

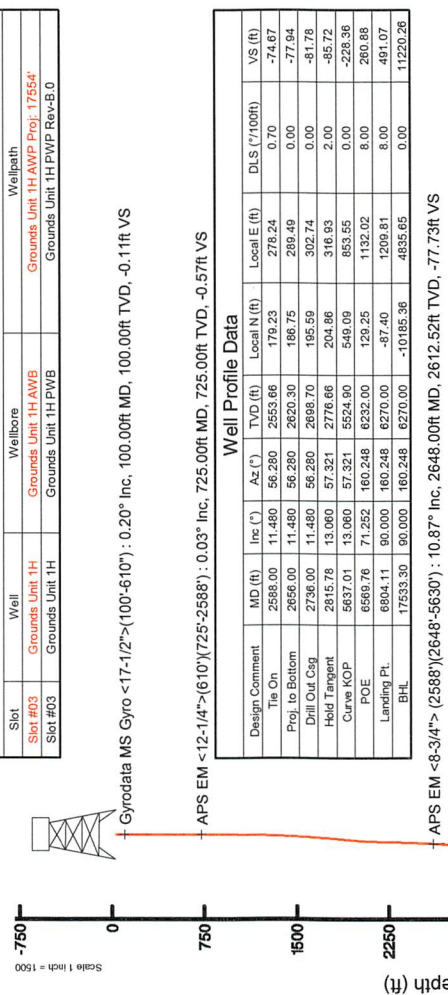
ANTERO RESOURCES CORPORATION

Location: Tyler County, WV
 Field: Tyler
 Facility: Gorrell Pad
 Slot: Slot #03
 Well: Grounds Unit 1H
 Wellbore: Grounds Unit 1H PWB

Plot reference wellpath is Grounds Unit 1H PWP Rev-B.0
 True vertical depths are referenced to H&P 519 (RKB)
 Measured depths are referenced to H&P 519 (RKB)
 H&P 519 (RKB) to Mean Sea Level: 1075 feet
 Mean Sea Level to Ground level (At Slot: Slot #03): -1045 feet
 Coordinates are in feet referenced to Slot

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
Gorrell Pad	1643134.526	14314301.475	80°59'25.358" W
Slot	Local E (ft)	Local N (ft)	Longitude
Slot #03	30.15	-4.87	80°59'25.420" W
30ft			
Mean Sea Level to Ground level (At Slot: Slot #03)			
-1045ft			
H&P 519 (RKB) to Mean Sea Level			
1075ft			

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #03	Grounds Unit 1H	Grounds Unit 1H AWB	Grounds Unit 1H AWP Proj: 17554'
Slot #03	Grounds Unit 1H	Grounds Unit 1H PWB	Grounds Unit 1H PWP Rev-B.0

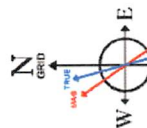


Gyrodatta MS Gyro <math>\langle -17^{-}1/2^{-} \rangle \langle 100^{-}610^{-} \rangle < 0.20^{\circ} \text{ Inc. } 100.00\text{ft MD, } 100.00\text{ft TVD, } -0.11\text{ft VS}</math>

AFS EM <math>\langle -12^{-}1/4^{-} \rangle \langle 610^{-} \rangle \langle 725^{-}2588^{-} \rangle < 0.03^{\circ} \text{ Inc. } 725.00\text{ft MD, } 725.00\text{ft TVD, } -0.57\text{ft VS}</math>

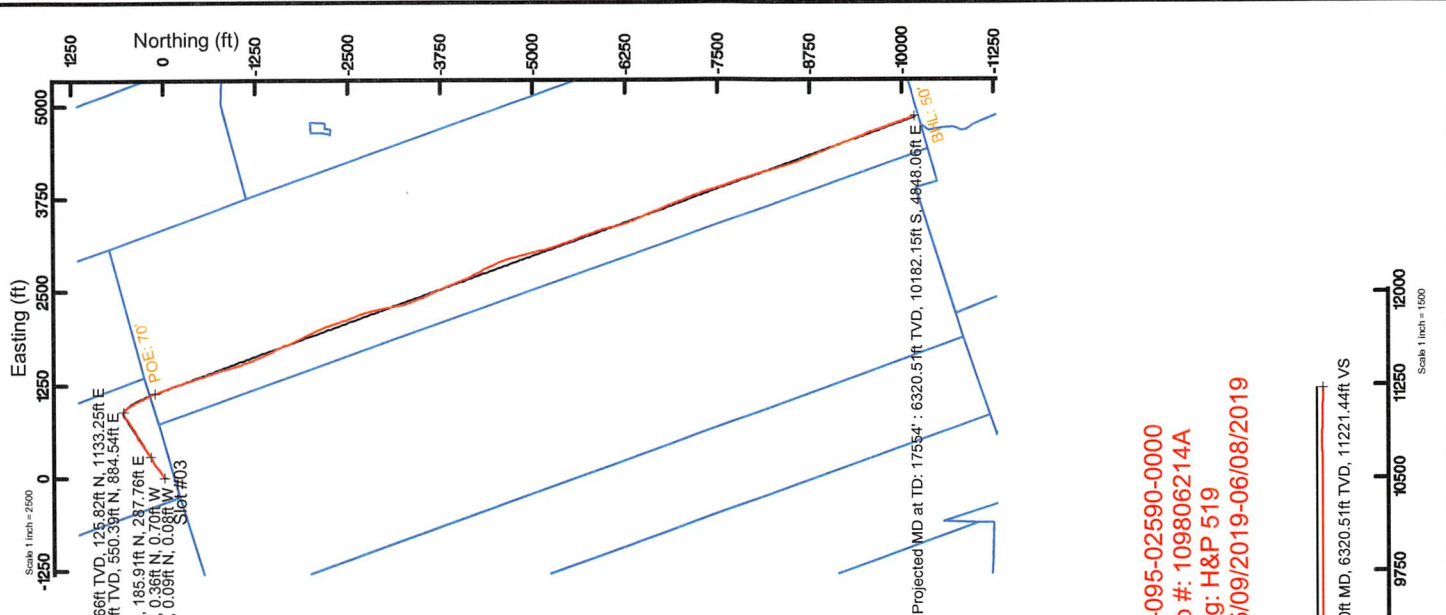
Marcellus POE: 6569' MD : 71.08" Inc. 6569.00ft MD, 6230.66ft TVD, 264.53ft VS

Well Profile Data									
Design Comment	MD (ft)	Inc (")	Az (")	TVD (ft)	Local N (ft)	Local E (ft)	DLS ("/100ft)	VS (ft)	
Tie On	2588.00	11.480	56.280	2653.66	179.23	278.24	0.70	-74.87	
Proj. to Bottom	2656.00	11.480	56.280	2620.30	188.75	289.49	0.00	-77.94	
Drill Out Csg	2736.00	11.480	56.280	2686.70	195.59	302.74	0.00	-81.78	
Hold Tangent	2815.78	13.000	57.321	2776.66	204.86	316.93	2.00	-85.72	
Curve KOP	5637.01	13.000	57.321	5524.90	549.09	653.55	0.00	-228.36	
POE	6569.76	71.252	160.248	6232.00	129.25	1132.02	8.00	260.88	
Landing Pt.	6904.11	90.000	160.248	6270.00	-87.40	1209.81	8.00	491.07	
BHL	17533.30	90.000	160.248	6270.00	-10185.96	4835.65	0.00	11220.26	



