



ANTERO RESOURCES CORPORATION

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

Slot: Slot #11
Well: Charlotte Unit 1H
Wellbore: Charlotte Unit 1H PWB



Plot reference wellpath is Charlotte Unit 1H PWP Rev-C.0	Grid System: NAD27 / UTM Zone 17 North, US feet
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: 1254 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot #11): -1224 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: edstaryan on 2021-10-21; Database: WA_MPL_EASTERNUS_Defn

Scale 1 inch = 500'

True Vertical Depth (ft)
-750
0
750
1500
2250
3000
3750
4500
5250
6000
6750

Easting (ft)
-3000 -2000 -1000 0 1000 2000 3000

Northing (ft)
0
-1000
-2000
-3000
-4000
-5000
-6000
-7000
-8000
-9000
-10000
-11000
-12000

Location Information						
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Gadd Pad		1709411.160	14362271.230	39°32'59.8700"N	80°45'18.8700"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot #11	-27.60	-142.03	1709269.190	14362243.640	39°32'59.6010"N	80°45'20.6840"W
Comment Charlotte Unit 1H						
H&P 519 (RKB) to Ground level (At Slot: Slot #11)				30ft		
Mean Sea Level to Ground level (At Slot: Slot #11)				-1224ft		
H&P 519 (RKB) to Mean Sea Level				1254ft		

Gyrodata MS Gyro <17-1/2"> (100'-350') : 0.26° Inc, 100.00ft MD, 100.00ft TVD, -0.03ft VS

APS EM <12-1/4"> (350')(489'-2667') : 0.31° Inc, 489.00ft MD, 488.99ft TVD, 1.46ft VS

API: 47-103-03407-0000
BH Job #: 110972198
Rig: H&P 519
Duration: 10/7/2021-10/11/2021

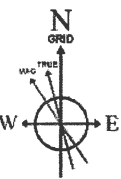
APS EM <8-3/4"> (2667')(2750'-6348') : 20.41° Inc, 2750.00ft MD, 2648.87ft TVD, -165.55ft VS

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	2667.00	20.070	264.290	2570.99	-28.83	-573.63	2.54	-159.59
Proj. to Bottom	2742.00	20.070	264.290	2641.44	-31.40	-599.24	0.00	-165.51
KOP 1	2822.00	20.070	264.290	2716.58	-34.13	-626.56	0.00	-171.83
End of 3D Arc	2892.43	20.222	268.357	2782.70	-35.68	-650.75	2.00	-178.24
Curve KOP	6514.64	20.222	268.357	6181.65	-71.58	-1902.26	0.00	-551.95
POE	7531.01	74.514	160.986	6923.00	-638.06	-1921.66	8.00	-22.69
Landing Pt.	7724.58	90.000	160.986	6949.00	-818.85	-1859.36	8.00	168.53
BHL	18652.00	90.000	160.986	6949.00	-11150.05	1700.79	0.00	11095.95

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #11	Charlotte Unit 1H	Charlotte Unit 1H AWB	Charlotte Unit 1H AWP Proj: 18644'
Slot #11	Charlotte Unit 1H	Charlotte Unit 1H PWB	Charlotte Unit 1H PWP Rev-C.0

BH AT Curve <8-1/2"> (6348')(6459'-18621') : 20.79° Inc, 6459.00ft MD, 6125.61ft TVD, -533.70ft VS

Marcellus POE: 7517' MD : 74.58° Inc, 7517.00ft MD, 6921.13ft TVD, -30.69ft VS



User specified (HDGM) Dip: 66.52° Field: 51869 nT
Magnetic North is 7.70 degrees West of True North (at 05/Oct/2021)
Grid North is 0.16 degrees East of True North
To correct azimuth from True to Grid subtract 0.16 degrees
To correct azimuth from Magnetic to Grid subtract 7.86 degrees

Projected MD at TD: 18644' : 7016.45ft TVD, 11149.63ft S, 1686.87ft E
BHL : 40'

Projected MD at TD: 18644' : 88.59° Inc, 18644.00ft MD, 7016.45ft TVD, 11091.02ft VS

Vertical Section (ft)
-750 0 750 1500 2250 3000 3750 4500 5250 6000 6750 7500 8250 9000 9750 10500 11250 12000

Azimuth 160.99° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500'

Gyrodata MS Gyro <17-1/2"> (100'-350') : 100.00ft TVD, 0.08ft N, 0.14ft E
APS EM <12-1/4"> (350')(489'-2667') : 488.99ft TVD, 1.25ft S, 0.83ft E
APS EM <8-3/4"> (2667')(2750'-6348') : 2648.87ft TVD, 32.34ft S, 602.12ft W
BH AT Curve <8-1/2"> (6348')(6459'-18621') : 6125.61ft TVD, 84.53ft S, 1883.81ft W

Marcellus POE: 7517' MD : 6921.13ft TVD, 630.95ft S, 1925.59ft W

Charlotte Unit 1H 50' UR Hard Line Rev-3



Actual Wellpath Report
 Charlotte Unit 1H AWP Proj: 18644'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Charlotte Unit 1H
Field	Wetzel	API	47-103-03407-0000
Facility	Gadd Pad	Wellbore	Charlotte Unit 1H AWB
Slot	Slot #11		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999605	Report Generated	21/Oct/2021 at 14:29
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	-27.60	-142.03	1709269.19	14362243.64	39°32'59.6010"N	80°45'20.6840"W
Facility Reference Pt			1709411.16	14362271.23	39°32'59.8700"N	80°45'18.8700"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	1254.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	1254.00ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot #11)	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	160.99°



Actual Wellpath Report

Charlotte Unit 1H AWP Proj: 18644'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Charlotte Unit 1H
Field	Wetzel	API	47-103-03407-0000
Facility	Gadd Pad	Wellbore	Charlotte Unit 1H AWP
Slot	Slot #11		

