537.44	135.720	0.81	-0.39	-0.71	
10520.00	88.740	161.230	6951.78	2390.91	-1906.88	1801.21	1714430.07	14359706.85	39°32'34.3757"N	80°44'14.8695"W	2623.07	136.632	1.27	-0.33	-1.23	
10614.00	89.320	160.670	6953.38	2484.90	-1995.72	1831.88	1714460.74	14359618.04	39°32'33.4968"N	80°44'14.4813"W	2709.00	137.451	0.86	0.62	-0.60	
10709.00	90.250	163.130	6953.73	2579.87	-2086.01	1861.39	1714490.24	14359527.79	39°32'32.6036"N	80°44'14.1079"W	2795.75	138.257	2.77	0.98	2.59	
10804.00	89.020	162.000	6954.34	2674.83	-2176.64	1889.86	1714518.69	14359437.20	39°32'31.7070"N	80°44'13.7480"W	2882.59	139.034	1.76	-1.29	-1.19	
10898.00	88.580	161.750	6956.31	2768.80	-2265.95	1919.09	1714547.91	14359347.91	39°32'30.8234"N	80°44'13.3782"W	2969.42	139.738	0.54	-0.47	-0.27	



Actual Wellpath Report

Ryland Unit 1H AWP Proj: 17109'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 1H
Field	Wetzel	API	47-103-03456-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 1H AWB
Slot	Slot C		