Use user specified (HDGM) Dip: 66.48° Field: 51716 AT
 Magnetic North is 7.81° (true North) vs. 5.31(2019)
 Grid North is 0.01° degrees East of True North
 To correct azimuth from True to Grid subtract 0.01 degrees
 To correct azimuth from Magnetic to Grid subtract 7.82 degrees

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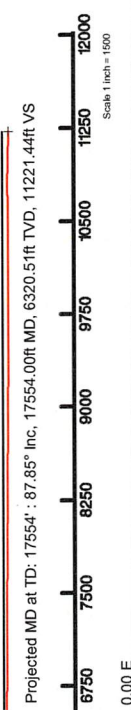


Marcellus POE: 6569' MD : 6230.66ft TVD, 125.82ft N, 1133.29ft E
 BH AT Curve <math>\langle -8^{-}1/2^{-} \rangle \langle 5630^{-} \rangle \langle 5708^{-}17524^{-} \rangle < 5589.94\text{ft TVD, } 550.39\text{ft N, } 884.54\text{ft E}</math>
 AFS EM <math>\langle -8^{-}3/4^{-} \rangle \langle 2588^{-} \rangle \langle 2648^{-}5630^{-} \rangle < 2612.52\text{ft TVD, } 185.91\text{ft N, } 287.76\text{ft E}</math>
 APS EM <math>\langle -12^{-}1/4^{-} \rangle \langle 610^{-} \rangle \langle 725^{-}2588^{-} \rangle < 725.00\text{ft TVD, } 0.36\text{ft N, } 0.70\text{ft W}</math>
 Gyrodatta MS Gyro <math>\langle -17^{-}1/2^{-} \rangle \langle 100^{-}610^{-} \rangle < 100.00\text{ft TVD, } 0.09\text{ft N, } 0.08\text{ft W}</math>
 Slot #03

Projected MD at TD: 17554' : 6320.5ft TVD, 10182.15ft S, 4848.06ft E



API: 47-095-02590-0000
 BHI Job #: 109806214A
 Rig: H&P 519
 Duration: 05/09/2019-06/08/2019



Projected MD at TD: 17554' : 87.85" Inc. 17554.00ft MD, 6320.5ft TVD, 11221.44ft VS

Vertical Section (ft)
 Azimuth 160.25° with reference 0.00 N, 0.00 E



Actual Wellpath Report

Grounds Unit 1H AWP Proj: 17554'

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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Gorrell Pad
Slot	Slot #03
Well	Grounds Unit 1H
Wellbore	Grounds Unit 1H AWB

REPORT SETUP INFORMATION	
Projection System	NAD27 / UTM Zone 17 North, US feet
North Reference	Grid
Scale	0.999600
Convergence at slot	0.01° East
Software System	WellArchitect® 5.1
User	Delaset
Report Generated	6/19/2019 at 11:22:15 PM
Database/Source file	WA_MPL_EasternUS_Defm/Grounds_Unit_1H_AWP_Proj_17554_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	30.15	-4.87	1643129.46	14314331.61	39°25'06.800"N	80°59'25.420"W
Facility Reference Pt			1643134.33	14314301.48	39°25'06.502"N	80°59'25.358"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM	
Calculation method	Minimum curvature
Horizontal Reference Pt	Slot
Vertical Reference Pt	H&P 519 (RKB)
MD Reference Pt	H&P 519 (RKB)
Field Vertical Reference	Mean Sea Level
	H&P 519 (RKB) to Facility Vertical Datum
	H&P 519 (RKB) to Mean Sea Level
	H&P 519 (RKB) to Ground Level at Slot (Slot #03)
	Section Origin
	Section Azimuth
	30.00ft
	1075.00ft
	30.00ft
	N 0.00, E 0.00 ft
	160.25°

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Actual Wellpath Report

Grounds Unit 1H AWP Proj: 17554'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Correll Pad
Slot	Slot #03
Well	Grounds Unit 1H
Wellbore	Grounds Unit 1H AWB

WELLPATH DATA (197 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	319.500	0.00	0.00	0.00	0.00	1643129.46	14314331.61	39°25'06.800"N	80°59'25.420"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	319.500	30.00	0.00	0.00	0.00	1643129.46	14314331.61	39°25'06.800"N	80°59'25.420"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.200	319.500	100.00	-0.11	0.09	-0.08	1643129.38	14314331.71	39°25'06.801"N	80°59'25.421"W	0.12	319.500	0.29	0.29	-57.86	Gyrodata MS Gyro <17-1/2">(100'-610")
200.00	0.230	328.910	200.00	-0.47	0.40	-0.30	1643129.16	14314332.01	39°25'06.804"N	80°59'25.424"W	0.50	323.295	0.05	0.03	9.41	
300.00	0.090	222.940	300.00	-0.64	0.51	-0.45	1643129.01	14314332.13	39°25'06.805"N	80°59'25.426"W	0.68	318.462	0.27	-0.14	-105.97	
400.00	0.160	245.560	400.00	-0.59	0.40	-0.63	1643128.82	14314332.01	39°25'06.804"N	80°59'25.428"W	0.75	302.025	0.08	0.07	22.62	
500.00	0.040	338.890	500.00	-0.61	0.37	-0.77	1643128.69	14314331.99	39°25'06.804"N	80°59'25.430"W	0.86	295.641	0.17	-0.12	93.33	
600.00	0.080	139.810	600.00	-0.58	0.35	-0.74	1643128.72	14314331.96	39°25'06.803"N	80°59'25.429"W	0.82	295.314	0.12	0.04	160.92	
610.00	0.050	103.150	610.00	-0.57	0.34	-0.73	1643128.73	14314331.96	39°25'06.803"N	80°59'25.429"W	0.81	295.175	0.50	-0.30	-366.60	
725.00	0.030	335.760	725.00	-0.57	0.36	-0.70	1643128.76	14314331.97	39°25'06.804"N	80°59'25.429"W	0.78	297.371	0.06	-0.02	-110.77	APS EM <12-1/4">(610')(725'-2588')
815.00	1.790	69.450	814.98	-0.62	0.88	0.61	1643130.07	14314332.49	39°25'06.809"N	80°59'25.412"W	1.07	34.898	1.99	1.96	104.10	
906.00	4.260	66.110	905.85	-0.88	2.74	5.03	1643134.49	14314334.36	39°25'06.827"N	80°59'25.356"W	5.73	61.404	2.72	2.71	-3.67	
998.00	6.080	63.920	997.47	-1.67	6.27	12.53	1643141.99	14314337.88	39°25'06.862"N	80°59'25.260"W	14.01	63.425	1.99	1.98	-2.38	
1087.00	7.060	62.040	1085.89	-2.97	10.91	21.60	1643151.05	14314342.52	39°25'06.908"N	80°59'25.145"W	24.20	63.209	1.13	1.10	-2.11	
1178.00	7.930	61.000	1176.15	-4.72	16.42	31.75	1643161.20	14314348.03	39°25'06.962"N	80°59'25.015"W	35.75	62.657	0.54	0.52	-1.14	
1272.00	8.530	58.310	1269.23	-7.16	23.07	43.07	1643172.51	14314354.67	39°25'07.028"N	80°59'24.871"W	48.86	61.829	1.14	1.06	-2.86	
1367.00	9.330	57.240	1363.08	-10.35	30.94	55.54	1643184.98	14314362.54	39°25'07.106"N	80°59'24.712"W	63.58	60.884	0.86	0.84	-1.13	
1461.00	10.030	54.930	1455.74	-14.22	39.76	68.65	1643198.08	14314371.36	39°25'07.193"N	80°59'24.545"W	79.33	59.921	0.85	0.74	-2.46	
1556.00	11.060	54.980	1549.13	-18.81	49.74	82.88	1643212.31	14314381.34	39°25'07.292"N	80°59'24.364"W	96.67	59.029	1.08	1.08	0.05	
1650.00	11.830	54.600	1641.26	-23.78	60.50	98.12	1643227.54	14314392.09	39°25'07.398"N	80°59'24.170"W	115.28	58.343	0.82	0.82	-0.40	
1745.00	12.820	52.350	1734.07	-29.65	72.58	114.41	1643243.82	14314404.17	39°25'07.517"N	80°59'23.962"W	135.49	57.609	1.16	1.04	-2.37	
1840.00	13.600	50.300	1826.56	-36.70	86.15	131.34	1643260.75	14314417.73	39°25'07.651"N	80°59'23.746"W	157.08	56.738	0.96	0.82	-2.16	
1934.00	14.660	48.400	1917.71	-44.90	101.11	148.74	1643278.14	14314432.68	39°25'07.799"N	80°59'23.525"W	179.85	55.794	1.23	1.13	-2.02	
2029.00	15.620	53.170	2009.42	-53.13	116.76	167.97	1643297.36	14314448.33	39°25'07.954"N	80°59'23.280"W	204.57	55.196	1.65	1.01	5.02	
2123.00	15.130	59.610	2100.06	-59.11	130.55	188.68	1643318.07	14314462.11	39°25'08.090"N	80°59'23.016"W	229.45	55.320	1.89	-0.52	6.85	
2218.00	13.640	62.440	2192.08	-62.92	142.01	209.31	1643338.68	14314473.56	39°25'08.203"N	80°59'22.753"W	252.94	55.845	1.73	-1.57	2.98	
2313.00	12.340	64.810	2284.65	-65.41	151.51	228.43	1643357.79	14314483.06	39°25'08.297"N	80°59'22.509"W	274.11	56.444	1.48	-1.37	2.48	
2407.00	12.200	62.850	2376.50	-67.84	160.32	246.35	1643375.71	14314491.87	39°25'08.384"N	80°59'22.281"W	293.93	56.945	0.47	-0.15	-2.09	
2502.00	11.800	58.810	2469.43	-70.86	169.93	263.60	1643392.95	14314501.48	39°25'08.479"N	80°59'22.061"W	313.62	57.192	0.98	-0.42	-4.25	
2588.00	11.480	56.280	2553.66	-74.67	179.23	278.24	1643407.58	14314510.78	39°25'08.571"N	80°59'21.874"W	330.97	57.211	0.70	-0.37	-2.94	

