



ANTERO RESOURCES CORPORATION

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

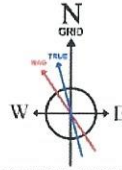
Slot: Slot K
 Well: Makar Unit 1H
 Wellbore: Makar Unit 1H PWB



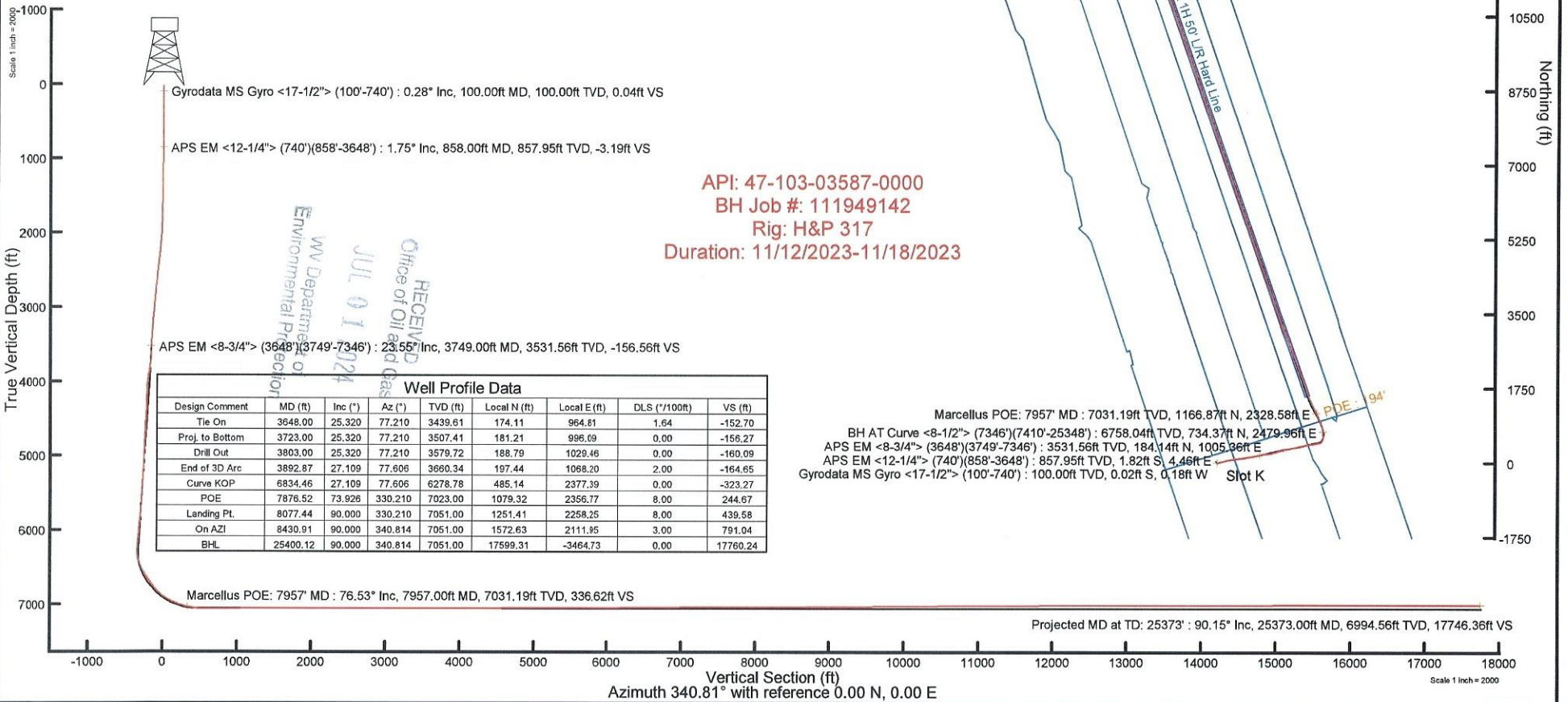
Pkt reference wellpath is Makar Unit 1H PWP Rev-B.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 317 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 317 (RKB)	Scale: True distance
H&P 317 (RKB) to Mean Sea Level: 1237.5 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot K): -1212 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: edwajay on 2023-12-15; Database: WA_MPL_EASTERNUS_Defn