WELLPATH DATA (187 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
10993.00	89.750	162.360	6957.69	2863.77	-2356.32	1948.36	1714577.17	14359257.58	39°32'29.9295"N	80°44'13.0080"W	3057.51	140.414	1.39	1.23	0.64	
11087.00	89.080	161.670	6958.65	2957.74	-2445.72	1977.38	1714606.18	14359168.22	39°32'29.0451"N	80°44'12.6409"W	3145.09	141.044	1.02	-0.71	-0.73	
11182.00	89.600	162.790	6959.74	3052.71	-2536.18	2006.37	1714635.16	14359077.79	39°32'28.1502"N	80°44'12.2742"W	3233.84	141.652	1.30	0.55	1.18	
11276.00	89.970	162.480	6960.10	3146.67	-2625.90	2034.43	1714663.20	14358988.11	39°32'27.2627"N	80°44'11.9194"W	3321.78	142.233	0.51	0.39	-0.33	
11371.00	89.140	161.900	6960.84	3241.64	-2716.34	2063.48	1714692.24	14358897.71	39°32'26.3680"N	80°44'11.5519"W	3411.22	142.778	1.07	-0.87	-0.61	
11466.00	89.260	165.910	6962.16	3336.48	-2807.59	2089.81	1714718.56	14358806.49	39°32'25.4654"N	80°44'11.2193"W	3499.98	143.338	4.22	0.13	4.22	
11560.00	91.080	162.240	6961.88	3430.32	-2897.96	2115.60	1714744.34	14358716.16	39°32'24.5715"N	80°44'10.8935"W	3588.02	143.869	4.36	1.94	-3.90	
11655.00	88.180	158.770	6962.50	3525.29	-2987.49	2147.29	1714776.02	14358626.66	39°32'23.6857"N	80°44'10.4923"W	3679.12	144.293	4.76	-3.05	-3.65	
11749.00	89.540	160.520	6964.37	3619.24	-3075.60	2179.98	1714808.70	14358538.59	39°32'22.8140"N	80°44'10.0784"W	3769.83	144.671	2.36	1.45	1.86	
11844.00	89.690	160.790	6965.01	3714.24	-3165.23	2211.45	1714840.15	14358448.99	39°32'21.9272"N	80°44'9.6801"W	3861.24	145.059	0.33	0.16	0.28	
11938.00	89.780	160.670	6965.44	3808.24	-3253.96	2242.47	1714871.16	14358360.30	39°32'21.0493"N	80°44'9.2875"W	3951.83	145.427	0.16	0.10	-0.13	
12033.00	89.350	160.300	6966.16	3903.23	-3343.50	2274.20	1714902.88	14358270.79	39°32'20.1635"N	80°44'8.8858"W	4043.64	145.777	0.60	-0.45	-0.39	
12128.00	89.170	156.700	6967.39	3998.12	-3431.87	2309.01	1714937.68	14358182.46	39°32'19.2891"N	80°44'8.4448"W	4136.34	146.067	3.79	-0.19	-3.79	
12222.00	90.090	160.840	6968.00	4092.03	-3519.47	2343.04	1714971.69	14358094.89	39°32'18.4224"N	80°44'8.0137"W	4228.06	146.347	4.51	0.98	4.40	
12317.00	90.030	161.230	6967.90	4187.03	-3609.31	2373.92	1715002.56	14358005.09	39°32'17.5335"N	80°44'7.6230"W	4320.02	146.666	0.42	-0.06	0.41	
12412.00	88.430	157.570	6969.17	4281.97	-3698.21	2407.33	1715035.96	14357916.22	39°32'16.6539"N	80°44'7.1999"W	4412.71	146.938	4.20	-1.68	-3.85	
12507.00	89.540	160.070	6970.86	4376.88	-3786.77	2441.64	1715070.26	14357827.70	39°32'15.7777"N	80°44'6.7652"W	4505.69	147.187	2.88	1.17	2.63	
12601.00	89.450	159.800	6971.69	4470.87	-3875.06	2473.89	1715102.49	14357739.44	39°32'14.9041"N	80°44'6.3569"W	4597.42	147.445	0.30	-0.10	-0.29	
12696.00	90.340	159.980	6971.86	4565.85	-3964.27	2506.56	1715135.14	14357650.27	39°32'14.0215"N	80°44'5.9434"W	4690.23	147.695	0.96	0.94	0.19	
12791.00	89.480	160.820	6972.01	4660.84	-4053.76	2538.42	1715167.00	14357560.81	39°32'13.1361"N	80°44'5.5400"W	4782.95	147.946	1.27	-0.91	0.88	
12885.00	89.110	160.400	6973.17	4754.83	-4142.43	2569.63	1715198.19	14357472.18	39°32'12.2589"N	80°44'5.1451"W	4874.70	148.188	0.60	-0.39	-0.45	
12980.00	90.800	161.050	6973.24	4849.83	-4232.10	2600.99	1715229.54	14357382.55	39°32'11.3718"N	80°44'4.7482"W	4967.47	148.426	1.91	1.78	0.68	
13075.00	89.140	160.310	6973.29	4944.83	-4321.74	2632.42	1715260.95	14357292.94	39°32'10.4849"N	80°44'4.3504"W	5060.34	148.654	1.91	-1.75	-0.78	
13170.00	89.230	159.980	6974.64	5039.81	-4411.09	2664.68	1715293.20	14357203.63	39°32'9.6009"N	80°44'3.9420"W	5153.46	148.864	0.36	0.09	-0.35	
13264.00	89.540	159.930	6975.65	5133.79	-4499.39	2696.90	1715325.41	14357115.36	39°32'8.7273"N	80°44'3.5341"W	5245.74	149.062	0.33	0.33	-0.05	
13359.00	91.390	161.640	6974.88	5228.78	-4589.08	2728.16	1715356.66	14357025.70	39°32'7.8399"N	80°44'3.1385"W	5338.78	149.269	2.65	1.95	1.80	
13453.00	89.170	160.330	6974.42	5322.77	-4677.95	2758.78	1715387.27	14356936.88	39°32'6.9607"N	80°44'2.7510"W	5430.84	149.470	2.74	-2.36	-1.39	
13548.00	89.820	160.290	6975.26	5417.76	-4767.39	2790.79	1715419.26	14356847.47	39°32'6.0758"N	80°44'2.3459"W	5524.17	149.656	0.69	0.68	-0.04	
13643.00	89.480	160.460	6975.84	5512.75	-4856.87	2822.70	1715451.16	14356758.03	39°32'5.1905"N	80°44'1.9420"W	5617.54	149.836	0.40	-0.36	0.18	
13737.00	89.880	160.510	6976.36	5606.75	-4945.47	2854.10	1715482.55	14356669.46	39°32'4.3140"N	80°44'1.5446"W	5709.95	150.010	0.43	0.43	0.05	



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Ryland Unit 1H AWP Proj: 17109'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 1H
Field	Wetzel	API	47-103-03456-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 1H AWB
Slot	Slot C		