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Actual Wellpath Report

Grounds Unit 1H AWP Proj: 17554'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #03
Operator	ANTERO RESOURCES CORPORATION	Well	Grounds Unit 1H
Area	Tyler County, WV	Wellbore	Grounds Unit 1H AWB
Field	Tyler		
Facility	Gorrell Pad		

WELLPATH DATA (197 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 (1/100ft)	Build Rate (1/100ft)	Turn Rate (1/100ft)	Comments
2648.00	10.870	63.610	2612.52	-77.73	185.91	287.76	1643417.10	14314517.45	39°25'08.63"N	80°59'21.753"W	342.59	57.136	1.33	-1.02	-4.45	APPS EM <8-3/4"> (2588)(2648'-5630')
2743.00	12.460	58.020	2705.56	-82.47	196.65	303.66	1643433.00	14314528.18	39°25'08.743"N	80°59'21.550"W	361.78	57.073	1.92	1.67	4.64	
2837.00	14.780	56.690	2796.91	-87.43	208.61	322.29	1643451.62	14314540.14	39°25'08.861"N	80°59'21.313"W	383.91	57.086	2.49	2.47	-1.41	
2932.00	15.930	57.050	2888.51	-93.25	222.35	343.36	1643472.68	14314553.88	39°25'08.997"N	80°59'21.045"W	409.06	57.073	1.21	1.21	0.38	
3029.00	14.320	58.120	2982.15	-98.81	235.93	364.71	1643494.03	14314567.45	39°25'09.131"N	80°59'20.773"W	434.37	57.102	1.68	-1.66	1.10	
3123.00	15.160	59.150	3073.06	-103.62	248.37	385.14	1643514.44	14314579.89	39°25'09.254"N	80°59'20.512"W	458.28	57.182	0.94	0.89	1.10	
3218.00	14.530	52.670	3164.89	-109.61	261.97	405.28	1643534.57	14314593.48	39°25'09.389"N	80°59'20.256"W	482.58	57.122	1.87	-0.66	-6.82	
3312.00	13.860	57.620	3256.03	-115.63	275.15	424.16	1643553.45	14314606.65	39°25'09.519"N	80°59'20.015"W	505.59	57.029	1.47	-0.71	5.27	
3407.00	12.910	53.570	3348.45	-121.17	287.55	442.31	1643571.59	14314619.04	39°25'09.652"N	80°59'19.784"W	527.56	56.972	1.40	-1.00	-4.26	
3501.00	11.620	50.760	3440.30	-127.34	299.77	458.09	1643587.37	14314631.26	39°25'09.762"N	80°59'19.583"W	547.46	56.800	1.51	-1.37	-2.99	
3596.00	12.680	54.920	3533.17	-133.29	311.82	474.04	1643603.31	14314643.30	39°25'09.881"N	80°59'19.379"W	567.40	56.664	1.45	1.12	4.38	
3690.00	13.000	57.400	3624.82	-138.37	323.44	491.39	1643620.65	14314654.93	39°25'09.996"N	80°59'19.158"W	588.28	56.646	0.68	0.34	2.64	
3785.00	12.170	50.210	3717.54	-144.18	335.61	508.09	1643637.34	14314667.09	39°25'10.116"N	80°59'18.945"W	608.92	56.554	1.86	-0.87	-7.57	
3879.00	11.890	56.950	3809.48	-149.80	347.23	523.82	1643653.06	14314678.70	39°25'10.231"N	80°59'18.745"W	628.45	56.460	1.52	-0.30	7.17	
3974.00	11.250	65.530	3902.56	-152.81	356.41	540.46	1643669.70	14314687.88	39°25'10.322"N	80°59'18.533"W	647.39	56.597	1.93	-0.67	9.03	
4068.00	12.350	68.910	3994.57	-153.80	363.82	558.18	1643687.42	14314695.29	39°25'10.395"N	80°59'18.307"W	666.28	56.904	1.38	1.17	3.60	
4163.00	11.540	65.830	4087.52	-154.77	371.37	576.33	1643705.56	14314702.83	39°25'10.470"N	80°59'18.076"W	685.62	57.204	1.08	-0.85	-3.24	
4257.00	11.890	63.400	4179.56	-156.65	379.55	593.57	1643722.79	14314711.02	39°25'10.551"N	80°59'17.856"W	704.55	57.403	0.64	0.37	-2.59	
4352.00	13.610	62.730	4272.21	-159.28	389.06	612.25	1643741.47	14314720.52	39°25'10.645"N	80°59'17.618"W	725.41	57.566	1.82	1.81	-0.71	
4446.00	14.010	61.940	4363.50	-162.37	399.48	632.13	1643761.33	14314730.93	39°25'10.748"N	80°59'17.365"W	747.77	57.709	0.47	0.43	-0.84	
4541.00	13.130	54.970	4455.85	-166.88	411.08	651.11	1643780.31	14314742.53	39°25'10.862"N	80°59'17.123"W	770.02	57.733	1.95	-0.93	-7.34	
4635.00	13.030	56.550	4547.41	-172.20	423.05	668.89	1643797.88	14314754.50	39°25'10.980"N	80°59'16.899"W	791.28	57.680	0.39	-0.11	1.68	
4730.00	13.810	58.710	4639.82	-177.01	434.84	687.32	1643816.50	14314766.28	39°25'11.097"N	80°59'16.662"W	813.33	57.680	0.98	0.82	2.27	
4824.00	13.550	60.080	4731.15	-181.20	446.16	706.45	1643835.63	14314777.60	39°25'11.209"N	80°59'16.418"W	835.54	57.725	0.44	-0.28	1.46	
4919.00	13.800	57.370	4823.46	-185.69	457.82	725.64	1643854.81	14314789.25	39°25'11.324"N	80°59'16.173"W	857.99	57.751	0.72	0.26	-2.85	
5013.00	14.760	56.380	4914.55	-191.06	470.50	745.05	1643874.21	14314801.92	39°25'11.449"N	80°59'15.926"W	881.18	57.728	1.05	1.02	-1.05	
5108.00	14.340	49.980	5006.51	-198.03	484.77	764.14	1643893.29	14314816.19	39°25'11.590"N	80°59'15.683"W	904.94	57.609	1.75	-0.44	-6.74	
5202.00	13.780	50.920	5097.70	-205.77	499.31	781.75	1643910.89	14314830.72	39°25'11.734"N	80°59'15.458"W	927.60	57.433	0.64	-0.60	1.00	
5297.00	12.930	54.140	5190.13	-212.47	512.67	799.14	1643928.28	14314844.08	39°25'11.866"N	80°59'15.237"W	949.45	57.319	1.19	-0.89	3.39	
5391.00	12.860	57.790	5281.76	-217.64	524.41	816.52	1643945.65	14314855.81	39°25'11.982"N	80°59'15.015"W	970.41	57.290	0.87	-0.07	3.88	

