



# Actual Wellpath Report

Guild Unit 2H AWP Proj: 13602'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Guild Unit 2H
Field	Tyler	Wellbore	Guild Unit 2H AWB
Facility	Ferrell North Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Delaset
Scale	0.999601	Report Generated	10/8/2019 at 3:04:06 PM
Convergence at slot	0.05° East	Database/Source file	WA_MPL_EasternUS_Defn/Guild_Unit_2H_AWP_Proj_13602_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-29.34	0.81	1663421.64	14333893.97	39°28'20.120"N	80°55'06.530"W
Facility Reference Pt			1663420.83	14333923.30	39°28'20.410"N	80°55'06.540"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 519 (RKB) to Facility Vertical Datum	787.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	787.00ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot #01)	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	341.03°

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Area	Tyler County, WV		Well	Guild Unit 2H
Field	Tyler		Wellbore	Guild Unit 2H AWB
Facility	Ferrell North Pad			

WELLPATH DATA (162 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	90.530	0.00	0.00	0.00	0.00	1663421.64	14333893.97	39°28'20.120"N	80°55'06.530"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	90.530	30.00	0.00	0.00	0.00	1663421.64	14333893.97	39°28'20.120"N	80°55'06.530"W	0.00	0.000	0.00	0.00	0.00	
115.00	0.140	90.530	115.00	-0.03	0.00	0.10	1663421.74	14333893.97	39°28'20.120"N	80°55'06.529"W	0.10	90.530	0.16	0.16	106.51	Gyrodata MS Gyro <17-1/2">(115'-385')
140.00	0.120	94.890	140.00	-0.06	0.00	0.16	1663421.80	14333893.97	39°28'20.120"N	80°55'06.528"W	0.16	91.240	0.09	-0.08	17.44	
165.00	0.200	79.270	165.00	-0.07	0.00	0.23	1663421.87	14333893.97	39°28'20.120"N	80°55'06.527"W	0.23	89.396	0.36	0.32	-62.48	
190.00	0.120	78.450	190.00	-0.08	0.02	0.30	1663421.94	14333893.99	39°28'20.120"N	80°55'06.526"W	0.30	86.968	0.32	-0.32	-3.28	
215.00	0.150	87.210	215.00	-0.09	0.02	0.36	1663421.99	14333893.99	39°28'20.120"N	80°55'06.525"W	0.36	86.368	0.15	0.12	35.04	
240.00	0.090	72.980	240.00	-0.10	0.03	0.41	1663422.05	14333894.00	39°28'20.120"N	80°55'06.525"W	0.41	85.798	0.27	-0.24	-56.92	
265.00	0.100	77.880	265.00	-0.11	0.04	0.45	1663422.09	14333894.01	39°28'20.120"N	80°55'06.524"W	0.45	84.860	0.05	0.04	19.60	
290.00	0.020	205.550	290.00	-0.11	0.04	0.47	1663422.11	14333894.01	39°28'20.120"N	80°55'06.524"W	0.47	84.994	0.45	-0.32	510.68	
315.00	0.020	308.150	315.00	-0.11	0.04	0.46	1663422.10	14333894.01	39°28'20.120"N	80°55'06.524"W	0.46	85.090	0.12	0.00	410.40	