WELLPATH DATA (206 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	0.00	58.610	0.00	0.00	0.00	0.00	1709269.19	14362243.64	39°32'59.6010"N	80°45'20.6840"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	58.610	30.00	0.00	0.00	0.00	1709269.19	14362243.64	39°32'59.6010"N	80°45'20.6840"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.260	58.610	100.00	-0.03	0.08	0.14	1709269.33	14362243.72	39°32'59.6018"N	80°45'20.6823"W	0.16	58.610	0.37	0.37	0.00	Gyrodata MS Gyro <17-1/2"> (100'-350')
200.00	0.110	123.730	200.00	-0.01	0.15	0.41	1709269.60	14362243.79	39°32'59.6025"N	80°45'20.6788"W	0.43	70.161	0.24	-0.15	65.12	
300.00	0.360	158.010	300.00	0.38	-0.20	0.61	1709269.80	14362243.44	39°32'59.5991"N	80°45'20.6763"W	0.64	107.993	0.28	0.25	34.28	
350.00	0.440	147.220	350.00	0.73	-0.50	0.77	1709269.96	14362243.14	39°32'59.5960"N	80°45'20.6742"W	0.92	123.233	0.22	0.16	-21.58	
489.00	0.310	217.110	488.99	1.46	-1.25	0.83	1709270.02	14362242.39	39°32'59.5886"N	80°45'20.6735"W	1.50	146.427	0.32	-0.09	50.28	APS EM <12-1/4"> (350')(489'-2667')
568.00	1.190	264.580	567.99	1.38	-1.50	-0.11	1709269.08	14362242.14	39°32'59.5862"N	80°45'20.6856"W	1.50	184.353	1.27	1.11	60.09	
658.00	3.490	273.220	657.91	0.13	-1.43	-3.78	1709265.41	14362242.21	39°32'59.5869"N	80°45'20.7323"W	4.04	249.212	2.58	2.56	9.60	
748.00	5.660	277.780	747.62	-2.91	-0.68	-10.91	1709258.28	14362242.96	39°32'59.5946"N	80°45'20.8234"W	10.93	266.433	2.44	2.41	5.07	
839.00	7.130	279.350	838.05	-7.62	0.84	-20.93	1709248.27	14362244.48	39°32'59.6099"N	80°45'20.9512"W	20.95	272.311	1.63	1.62	1.73	
930.00	7.320	276.740	928.32	-12.82	2.44	-32.26	1709236.94	14362246.08	39°32'59.6260"N	80°45'21.0958"W	32.35	274.330	0.42	0.21	-2.87	
1020.00	8.320	276.740	1017.49	-18.14	3.88	-44.42	1709224.78	14362247.52	39°32'59.6406"N	80°45'21.2510"W	44.59	274.992	1.11	1.11	0.00	
1115.00	9.360	274.170	1111.36	-24.17	5.25	-58.95	1709210.26	14362248.89	39°32'59.6545"N	80°45'21.4365"W	59.19	275.087	1.17	1.09	-2.71	
1209.00	11.080	272.960	1203.86	-30.55	6.27	-75.60	1709193.62	14362249.91	39°32'59.6650"N	80°45'21.6489"W	75.86	274.742	1.84	1.83	-1.29	
1304.00	13.240	271.550	1296.72	-37.79	7.04	-95.59	1709173.63	14362250.67	39°32'59.6731"N	80°45'21.9041"W	95.85	274.210	2.29	2.27	-1.48	
1399.00	15.480	271.340	1388.75	-46.02	7.63	-119.15	1709150.09	14362251.26	39°32'59.6796"N	80°45'22.2048"W	119.39	273.663	2.36	2.36	-0.22	
1493.00	17.310	270.530	1478.93	-55.06	8.05	-145.67	1709123.58	14362251.69	39°32'59.6845"N	80°45'22.5434"W	145.89	273.163	1.96	1.95	-0.86	
1588.00	19.550	269.950	1569.05	-64.95	8.17	-175.70	1709093.56	14362251.80	39°32'59.6864"N	80°45'22.9268"W	175.89	272.661	2.37	2.36	-0.61	
1683.00	22.040	269.930	1657.85	-75.91	8.13	-209.43	1709059.84	14362251.77	39°32'59.6870"N	80°45'23.3573"W	209.59	272.223	2.62	2.62	-0.02	
1777.00	21.880	268.470	1745.03	-86.89	7.64	-244.57	1709024.71	14362251.28	39°32'59.6831"N	80°45'23.8060"W	244.69	271.790	0.61	-0.17	-1.55	
1872.00	21.230	266.190	1833.39	-96.72	6.03	-279.43	1708989.87	14362249.66	39°32'59.6681"N	80°45'24.2510"W	279.50	271.235	1.12	-0.68	-2.40	
1966.00	20.090	263.280	1921.34	-104.62	3.01	-312.45	1708956.86	14362246.64	39°32'59.6391"N	80°45'24.6726"W	312.46	270.551	1.63	-1.21	-3.10	
2061.00	20.960	261.660	2010.31	-111.24	-1.37	-345.47	1708923.86	14362242.27	39°32'59.5968"N	80°45'25.0943"W	345.47	269.773	1.09	0.92	-1.71	
2156.00	22.020	262.650	2098.71	-117.98	-6.11	-379.94	1708889.40	14362237.53	39°32'59.5508"N	80°45'25.5345"W	379.99	269.079	1.18	1.12	1.04	
2250.00	23.010	263.430	2185.54	-125.50	-10.47	-415.67	1708853.68	14362233.18	39°32'59.5087"N	80°45'25.9908"W	415.80	268.557	1.10	1.05	0.83	
2345.00	22.600	262.710	2273.12	-133.21	-14.91	-452.22	1708817.15	14362228.74	39°32'59.4658"N	80°45'26.4576"W	452.47	268.112	0.52	-0.43	-0.76	
2440.00	22.880	263.690	2360.73	-140.98	-19.25	-488.69	1708780.70	14362224.39	39°32'59.4238"N	80°45'26.9232"W	489.07	267.744	0.50	0.29	1.03	
2534.00	22.940	263.210	2447.32	-148.87	-23.43	-525.04	1708744.36	14362220.22	39°32'59.3835"N	80°45'27.3874"W	525.56	267.445	0.21	0.06	-0.51	
2629.00	21.020	263.820	2535.41	-156.58	-27.45	-560.37	1708709.05	14362216.20	39°32'59.3447"N	80°45'27.8385"W	561.04	267.195	2.04	-2.02	0.64	



Actual Wellpath Report

Charlotte Unit 1H AWP Proj: 18644'
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Operator	ANTERO RESOURCES CORPORATION	Well	Charlotte Unit 1H
Field	Wetzel	API	47-103-03407-0000
Facility	Gadd Pad	Wellbore	Charlotte Unit 1H AWB
Slot	Slot #11		