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Actual Wellpath Report

Grounds Unit 1H AWP Proj: 17554'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #03
Operator	ANTERO RESOURCES CORPORATION	Well	Grounds Unit 1H
Area	Tyler County, WV	Wellbore	Grounds Unit 1H AWB
Field	Tyler		
Facility	Gorrell Pad		

WELLPATH DATA (197 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
5486.00	12.380	63.670	5374.47	-221.09	534.56	834.59	1643963.71	14314865.96	39°25'12.082"N	80°59'14.785"W	991.11	57.360	1.44	-0.51	6.19	
5581.00	13.250	61.980	5487.10	-223.82	544.19	853.33	1643982.45	14314875.59	39°25'12.177"N	80°59'14.546"W	1012.08	57.473	1.00	0.92	-1.78	
5630.00	14.490	75.580	5514.68	-224.06	548.36	864.23	1643993.34	14314879.75	39°25'12.219"N	80°59'14.407"W	1023.51	57.605	7.10	2.53	27.76	
5708.00	16.170	92.090	5589.94	-219.11	550.39	884.54	1644013.65	14314881.78	39°25'12.239"N	80°59'14.148"W	1041.80	58.109	5.97	2.15	21.17	BH AT Curve <8-1/2">(5630)-(5708)-(7524)
5802.00	14.380	118.890	5680.73	-205.46	544.27	907.87	1644036.97	14314875.66	39°25'12.178"N	80°59'13.851"W	1058.52	59.058	7.68	-1.90	28.51	
5897.00	16.210	139.010	5772.42	-184.23	528.55	926.92	1644056.00	14314859.95	39°25'12.023"N	80°59'13.608"W	1067.02	60.307	5.88	1.93	21.18	
5992.00	23.100	148.650	5861.86	-153.57	502.58	945.34	1644074.41	14314834.00	39°25'11.766"N	80°59'13.374"W	1070.63	62.003	7.99	7.29	10.15	
6086.00	32.290	151.170	5945.00	-110.62	464.76	967.08	1644096.15	14314796.18	39°25'11.392"N	80°59'13.097"W	1072.96	64.332	9.85	9.78	2.68	
6181.00	41.150	152.260	6021.08	-54.50	414.76	993.92	1644122.98	14314746.21	39°25'10.898"N	80°59'12.755"W	1076.99	67.349	9.35	9.33	1.15	
6275.00	48.570	152.990	6087.66	11.17	355.91	1024.36	1644153.41	14314687.38	39°25'10.316"N	80°59'12.367"W	1084.43	70.840	7.91	7.89	0.78	
6331.00†	53.338	153.384	6122.93	54.32	317.11	1043.97	1644173.01	14314648.59	39°25'09.933"N	80°59'12.117"W	1091.07	73.104	8.53	8.52	0.70	Middlesex: 6331' MD
6370.00	56.660	153.630	6145.29	86.04	288.52	1058.22	1644187.25	14314620.02	39°25'09.650"N	80°59'11.936"W	1096.85	74.749	8.53	8.52	0.63	
6417.00	60.960	154.160	6169.63	126.00	252.42	1075.90	1644204.93	14314583.93	39°25'09.293"N	80°59'11.710"W	1105.12	76.797	9.20	9.15	1.13	
6465.00	64.800	155.120	6191.51	168.50	213.82	1094.19	1644223.21	14314545.35	39°25'08.912"N	80°59'11.478"W	1114.89	78.943	8.20	8.00	2.00	
6505.00†	66.996	155.743	6207.84	204.89	180.61	1109.37	1644238.38	14314512.15	39°25'08.584"N	80°59'11.284"W	1123.98	80.753	5.67	5.49	1.56	Burkett: 6505' MD
6512.00	67.380	155.850	6210.55	211.32	174.73	1112.02	1644241.03	14314506.27	39°25'08.526"N	80°59'11.250"W	1125.66	81.070	5.67	5.49	1.53	
6555.00†	70.371	156.840	6226.05	251.33	137.99	1128.10	1644257.11	14314469.55	39°25'08.162"N	80°59'11.046"W	1136.51	83.026	7.28	6.96	2.30	Tully: 6555' MD
6559.00	70.650	156.930	6227.38	255.10	134.52	1129.59	1644258.59	14314466.08	39°25'08.128"N	80°59'11.027"W	1137.57	83.209	7.28	6.96	2.25	
6569.00†	71.082	157.390	6230.66	264.53	125.82	1133.25	1644262.26	14314457.38	39°25'08.042"N	80°59'10.980"W	1140.21	83.665	6.13	4.32	4.60	Marcellus POE: 6569' MD
6606.00	72.690	159.070	6242.17	299.67	93.16	1146.29	1644275.29	14314424.74	39°25'07.719"N	80°59'10.814"W	1150.07	85.354	6.13	4.35	4.54	
6653.00	76.330	160.480	6254.72	344.95	50.67	1161.94	1644290.93	14314382.26	39°25'07.299"N	80°59'10.615"W	1163.05	87.503	8.27	7.74	3.00	
6700.00	81.410	159.990	6263.79	391.05	7.28	1177.53	1644306.52	14314338.89	39°25'06.870"N	80°59'10.416"W	1177.56	89.646	10.86	10.81	-1.04	
6748.00	86.670	159.660	6268.77	438.78	-37.51	1193.99	1644322.97	14314294.12	39°25'06.428"N	80°59'10.206"W	1194.58	91.800	10.98	10.96	-0.69	
6842.00	89.910	161.000	6271.57	532.72	-125.98	1225.61	1644354.58	14314205.69	39°25'05.553"N	80°59'09.804"W	1232.07	95.869	3.73	3.45	1.43	
6937.00	89.820	162.010	6271.80	627.70	-216.07	1255.75	1644384.70	14314115.63	39°25'04.663"N	80°59'09.420"W	1274.20	99.763	1.07	-0.09	1.06	
7032.00	89.850	162.830	6272.07	722.63	-306.63	1284.44	1644413.38	14314025.11	39°25'03.768"N	80°59'09.054"W	1320.54	103.427	0.86	0.03	0.86	
7221.00	89.720	161.460	6272.78	911.52	-486.52	1342.39	1644471.31	14313845.29	39°25'01.990"N	80°59'08.316"W	1427.84	109.922	0.73	-0.07	-0.72	
7315.00	89.290	161.050	6273.59	1005.50	-575.53	1372.80	1644501.50	14313756.31	39°25'01.110"N	80°59'07.932"W	1488.37	112.748	0.63	-0.46	-0.44	
7410.00	89.080	162.560	6274.94	1100.45	-665.77	1402.26	1644531.15	14313666.11	39°25'00.218"N	80°59'07.554"W	1552.28	115.398	1.60	-0.22	1.59	
7504.00	89.420	162.870	6276.17	1194.36	-755.52	1430.18	1644559.07	14313576.40	39°24'59.331"N	80°59'07.198"W	1617.48	117.846	0.49	0.36	0.33	