340.00	0.050	359.880	340.00	-0.10	0.05	0.46	1663422.10	14333894.03	39°28'20.121"N	80°55'06.524"W	0.46	83.371	0.16	0.12	206.92	
365.00	0.100	96.070	365.00	-0.10	0.06	0.48	1663422.12	14333894.03	39°28'20.121"N	80°55'06.524"W	0.48	82.656	0.47	0.20	384.76	
385.00	0.060	121.210	385.00	-0.11	0.05	0.51	1663422.14	14333894.03	39°28'20.121"N	80°55'06.524"W	0.51	83.845	0.26	-0.20	125.70	
481.00	0.520	194.660	481.00	-0.51	-0.39	0.44	1663422.08	14333893.58	39°28'20.116"N	80°55'06.524"W	0.59	131.810	0.53	0.48	76.51	Gyrodata MS Gyro <12-1/4">(385')(481')
604.00	3.280	105.670	603.93	-2.98	-1.88	3.69	1663425.32	14333892.09	39°28'20.101"N	80°55'06.483"W	4.14	117.063	2.69	2.24	-72.35	WFT EM <12-1/4">(481')(604'-2669')
728.00	5.510	77.430	727.57	-5.66	-1.55	12.92	1663434.55	14333892.43	39°28'20.105"N	80°55'06.365"W	13.01	96.827	2.46	1.80	-22.77	
789.00	7.010	71.700	788.21	-6.03	0.26	19.31	1663440.94	14333894.23	39°28'20.122"N	80°55'06.284"W	19.31	89.228	2.66	2.46	-9.39	
882.00	8.160	69.750	880.39	-5.83	4.43	30.85	1663452.47	14333898.40	39°28'20.164"N	80°55'06.137"W	31.16	81.820	1.31	1.24	-3.17	
978.00	9.860	68.600	975.20	-5.21	9.90	44.85	1663466.47	14333903.87	39°28'20.217"N	80°55'05.958"W	45.93	77.549	1.77	1.77	-0.16	
1072.00	11.600	74.660	1067.56	-5.47	15.34	61.46	1663483.07	14333909.31	39°28'20.271"N	80°55'05.746"W	63.35	75.985	2.20	1.85	6.45	
1167.00	13.650	77.430	1160.26	-7.33	20.31	81.61	1663503.22	14333914.27	39°28'20.320"N	80°55'05.489"W	84.10	76.027	2.25	2.16	2.92	
1261.00	16.380	78.540	1251.04	-10.30	25.36	105.44	1663527.03	14333919.32	39°28'20.370"N	80°55'05.185"W	108.44	76.478	2.92	2.90	1.18	
1355.00	18.300	78.610	1340.76	-13.97	30.90	132.89	1663554.48	14333924.86	39°28'20.424"N	80°55'04.835"W	136.44	76.909	2.04	2.04	0.07	
1450.00	19.860	76.110	1430.54	-17.37	37.72	163.18	1663584.76	14333931.68	39°28'20.491"N	80°55'04.449"W	167.49	76.983	1.85	1.64	-2.63	
1544.00	21.990	79.020	1518.34	-21.23	44.91	195.96	1663617.52	14333938.86	39°28'20.562"N	80°55'04.031"W	201.04	77.092	2.52	2.27	3.10	
1639.00	24.060	79.540	1605.77	-26.57	51.81	232.47	1663654.02	14333945.77	39°28'20.630"N	80°55'03.565"W	238.18	77.435	2.19	2.18	0.55	
1734.00	27.110	80.740	1691.44	-33.09	58.81	272.89	1663694.42	14333952.76	39°28'20.699"N	80°55'03.050"W	279.16	77.837	3.26	3.21	1.26	
1828.00	28.640	82.410	1774.54	-41.15	65.24	316.36	1663737.87	14333959.18	39°28'20.762"N	80°55'02.495"W	323.02	78.348	1.83	1.63	1.78	
1923.00	29.090	83.310	1857.73	-50.55	70.93	361.87	1663783.36	14333964.88	39°28'20.818"N	80°55'01.915"W	368.75	78.909	0.66	0.47	0.95	