WELLPATH DATA (187 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
13832.00	89.420	160.280	6976.94	5701.74	-5034.96	2885.97	1715514.41	14355680.01	39°32'3.4286"N	80°44'1.1412"W	5803.41	150.179	0.54	-0.48	-0.24	
13926.00	89.690	160.880	6977.67	5795.74	-5123.61	2917.22	1715545.65	14356491.39	39°32'2.5515"N	80°44'0.7456"W	5895.89	150.344	0.70	0.29	0.64	
14021.00	89.450	161.060	6978.39	5890.73	-5213.41	2948.20	1715576.61	14356401.62	39°32'1.6631"N	80°44'0.3537"W	5989.29	150.512	0.32	-0.25	0.19	
14115.00	89.380	161.600	6979.35	5984.73	-5302.46	2978.29	1715606.69	14356312.61	39°32'0.7821"N	80°43'59.9730"W	6081.64	150.678	0.58	-0.07	0.57	
14210.00	90.090	159.950	6979.78	6079.72	-5392.16	3009.57	1715637.96	14356222.95	39°31'59.8947"N	80°43'59.5772"W	6175.18	150.832	1.89	0.75	-1.74	
14304.00	89.480	161.790	6980.14	6173.72	-5480.96	3040.37	1715668.75	14356134.18	39°31'59.0161"N	80°43'59.1874"W	6267.76	150.982	2.06	-0.65	1.96	
14399.00	90.400	162.410	6980.24	6268.69	-5571.36	3069.57	1715697.93	14356043.81	39°31'58.1218"N	80°43'58.8182"W	6361.00	151.147	1.17	0.97	0.65	
14494.00	89.720	161.210	6980.14	6363.68	-5661.61	3099.23	1715727.58	14355953.60	39°31'57.2290"N	80°43'58.4431"W	6454.38	151.303	1.45	-0.72	-1.26	
14589.00	92.250	161.780	6978.50	6458.65	-5751.68	3129.37	1715757.71	14355863.57	39°31'56.3379"N	80°43'58.0618"W	6547.88	151.450	2.73	2.66	0.60	
14684.00	90.520	162.170	6976.21	6553.61	-5841.99	3158.76	1715787.09	14355773.30	39°31'55.4445"N	80°43'57.6902"W	6641.28	151.600	1.87	-1.82	0.41	
14778.00	89.230	161.710	6976.41	6647.59	-5931.35	3187.90	1715816.21	14355683.97	39°31'54.5604"N	80°43'57.3217"W	6733.77	151.744	1.46	-1.37	-0.49	
14873.00	89.750	161.940	6977.26	6742.57	-6021.61	3217.53	1715845.83	14355593.75	39°31'53.6675"N	80°43'56.9469"W	6827.32	151.883	0.60	0.55	0.24	
14967.00	89.290	160.940	6978.05	6836.56	-6110.72	3247.45	1715875.74	14355504.67	39°31'52.7860"N	80°43'56.5685"W	6920.03	152.012	1.17	-0.49	-1.06	
15062.00	89.350	161.220	6979.17	6931.56	-6200.58	3278.25	1715906.53	14355414.85	39°31'51.8970"N	80°43'56.1788"W	7013.85	152.135	0.30	0.06	0.29	
15156.00	89.380	160.870	6980.22	7025.55	-6289.47	3308.78	1715937.05	14355325.99	39°31'51.0175"N	80°43'55.7925"W	7106.72	152.252	0.37	0.03	-0.37	
15251.00	90.250	161.550	6980.52	7120.55	-6379.41	3339.38	1715967.64	14355236.09	39°31'50.1277"N	80°43'55.4054"W	7200.58	152.370	1.16	0.92	0.72	
15346.00	90.490	161.600	6979.91	7215.54	-6469.54	3369.40	1715997.65	14355145.99	39°31'49.2361"N	80°43'55.0257"W	7294.37	152.489	0.26	0.25	0.05	
15440.00	89.850	161.350	6979.63	7309.53	-6558.67	3399.27	1716027.50	14355056.90	39°31'48.3543"N	80°43'54.6479"W	7387.23	152.603	0.73	-0.68	-0.27	
15535.00	89.260	160.850	6980.37	7404.53	-6648.54	3430.04	1716058.26	14354967.06	39°31'47.4652"N	80°43'54.2586"W	7481.19	152.710	0.81	-0.62	-0.53	
15630.00	88.490	160.650	6982.23	7499.51	-6738.21	3461.35	1716089.56	14354877.43	39°31'46.5780"N	80°43'53.8624"W	7575.25	152.811	0.84	-0.81	-0.21	
15725.00	89.380	160.980	6984.00	7594.49	-6827.92	3492.57	1716120.76	14354787.76	39°31'45.6905"N	80°43'53.4675"W	7669.32	152.910	1.00	0.94	0.35	
15819.00	89.200	161.460	6985.16	7688.48	-6916.91	3522.83	1716151.01	14354698.80	39°31'44.8101"N	80°43'53.0847"W	7762.34	153.010	0.55	-0.19	0.51	
15914.00	89.230	161.500	6986.47	7783.47	-7006.98	3553.00	1716181.17	14354608.77	39°31'43.9190"N	80°43'52.7030"W	7856.31	153.112	0.05	0.03	0.04	
16009.00	89.290	161.270	6987.69	7878.46	-7097.00	3583.32	1716211.48	14354518.78	39°31'43.0284"N	80°43'52.3195"W	7950.32	153.210	0.25	0.06	-0.24	
16104.00	89.380	161.440	6988.79	7973.45	-7187.01	3613.69	1716241.84	14354428.81	39°31'42.1379"N	80°43'51.9354"W	8044.37	153.306	0.20	0.09	0.18	
16199.00	89.200	161.310	6989.97	8068.44	-7277.03	3644.03	1716272.17	14354338.82	39°31'41.2474"N	80°43'51.5516"W	8138.43	153.400	0.23	-0.19	-0.14	
16293.00	89.050	161.670	6991.41	8162.42	-7366.15	3673.87	1716301.99	14354249.73	39°31'40.3656"N	80°43'51.1742"W	8231.50	153.492	0.41	-0.16	0.38	
16388.00	89.420	161.790	6992.68	8257.41	-7456.36	3703.65	1716331.76	14354159.57	39°31'39.4732"N	80°43'50.7976"W	8325.52	153.586	0.41	0.39	0.13	
16483.00	89.350	161.410	6993.70	8352.39	-7546.49	3733.63	1716361.73	14354069.46	39°31'38.5815"N	80°43'50.4184"W	8419.60	153.676	0.41	-0.07	-0.40	
16578.00	89.660	161.480	6994.52	8447.39	-7636.55	3763.86	1716391.95	14353979.44	39°31'37.6905"N	80°43'50.0361"W	8513.73	153.762	0.33	0.33	0.07	