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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Correll Pad
Slot	Slot #03
Well	Grounds Unit 1H
Wellbore	Grounds Unit 1H AWB

WELLPATH DATA (197 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
7598.00	89.480	165.000	6277.08	1288.15	-845.84	1456.19	1644385.07	14313486.12	39°24'58.438"N	80°59'06.867"W	1684.02	120.150	2.27	0.06	2.27	
7693.00	89.660	164.950	6277.79	1382.83	-937.59	1480.82	1644609.68	14313394.41	39°24'57.531"N	80°59'06.554"W	1752.68	122.340	0.20	0.19	-0.05	
7787.00	90.430	162.660	6277.72	1476.64	-1027.85	1507.04	1644635.89	14313304.18	39°24'56.639"N	80°59'06.220"W	1824.18	124.295	2.57	0.82	-2.44	
7882.00	90.030	159.810	6277.33	1571.61	-1117.79	1537.59	1644666.43	14313214.27	39°24'55.750"N	80°59'05.831"W	1900.96	126.016	3.03	-0.42	-3.00	
7977.00	89.480	157.570	6277.74	1666.57	-1206.29	1572.11	1644700.94	14313125.81	39°24'54.876"N	80°59'05.391"W	1981.58	127.499	2.43	-0.58	-2.36	
8071.00	89.290	157.480	6278.75	1760.46	-1293.14	1608.05	1644736.86	14313038.99	39°24'54.017"N	80°59'04.933"W	2063.50	128.805	0.22	-0.20	-0.10	
8166.00	89.480	155.410	6279.77	1855.24	-1380.22	1646.01	1644774.80	14312951.95	39°24'53.156"N	80°59'04.450"W	2148.10	129.981	2.19	0.20	-2.18	
8260.00	89.420	153.530	6280.67	1948.75	-1465.03	1686.52	1644815.30	14312867.17	39°24'52.318"N	80°59'03.934"W	2233.98	130.980	2.00	-0.06	-2.00	
8355.00	89.850	155.350	6281.28	2043.26	-1550.73	1727.50	1644856.27	14312781.51	39°24'51.471"N	80°59'03.412"W	2321.43	131.913	1.97	0.43	1.92	
8449.00	90.030	157.060	6281.38	2137.02	-1636.73	1765.43	1644894.17	14312695.54	39°24'50.621"N	80°59'02.929"W	2407.41	132.834	1.83	0.19	1.82	
8544.00	90.150	157.830	6281.23	2231.91	-1724.47	1801.86	1644930.60	14312607.84	39°24'49.754"N	80°59'02.465"W	2494.09	133.743	0.82	0.13	0.81	
8638.00	90.090	153.880	6281.03	2325.61	-1810.23	1840.31	1644969.03	14312522.12	39°24'48.906"N	80°59'01.975"W	2581.40	134.528	4.20	-0.06	-4.20	
8733.00	89.420	152.690	6281.44	2419.91	-1895.08	1883.01	1645011.72	14312437.29	39°24'48.067"N	80°59'01.431"W	2671.53	135.183	1.44	-0.71	-1.25	
8827.00	89.510	153.700	6282.31	2513.19	-1978.98	1925.40	1645054.09	14312353.43	39°24'47.238"N	80°59'00.891"W	2761.07	135.786	1.08	0.10	1.07	
8922.00	89.600	153.860	6283.05	2607.58	-2064.20	1967.37	1645096.04	14312268.24	39°24'46.396"N	80°59'00.357"W	2851.57	136.376	0.19	0.09	0.17	
9016.00	89.350	157.720	6283.91	2701.28	-2149.91	2005.91	1645134.56	14312182.57	39°24'45.548"N	80°58'59.866"W	2940.37	136.985	4.11	-0.27	4.11	
9111.00	89.420	162.930	6284.93	2796.24	-2239.33	2037.88	1645166.52	14312093.18	39°24'44.665"N	80°58'59.459"W	3027.80	137.696	5.48	0.07	5.48	
9206.00	89.820	162.540	6285.56	2891.15	-2330.05	2066.08	1645194.71	14312002.50	39°24'43.768"N	80°58'59.100"W	3114.13	138.436	0.59	0.42	-0.41	
9300.00	89.820	160.410	6285.86	2985.12	-2419.17	2095.94	1645224.56	14311913.42	39°24'42.887"N	80°58'58.720"W	3200.84	139.095	2.27	0.00	-2.27	
9395.00	89.860	159.280	6286.11	3080.11	-2508.35	2128.67	1645259.28	14311824.27	39°24'42.006"N	80°58'58.303"W	3289.85	139.681	1.19	0.06	-1.19	
9489.00	89.780	158.820	6286.39	3174.09	-2596.14	2162.28	1645290.87	14311736.52	39°24'41.138"N	80°58'57.875"W	3378.67	140.210	0.50	-0.11	-0.49	
9584.00	89.750	161.300	6286.78	3268.08	-2685.43	2194.68	1645323.26	14311647.26	39°24'40.255"N	80°58'57.462"W	3468.17	140.742	2.61	-0.03	2.61	
9678.00	89.630	164.570	6287.28	3362.97	-2775.28	2222.26	1645350.83	14311557.45	39°24'39.367"N	80°58'57.111"W	3555.37	141.315	3.48	-0.13	3.48	
9773.00	89.820	168.740	6287.74	3457.35	-2867.69	2244.18	1645372.74	14311465.07	39°24'38.454"N	80°58'56.832"W	3641.43	141.954	4.39	0.20	4.39	
9867.00	89.780	168.700	6288.07	3550.33	-2959.88	2262.57	1645391.12	14311372.93	39°24'37.543"N	80°58'56.598"W	3725.60	142.605	0.06	-0.04	-0.04	
9962.00	89.780	169.800	6288.43	3644.15	-3053.21	2280.29	1645408.83	14311279.63	39°24'36.620"N	80°58'56.372"W	3810.75	143.246	1.16	0.00	1.16	
10056.00	89.910	169.590	6288.69	3736.88	-3145.69	2297.10	1645425.64	14311187.19	39°24'35.706"N	80°58'56.158"W	3895.13	143.862	0.26	0.14	-0.22	
10151.00	89.880	165.710	6288.86	3831.07	-3238.48	2317.42	1645445.95	14311094.44	39°24'34.789"N	80°58'55.900"W	3982.23	144.413	4.08	-0.03	-4.08	
10245.00	89.820	159.820	6289.11	3924.94	-3328.22	2345.26	1645473.77	14311004.74	39°24'33.902"N	80°58'55.545"W	4071.52	144.829	6.27	-0.06	-6.27	
10340.00	90.000	158.210	6289.26	4019.91	-3416.91	2379.28	1645507.78	14310916.08	39°24'33.025"N	80°58'55.112"W	4163.68	145.150	1.71	0.19	-1.69	