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Area	Tyler County, WV	Well	Guild Unit 2H
Field	Tyler	Wellbore	Guild Unit 2H AWB
Facility	Ferrell North Pad		

WELLPATH DATA (162 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
2017.00	27.190	81.440	1940.62	-59.29	76.79	405.80	1663827.28	14333970.74	39°28'20.875"N	80°55'01.354"W	413.01	79.284	2.23	-2.02	-1.99	
2112.00	26.300	78.900	2025.46	-66.10	84.08	447.92	1663869.38	14333978.02	39°28'20.947"N	80°55'00.817"W	455.74	79.369	1.52	-0.94	-2.67	
2207.00	27.250	77.570	2110.27	-71.46	92.81	489.81	1663911.26	14333986.75	39°28'21.033"N	80°55'00.283"W	498.53	79.271	1.18	1.00	-1.40	
2302.00	27.280	79.260	2194.72	-77.05	101.55	532.44	1663953.87	14333995.48	39°28'21.119"N	80°54'59.739"W	542.04	79.202	0.82	0.03	1.78	
2396.00	24.510	78.050	2279.27	-82.52	109.60	572.69	1663994.10	14334003.53	39°28'21.198"N	80°54'59.226"W	583.08	79.166	3.00	-2.95	-1.29	
2491.00	22.960	74.920	2366.24	-86.18	118.50	609.86	1664031.26	14334012.43	39°28'21.286"N	80°54'58.752"W	621.27	79.004	2.10	-1.63	-3.29	
2585.00	22.920	75.390	2452.80	-88.82	127.89	645.28	1664066.66	14334021.81	39°28'21.378"N	80°54'58.300"W	657.83	78.790	0.20	-0.04	0.50	
2669.00	22.070	74.330	2530.41	-90.97	136.28	676.30	1664097.67	14334030.20	39°28'21.461"N	80°54'57.904"W	689.90	78.607	1.12	-1.01	-1.26	
2785.00	20.710	72.460	2638.42	-92.74	148.35	716.84	1664138.20	14334042.26	39°28'21.580"N	80°54'57.387"W	732.03	78.308	1.31	-1.17	-1.61	WFT EM <8-3/4">(2669')(2785'-6163')
2848.00	20.130	70.020	2697.46	-92.82	155.41	737.66	1664159.00	14334049.32	39°28'21.649"N	80°54'57.122"W	753.85	78.103	1.63	-0.92	-3.87	
2943.00	24.620	75.470	2785.30	-94.07	165.97	772.20	1664193.52	14334059.87	39°28'21.753"N	80°54'56.681"W	789.83	77.870	5.20	4.73	5.74	
3037.00	28.930	75.970	2869.20	-97.54	176.40	813.23	1664234.54	14334070.30	39°28'21.856"N	80°54'56.158"W	832.14	77.762	4.59	4.59	0.53	
3132.00	30.950	76.690	2951.52	-101.93	187.59	859.30	1664280.59	14334081.49	39°28'21.966"N	80°54'55.570"W	879.53	77.685	2.16	2.13	0.76	
3228.00	32.000	78.540	3033.39	-107.69	198.33	908.25	1664329.52	14334092.22	39°28'22.072"N	80°54'54.946"W	929.65	77.682	1.49	1.09	1.93	
3323.00	32.540	80.490	3113.72	-115.18	207.55	958.12	1664379.37	14334101.44	39°28'22.163"N	80°54'54.310"W	980.34	77.777	1.23	0.57	2.05	
3417.00	33.020	82.730	3192.76	-124.53	214.97	1008.46	1664429.70	14334108.86	39°28'22.235"N	80°54'53.668"W	1031.12	77.967	1.39	0.51	2.38	
3512.00	32.980	82.550	3272.43	-134.94	221.60	1059.78	1664480.99	14334115.48	39°28'22.300"N	80°54'53.013"W	1082.70	78.190	0.11	-0.04	-0.19	
3606.00	33.350	83.000	3351.12	-145.41	228.06	1110.79	1664531.98	14334121.94	39°28'22.364"N	80°54'52.363"W	1133.96	78.397	0.47	0.39	0.48	
3701.00	33.500	83.420	3430.40	-156.45	234.25	1162.75	1664583.93	14334128.13	39°28'22.425"N	80°54'51.700"W	1186.11	78.610	0.29	0.16	0.44	
3795.00	31.200	82.600	3509.81	-166.90	240.36	1212.67	1664633.83	14334134.24	39°28'22.484"N	80°54'51.063"W	1236.27	78.789	2.49	-2.45	-0.87	
3890.00	27.680	81.710	3592.53	-175.93	246.71	1258.93	1664680.06	14334140.59	39°28'22.547"N	80°54'50.474"W	1282.87	78.912	3.73	-3.71	-0.94	
3985.00	27.290	80.180	3676.81	-183.48	253.61	1302.22	1664723.34	14334147.48	39°28'22.615"N	80°54'49.921"W	1326.69	78.980	0.85	-0.41	-1.61	
4079.00	25.910	79.290	3760.86	-189.86	261.10	1343.64	1664764.73	14334154.97	39°28'22.688"N	80°54'49.393"W	1368.77	79.003	1.53	-1.47	-0.95	
4174.00	24.660	79.140	3846.75	-195.64	268.69	1383.49	1664804.58	14334162.56	39°28'22.763"N	80°54'48.885"W	1409.34	79.009	1.32	-1.32	-0.16	
4269.00	24.350	76.060	3933.20	-200.15	277.14	1421.97	1664843.04	14334171.01	39°28'22.846"N	80°54'48.394"W	1448.72	78.971	1.38	-0.33	-3.24	
4363.00	23.830	74.990	4019.01	-203.16	286.73	1459.12	1664880.17	14334180.59	39°28'22.940"N	80°54'47.920"W	1487.02	78.882	0.72	-0.55	-1.14	
4458.00	23.650	72.900	4105.98	-205.11	297.30	1495.87	1664916.90	14334191.16	39°28'23.045"N	80°54'47.452"W	1525.13	78.759	0.91	-0.19	-2.20	
4553.00	24.110	74.000	4192.85	-206.74	308.26	1532.73	1664953.75	14334202.10	39°28'23.152"N	80°54'46.981"W	1563.42	78.629	0.67	0.48	1.16	
4648.00	24.600	73.530	4279.39	-208.60	319.21	1570.34	1664991.35	14334213.05	39°28'23.260"N	80°54'46.502"W	1602.46	78.510	0.55	0.52	-0.49	
4742.00	26.080	72.320	4364.34	-209.92	331.03	1608.80	1665029.79	14334224.87	39°28'23.377"N	80°54'46.011"W	1642.50	78.373	1.67	1.57	-1.29	

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Field	Tyler		Wellbore	Guild Unit 2H AWB
Facility	Ferrell North Pad			