WELLPATH DATA (206 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
2667.00	20.070	264.290	2570.99	-159.59	-28.83	-573.63	1708695.79	14362214.82	39°32'59.3314"N	80°45'28.0079"W	574.35	267.122	2.54	-2.50	1.24	
2750.00	20.410	261.690	2648.87	-165.55	-32.34	-602.12	1708667.31	14362211.31	39°32'59.2975"N	80°45'28.3718"W	602.99	266.925	1.16	0.41	-3.13	APS EM <8-3/4"> (2667')(2750'-6348')
2844.00	20.590	263.660	2736.92	-172.22	-36.54	-634.77	1708634.67	14362207.12	39°32'59.2569"N	80°45'28.7887"W	635.82	266.706	0.76	0.19	2.10	
2939.00	20.130	269.410	2825.99	-181.05	-38.55	-667.72	1708601.73	14362205.10	39°32'59.2378"N	80°45'29.2094"W	668.83	266.696	2.16	-0.48	6.05	
3033.00	20.760	266.940	2914.07	-190.74	-39.61	-700.53	1708568.94	14362204.05	39°32'59.2283"N	80°45'29.6283"W	701.65	266.764	1.14	0.67	-2.63	
3131.00	21.880	261.880	3005.37	-198.96	-43.11	-735.96	1708533.52	14362200.54	39°32'59.1946"N	80°45'30.0806"W	737.22	266.647	2.20	1.14	-5.16	
3225.00	20.690	265.790	3092.96	-206.52	-46.81	-769.86	1708499.63	14362196.85	39°32'59.1590"N	80°45'30.5136"W	771.28	266.521	1.97	-1.27	4.16	
3320.00	19.910	266.620	3182.06	-215.16	-48.99	-802.75	1708466.76	14362194.67	39°32'59.1382"N	80°45'30.9334"W	804.24	266.508	0.88	-0.82	0.87	
3414.00	19.880	271.570	3270.46	-225.09	-49.50	-834.70	1708434.82	14362194.16	39°32'59.1341"N	80°45'31.3414"W	836.17	266.606	1.79	-0.03	5.27	
3509.00	19.760	267.410	3359.83	-235.31	-49.78	-866.89	1708402.64	14362193.88	39°32'59.1321"N	80°45'31.7524"W	868.32	266.713	1.49	-0.13	-4.38	
3603.00	20.610	263.870	3448.06	-243.49	-52.27	-899.22	1708370.33	14362191.39	39°32'59.1084"N	80°45'32.1651"W	900.74	266.673	1.58	0.90	-3.77	
3698.00	19.860	266.230	3537.20	-251.46	-55.11	-931.95	1708337.61	14362188.55	39°32'59.0812"N	80°45'32.5830"W	933.57	266.616	1.17	-0.79	2.48	
3793.00	18.500	276.360	3626.95	-262.16	-54.50	-963.04	1708306.53	14362189.16	39°32'59.0880"N	80°45'32.9799"W	964.58	266.761	3.78	-1.43	10.66	
3887.00	18.470	278.450	3716.10	-275.42	-50.66	-992.59	1708277.00	14362193.00	39°32'59.1267"N	80°45'33.3570"W	993.88	267.078	0.71	-0.03	2.22	
3982.00	18.680	276.440	3806.15	-288.89	-46.75	-1022.59	1708247.01	14362196.91	39°32'59.1663"N	80°45'33.7399"W	1023.66	267.383	0.71	0.22	-2.12	
4077.00	19.050	274.930	3896.05	-301.72	-43.71	-1053.15	1708216.45	14362199.95	39°32'59.1971"N	80°45'34.1299"W	1054.06	267.624	0.64	0.39	-1.59	
4171.00	18.350	267.190	3985.10	-312.08	-43.11	-1083.22	1708186.40	14362200.54	39°32'59.2037"N	80°45'34.5137"W	1084.08	267.721	2.74	-0.74	-8.23	
4266.00	18.010	268.690	4075.36	-320.72	-44.18	-1112.84	1708156.79	14362199.47	39°32'59.1940"N	80°45'34.8919"W	1113.72	267.726	0.61	-0.36	1.58	
4360.00	19.350	271.270	4164.41	-330.53	-44.17	-1142.94	1708126.70	14362199.49	39°32'59.1949"N	80°45'35.2761"W	1143.79	267.787	1.67	1.43	2.74	
4455.00	19.540	265.730	4254.00	-340.03	-45.00	-1174.52	1708095.14	14362198.65	39°32'59.1875"N	80°45'35.6793"W	1175.38	267.806	1.95	0.20	-5.83	
4550.00	18.550	257.140	4343.81	-345.69	-49.55	-1205.10	1708064.57	14362194.11	39°32'59.1433"N	80°45'36.0699"W	1206.12	267.645	3.13	-1.04	-9.04	
4644.00	18.150	259.330	4433.03	-349.42	-55.59	-1234.07	1708035.61	14362188.07	39°32'59.0844"N	80°45'36.4398"W	1235.32	267.421	0.85	-0.43	2.33	
4739.00	20.450	263.540	4522.69	-355.17	-60.20	-1265.10	1708004.59	14362183.47	39°32'59.0397"N	80°45'36.8362"W	1266.54	267.276	2.83	2.42	4.43	
4834.00	22.470	266.330	4611.10	-363.58	-63.23	-1299.72	1707969.99	14362180.44	39°32'59.0107"N	80°45'37.2782"W	1301.25	267.215	2.38	2.13	2.94	
4928.00	22.250	271.520	4698.05	-374.58	-63.91	-1335.44	1707934.28	14362179.76	39°32'59.0049"N	80°45'37.7342"W	1336.96	267.260	2.11	-0.23	5.52	
5023.00	21.820	268.790	4786.11	-386.28	-63.80	-1371.07	1707898.67	14362179.86	39°32'59.0069"N	80°45'38.1890"W	1372.55	267.336	1.17	-0.45	-2.87	
5118.00	22.880	267.040	4873.97	-396.78	-65.13	-1407.17	1707862.58	14362178.54	39°32'58.9947"N	80°45'38.6499"W	1408.67	267.350	1.32	1.12	-1.84	
5212.00	23.380	265.440	4960.42	-406.49	-67.55	-1444.01	1707825.76	14362176.11	39°32'58.9717"N	80°45'39.1203"W	1445.59	267.322	0.85	0.53	-1.70	
5307.00	22.050	257.070	5048.07	-413.09	-73.04	-1480.19	1707789.59	14362170.62	39°32'58.9184"N	80°45'39.5824"W	1481.99	267.175	3.68	-1.40	-8.81	
5402.00	21.810	258.720	5136.20	-417.35	-80.49	-1514.87	1707754.92	14362163.19	39°32'58.8457"N	80°45'40.0254"W	1517.01	266.959	0.70	-0.25	1.74	



Actual Wellpath Report

Charlotte Unit 1H AWP Proj: 18644'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Charlotte Unit 1H
Field	Wetzel	API	47-103-03407-0000
Facility	Gadd Pad	Wellbore	Charlotte Unit 1H AWB
Slot	Slot #11		