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Grounds Unit 1H AWP Proj: 17554'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Correll Pad
Slot	Slot #03
Well	Grounds Unit 1H
Wellbore	Grounds Unit 1H AWB

WELLPATH DATA (197 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (IUS ft)	Grid North (IUS ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
10434.00	89.850	156.480	6289.38	4113.79	-3503.66	2415.48	1645543.97	14310829.37	39°24'32.168"N	80°58'54.651"W	4255.60	145.417	1.85	-0.16	-1.84	
10529.00	89.910	155.940	6289.58	4208.55	-3590.58	2453.81	1645582.28	14310742.47	39°24'31.309"N	80°58'54.163"W	4348.96	145.651	0.57	0.08	-0.57	
10623.00	89.850	154.870	6289.78	4302.21	-3676.05	2492.93	1645621.38	14310657.04	39°24'30.464"N	80°58'53.665"W	4441.63	145.857	1.14	-0.06	-1.14	
10718.00	89.970	156.550	6289.93	4396.91	-3762.64	2532.01	1645660.45	14310570.49	39°24'29.608"N	80°58'53.167"W	4535.25	146.062	1.77	0.13	1.77	
10812.00	90.030	159.140	6289.93	4490.82	-3849.69	2567.45	1645695.88	14310483.47	39°24'28.748"N	80°58'52.716"W	4627.30	146.300	2.76	0.06	2.76	
10907.00	89.940	158.640	6289.95	4585.80	-3938.32	2601.67	1645730.08	14310394.88	39°24'27.872"N	80°58'52.280"W	4720.06	146.551	0.93	-0.09	-0.93	
11001.00	89.940	157.510	6290.05	4679.73	-4025.52	2636.76	1645765.16	14310307.72	39°24'27.010"N	80°58'51.833"W	4812.20	146.775	1.20	0.00	-1.20	
11095.00	89.820	152.500	6290.35	4773.53	-4111.79	2674.08	1645802.46	14310221.48	39°24'26.157"N	80°58'51.358"W	4904.84	146.962	1.91	0.00	-1.91	
11190.00	89.820	152.500	6290.35	4867.97	-4197.24	2715.56	1645843.93	14310136.06	39°24'25.312"N	80°58'50.830"W	4999.11	147.098	3.38	-0.13	-3.38	
11284.00	90.430	150.940	6290.14	4960.93	-4280.02	2760.10	1645888.45	14310053.32	39°24'24.494"N	80°58'50.263"W	5092.81	147.183	1.78	0.65	-1.66	
11379.00	89.940	152.130	6289.83	5054.83	-4363.53	2805.37	1645933.71	14309969.84	39°24'23.669"N	80°58'49.686"W	5187.53	147.262	1.35	-0.52	1.23	
11473.00	90.060	154.850	6289.83	5148.17	-4447.64	2847.33	1645975.64	14309885.76	39°24'22.837"N	80°58'49.152"W	5280.98	147.373	2.90	0.13	2.89	
11568.00	89.630	159.650	6290.09	5243.01	-4535.22	2884.05	1646012.35	14309798.22	39°24'21.971"N	80°58'48.684"W	5374.57	147.547	5.07	-0.45	5.05	
11662.00	90.060	162.500	6290.35	5336.99	-4624.13	2914.54	1646042.82	14309709.34	39°24'21.093"N	80°58'48.296"W	5465.99	147.777	3.07	0.46	3.03	
11757.00	90.060	163.240	6290.25	5431.89	-4714.91	2942.52	1646070.79	14309618.60	39°24'20.195"N	80°58'47.940"W	5557.77	148.032	0.78	0.00	0.78	
11851.00	90.150	165.140	6290.07	5525.66	-4805.35	2968.13	1646096.39	14309528.19	39°24'19.301"N	80°58'47.614"W	5648.12	148.298	2.02	0.10	2.02	
11946.00	90.180	165.660	6289.80	5620.28	-4897.29	2992.07	1646120.33	14309436.30	39°24'18.393"N	80°58'47.309"W	5738.98	148.576	0.55	0.03	0.55	
12040.00	90.220	166.230	6289.47	5713.81	-4988.47	3014.90	1646143.15	14309345.15	39°24'17.491"N	80°58'47.019"W	5828.76	148.852	0.61	0.04	0.61	
12135.00	90.250	166.960	6289.08	5808.23	-5080.88	3036.93	1646165.16	14309252.78	39°24'16.578"N	80°58'46.738"W	5919.31	149.133	0.77	0.03	0.77	
12229.00	90.280	166.000	6288.65	5901.67	-5172.27	3058.90	1646187.13	14309161.42	39°24'15.675"N	80°58'46.459"W	6009.10	149.400	1.02	0.03	-1.02	
12324.00	90.220	162.140	6288.23	5996.44	-5263.61	3084.97	1646213.19	14309070.12	39°24'14.772"N	80°58'46.127"W	6101.03	149.626	4.06	-0.06	-4.06	
12419.00	90.400	160.410	6287.72	6091.42	-5353.57	3115.47	1646243.67	14308980.19	39°24'13.883"N	80°58'45.739"W	6194.10	149.803	1.83	0.19	-1.82	
12513.00	89.600	160.970	6287.72	6185.42	-5442.29	3146.55	1646274.74	14308891.52	39°24'13.006"N	80°58'45.343"W	6286.43	149.965	1.04	-0.85	0.60	
12608.00	89.510	158.540	6288.46	6280.41	-5531.41	3179.42	1646307.60	14308802.43	39°24'12.125"N	80°58'44.924"W	6380.06	150.110	2.56	-0.09	-2.56	
12702.00	89.450	158.460	6289.31	6374.36	-5618.86	3213.87	1646342.04	14308715.01	39°24'11.261"N	80°58'44.486"W	6473.07	150.231	0.11	-0.06	-0.09	
12797.00	89.540	159.930	6290.15	6469.34	-5707.66	3247.61	1646375.76	14308626.25	39°24'10.383"N	80°58'44.056"W	6566.92	150.361	1.55	0.09	1.55	
12892.00	89.780	160.280	6290.71	6564.33	-5796.99	3279.94	1646408.08	14308536.95	39°24'09.500"N	80°58'43.645"W	6660.56	150.499	0.45	0.29	0.37	
12986.00	89.750	161.120	6291.10	6658.33	-5885.71	3311.01	1646439.13	14308448.27	39°24'08.623"N	80°58'43.249"W	6753.10	150.640	0.89	-0.03	0.89	
13081.00	89.750	164.800	6291.51	6753.21	-5976.52	3338.84	1646466.96	14308357.50	39°24'07.725"N	80°58'42.895"W	6845.92	150.810	3.87	0.00	3.87	
13175.00	89.780	166.720	6291.90	6846.77	-6067.63	3361.96	1646490.07	14308266.43	39°24'06.825"N	80°58'42.601"W	6936.78	151.010	2.04	0.03	2.04	

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Actual Wellpath Report

Grounds Unit 1H AWP Proj: 17554'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #03
ANTERO RESOURCES CORPORATION	Well	Grounds Unit 1H
Tyler County, WV	Wellbore	Grounds Unit 1H AWB
Tyler		
Facility		