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4839.00	26.260	76.960	4451.41	-212.62	342.35	1650.02	1665071.00	14334236.19	39°28'23.488"N	80°54'45.485"W	1685.16	78.278	2.12	0.19	4.78	
4934.00	25.750	79.760	4536.79	-217.92	350.76	1690.80	1665111.76	14334244.59	39°28'23.571"N	80°54'44.965"W	1726.80	78.280	1.40	-0.54	2.95	
5029.00	25.660	80.900	4622.39	-224.58	357.68	1731.42	1665152.37	14334251.51	39°28'23.639"N	80°54'44.447"W	1767.98	78.328	0.53	-0.09	1.20	
5123.00	25.830	83.920	4707.07	-232.64	363.07	1771.88	1665192.81	14334256.90	39°28'23.692"N	80°54'43.931"W	1808.70	78.420	1.41	0.18	3.21	
5218.00	26.290	83.970	4792.41	-241.97	367.47	1813.38	1665234.30	14334261.30	39°28'23.735"N	80°54'43.402"W	1850.24	78.544	0.48	0.48	0.05	
5312.00	25.620	82.290	4876.93	-250.60	372.39	1854.23	1665275.12	14334266.21	39°28'23.783"N	80°54'42.881"W	1891.25	78.644	1.06	-0.71	-1.79	
5406.00	25.580	80.400	4961.70	-257.87	378.50	1894.38	1665315.25	14334272.32	39°28'23.843"N	80°54'42.369"W	1931.82	78.701	0.87	-0.04	-2.01	
5501.00	25.190	78.560	5047.53	-263.86	385.93	1934.41	1665355.28	14334279.75	39°28'23.916"N	80°54'41.858"W	1972.54	78.717	0.93	-0.41	-1.94	
5596.00	24.440	76.470	5133.76	-268.37	394.54	1973.34	1665394.18	14334288.35	39°28'24.001"N	80°54'41.362"W	2012.39	78.694	1.21	-0.79	-2.20	
5690.00	24.360	76.450	5219.36	-272.04	403.63	2011.09	1665431.92	14334297.44	39°28'24.090"N	80°54'40.880"W	2051.19	78.651	0.09	-0.09	-0.02	
5785.00	24.510	80.010	5305.86	-276.97	411.64	2049.55	1665470.36	14334305.44	39°28'24.169"N	80°54'40.390"W	2090.47	78.644	1.56	0.16	3.75	
5848.00	24.150	77.920	5363.27	-280.56	416.60	2075.02	1665495.82	14334310.41	39°28'24.218"N	80°54'40.065"W	2116.43	78.648	1.48	-0.57	-3.32	
5911.00	24.940	77.570	5420.57	-283.62	422.16	2100.59	1665521.39	14334315.96	39°28'24.273"N	80°54'39.739"W	2142.59	78.637	1.28	1.25	-0.56	
5974.00	24.290	67.130	5477.87	-284.25	430.06	2125.51	1665546.30	14334323.86	39°28'24.351"N	80°54'39.421"W	2168.58	78.562	6.97	-1.03	-16.57	
6037.00	23.440	53.090	5535.53	-279.50	442.63	2147.49	1665568.27	14334336.42	39°28'24.475"N	80°54'39.140"W	2192.63	78.354	9.10	-1.35	-22.23	
6100.00	24.590	38.210	5593.13	-268.53	460.47	2165.63	1665586.40	14334354.26	39°28'24.651"N	80°54'38.909"W	2214.05	77.996	9.76	1.83	-23.62	
6163.00	27.870	26.820	5649.67	-251.14	483.93	2180.40	1665601.16	14334377.71	39°28'24.882"N	80°54'38.720"W	2233.46	77.486	9.52	5.21	-18.08	
6225.00	31.540	17.960	5703.54	-228.05	512.31	2191.95	1665612.71	14334406.08	39°28'25.163"N	80°54'38.573"W	2251.02	76.845	9.22	5.92	-14.29	BH AT Curve <8-1/2">(6163')(6225'-13577')
6273.00	32.640	15.710	5744.21	-207.37	536.72	2199.32	1665620.08	14334430.48	39°28'25.404"N	80°54'38.478"W	2263.87	76.286	3.38	2.29	-4.69	
6368.00	36.700	20.100	5822.34	-164.24	588.07	2216.03	1665636.78	14334481.81	39°28'25.911"N	80°54'38.265"W	2292.73	75.138	5.02	4.27	4.62	
6462.00	43.160	19.040	5894.38	-117.05	644.90	2236.19	1665656.93	14334538.61	39°28'26.473"N	80°54'38.007"W	2327.32	73.913	6.91	6.87	-1.13	
6550.00†	49.941	13.847	5954.89	-64.96	706.14	2254.10	1665674.83	14334599.83	39°28'27.078"N	80°54'37.778"W	2362.11	72.606	8.81	7.71	-5.90	Middlesex: 6550' MD
6557.00	50.490	13.480	5959.37	-60.43	711.37	2255.37	1665676.10	14334605.05	39°28'27.130"N	80°54'37.761"W	2364.89	72.494	8.81	7.84	-5.24	
6651.00	57.810	8.350	6014.41	5.63	786.12	2269.62	1665690.35	14334679.78	39°28'27.868"N	80°54'37.579"W	2401.91	70.896	8.95	7.79	-5.46	
6709.00†	62.069	4.837	6043.46	50.91	835.97	2275.35	1665696.07	14334729.60	39°28'28.361"N	80°54'37.505"W	2424.06	69.827	9.02	7.34	-6.06	Burkett: 6709' MD
6746.00	64.830	2.740	6060.00	81.43	868.99	2277.53	1665698.25	14334762.61	39°28'28.687"N	80°54'37.477"W	2437.68	69.116	9.02	7.46	-5.67	
6757.00†	65.671	2.331	6064.60	90.72	878.97	2277.97	1665698.69	14334772.59	39°28'28.786"N	80°54'37.471"W	2441.66	68.901	8.36	7.65	-3.72	Tully: 6757' MD
6824.00†	70.817	359.946	6089.43	149.14	941.16	2279.18	1665699.91	14334834.75	39°28'29.400"N	80°54'37.455"W	2465.86	67.563	8.36	7.68	-3.56	Marcellus POE: 6824' MD
6840.00	72.050	359.400	6094.53	163.51	956.32	2279.10	1665699.82	14334849.91	39°28'29.550"N	80°54'37.456"W	2471.60	67.237	8.36	7.71	-3.41	
6934.00	80.260	359.710	6117.00	249.97	1047.51	2278.39	1665699.12	14334941.06	39°28'30.452"N	80°54'37.463"W	2507.66	65.309	8.74	8.73	0.33	