WELLPATH DATA (206 stations) † = interpolated, ‡ = extrapolated station																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
5496.00	21.280	266.180	5223.64	-424.17	-85.04	-1549.03	1707720.78	14362158.63	39°32'58.8016"N	80°45'40.4615"W	1551.36	266.858	2.97	-0.56	7.94	
5591.00	21.510	271.460	5312.11	-434.78	-85.74	-1583.64	1707686.18	14362157.93	39°32'58.7956"N	80°45'40.9034"W	1585.96	266.901	2.04	0.24	5.56	
5686.00	22.540	272.690	5400.17	-447.60	-84.45	-1619.24	1707650.59	14362159.23	39°32'58.8094"N	80°45'41.3579"W	1621.44	267.015	1.19	1.08	1.29	
5780.00	22.910	264.590	5486.90	-458.57	-85.33	-1655.46	1707614.39	14362158.35	39°32'58.8016"N	80°45'41.8203"W	1657.66	267.049	3.35	0.39	-8.62	
5875.00	20.880	262.480	5575.04	-466.29	-89.29	-1690.66	1707579.20	14362154.39	39°32'58.7634"N	80°45'42.2697"W	1693.01	266.977	2.29	-2.14	-2.22	
5970.00	18.700	274.160	5664.46	-475.66	-90.40	-1722.65	1707547.23	14362153.28	39°32'58.7532"N	80°45'42.6781"W	1725.02	266.996	4.74	-2.29	12.29	
6064.00	18.440	281.110	5753.58	-489.05	-86.44	-1752.27	1707517.62	14362157.24	39°32'58.7931"N	80°45'43.0561"W	1754.40	267.176	2.37	-0.28	7.39	
6159.00	18.130	275.980	5843.79	-502.83	-82.00	-1781.71	1707488.18	14362161.67	39°32'58.8378"N	80°45'43.4319"W	1783.60	267.365	1.72	-0.33	-5.40	
6253.00	19.730	274.030	5932.70	-515.22	-79.36	-1812.09	1707457.82	14362164.31	39°32'58.8646"N	80°45'43.8196"W	1813.83	267.492	1.83	1.70	-2.07	
6348.00	20.880	268.260	6021.80	-526.53	-78.75	-1845.01	1707424.91	14362164.92	39°32'58.8715"N	80°45'44.2398"W	1846.69	267.556	2.43	1.21	-6.07	
6459.00	20.790	254.780	6125.61	-533.70	-84.53	-1883.81	1707386.12	14362159.15	39°32'58.8155"N	80°45'44.7354"W	1885.71	267.431	4.31	-0.08	-12.14	BH AT Curve <8-1/2"> (6348')(6459'-18621')
6553.00	17.900	254.480	6214.29	-535.69	-92.77	-1913.84	1707356.11	14362150.90	39°32'58.7348"N	80°45'45.1189"W	1916.08	267.225	3.08	-3.07	-0.32	
6648.00	17.960	236.370	6304.75	-532.88	-104.80	-1940.12	1707329.84	14362138.88	39°32'58.6166"N	80°45'45.4548"W	1942.95	266.908	5.85	0.06	-19.06	
6742.00	19.480	222.850	6393.81	-521.82	-124.33	-1962.86	1707307.11	14362119.36	39°32'58.4242"N	80°45'45.7458"W	1966.79	266.376	4.88	1.62	-14.38	
6837.00	23.090	204.830	6482.41	-500.88	-152.89	-1981.48	1707288.50	14362090.81	39°32'58.1424"N	80°45'45.9844"W	1987.37	265.588	7.82	3.80	-18.97	
6931.00	28.910	187.250	6566.99	-467.13	-192.25	-1992.11	1707277.87	14362051.47	39°32'57.7537"N	80°45'46.1215"W	2001.37	264.488	10.21	6.19	-18.70	
6979.00†	32.252	184.051	6608.31	-444.94	-216.54	-1994.48	1707275.50	14362027.18	39°32'57.5136"N	80°45'46.1526"W	2006.20	263.804	7.74	6.96	-6.66	Sycamore: 6979' MD
7026.00	35.590	181.450	6647.31	-420.58	-242.73	-1995.71	1707274.27	14362001.00	39°32'57.2548"N	80°45'46.1692"W	2010.42	263.065	7.74	7.10	-5.53	
7120.00	43.020	175.840	6720.01	-363.86	-302.16	-1994.08	1707275.90	14361941.60	39°32'56.6674"N	80°45'46.1503"W	2016.84	261.384	8.76	7.90	-5.97	
7128.00†	43.637	175.273	6725.83	-358.54	-307.63	-1993.65	1707276.33	14361936.13	39°32'56.6133"N	80°45'46.1450"W	2017.25	261.228	9.12	7.71	-7.09	Middlesex: 7128' MD
7215.00	50.500	169.830	6785.08	-296.19	-370.69	-1985.24	1707284.74	14361873.10	39°32'55.9899"N	80°45'46.0397"W	2019.55	259.423	9.12	7.89	-6.26	
7271.00†	55.135	167.868	6818.92	-252.00	-414.44	-1976.59	1707293.38	14361829.36	39°32'55.5573"N	80°45'45.9308"W	2019.57	258.158	8.73	8.28	-3.50	Burkett: 7271' MD
7310.00	58.380	166.630	6840.29	-219.58	-446.25	-1969.39	1707300.59	14361797.57	39°32'55.2427"N	80°45'45.8399"W	2019.31	257.233	8.73	8.32	-3.18	
7330.00†	60.139	166.546	6850.52	-202.48	-462.97	-1965.40	1707304.57	14361780.85	39°32'55.0774"N	80°45'45.7896"W	2019.19	256.745	8.80	8.80	-0.42	Fully: 7330' MD
7404.00	66.650	166.260	6883.64	-136.64	-527.24	-1949.85	1707320.12	14361716.60	39°32'54.4417"N	80°45'45.5932"W	2019.87	254.869	8.80	8.80	-0.39	
7499.00	73.300	167.280	6916.15	-47.89	-614.09	-1929.45	1707340.51	14361629.80	39°32'53.5829"N	80°45'45.3358"W	2024.81	252.345	7.07	7.00	1.07	
7517.00†	74.582	166.947	6921.13	-30.69	-630.95	-1925.59	1707344.36	14361612.94	39°32'53.4162"N	80°45'45.2871"W	2026.33	251.858	7.34	7.12	-1.85	Marcellus POE: 7517' MD
7593.00	80.000	165.580	6937.85	43.10	-702.93	-1907.98	1707361.96	14361540.99	39°32'52.7042"N	80°45'45.0647"W	2033.35	249.775	7.34	7.13	-1.80	
7688.00	87.850	164.520	6947.89	137.26	-794.13	-1883.63	1707386.31	14361449.83	39°32'51.8023"N	80°45'44.7569"W	2044.18	247.140	8.34	8.26	-1.12	
7783.00	90.180	161.330	6949.53	232.17	-884.91	-1855.74	1707414.18	14361359.08	39°32'50.9044"N	80°45'44.4040"W	2055.93	244.506	4.16	2.45	-3.36	



Actual Wellpath Report

Charlotte Unit 1H AWP Proj: 18644'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Charlotte Unit 1H
Field	Wetzel	API	47-103-03407-0000
Facility	Gadd Pad	Wellbore	Charlotte Unit 1H AWB
Slot	Slot #11		