Actual Wellpath Report

Ryland Unit 1H AWP Proj: 17109'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 1H
Field	Wetzel	API	47-103-03456-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 1H AWB
Slot	Slot C		

WELLPATH DATA (187 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
16673.00	88.980	161.480	6995.64	8542.37	-7726.63	3794.03	1716422.11	14353889.40	39°31'36.7994"N	80°43'49.6545"W	8607.87	153.847	0.72	-0.72	0.00	
16768.00	88.220	161.650	6997.96	8637.34	-7816.72	3824.07	1716452.13	14353799.34	39°31'35.9081"N	80°43'49.2746"W	8701.99	153.931	0.82	-0.80	0.18	
16863.00	88.090	161.780	7001.02	8732.28	-7906.88	3853.86	1716481.91	14353709.22	39°31'35.0161"N	80°43'48.8979"W	8796.08	154.015	0.19	-0.14	0.14	
16958.00	89.350	161.220	7003.15	8827.25	-7996.95	3883.99	1716512.04	14353619.19	39°31'34.1251"N	80°43'48.5168"W	8890.25	154.095	1.45	1.33	-0.59	
17052.00	90.220	160.860	7003.50	8921.25	-8085.84	3914.53	1716542.56	14353530.33	39°31'33.2456"N	80°43'48.1304"W	8983.57	154.167	1.00	0.93	-0.38	
17084.00	89.260	160.140	7003.64	8953.25	-8116.01	3925.22	1716553.24	14353500.18	39°31'32.9472"N	80°43'47.9953"W	9015.37	154.190	3.75	-3.00	-2.25	
17109.00‡	89.260	160.140	7003.97	8978.24	-8139.52	3933.71	1716561.73	14353476.67	39°31'32.7145"N	80°43'47.8878"W	9040.23	154.206	0.00	0.00	0.00	Projected MD at TD: 17109'