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# Actual Wellpath Report

Guild Unit 2H AWP Proj: 13602'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #01
Area	Tyler County, WV		Well	Guild Unit 2H
Field	Tyler		Wellbore	Guild Unit 2H AWB
Facility	Ferrell North Pad			

WELLPATH DATA (162 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
7029.00	89.020	359.410	6125.87	339.57	1142.00	2277.66	1665698.39	14335035.51	39°28'31.385"N	80°54'37.471"W	2547.92	63.371	9.23	9.22	-0.32	
7123.00	90.460	358.100	6126.29	429.10	1235.97	2275.62	1665696.35	14335129.45	39°28'32.314"N	80°54'37.496"W	2589.61	61.492	2.07	1.53	-1.39	
7217.00	90.460	353.770	6125.54	519.91	1329.71	2268.96	1665689.69	14335223.15	39°28'33.241"N	80°54'37.580"W	2629.89	59.628	4.61	0.00	-4.61	
7312.00	90.650	348.630	6124.62	613.39	1423.56	2254.43	1665675.17	14335316.96	39°28'34.168"N	80°54'37.764"W	2666.27	57.730	5.41	0.20	-5.41	
7406.00	90.740	343.860	6123.48	706.96	1514.83	2232.09	1665652.83	14335408.19	39°28'35.071"N	80°54'38.048"W	2697.58	55.837	5.07	0.10	-5.07	
7501.00	89.820	341.070	6123.01	801.92	1605.40	2203.47	1665624.23	14335498.73	39°28'35.966"N	80°54'38.412"W	2726.28	53.924	3.09	-0.97	-2.94	
7595.00	89.880	340.120	6123.26	895.92	1694.06	2172.24	1665593.01	14335587.35	39°28'36.843"N	80°54'38.809"W	2754.72	52.050	1.01	0.06	-1.01	
7689.00	89.880	338.370	6123.46	989.87	1781.96	2138.93	1665559.71	14335675.21	39°28'37.712"N	80°54'39.233"W	2783.95	50.202	1.86	0.00	-1.86	
7784.00	89.690	336.540	6123.81	1084.68	1869.69	2102.51	1665523.30	14335762.91	39°28'38.579"N	80°54'39.696"W	2813.59	48.354	1.94	-0.20	-1.93	
7878.00	89.820	338.540	6124.22	1178.50	1956.56	2066.60	1665487.41	14335849.74	39°28'39.438"N	80°54'40.153"W	2845.86	46.567	2.13	0.14	2.13	
7973.00	89.820	339.350	6124.51	1273.43	2045.21	2032.47	1665453.29	14335938.36	39°28'40.315"N	80°54'40.587"W	2883.37	44.821	0.85	0.00	0.85	
8067.00	90.030	339.180	6124.64	1367.39	2133.12	1999.19	1665420.03	14336026.24	39°28'41.184"N	80°54'41.010"W	2923.52	43.144	0.29	0.22	-0.18	
8161.00	89.780	338.780	6124.79	1461.33	2220.87	1965.47	1665386.32	14336113.95	39°28'42.051"N	80°54'41.439"W	2965.69	41.509	0.50	-0.27	-0.43	
8256.00	89.750	340.510	6125.18	1556.30	2309.93	1932.43	1665353.29	14336202.98	39°28'42.932"N	80°54'41.859"W	3011.66	39.915	1.82	-0.03	1.82	
8350.00	89.380	340.650	6125.90	1650.29	2398.58	1901.18	1665322.05	14336291.59	39°28'43.808"N	80°54'42.257"W	3060.66	38.401	0.42	-0.39	0.15	
8445.00	89.720	342.430	6126.64	1745.28	2488.69	1871.10	1665291.99	14336381.66	39°28'44.699"N	80°54'42.639"W	3113.61	36.937	1.91	0.36	1.87	
8539.00	89.820	346.590	6127.02	1839.09	2579.25	1846.00	1665266.90	14336472.19	39°28'45.595"N	80°54'42.958"W	3171.79	35.592	4.43	0.11	4.43	
8633.00	90.220	348.020	6126.99	1932.52	2670.95	1825.34	1665246.25	14336563.85	39°28'46.501"N	80°54'43.221"W	3235.10	34.349	1.58	0.43	1.52	
8728.00	90.280	346.350	6126.57	2026.97	2763.58	1804.27	1665225.19	14336656.44	39°28'47.417"N	80°54'43.488"W	3300.42	33.139	1.76	0.06	-1.76	
8822.00	90.220	343.070	6126.16	2120.76	2854.24	1779.49	1665200.41	14336747.07	39°28'48.313"N	80°54'43.803"W	3363.52	31.942	3.49	-0.06	-3.49	
8916.00	90.120	339.920	6125.88	2214.74	2943.37	1749.66	1665170.59	14336836.16	39°28'49.194"N	80°54'44.182"W	3424.14	30.729	3.35	-0.11	-3.35	
9011.00	90.150	337.820	6125.66	2309.67	3031.98	1715.41	1665136.36	14336924.73	39°28'50.070"N	80°54'44.618"W	3483.61	29.500	2.21	0.03	-2.21	
9105.00	90.180	337.620	6125.39	2403.51	3118.96	1679.77	1665100.74	14337011.68	39°28'50.930"N	80°54'45.071"W	3542.53	28.306	0.22	0.03	-0.21	
9200.00	90.220	336.670	6125.06	2498.29	3206.50	1642.88	1665063.86	14337099.18	39°28'51.796"N	80°54'45.541"W	3602.87	27.129	1.00	0.04	-1.00	
9294.00	90.180	336.450	6124.73	2592.01	3292.74	1605.48	1665026.48	14337185.39	39°28'52.649"N	80°54'46.017"W	3663.29	25.993	0.24	-0.04	-0.23	
9388.00	90.090	339.570	6124.51	2685.87	3379.89	1570.29	1664991.30	14337272.51	39°28'53.510"N	80°54'46.465"W	3726.86	24.919	3.32	-0.10	3.32	
9483.00	90.150	343.550	6124.31	2780.84	3469.99	1540.25	1664961.27	14337362.57	39°28'54.401"N	80°54'46.847"W	3796.48	23.935	4.19	0.06	4.19	
9577.00	90.490	345.860	6123.78	2874.64	3560.66	1515.45	1664936.48	14337453.20	39°28'55.297"N	80°54'47.162"W	3869.74	23.055	2.48	0.36	2.46	
9672.00	90.460	341.400	6122.99	2969.52	3651.78	1488.69	1664909.73	14337544.29	39°28'56.198"N	80°54'47.502"W	3943.56	22.179	4.69	-0.03	-4.69	
9766.00	90.150	339.760	6122.49	3063.51	3740.43	1457.43	1664878.49	14337632.90	39°28'57.075"N	80°54'47.899"W	4014.34	21.288	1.78	-0.33	-1.74	