WELLPATH DATA (206 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
7877.00	90.120	159.940	6949.28	326.17	-973.59	-1824.57	1707445.34	14361270.44	39°32'50.0271"N	80°45'44.0091"W	2068.08	241.916	1.48	-0.06	-1.48	
7972.00	89.940	161.090	6949.23	421.16	-1063.15	-1792.89	1707477.02	14361180.92	39°32'49.1412"N	80°45'43.6076"W	2084.40	239.333	1.23	-0.19	1.21	
8067.00	90.180	160.150	6949.13	516.16	-1152.76	-1761.36	1707508.53	14361091.33	39°32'48.2546"N	80°45'43.2082"W	2105.06	236.796	1.02	0.25	-0.99	
8162.00	90.340	159.550	6948.70	611.14	-1241.95	-1728.64	1707541.24	14361002.19	39°32'47.3724"N	80°45'42.7935"W	2128.52	234.304	0.65	0.17	-0.63	
8256.00	90.120	159.980	6948.32	705.12	-1330.14	-1696.13	1707573.74	14360914.02	39°32'46.4998"N	80°45'42.3815"W	2155.49	231.896	0.51	-0.23	0.46	
8351.00	90.430	160.210	6947.87	800.10	-1419.47	-1663.78	1707606.07	14360824.74	39°32'45.6162"N	80°45'41.9716"W	2187.02	229.531	0.41	0.33	0.24	
8446.00	90.090	160.220	6947.43	895.09	-1508.86	-1631.63	1707638.21	14360735.38	39°32'44.7319"N	80°45'41.5642"W	2222.35	227.239	0.36	-0.36	0.01	
8540.00	90.310	157.540	6947.11	989.02	-1596.54	-1597.76	1707672.06	14360647.74	39°32'43.8644"N	80°45'41.1348"W	2258.71	225.022	2.86	0.23	-2.85	
8635.00	89.880	160.760	6946.95	1083.96	-1685.30	-1563.95	1707705.86	14360559.01	39°32'42.9862"N	80°45'40.7063"W	2299.17	222.861	3.42	-0.45	3.39	
8730.00	90.310	159.620	6946.79	1178.95	-1774.68	-1531.76	1707738.04	14360469.67	39°32'42.1021"N	80°45'40.2983"W	2344.30	220.798	1.28	0.45	-1.20	
8824.00	89.880	160.130	6946.64	1272.93	-1862.94	-1499.41	1707770.37	14360381.44	39°32'41.2289"N	80°45'39.8885"W	2391.40	218.829	0.71	-0.46	0.54	
8919.00	89.350	157.600	6947.27	1367.85	-1951.54	-1465.16	1707804.61	14360292.87	39°32'40.3524"N	80°45'39.4543"W	2440.33	216.898	2.72	-0.56	-2.66	
9013.00	90.120	158.190	6947.71	1461.71	-2038.63	-1429.79	1707839.97	14360205.82	39°32'39.4907"N	80°45'39.0057"W	2490.04	215.044	1.03	0.82	0.63	
9108.00	90.520	159.360	6947.18	1556.64	-2127.18	-1395.40	1707874.34	14360117.30	39°32'38.6146"N	80°45'38.5697"W	2544.02	213.264	1.30	0.42	1.23	
9203.00	89.600	159.790	6947.08	1651.61	-2216.21	-1362.25	1707907.48	14360028.31	39°32'37.7339"N	80°45'38.1495"W	2601.40	211.578	1.07	-0.97	0.45	
9297.00	90.060	160.610	6947.36	1745.60	-2304.65	-1330.41	1707939.31	14359939.91	39°32'36.8590"N	80°45'37.7461"W	2661.09	209.997	1.00	0.49	0.87	
9392.00	91.020	160.020	6946.46	1840.59	-2394.09	-1298.41	1707971.30	14359850.50	39°32'35.9741"N	80°45'37.3407"W	2723.51	208.473	1.19	1.01	-0.62	
9486.00	90.310	159.690	6945.37	1934.56	-2482.33	-1266.04	1708003.66	14359762.29	39°32'35.1012"N	80°45'36.9305"W	2786.54	207.022	0.83	-0.76	-0.35	
9581.00	90.710	159.820	6944.53	2029.54	-2571.46	-1233.16	1708036.51	14359673.20	39°32'34.2194"N	80°45'36.5139"W	2851.86	205.620	0.44	0.42	0.14	
9676.00	90.680	160.570	6943.37	2124.52	-2660.83	-1200.98	1708068.69	14359583.86	39°32'33.3353"N	80°45'36.1061"W	2919.31	204.292	0.79	-0.03	0.79	
9771.00	90.280	160.040	6942.58	2219.51	-2750.27	-1168.96	1708100.69	14359494.46	39°32'32.4505"N	80°45'35.7005"W	2988.39	203.027	0.70	-0.42	-0.56	
9865.00	90.860	160.760	6941.64	2313.50	-2838.82	-1137.43	1708132.21	14359405.94	39°32'31.5745"N	80°45'35.3011"W	3058.21	201.835	0.98	0.62	0.77	
9960.00	90.520	159.810	6940.50	2408.48	-2928.24	-1105.39	1708164.24	14359316.56	39°32'30.6899"N	80°45'34.8951"W	3129.94	200.681	1.06	-0.36	-1.00	
10054.00	89.480	160.860	6940.50	2502.47	-3016.76	-1073.76	1708195.86	14359228.08	39°32'29.8142"N	80°45'34.4943"W	3202.15	199.592	1.57	-1.11	1.12	
10149.00	89.850	159.540	6941.05	2597.46	-3106.14	-1041.58	1708228.02	14359138.73	39°32'28.9300"N	80°45'34.0866"W	3276.12	198.538	1.44	0.39	-1.39	
10244.00	89.850	157.710	6941.30	2692.37	-3194.60	-1006.96	1708262.63	14359050.31	39°32'28.0548"N	80°45'33.6477"W	3349.54	197.495	1.93	0.00	-1.93	
10338.00	90.120	161.370	6941.33	2786.33	-3282.66	-974.10	1708295.47	14358962.29	39°32'27.1837"N	80°45'33.2314"W	3424.14	196.528	3.90	0.29	3.89	
10433.00	89.820	162.420	6941.38	2881.32	-3372.95	-944.58	1708324.98	14358872.03	39°32'26.2905"N	80°45'32.8577"W	3502.72	195.645	1.15	-0.32	1.11	
10527.00	90.090	162.770	6941.45	2975.28	-3462.65	-916.46	1708353.09	14358782.37	39°32'25.4032"N	80°45'32.5018"W	3581.88	194.825	0.47	0.29	0.37	
10622.00	90.280	163.750	6941.14	3070.20	-3553.62	-889.10	1708380.44	14358691.43	39°32'24.5034"N	80°45'32.1557"W	3663.16	194.047	1.05	0.20	1.03	



Actual Wellpath Report

Charlotte Unit 1H AWP Proj: 18644'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Charlotte Unit 1H
Field	Wetzel	API	47-103-03407-0000
Facility	Gadd Pad	Wellbore	Charlotte Unit 1H AWB
Slot	Slot #11		