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Furbee Pad	1716103.700	14364954.390	39°33'26.2100"N	80°43'53.2980"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot K	-281.97	144.34	1716247.980	14364672.530
Comment	Makar Unit 1H			
H&P 317 (RKB) to Ground level (At Slot: Slot K)	25.5ft			
Mean Sea Level to Ground level (At Slot: Slot K)	-1212ft			
H&P 317 (RKB) to Mean Sea Level	1237.5ft			

Well Data			
Slot	Well	Wellbore	Wellpath
Slot K	Makar Unit 1H	Makar Unit 1H AWB	Makar Unit 1H AWP Proj: 25373'
Slot K	Makar Unit 1H	Makar Unit 1H PWB	Makar Unit 1H PWP Rev-B.0



User specified (HDGM) Dip: 66.32° Field: 51674 nT
 Magnetic North is 7.84 degrees West of True North (at 11/9/2023)
 Grid North is 0.17 degrees East of True North
 To correct azimuth from True to Grid subtract 0.17 degrees
 To correct azimuth from Magnetic to Grid subtract 8.01 degrees



API: 47-103-03587-0000
 BH Job #: 111949142
 Rig: H&P 317
 Duration: 11/12/2023-11/18/2023

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	3648.00	25.320	77.210	3439.61	174.11	964.81	1.64	-152.70
Proj. to Bottom	3723.00	25.320	77.210	3507.41	181.21	996.09	0.00	-155.27
Drill Out	3803.00	25.320	77.210	3579.72	188.79	1029.46	0.00	-160.09
End of 3D Arc	3892.87	27.109	77.606	3660.34	197.44	1068.20	2.00	-164.65
Curve KOP	6834.46	27.109	77.606	6278.78	485.14	2377.39	0.00	-323.27
POE	7876.52	73.926	330.210	7023.00	1079.32	2356.77	8.00	244.67
Landing Pt.	8077.44	90.000	330.210	7051.00	1251.41	2258.25	8.00	439.58
On AZI	8430.91	90.000	340.814	7051.00	1572.63	2111.95	3.00	791.04
BHL	25400.12	90.000	340.814	7051.00	17599.31	-3464.73	0.00	17760.24

Gyrodatta MS Gyro <17-1/2"> (100'-740') : 0.28° Inc, 100.00ft MD, 100.00ft TVD, 0.04ft VS

APS EM <12-1/4"> (740')(858'-3648') : 1.75° Inc, 858.00ft MD, 857.95ft TVD, -3.19ft VS

APS EM <8-3/4"> (3648')(3749'-7346') : 23.55° Inc, 3749.00ft MD, 3531.56ft TVD, -156.56ft VS

Marcellus POE: 7957' MD : 76.53° Inc, 7957.00ft MD, 7031.19ft TVD, 336.62ft VS

Marcellus POE: 7957' MD : 7031.19ft TVD, 1166.87ft N, 2328.58ft E
 BH AT Curve <8-1/2"> (7346')(7410'-25348') : 6758.04ft TVD, 734.37ft N, 2479.96ft E
 APS EM <8-3/4"> (3648')(3749'-7346') : 3531.56ft TVD, 184.14ft N, 1005.86ft E
 APS EM <12-1/4"> (740')(858'-3648') : 857.95ft TVD, 1.82ft S, 4.46ft E
 Gyrodatta MS Gyro <17-1/2"> (100'-740') : 100.00ft TVD, 0.02ft S, 0.18ft W Slot K

Projected MD at TD: 25373' : 90.15° Inc, 25373.00ft MD, 6994.56ft TVD, 17746.36ft VS



Actual Wellpath Report

Makar Unit 1H AWP Proj: 25373'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 1H
Field	Wetzel	API	47-103-03587-0000
Facility	Furbee Pad	Wellbore	Makar Unit 1H AWB
Slot	Slot K		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999607	Report Generated	12/15/2023 at 2:00:07 AM
Convergence at slot	0.17° 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	-281.97	144.34	1716247.98	14364672.53	39°33'23.4190"N	80°43'51.4660"W
Facility Reference Pt			1716103.70	14364954.39	39°33'26.2100"N	80°43'53.2980"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 317 (RKB) to Facility Vertical Datum	1237.50ft
Horizontal Reference Pt	Slot	H&P 317 (RKB) to Mean Sea Level	1237.50ft
Vertical Reference Pt	H&P 317 (RKB)	H&P 317 (RKB) to Ground Level at Slot (Slot K)	25.50ft
MD Reference Pt	H&P 317 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	340.81°