HOLE & CASING SECTIONS - Ref Wellbore: Ryland Unit 1H AWB Ref Wellpath: Ryland Unit 1H AWP Proj: 17109'

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 Conductor	30.00	130.00	100.00	30.00	130.00	0.00	0.00	0.12	-0.12
17.5in Open Hole	130.00	386.00	256.00	130.00	385.99	0.12	-0.12	-0.19	-1.27
13.375in Casing Surface	30.00	361.00	331.00	30.00	361.00	0.00	0.00	-0.03	-1.04
12.25in Open Hole	386.00	2625.00	2239.00	385.99	2572.80	-0.19	-1.27	381.50	80.84
9.625in Casing Intermediate	30.00	2595.00	2565.00	30.00	2544.08	0.00	0.00	372.93	79.56
8.75in Open Hole	2625.00	6446.00	3821.00	2572.80	6234.24	381.50	80.84	1438.40	318.49
8.5in Open Hole	6446.00	17109.00	10663.00	6234.24	7003.97	1438.40	318.49	-8139.52	3933.71
5.5in Casing Production	30.00	17089.00	17059.00	30.00	7003.71	0.00	0.00	-8120.71	3926.91



Actual Wellpath Report

Ryland Unit 1H AWP Proj: 17109'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 1H
Field	Wetzel	API	47-103-03456-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 1H AWB
Slot	Slot C		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Ryland Unit 1H POE Rev-2	6897.00	1038.76	668.07	1713297.39	14362651.32	39°33'3.5205"N	80°44'29.2254"W	point
Ryland Unit 1H AZI Rev-2	6923.00	372.77	993.08	1713622.26	14361985.59	39°32'56.9291"N	80°44'25.1009"W	point
Ryland Unit 1H BHL Rev-2	6923.00	-8289.65	3988.99	1716616.99	14353326.60	39°31'31.2291"N	80°43'47.1881"W	point
Ryland Unit 1H BHL Rev-3	6923.00	-8130.77	3934.04	1716562.06	14353485.42	39°31'32.8010"N	80°43'47.8832"W	point
Ryland Unit 1H LP Rev-2	6923.00	873.33	763.99	1713393.27	14362485.96	39°33'1.8829"N	80°44'28.0070"W	point
Ryland Unit 1H 50' L/R Hard Line	7250.00	-3959.32	2491.34	1715119.93	14357655.22	39°32'14.0709"N	80°44'6.1375"W	rectangle
2D Rectangle 9164 x 100.								

WELLPATH COMPOSITION - Ref Wellbore: Ryland Unit 1H AWB Ref Wellpath: Ryland Unit 1H AWP Proj: 17109'						
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date	
30.00	288.00	Gyrodatta 2015 - GC+WIR+DPIPE	01 Gyrodatta MS Gyro <17-1/2"> (100'-288')	Ryland Unit 1H AWB	19/Jan/2022	
288.00	2557.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02 APS EM <12-1/4"> (288')(414'-2557')	Ryland Unit 1H AWB	19/Jan/2022	
2557.00	6356.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03 APS EM <8-3/4"> (2557')(2664'-6356')	Ryland Unit 1H AWB	11/Feb/2022	
6356.00	17109.00	BH AutoTrak Curve/eXpress (2019) (HRGM, X Short spacing)	04 BH AT Curve <8-1/2"> (6356')(6421'-17084')	Ryland Unit 1H AWB	11/Feb/2022	



Actual Wellpath Report

Ryland Unit 1H AWP Proj: 17109'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Ryland Unit 1H
Field	Wetzel	API	47-103-03456-0000
Facility	Journeyman Pad	Wellbore	Ryland Unit 1H AWB
Slot	Slot C		

COMMENTS

Wellpath general comments

API: 47-103-03456-0000

BH Job #: 111180660

Rig: H&P 519

Duration: 2/15/2022-2/20/2022

Gyrodata MS Gyro <17-1/2"> (100'-288')

APS EM <12-1/4"> (288')(414'-2557')

APS EM <8-3/4"> (2557')(2664'-6356')

BH AT Curve <8-1/2"> (6356')(6421'-17084')

Sycamore: 6797' MD

Middlesex: 6952' MD

Burkett: 7112' MD

Tully: 7168' MD

Marcellus POE: 7405' MD

Projected MD at TD: 17109'