WELLPATH DATA (206 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
10717.00	89.970	162.590	6940.94	3165.13	-3644.55	-861.60	1708407.94	14358600.54	39°32'23.6040"N	80°45'31.8077"W	3745.01	193.301	1.26	-0.33	-1.22	
10812.00	89.510	161.930	6941.37	3260.11	-3735.03	-832.65	1708436.87	14358510.09	39°32'22.7090"N	80°45'31.4414"W	3826.72	192.567	0.85	-0.48	-0.69	
10906.00	89.600	162.470	6942.10	3354.08	-3824.53	-803.92	1708465.59	14358420.63	39°32'21.8237"N	80°45'31.0777"W	3908.11	191.871	0.58	0.10	0.57	
11001.00	90.280	163.070	6942.20	3449.03	-3915.26	-775.78	1708493.72	14358329.93	39°32'20.9262"N	80°45'30.7216"W	3991.38	191.208	0.95	0.72	0.63	
11096.00	89.720	162.620	6942.20	3543.98	-4006.04	-747.76	1708521.73	14358239.19	39°32'20.0283"N	80°45'30.3670"W	4075.23	190.573	0.76	-0.59	-0.47	
11190.00	89.820	162.640	6942.57	3637.95	-4095.75	-719.69	1708549.78	14358149.52	39°32'19.1409"N	80°45'30.0119"W	4158.50	189.966	0.11	0.11	0.02	
11285.00	89.780	162.450	6942.91	3732.91	-4186.37	-691.20	1708578.27	14358058.93	39°32'18.2445"N	80°45'29.6513"W	4243.05	189.375	0.20	-0.04	-0.20	
11379.00	90.580	163.320	6942.61	3826.86	-4276.21	-663.53	1708605.92	14357969.13	39°32'17.3559"N	80°45'29.3013"W	4327.38	188.820	1.26	0.85	0.93	
11474.00	89.110	162.290	6942.87	3921.80	-4366.96	-635.45	1708633.99	14357878.41	39°32'16.4583"N	80°45'28.9460"W	4412.95	188.279	1.89	-1.55	-1.08	
11569.00	90.430	163.230	6943.25	4016.75	-4457.69	-607.30	1708662.13	14357787.72	39°32'15.5608"N	80°45'28.5898"W	4498.86	187.758	1.71	1.39	0.99	
11663.00	89.450	162.440	6943.35	4110.70	-4547.50	-579.56	1708689.86	14357697.95	39°32'14.6725"N	80°45'28.2388"W	4584.28	187.263	1.34	-1.04	-0.84	
11758.00	89.350	161.280	6944.34	4205.69	-4637.77	-549.98	1708719.43	14357607.71	39°32'13.7795"N	80°45'27.8644"W	4670.27	186.763	1.23	-0.11	-1.22	
11853.00	89.750	162.520	6945.09	4300.67	-4728.06	-520.47	1708748.93	14357517.45	39°32'12.8863"N	80°45'27.4908"W	4756.62	186.282	1.37	0.42	1.31	
11947.00	89.420	160.380	6945.77	4394.66	-4817.17	-490.57	1708778.82	14357428.38	39°32'12.0048"N	80°45'27.1122"W	4842.09	185.815	2.30	-0.35	-2.28	
12042.00	89.780	161.190	6946.43	4489.65	-4906.88	-459.30	1708810.07	14357338.71	39°32'11.1174"N	80°45'26.7163"W	4928.33	185.348	0.93	0.38	0.85	
12136.00	89.780	161.380	6946.79	4583.65	-4995.91	-429.14	1708840.22	14357249.72	39°32'10.2367"N	80°45'26.3344"W	5014.30	184.910	0.20	0.00	0.20	
12231.00	89.380	160.630	6947.49	4678.65	-5085.73	-398.22	1708871.13	14357159.93	39°32'9.3481"N	80°45'25.9428"W	5101.30	184.477	0.89	-0.42	-0.79	
12325.00	89.630	161.200	6948.30	4772.65	-5174.56	-367.49	1708901.85	14357071.13	39°32'8.4694"N	80°45'25.5536"W	5187.59	184.062	0.66	0.27	0.61	
12420.00	89.320	160.700	6949.17	4867.64	-5264.35	-336.48	1708932.84	14356981.38	39°32'7.5811"N	80°45'25.1610"W	5275.09	183.657	0.62	-0.33	-0.53	
12514.00	90.180	161.110	6949.58	4961.64	-5353.18	-305.73	1708963.58	14356892.58	39°32'6.7024"N	80°45'24.7716"W	5361.90	183.269	1.01	0.91	0.44	
12609.00	89.380	160.620	6949.95	5056.64	-5442.93	-274.59	1708994.71	14356802.87	39°32'5.8146"N	80°45'24.3772"W	5449.85	182.888	0.99	-0.84	-0.52	
12704.00	89.600	160.960	6950.79	5151.63	-5532.63	-243.33	1709025.95	14356713.20	39°32'4.9271"N	80°45'23.9814"W	5537.98	182.518	0.43	0.23	0.36	
12798.00	89.630	161.380	6951.43	5245.63	-5621.60	-213.00	1709056.28	14356624.27	39°32'4.0470"N	80°45'23.5972"W	5625.64	182.170	0.45	0.03	0.45	
12893.00	89.420	161.010	6952.21	5340.63	-5711.53	-182.37	1709086.89	14356534.38	39°32'3.1574"N	80°45'23.2095"W	5714.44	181.829	0.45	-0.22	-0.39	
12988.00	89.380	160.880	6953.21	5435.62	-5801.32	-151.36	1709117.89	14356444.62	39°32'2.2692"N	80°45'22.8168"W	5803.29	181.495	0.14	-0.04	-0.14	
13082.00	89.660	161.030	6953.99	5529.62	-5890.17	-120.69	1709148.55	14356355.81	39°32'1.3902"N	80°45'22.4284"W	5891.40	181.174	0.34	0.30	0.16	
13177.00	90.060	161.390	6954.23	5624.62	-5980.10	-90.09	1709179.14	14356265.91	39°32'0.5006"N	80°45'22.0410"W	5980.78	180.863	0.57	0.42	0.38	
13271.00	89.170	160.270	6954.86	5718.61	-6068.89	-59.22	1709209.99	14356177.16	39°31'59.6223"N	80°45'21.6501"W	6069.18	180.559	1.52	-0.95	-1.19	
13366.00	89.260	161.160	6956.16	5813.60	-6158.55	-27.85	1709241.35	14356087.53	39°31'58.7353"N	80°45'21.2528"W	6158.61	180.259	0.94	0.09	0.94	
13461.00	89.290	161.100	6957.36	5908.59	-6248.43	2.87	1709272.06	14355997.68	39°31'57.8461"N	80°45'20.8638"W	6248.44	179.974	0.07	0.03	-0.06	



Actual Wellpath Report

Charlotte Unit 1H AWP Proj: 18644'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Charlotte Unit 1H
Field	Wetzel	API	47-103-03407-0000
Facility	Gadd Pad	Wellbore	Charlotte Unit 1H AWB
Slot	Slot #11		