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# Actual Wellpath Report

Guild Unit 2H AWP Proj: 13602'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Guild Unit 2H
Field	Tyler	Wellbore	Guild Unit 2H AWB
Facility	Ferrell North Pad		

WELLPATH DATA (162 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
9860.00	90.060	339.090	6122.32	3157.47	3828.43	1424.40	1664845.47	14337720.87	39°28'57.945"N	80°54'48.320"W	4084.83	20.408	0.72	-0.10	-0.71	
9955.00	90.370	339.020	6121.97	3252.41	3917.15	1390.44	1664811.52	14337809.55	39°28'58.822"N	80°54'48.752"W	4156.61	19.543	0.33	0.33	-0.07	
10049.00	90.950	338.690	6120.88	3346.34	4004.82	1356.53	1664777.63	14337897.18	39°28'59.689"N	80°54'49.183"W	4228.33	18.713	0.71	0.62	-0.35	
10144.00	90.520	338.150	6119.66	3441.23	4093.15	1321.80	1664742.70	14337985.48	39°29'00.562"N	80°54'49.628"W	4301.22	17.894	0.73	-0.45	-0.57	
10238.00	90.650	340.800	6118.70	3535.18	4181.17	1288.64	1664709.76	14338073.47	39°29'01.432"N	80°54'50.047"W	4375.25	17.129	2.82	0.14	2.82	
10333.00	90.650	344.920	6117.63	3630.11	4271.93	1260.65	1664681.79	14338164.18	39°29'02.330"N	80°54'50.403"W	4454.05	16.441	4.34	0.00	4.34	
10427.00	90.620	346.190	6116.58	3723.81	4362.95	1237.21	1664658.35	14338255.17	39°29'03.229"N	80°54'50.701"W	4534.97	15.832	1.35	-0.03	1.35	
10522.00	90.680	345.460	6115.51	3818.47	4455.05	1213.94	1664635.10	14338347.23	39°29'04.140"N	80°54'50.996"W	4617.48	15.242	0.77	0.06	-0.77	
10616.00	90.710	344.920	6114.37	3912.21	4545.92	1189.92	1664611.08	14338438.07	39°29'05.038"N	80°54'51.301"W	4699.07	14.668	0.58	0.03	-0.57	
10711.00	90.180	342.790	6113.63	4007.09	4637.16	1163.50	1664584.68	14338529.27	39°29'05.940"N	80°54'51.637"W	4780.90	14.085	2.31	-0.56	-2.24	
10805.00	90.520	341.760	6113.05	4101.07	4726.70	1134.89	1664556.07	14338618.77	39°29'06.825"N	80°54'52.001"W	4861.03	13.501	1.15	0.36	-1.10	
10899.00	90.430	340.570	6112.28	4195.06	4815.66	1104.54	1664525.74	14338707.70	39°29'07.705"N	80°54'52.387"W	4940.71	12.918	1.27	-0.10	-1.27	
10994.00	90.280	339.800	6111.69	4290.05	4905.03	1072.34	1664493.55	14338797.04	39°29'08.589"N	80°54'52.797"W	5020.88	12.332	0.83	-0.16	-0.81	
11088.00	90.310	339.170	6111.20	4384.01	4993.07	1039.40	1664460.62	14338885.04	39°29'09.459"N	80°54'53.216"W	5100.11	11.759	0.67	0.03	-0.67	
11183.00	90.340	339.100	6110.66	4478.96	5081.84	1005.56	1664426.80	14338973.77	39°29'10.337"N	80°54'53.646"W	5180.37	11.193	0.08	0.03	-0.07	
11277.00	90.120	338.710	6110.29	4572.89	5169.54	971.73	1664392.98	14339061.44	39°29'11.204"N	80°54'54.077"W	5260.07	10.646	0.48	-0.23	-0.41	
11372.00	90.030	337.730	6110.16	4667.78	5257.76	936.48	1664357.74	14339149.62	39°29'12.076"N	80°54'54.525"W	5340.50	10.099	1.04	-0.09	-1.03	
11466.00	90.000	337.560	6110.14	4761.61	5344.69	900.73	1664322.01	14339236.52	39°29'12.935"N	80°54'54.980"W	5420.06	9.566	0.18	-0.03	-0.18	
11561.00	89.970	339.370	6110.16	4856.51	5433.06	865.86	1664287.15	14339324.85	39°29'13.809"N	80°54'55.424"W	5501.62	9.055	1.91	-0.03	1.91	
11655.00	90.000	340.360	6110.19	4950.49	5521.31	833.50	1664254.81	14339413.07	39°29'14.682"N	80°54'55.835"W	5583.87	8.585	1.05	0.03	1.05	
11749.00	90.000	341.110	6110.19	5044.49	5610.05	802.49	1664223.80	14339501.77	39°29'15.559"N	80°54'56.230"W	5667.15	8.141	0.80	0.00	0.80	