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 1H
Field	Wetzel	API	47-103-03587-0000
Facility	Furbee Pad	Wellbore	Makar Unit 1H AWB
Slot	Slot K		

WELLPATH DATA (276 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	264.120	0.00	0.00	0.00	0.00	1716247.98	14364672.53	39°33'23.4190"N	80°43'51.4660"W	0.00	0.000	0.00	0.00	0.00	
25.50	0.000	264.120	25.50	0.00	0.00	0.00	1716247.98	14364672.53	39°33'23.4190"N	80°43'51.4660"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.280	264.120	100.00	0.04	-0.02	-0.18	1716247.80	14364672.51	39°33'23.4188"N	80°43'51.4683"W	0.18	264.120	0.38	0.38	0.00	Gyrodata MS Gyro <17-1/2"> (100'-740')
200.00	0.400	166.860	200.00	-0.25	-0.38	-0.34	1716247.64	14364672.15	39°33'23.4152"N	80°43'51.4704"W	0.52	221.949	0.52	0.12	-97.26	
300.00	0.330	167.980	300.00	-0.88	-1.01	-0.21	1716247.77	14364671.53	39°33'23.4091"N	80°43'51.4687"W	1.03	191.552	0.07	-0.07	1.12	
400.00	0.100	163.160	400.00	-1.25	-1.37	-0.12	1716247.86	14364671.16	39°33'23.4055"N	80°43'51.4676"W	1.38	185.013	0.23	-0.23	-4.82	
500.00	0.090	144.230	500.00	-1.42	-1.52	-0.05	1716247.93	14364671.01	39°33'23.4040"N	80°43'51.4667"W	1.52	181.850	0.03	-0.01	-18.93	
600.00	0.330	101.470	599.99	-1.64	-1.64	0.28	1716248.26	14364670.89	39°33'23.4028"N	80°43'51.4625"W	1.66	170.333	0.27	0.24	-42.76	
700.00	0.760	93.190	699.99	-2.04	-1.73	1.22	1716249.20	14364670.80	39°33'23.4018"N	80°43'51.4504"W	2.12	144.774	0.44	0.43	-8.28	
740.00	0.850	89.100	739.99	-2.23	-1.74	1.79	1716249.76	14364670.79	39°33'23.4017"N	80°43'51.4433"W	2.49	134.315	0.27	0.23	-10.23	
858.00	1.750	92.900	857.95	-3.19	-1.82	4.46	1716252.44	14364670.71	39°33'23.4009"N	80°43'51.4091"W	4.82	112.204	0.77	0.76	3.22	APS EM <12-1/4"> (740')(858'-3648')
947.00	2.830	85.580	946.88	-4.26	-1.72	8.01	1716255.98	14364670.81	39°33'23.4018"N	80°43'51.3638"W	8.19	102.121	1.25	1.21	-8.22	
1037.00	4.070	76.420	1036.72	-5.13	-0.80	13.33	1716261.30	14364671.73	39°33'23.4107"N	80°43'51.2959"W	13.35	93.429	1.50	1.38	-10.18	
1131.00	5.690	72.590	1130.37	-5.61	1.38	21.02	1716268.99	14364673.91	39°33'23.4320"N	80°43'51.1976"W	21.06	86.246	1.76	1.72	-4.07	
1226.00	7.500	73.720	1224.74	-6.07	4.53	31.46	1716279.43	14364677.05	39°33'23.4628"N	80°43'51.0641"W	31.79	81.813	1.91	1.91	1.19	
1321.00	9.340	74.240	1318.71	-6.84	8.36	44.83	1716292.80	14364680.89	39°33'23.5003"N	80°43'50.8933"W	45.61	79.439	1.94	1.94	0.55	
1415.00	11.040	74.200	1411.23	-7.83	12.88	60.84	1716308.79	14364685.41	39°33'23.5445"N	80°43'50.6888"W	62.19	78.045	1.81	1.81	-0.04	
1510.00	13.570	75.920	1504.04	-9.36	18.07	80.40	1716328.35	14364690.59	39°33'23.5952"N	80°43'50.4388"W	82.41	77.333	2.69	2.66	1.81	
1605.00	16.100	77.570	1595.86	-11.91	23.62	104.08	1716352.02	14364696.14	39°33'23.6493"N	80°43'50.1363"W	106.73	77.215	2.70	2.66	1.74	
1699.00	18.360	75.660	1685.64	-14.69	30.09	131.16	1716379.08	14364702.61	39°33'23.7125"N	80°43'49.7904"W	134.56	77.078	2.48	2.40	-2.03	
1794.00	20.720	73.880	1775.16	-16.86	38.46	161.80	1716409.72	14364710.98	39°33'23.7944"N	80°43'49.3988"W	166.31	76.628	2.56	2.48	-1.87	
1888.00	22.830	73.080	1862.45	-18.47	48.39	195.23	1716443.13	14364720.90	39°33'23.8915"N	80°43'48.9717"W	201.13	76.079	2.27	2.24	-0.85	
1982.00	24.440	75.880	1948.57	-20.91	58.44	231.53	1716479.42	14364730.95	39°33'23.9897"N	80°43'48.5078"W	238.80	75.834	2.09	1.71	2.98	
2077.00	24.630	79.330	2034.99	-25.58	66.90	270.05	1716517.92	14364739.41	39°33'24.0722"N	80°43'48.0157"W	278.21	76.086	1.52	0.20	3.63	
2172.00	24.730	81.450	2121.32	-32.18	73.52	309.15	1716557.01	14364746.02	39°33'24.1365"N	80°43'47.5162"W	317.78	76.623	0.94	0.11	2.23	
2267.00	24.950	81.180	2207.53	-39.46	79.55	348.60	1716596.45	14364752.05	39°33'24.1949"N	80°43'47.0123"W	357.57	77.146	0.26	0.23	-0.28	
2361.00	26.240	82.940	2292.30	-47.40	85.14	388.82	1716636.65	14364757.64	39°33'24.2490"N	80°43'46.4986"W	398.03	77.649	1.59	1.37	1.87	
2456.00	27.510	83.360	2377.04	-56.58	90.26	431.46	1716679.27	14364762.75	39°33'24.2983"N	80°43'45.9541"W	440.80	78.184	1.35	1.34	0.44	
2550.00	27.150	83.080	2460.55	-65.85	95.35	474.31	1716722.11	14364767.85	39°33'24.3473"N	80°43'45.4068"W	483.80	78.633	0.41	-0.38	-0.30	
2644.00	27.060	82.550	2544.23	-74.76	100.71	516.80	1716764.58	14364773.20	39°33'24.3990"N	80°43'44.8641"W	526.53	78.973	0.27	-0.10	-0.56	