WELLPATH DATA (206 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
13555.00	89.320	160.680	6958.50	6002.58	-6337.25	33.64	1709302.82	14355908.91	39°31'56.9675"N	80°45'20.4742"W	6337.34	179.696	0.45	0.03	-0.45	
13650.00	89.230	160.600	6959.70	6097.57	-6426.87	65.13	1709334.30	14355819.32	39°31'56.0809"N	80°45'20.0754"W	6427.20	179.419	0.13	-0.09	-0.08	
13744.00	89.350	160.670	6960.87	6191.57	-6515.54	96.30	1709365.45	14355730.68	39°31'55.2037"N	80°45'19.6807"W	6516.26	179.153	0.15	0.13	0.07	
13839.00	89.320	160.410	6961.97	6286.56	-6605.11	127.95	1709397.09	14355641.15	39°31'54.3176"N	80°45'19.2799"W	6606.35	178.890	0.28	-0.03	-0.27	
13933.00	89.170	160.280	6963.21	6380.54	-6693.63	159.56	1709428.69	14355552.67	39°31'53.4419"N	80°45'18.8795"W	6695.53	178.634	0.21	-0.16	-0.14	
14028.00	89.260	159.660	6964.51	6475.52	-6782.87	192.10	1709461.21	14355463.46	39°31'52.5590"N	80°45'18.4674"W	6785.59	178.378	0.66	0.09	-0.65	
14123.00	89.170	160.060	6965.81	6570.49	-6872.05	224.80	1709493.90	14355374.31	39°31'51.6767"N	80°45'18.0530"W	6875.73	178.126	0.43	-0.09	0.42	
14218.00	89.230	160.070	6967.14	6665.47	-6961.35	257.19	1709526.28	14355285.05	39°31'50.7933"N	80°45'17.6428"W	6966.10	177.884	0.06	0.06	0.01	
14312.00	89.290	161.550	6968.35	6759.46	-7050.12	288.09	1709557.16	14355196.32	39°31'49.9152"N	80°45'17.2516"W	7056.00	177.660	1.58	0.06	1.57	
14407.00	89.420	161.400	6969.42	6854.45	-7140.19	318.27	1709587.33	14355106.28	39°31'49.0241"N	80°45'16.8695"W	7147.28	177.448	0.21	0.14	-0.16	
14501.00	89.230	161.240	6970.53	6948.44	-7229.23	348.37	1709617.42	14355017.27	39°31'48.1433"N	80°45'16.4884"W	7237.62	177.241	0.26	-0.20	-0.17	
14596.00	89.140	161.420	6971.88	7043.43	-7319.23	378.78	1709647.82	14354927.32	39°31'47.2531"N	80°45'16.1035"W	7329.02	177.038	0.21	-0.09	0.19	
14691.00	89.140	160.900	6973.31	7138.42	-7409.13	409.45	1709678.48	14354837.45	39°31'46.3637"N	80°45'15.7152"W	7420.43	176.837	0.55	0.00	-0.55	
14786.00	89.450	161.730	6974.48	7233.41	-7499.11	439.89	1709708.90	14354747.50	39°31'45.4736"N	80°45'15.3299"W	7512.00	176.643	0.93	0.33	0.87	
14880.00	89.320	161.180	6975.49	7327.40	-7588.22	469.78	1709738.78	14354658.43	39°31'44.5920"N	80°45'14.9515"W	7602.75	176.457	0.60	-0.14	-0.59	
14975.00	89.080	161.480	6976.81	7422.39	-7678.22	500.19	1709769.18	14354568.47	39°31'43.7018"N	80°45'14.5666"W	7694.49	176.273	0.40	-0.25	0.32	
15070.00	89.850	162.050	6977.70	7517.37	-7768.44	529.91	1709798.89	14354478.28	39°31'42.8093"N	80°45'14.1904"W	7786.49	176.098	1.01	0.81	0.60	
15164.00	89.420	162.020	6978.30	7611.36	-7857.86	558.91	1709827.87	14354388.90	39°31'41.9248"N	80°45'13.8235"W	7877.71	175.932	0.46	-0.46	-0.03	
15259.00	89.420	162.500	6979.26	7706.33	-7948.33	587.85	1709856.81	14354298.46	39°31'41.0298"N	80°45'13.4573"W	7970.04	175.770	0.51	0.00	0.51	
15354.00	89.230	161.800	6980.38	7801.30	-8038.75	616.97	1709885.91	14354208.08	39°31'40.1353"N	80°45'13.0888"W	8062.39	175.611	0.76	-0.20	-0.74	
15448.00	89.350	160.680	6981.54	7895.29	-8127.75	647.20	1709916.13	14354119.11	39°31'39.2549"N	80°45'12.7062"W	8153.48	175.447	1.20	0.13	-1.19	
15543.00	89.380	161.030	6982.60	7990.28	-8217.49	678.35	1709947.27	14354029.41	39°31'38.3672"N	80°45'12.3117"W	8245.44	175.281	0.37	0.03	0.37	
15638.00	89.380	161.590	6983.62	8085.28	-8307.48	708.79	1709977.70	14353939.46	39°31'37.4770"N	80°45'11.9264"W	8337.66	175.123	0.59	0.00	0.59	
15732.00	89.200	161.840	6984.79	8179.26	-8396.72	738.28	1710007.18	14353850.25	39°31'36.5942"N	80°45'11.5532"W	8429.12	174.975	0.33	-0.19	0.27	
15827.00	89.380	161.540	6985.97	8274.25	-8486.91	768.12	1710037.01	14353760.10	39°31'35.7020"N	80°45'11.1755"W	8521.59	174.828	0.37	0.19	-0.32	
15922.00	89.540	161.710	6986.86	8369.24	-8577.06	798.07	1710066.94	14353669.98	39°31'34.8102"N	80°45'10.7965"W	8614.11	174.684	0.25	0.17	0.18	
16017.00	89.480	161.680	6987.67	8464.23	-8667.25	827.91	1710096.77	14353579.83	39°31'33.9181"N	80°45'10.4189"W	8706.70	174.544	0.07	-0.06	-0.03	
16111.00	89.450	161.290	6988.55	8558.22	-8756.38	857.75	1710126.60	14353490.73	39°31'33.0363"N	80°45'10.0411"W	8798.29	174.405	0.42	-0.03	-0.41	
16206.00	89.290	160.570	6989.60	8653.21	-8846.16	888.79	1710157.63	14353400.99	39°31'32.1482"N	80°45'9.6482"W	8890.70	174.263	0.78	-0.17	-0.76	
16301.00	89.320	161.120	6990.75	8748.21	-8935.89	919.96	1710188.79	14353311.29	39°31'31.2605"N	80°45'9.2536"W	8983.12	174.122	0.58	0.03	0.58	



Actual Wellpath Report

Charlotte Unit 1H AWP Proj: 18644'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Charlotte Unit 1H
Field	Wetzel	API	47-103-03407-0000
Facility	Gadd Pad	Wellbore	Charlotte Unit 1H AWB
Slot	Slot #11		