11844.00	89.850	342.950	6110.31	5139.47	5700.41	773.18	1664194.51	14339592.09	39°29'16.452"N	80°54'56.603"W	5752.60	7.724	1.94	-0.16	1.94	
11938.00	90.030	343.820	6110.41	5233.39	5790.48	746.30	1664167.64	14339682.13	39°29'17.343"N	80°54'56.944"W	5838.38	7.344	0.95	0.19	0.93	
12033.00	89.940	343.400	6110.43	5328.30	5881.62	719.49	1664140.84	14339773.23	39°29'18.244"N	80°54'57.285"W	5925.47	6.974	0.45	-0.09	-0.44	
12127.00	90.030	342.810	6110.46	5422.23	5971.56	692.18	1664113.54	14339863.14	39°29'19.133"N	80°54'57.633"W	6011.55	6.612	0.63	0.10	-0.63	
12221.00	90.060	342.230	6110.39	5516.20	6061.22	663.94	1664085.31	14339952.76	39°29'20.019"N	80°54'57.992"W	6097.48	6.251	0.62	0.03	-0.62	
12315.00	90.030	340.900	6110.31	5610.19	6150.40	634.22	1664055.60	14340041.90	39°29'20.901"N	80°54'58.370"W	6183.01	5.887	1.42	-0.03	-1.41	
12410.00	90.030	340.870	6110.26	5705.19	6240.16	603.11	1664024.50	14340131.63	39°29'21.788"N	80°54'58.765"W	6269.24	5.520	0.03	0.00	-0.03	
12505.00	90.580	341.530	6109.76	5800.19	6330.09	572.49	1663993.90	14340221.52	39°29'22.678"N	80°54'59.155"W	6355.92	5.168	0.90	0.58	0.69	
12599.00	90.150	340.010	6109.16	5894.19	6418.84	541.53	1663962.96	14340310.23	39°29'23.555"N	80°54'59.549"W	6441.64	4.822	1.68	-0.46	-1.62	

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# Actual Wellpath Report

Guild Unit 2H AWP Proj: 13602'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #01
Area	Tyler County, WV		Well	Guild Unit 2H
Field	Tyler		Wellbore	Guild Unit 2H AWB
Facility	Ferrell North Pad			

WELLPATH DATA (162 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
12693.00	89.880	340.770	6109.13	5988.18	6507.39	509.99	1663931.42	14340398.75	39°29'24.430"N	80°54'59.950"W	6527.34	4.481	0.86	-0.29	0.81	
12788.00	90.000	340.950	6109.23	6083.18	6597.13	478.84	1663900.29	14340488.46	39°29'25.318"N	80°55'00.346"W	6614.49	4.151	0.23	0.13	0.19	
12882.00	90.030	339.720	6109.21	6177.17	6685.65	447.21	1663868.67	14340576.94	39°29'26.193"N	80°55'00.749"W	6700.59	3.827	1.31	0.03	-1.31	
12977.00	90.120	339.470	6109.08	6272.14	6774.69	414.08	1663835.56	14340665.94	39°29'27.073"N	80°55'01.170"W	6787.33	3.498	0.28	0.09	-0.26	
13071.00	90.030	340.120	6108.96	6366.12	6862.90	381.62	1663803.10	14340754.12	39°29'27.945"N	80°55'01.583"W	6873.51	3.183	0.70	-0.10	0.69	
13166.00	90.280	340.470	6108.70	6461.11	6952.34	349.59	1663771.09	14340843.52	39°29'28.830"N	80°55'01.991"W	6961.12	2.879	0.45	0.26	0.37	
13260.00	90.280	341.610	6108.24	6555.11	7041.24	319.05	1663740.56	14340932.38	39°29'29.708"N	80°55'02.379"W	7048.46	2.594	1.21	0.00	1.21	
13355.00	90.310	342.460	6107.75	6650.09	7131.60	289.75	1663711.27	14341022.71	39°29'30.602"N	80°55'02.752"W	7137.49	2.327	0.90	0.03	0.89	
13449.00	90.340	342.800	6107.22	6744.05	7221.32	261.68	1663683.22	14341112.39	39°29'31.489"N	80°55'03.109"W	7226.06	2.075	0.36	0.03	0.36	
13543.00	90.310	345.580	6106.69	6837.90	7311.75	236.08	1663657.62	14341202.79	39°29'32.383"N	80°55'03.434"W	7315.56	1.849	2.96	-0.03	2.96	
13577.00	90.340	347.360	6106.50	6871.74	7344.80	228.12	1663649.67	14341235.83	39°29'32.709"N	80°55'03.535"W	7348.35	1.779	5.24	0.09	5.24	
13602.00	90.340	347.360	6106.35	6896.59	7369.20	222.65	1663644.20	14341260.21	39°29'32.951"N	80°55'03.605"W	7372.56	1.731	0.00	0.00	0.00	Projected MD at TD: 13602'