WELLPATH DATA (197 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 (P/100ft)	Build Rate (P/100ft)	Turn Rate (P/100ft)	Comments
13270.00	90.180	166.350	6291.93	6941.20	-6160.01	3384.08	1646512.18	14308174.08	39°24'05.912"N	80°58'42.319"W	7028.36	151.217	0.57	0.42	-0.39	
13364.00	90.250	161.780	6291.58	7034.96	-6250.38	3409.88	1646537.97	14308083.75	39°24'05.018"N	80°58'41.991"W	7120.01	151.385	4.86	0.07	-4.86	
13459.00	89.540	158.070	6291.75	7129.94	-6339.59	3442.48	1646570.56	14307994.57	39°24'04.137"N	80°58'41.576"W	7213.95	151.497	3.98	-0.75	-3.91	
13553.00	89.420	154.480	6292.67	7223.70	-6425.63	3480.30	1646608.36	14307908.57	39°24'03.286"N	80°58'41.094"W	7307.61	151.559	3.82	-0.13	-3.82	
13648.00	89.290	156.900	6293.67	7318.38	-6512.19	3519.40	1646647.44	14307822.04	39°24'02.431"N	80°58'40.596"W	7402.35	151.612	2.55	-0.14	2.55	
13742.00	89.630	159.330	6294.56	7412.31	-6599.41	3554.43	1646682.46	14307734.86	39°24'01.566"N	80°58'40.150"W	7495.74	151.693	2.61	0.36	2.59	
13837.00	89.480	157.600	6295.30	7507.25	-6687.77	3589.30	1646717.32	14307646.53	39°24'00.695"N	80°58'39.707"W	7590.08	151.778	1.83	-0.16	-1.82	
13931.00	89.350	157.540	6296.26	7601.15	-6774.65	3625.17	1646753.17	14307559.68	39°23'59.836"N	80°58'39.250"W	7683.60	151.848	0.15	-0.14	-0.06	
14026.00	89.350	158.300	6297.34	7696.06	-6862.68	3660.88	1646788.86	14307471.69	39°23'58.966"N	80°58'38.795"W	7778.07	151.922	0.80	0.00	0.80	
14120.00	89.350	159.710	6298.40	7790.03	-6950.43	3694.55	1646822.52	14307383.98	39°23'58.099"N	80°58'38.367"W	7871.35	152.007	1.50	0.00	1.50	
14215.00	89.380	158.600	6299.46	7885.01	-7039.21	3728.35	1646856.31	14307295.24	39°23'57.221"N	80°58'37.936"W	7965.62	152.092	1.17	0.03	-1.17	
14309.00	89.450	159.150	6300.42	7978.97	-7126.89	3762.23	1646890.18	14307207.59	39°23'56.355"N	80°58'37.505"W	8058.96	152.171	0.59	0.07	0.59	
14404.00	89.450	159.980	6301.33	8073.96	-7215.90	3795.40	1646923.33	14307118.61	39°23'55.475"N	80°58'37.083"W	8153.18	152.257	0.87	0.00	0.87	
14498.00	89.540	161.620	6302.16	8167.95	-7304.67	3826.31	1646954.23	14307029.88	39°23'54.597"N	80°58'36.689"W	8246.14	152.354	1.75	0.10	1.74	
14593.00	89.510	164.070	6302.94	8262.84	-7395.43	3854.33	1646982.24	14306939.16	39°23'53.700"N	80°58'36.333"W	8339.56	152.473	2.58	-0.03	2.58	
14687.00	89.450	163.000	6303.80	8356.68	-7485.57	3880.97	1647008.87	14306849.05	39°23'52.809"N	80°58'35.994"W	8431.82	152.595	1.14	-0.06	-1.14	
14782.00	89.480	160.640	6304.68	8451.64	-7575.82	3910.60	1647038.49	14306758.84	39°23'51.917"N	80°58'35.617"W	8525.60	152.697	2.48	0.03	-2.48	
14876.00	89.450	160.360	6305.56	8545.63	-7664.42	3941.98	1647069.85	14306670.27	39°23'51.041"N	80°58'35.217"W	8618.73	152.782	0.30	-0.03	-0.30	
14971.00	89.450	160.470	6306.47	8640.63	-7753.92	3973.82	1647101.68	14306580.81	39°23'50.157"N	80°58'34.812"W	8712.90	152.865	0.12	0.00	0.12	
15065.00	89.450	161.300	6307.38	8734.62	-7842.73	4004.60	1647132.45	14306492.03	39°23'49.279"N	80°58'34.420"W	8805.98	152.951	0.88	0.00	0.88	
15160.00	89.480	161.770	6308.26	8829.59	-7932.84	4034.69	1647162.53	14306401.96	39°23'48.388"N	80°58'34.037"W	8899.92	153.042	0.50	0.03	0.49	
15255.00	89.480	162.250	6309.13	8924.54	-8023.19	4064.03	1647191.86	14306311.65	39°23'47.495"N	80°58'33.664"W	8993.77	153.136	0.51	0.00	0.51	
15349.00	89.480	163.300	6309.98	9018.44	-8112.97	4091.86	1647219.68	14306221.91	39°23'46.608"N	80°58'33.309"W	9086.45	153.235	1.12	0.00	1.12	
15444.00	89.450	163.900	6310.87	9113.27	-8204.10	4118.69	1647246.49	14306130.81	39°23'45.707"N	80°58'32.968"W	9179.91	153.342	0.63	-0.03	0.63	
15538.00	89.570	164.220	6311.67	9207.06	-8294.48	4144.50	1647272.29	14306040.47	39°23'44.814"N	80°58'32.640"W	9272.29	153.450	0.36	0.13	0.34	
15633.00	89.380	164.060	6312.54	9301.84	-8385.86	4170.46	1647298.24	14305949.12	39°23'43.910"N	80°58'32.309"W	9365.65	153.558	0.26	-0.20	-0.17	
15727.00	89.540	163.070	6313.43	9395.68	-8476.02	4197.05	1647324.83	14305859.01	39°23'43.019"N	80°58'31.971"W	9458.23	153.657	1.07	0.17	-1.05	
15822.00	89.480	160.780	6314.24	9490.63	-8566.32	4226.53	1647354.29	14305768.74	39°23'42.127"N	80°58'31.596"W	9552.24	153.739	2.41	-0.06	-2.41	
15917.00	89.750	158.220	6314.88	9585.61	-8655.29	4259.79	1647387.54	14305679.80	39°23'41.247"N	80°58'31.172"W	9646.76	153.795	2.71	0.28	-2.69	
16011.00	89.910	156.850	6315.16	9679.50	-8742.16	4295.71	1647423.44	14305592.97	39°23'40.389"N	80°58'30.715"W	9740.56	153.831	1.47	0.17	-1.46	

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Actual Wellpath Report

Grounds Unit 1H AWP Proj: 17554'
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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #03
ANTERO RESOURCES CORPORATION	Well	Grounds Unit 1H
Tyler County, WV	Wellbore	Grounds Unit 1H AWB
Tyler		
Correll Pad		