WELLPATH DATA (206 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
16396.00	89.420	161.000	6991.79	8843.20	-9025.74	950.79	1710219.61	14353221.48	39°31'30.3716"N	80°45'8.8633"W	9075.68	173.987	0.16	0.11	-0.13	
16490.00	89.510	161.600	6992.67	8937.19	-9114.78	980.93	1710249.73	14353132.48	39°31'29.4908"N	80°45'8.4818"W	9167.41	173.857	0.65	0.10	0.64	
16585.00	89.380	160.960	6993.59	9032.19	-9204.75	1011.42	1710280.21	14353042.54	39°31'28.6008"N	80°45'8.0959"W	9260.15	173.729	0.69	-0.14	-0.67	
16680.00	89.510	160.340	6994.51	9127.18	-9294.37	1042.89	1710311.67	14352952.95	39°31'27.7141"N	80°45'7.6974"W	9352.70	173.598	0.67	0.14	-0.65	
16774.00	89.230	160.810	6995.55	9221.17	-9383.02	1074.15	1710342.92	14352864.34	39°31'26.8372"N	80°45'7.3016"W	9444.30	173.469	0.58	-0.30	0.50	
16869.00	89.320	160.860	6996.75	9316.16	-9472.75	1105.34	1710374.09	14352774.65	39°31'25.9495"N	80°45'6.9068"W	9537.02	173.344	0.11	0.09	0.05	
16964.00	89.350	161.040	6997.85	9411.16	-9562.54	1136.34	1710405.08	14352684.90	39°31'25.0613"N	80°45'6.5143"W	9629.82	173.223	0.19	0.03	0.19	
17058.00	89.230	160.610	6999.02	9505.15	-9651.31	1167.22	1710435.94	14352596.15	39°31'24.1830"N	80°45'6.1235"W	9721.64	173.104	0.47	-0.13	-0.46	
17153.00	89.750	161.270	6999.86	9600.15	-9741.10	1198.24	1710466.95	14352506.40	39°31'23.2948"N	80°45'5.7307"W	9814.52	172.987	0.88	0.55	0.69	
17247.00	89.080	160.680	7000.82	9694.14	-9829.96	1228.88	1710497.58	14352417.58	39°31'22.4157"N	80°45'5.3429"W	9906.48	172.874	0.95	-0.71	-0.63	
17342.00	89.450	161.060	7002.04	9789.13	-9919.71	1260.01	1710528.70	14352327.87	39°31'21.5279"N	80°45'4.9488"W	9999.41	172.761	0.56	0.39	0.40	
17436.00	89.600	161.830	7002.82	9883.12	-10008.82	1289.92	1710558.60	14352238.79	39°31'20.6464"N	80°45'4.5702"W	10091.60	172.656	0.83	0.16	0.82	
17531.00	88.980	160.690	7004.00	9978.11	-10098.77	1320.44	1710589.10	14352148.87	39°31'19.7565"N	80°45'4.1840"W	10184.73	172.551	1.37	-0.65	-1.20	
17626.00	89.320	160.370	7005.40	10073.10	-10188.33	1352.10	1710620.75	14352059.35	39°31'18.8705"N	80°45'3.7831"W	10277.66	172.440	0.49	0.36	-0.34	
17720.00	89.660	161.160	7006.24	10167.09	-10277.08	1383.06	1710651.71	14351970.64	39°31'17.9925"N	80°45'3.3911"W	10369.73	172.335	0.91	0.36	0.84	
17815.00	88.920	160.570	7007.42	10262.09	-10366.82	1414.20	1710682.83	14351880.93	39°31'17.1047"N	80°45'2.9969"W	10462.84	172.232	1.00	-0.78	-0.62	
17910.00	89.690	161.220	7008.57	10357.08	-10456.58	1445.29	1710713.91	14351791.21	39°31'16.2167"N	80°45'2.6034"W	10555.99	172.131	1.06	0.81	0.68	
18004.00	89.420	160.550	7009.30	10451.07	-10545.40	1476.07	1710744.68	14351702.43	39°31'15.3381"N	80°45'2.2137"W	10648.20	172.032	0.77	-0.29	-0.71	
18099.00	89.480	160.770	7010.21	10546.07	-10635.03	1507.53	1710776.13	14351612.83	39°31'14.4514"N	80°45'1.8155"W	10741.35	171.932	0.24	0.06	0.23	
18193.00	89.260	160.780	7011.25	10640.06	-10723.78	1538.48	1710807.06	14351524.11	39°31'13.5734"N	80°45'1.4237"W	10833.58	171.836	0.23	-0.23	0.01	
18288.00	89.450	160.660	7012.32	10735.05	-10813.45	1569.85	1710838.42	14351434.48	39°31'12.6863"N	80°45'1.0266"W	10926.81	171.740	0.24	0.20	-0.13	
18382.00	89.380	161.110	7013.28	10829.05	-10902.26	1600.63	1710869.18	14351345.70	39°31'11.8077"N	80°45'0.6370"W	11019.13	171.648	0.48	-0.07	0.48	
18477.00	89.380	161.140	7014.30	10924.04	-10992.15	1631.36	1710899.90	14351255.85	39°31'10.9185"N	80°45'0.2480"W	11112.54	171.558	0.03	0.00	0.03	
18572.00	89.630	160.560	7015.12	11019.04	-11081.89	1662.52	1710931.05	14351166.15	39°31'10.0307"N	80°44'59.8536"W	11205.90	171.468	0.66	0.26	-0.61	
18621.00	88.590	160.060	7015.89	11068.03	-11128.02	1679.03	1710947.55	14351120.04	39°31'9.5744"N	80°44'59.6445"W	11253.97	171.420	2.35	-2.12	-1.02	
18644.00‡	88.590	160.060	7016.45	11091.02	-11149.63	1686.87	1710955.39	14351098.43	39°31'9.3605"N	80°44'59.5453"W	11276.51	171.397	0.00	0.00	0.00	Projected MD at TD: 18644'



Actual Wellpath Report

Charlotte Unit 1H AWP Proj: 18644'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Charlotte Unit 1H
Field	Wetzel	API	47-103-03407-0000
Facility	Gadd Pad	Wellbore	Charlotte Unit 1H AWB
Slot	Slot #11		

HOLE & CASING SECTIONS - Ref Wellbore: Charlotte Unit 1H AWB Ref Wellpath: Charlotte Unit 1H AWP Proj: 18644'										
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	0.14	0.24	
17.5in Open Hole	130.00	492.00	362.00	130.00	491.99	0.14	0.24	-1.27	0.82	
13.375in Casing Surface	30.00	475.00	445.00	30.00	475.00	0.00	0.00	-1.19	0.87	
12.25in Open Hole	492.00	2742.00	2250.00	491.99	2641.37	-1.27	0.82	-31.95	-599.36	
9.625in Casing Intermediate	30.00	2712.00	2682.00	30.00	2613.23	0.00	0.00	-30.57	-589.04	
8.75in Open Hole	2742.00	6451.00	3709.00	2641.37	6118.13	-31.95	-599.36	-83.81	-1881.07	
8.5in Open Hole	6451.00	18644.00	12193.00	6118.13	7016.45	-83.81	-1881.07	-11149.63	1686.87	
5.5in Casing Production	30.00	18624.00	18594.00	30.00	7015.96	0.00	0.00	-11130.83	1680.05	

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Charlotte Unit 1H POE Rev-3	6923.00	-638.06	-1921.66	1707348.29	14361605.84	39°32'53.3458"N	80°45'45.2372"W	point
Charlotte Unit 1H BHL Rev-3	6949.00	-11150.05	1700.79	1710969.31	14351098.01	39°31'9.3560"N	80°44'59.3676"W	point
Charlotte Unit 1H LP Rev-3	6949.00	-818.85	-1859.36	1707410.56	14361425.12	39°32'51.5574"N	80°45'44.4480"W	point
Charlotte Unit 1H 50' L/R Hard Line Rev-3	7250.00	-5894.06	-110.44	1709158.80	14356351.92	39°32'1.3516"N	80°45'22.2977"W	rectangle
2D Rectangle 11118.6 x 100.								



Actual Wellpath Report

Charlotte Unit 1H AWP Proj: 18644'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Charlotte Unit 1H
Field	Wetzel	API	47-103-03407-0000
Facility	Gadd Pad	Wellbore	Charlotte Unit 1H AWB
Slot	Slot #11		

WELLPATH COMPOSITION - Ref Wellbore: Charlotte Unit 1H AWB Ref Wellpath: Charlotte Unit 1H AWP Proj: 18644'						
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date	
30.00	350.00	Gyrodata 2015 - GC+WIR+DPIPE	01_Gyrodata MS Gyro <17-1/2"> (100'-350')	Charlotte Unit 1H AWB	13/Jul/2021	
350.00	2667.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02_APS EM <12-1/4"> (350')(489'-2667')	Charlotte Unit 1H AWB	13/Jul/2021	
2667.00	6348.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03_APS EM <8-3/4"> (2667')(2750'-6348')	Charlotte Unit 1H AWB	05/Oct/2021	
6348.00	18644.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04_BH AT Curve <8-1/2"> (6348')(6459'-18621')	Charlotte Unit 1H AWB	05/Oct/2021	



Actual Wellpath Report

Charlotte Unit 1H AWP Proj: 18644'

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Field	Wetzel	API	47-103-03407-0000
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Slot	Slot #11		

COMMENTS

Wellpath general comments

API: 47-103-03407-0000

BH Job #: 110972198

Rig: H&P 519

Duration: 10/7/2021-10/11/2021

Gyrodata MS Gyro <17-1/2"> (100'-350')

APS EM <12-1/4"> (350')(489'-2667')

APS EM <8-3/4"> (2667')(2750'-6348')

BH AT Curve <8-1/2"> (6348')(6459'-18621')

Sycamore: 6979' MD

Middlesex: 7128' MD

Burkett: 7271' MD

Tully: 7330' MD

Marcellus POE: 7517' MD

Projected MD at TD: 18644'