HOLE & CASING SECTIONS - Ref Wellbore: Guild Unit 2H AWB Ref Wellpath: Guild Unit 2H AWP Proj: 13602'										
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	110.00	80.00	30.00	110.00	0.00	0.00	0.00	0.09	0.09
17.5in Open Hole	110.00	414.00	304.00	110.00	414.00	0.00	0.09	0.00	0.52	0.52
13.375in Casing Surface	30.00	414.00	384.00	30.00	414.00	0.00	0.00	0.00	0.52	0.52
12.25in Open Hole	414.00	2668.00	2254.00	414.00	2529.49	0.00	0.52	136.18	675.94	675.94
9.625in Casing Intermediate	30.00	2668.00	2638.00	30.00	2529.49	0.00	0.00	136.18	675.94	675.94
8.75in Open Hole	2668.00	6252.00	3584.00	2529.49	5726.48	136.18	675.94	525.91	2196.19	2196.19
8.5in Open Hole	6252.00	13602.00	7350.00	5726.48	6106.35	525.91	2196.19	7369.20	222.65	222.65
5.5in Casing Production	30.00	13602.00	13572.00	30.00	6106.35	0.00	0.00	7369.20	222.65	222.65

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# Actual Wellpath Report

Guild Unit 2H AWP Proj: 13602'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Guild Unit 2H
Field	Tyler	Wellbore	Guild Unit 2H AWB
Facility	Ferrell North Pad		

TARGETS								
Name	TVD (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Shape
Guild Unit 2H - POE - Rev-2	6089.00	938.73	2271.19	1665691.92	14334832.33	39°28'29.377"N	80°54'37.557"W	point
Guild Unit 2H - BHL - Rev-2	6127.00	7356.04	221.87	1663643.42	14341247.06	39°29'32.821"N	80°55'03.615"W	point
Guild Unit 2H - LP - Rev-2	6127.00	1161.72	2263.41	1665684.14	14335055.23	39°28'31.581"N	80°54'37.653"W	point

WELLPATH COMPOSITION - Ref Wellbore: Guild Unit 2H AWB Ref Wellpath: Guild Unit 2H AWP Proj: 13602'				
Start MD (ft)	End MD (ft)	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	385.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(115'-385')	Guild Unit 2H AWB
385.00	481.00	Gyrodata standard - Drop gyro or Multi-shot	02 Gyrodata MS Gyro <12-1/4">(385')(481')	Guild Unit 2H AWB
481.00	2669.00	OWSG MWD rev2 + HRGM	03 WFT EM <12-1/4">(481')(604'-2669')	Guild Unit 2H AWB
2669.00	6163.00	OWSG MWD rev2 + HRGM	04 WFT EM <8-3/4">(2669')(2785'-6163')	Guild Unit 2H AWB
6163.00	13577.00	BHI AutoTrak Curve (Short)	05 BH AT Curve <8-1/2">(6163')(6225'-13577')	Guild Unit 2H AWB
13577.00	13602.00	Blind Drilling (std)	Projection to bit	Guild Unit 2H AWB

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# Actual Wellpath Report

Guild Unit 2H AWP Proj: 13602'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Guild Unit 2H
Field	Tyler	Wellbore	Guild Unit 2H AWB
Facility	Ferrell North Pad		

COMMENTS
<p><b>Wellpath general comments</b>            API: 47-095-02574-0000            BHI Job #: 110060912A            Rig: H&amp;P 519            Duration: 10/04/2019-10/06/2019            Gyrodata MS Gyro &lt;17-1/2"&gt;(115'-385')            Gyrodata MS Gyro &lt;12-1/4"&gt;(385')(481')            WFT EM &lt;12-1/4"&gt;(481')(604'-2669')            WFT EM &lt;8-3/4"&gt;(2669')(2785'-6163')            BH AT Curve &lt;8-1/2"&gt;(6163')(6225'-13577')            Middlesex: 6550' MD            Burkett: 6709' MD            Tully: 6757' MD            Marcellus POE: 6824' MD            Projected MD at TD: 13602'</p>

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