WELLPATH DATA (197 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
16106.00	89.820	157.510	6315.38	9774.36	-8829.72	4332.56	1647460.27	14305505.44	39°23'39.523"N	80°58'30.246"W	9835.40	153.864	0.70	-0.09	0.69	
16200.00	89.970	158.750	6315.55	9868.30	-8916.95	4367.57	1647495.27	14305418.24	39°23'38.661"N	80°58'29.800"W	9929.14	153.904	1.33	0.16	1.32	
16295.00	89.780	157.510	6315.76	9963.23	-9005.11	4402.96	1647530.65	14305330.12	39°23'37.789"N	80°58'29.350"W	10023.88	153.944	1.32	-0.20	-1.31	
16389.00	89.880	157.810	6316.04	10057.13	-9092.06	4438.69	1647566.36	14305243.21	39°23'36.930"N	80°58'28.895"W	10117.68	153.979	0.34	0.11	0.32	
16484.00	90.150	159.960	6316.01	10152.10	-9180.68	4472.91	1647600.57	14305154.63	39°23'36.054"N	80°58'28.460"W	10212.33	154.024	2.28	0.28	2.26	
16579.00	90.460	159.560	6315.51	10247.10	-9269.81	4505.77	1647633.42	14305065.53	39°23'35.173"N	80°58'28.041"W	10306.86	154.077	0.53	0.33	-0.42	
16673.00	90.370	158.980	6314.83	10341.03	-9357.12	4540.57	1647668.20	14304978.26	39°23'34.310"N	80°58'27.598"W	10400.60	154.115	2.75	-0.10	-2.74	
16768.00	90.650	158.150	6313.98	10435.92	-9444.92	4576.82	1647704.44	14304890.49	39°23'33.442"N	80°58'27.137"W	10495.42	154.146	1.27	0.29	1.23	
16862.00	90.620	158.890	6312.94	10529.81	-9531.77	4612.76	1647740.37	14304803.67	39°23'32.584"N	80°58'26.680"W	10589.25	154.176	1.34	-0.03	-1.34	
16957.00	90.400	161.740	6312.09	10624.76	-9620.62	4646.31	1647773.90	14304714.86	39°23'31.705"N	80°58'26.253"W	10683.84	154.222	5.11	0.23	5.11	
17051.00	90.710	162.800	6311.18	10718.70	-9710.15	4674.93	1647802.51	14304625.37	39°23'30.820"N	80°58'25.888"W	10776.92	154.292	1.17	0.33	1.13	
17146.00	89.750	160.270	6310.80	10813.66	-9800.25	4705.02	1647832.58	14304535.31	39°23'29.930"N	80°58'25.505"W	10871.16	154.355	2.85	-1.01	-2.66	
17240.00	89.320	159.250	6311.56	10907.65	-9888.44	4737.54	1647865.09	14304447.15	39°23'29.058"N	80°58'25.092"W	10964.74	154.401	1.18	-0.46	-1.09	
17335.00	88.830	160.670	6313.10	11002.64	-9977.67	4770.08	1647897.63	14304357.95	39°23'28.176"N	80°58'24.677"W	11059.28	154.449	1.58	-0.52	1.49	
17429.00	87.850	159.370	6315.82	11096.60	-10065.98	4802.19	1647929.72	14304269.68	39°23'27.303"N	80°58'24.269"W	11152.80	154.486	1.73	-1.04	-1.38	
17524.00	87.850	157.890	6319.38	11191.49	-10154.38	4836.78	1647964.29	14304181.32	39°23'26.429"N	80°58'23.829"W	11247.48	154.530	1.56	0.00	-1.56	
17554.00	87.850	157.890	6320.51	11221.44	-10182.15	4848.06	1647975.57	14304153.55	39°23'26.155"N	80°58'23.685"W	11277.41	154.539	0.00	0.00	0.00	Projected MD at ID: 17554'

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Actual Wellpath Report

Grounds Unit 1H AWP Proj: 17554'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Grounds Unit 1H
Field	Tyler	Wellbore	Grounds Unit 1H AWB
Facility	Gorrell Pad		

HOLE & CASING SECTIONS - Ref Wellbore: Grounds Unit 1H AWB Ref Wellpath: Grounds Unit 1H AWP Proj: 17554'										
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	0.12	-0.10	
17.5in Open Hole	110.00	650.00	540.00	110.00	650.00	0.12	-0.10	0.34	-0.71	
13.375in Casing Surface	30.00	631.40	601.40	30.00	631.40	0.00	0.00	0.34	-0.72	
12.25in Open Hole	650.00	2656.00	2006.00	650.00	2620.37	0.34	-0.71	186.80	288.98	
9.625in Casing Intermediate	30.00	2636.30	2606.30	30.00	2601.03	0.00	0.00	184.60	285.97	
8.75in Open Hole	2656.00	5694.00	3038.00	2620.37	5576.48	186.80	288.98	550.44	880.69	
8.5in Open Hole	5694.00	17554.00	11860.00	5576.48	6320.51	550.44	880.69	-10182.15	4848.06	
5.5in Casing Production	30.00	17554.00	17524.00	30.00	6320.51	0.00	0.00	-10182.15	4848.06	

TARGETS										
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape		
Grounds Unit 1H - POE - Rev-1	6225.00	129.25	1132.02	1644261.02	14314460.81	39°25'08.076"N	80°59'10.996"W	point		
Grounds Unit 1H - POE - Rev-2	6232.00	129.25	1132.02	1644261.02	14314460.81	39°25'08.076"N	80°59'10.996"W	point		
Grounds Unit 1H - LP - Rev-1	6263.00	-87.40	1209.81	1644338.78	14314244.25	39°25'05.935"N	80°59'10.005"W	point		
Grounds Unit 1H - BHL - Rev-1	6263.00	-10185.36	4835.65	1647963.16	14304150.35	39°23'26.123"N	80°58'23.843"W	point		
Grounds Unit 1H - BHL - Rev-2	6270.00	-10185.36	4835.65	1647963.16	14304150.35	39°23'26.123"N	80°58'23.843"W	point		
Grounds Unit 1H - LP - Rev-2	6270.00	-87.40	1209.81	1644338.78	14314244.25	39°25'05.935"N	80°59'10.005"W	point		

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Grounds Unit 1H AWP Proj: 17554'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Grounds Unit 1H
Field	Tyler	Wellbore	Grounds Unit 1H AWB
Facility	Gorrell Pad		

WELLPATH COMPOSITION - Ref Wellbore: Grounds Unit 1H AWB Ref Wellpath: Grounds Unit 1H AWP Proj: 17554'			
Start MD ft	End MD ft	Positional Uncertainty Model	Log Name/Comment
30.00	610.00	Gyrodatta standard - Drop gyro or Multi-shot	01 Gyrodatta MS Gyro <17-1/2">(100'-610')
610.00	2588.00	BHI NaviTrak (Axial)	02 APS EM <12-1/4">(610)(725'-2588')
2588.00	5630.00	BHI NaviTrak (Axial)	03 APS EM <8-3/4">(2588')(2648'-5630')
5630.00	17524.00	BHI AutoTrak Curve (Short)	04 BH AT Curve <8-1/2">(5630')(5708'-17524')
17524.00	17554.00	Blind Drilling (std)	Projection to bit

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Grounds Unit 1H AWP Proj: 17554*

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Tyler County, WV	Well	Grounds Unit 1H
Field	Tyler	Wellbore	Grounds Unit 1H AWB
Facility	Gorrell Pad		

COMMENTS
<p>Wellpath general comments</p> <p>API: 47-095-02590-0000</p> <p>BHI Job #: 109806214A</p> <p>Rig: H&P 519</p> <p>Duration: 05/09/2019-06/08/2019</p> <p>Gyrodatta MS Gyro <17-1/2">(100'-610")</p> <p>APS EM <12-1/4">(610')(725'-2588')</p> <p>APS EM <8-3/4">(2588')(2648'-5630')</p> <p>BH AT Curve <8-1/2">(5630')(5708'-17524')</p> <p>Middlesex: 6331' MD</p> <p>Burkett: 6505' MD</p> <p>Tully: 6555' MD</p> <p>Marcellus POE: 6569' MD</p> <p>Projected MD at TD: 17554'</p>

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