Actual Wellpath Report

Makar Unit 1H AWP Proj: 25373'
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Field	Wetzel	API	47-103-03587-0000
Facility	Furbee Pad	Wellbore	Makar Unit 1H AWB
Slot	Slot K		

WELLPATH DATA (276 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
2738.00	27.530	82.720	2627.76	-83.59	106.24	559.55	1716807.31	14364778.72	39°33'24.4524"N	80°43'44.3181"W	569.55	79.250	0.51	0.50	0.18	
2833.00	27.630	81.920	2711.96	-92.37	112.11	603.14	1716850.88	14364784.60	39°33'24.5092"N	80°43'43.7613"W	613.47	79.470	0.40	0.11	-0.84	
2927.00	27.170	82.000	2795.42	-100.73	118.17	645.98	1716893.70	14364790.65	39°33'24.5677"N	80°43'43.2143"W	656.70	79.634	0.49	-0.49	0.09	
3021.00	27.060	79.310	2879.09	-108.06	125.12	688.24	1716935.95	14364797.60	39°33'24.6351"N	80°43'42.6744"W	699.52	79.696	1.31	-0.12	-2.86	
3116.00	26.310	81.590	2963.97	-115.19	132.21	730.30	1716977.99	14364804.68	39°33'24.7039"N	80°43'42.1371"W	742.17	79.739	1.34	-0.79	2.40	
3211.00	26.750	81.310	3048.97	-123.03	138.52	772.26	1717019.94	14364810.99	39°33'24.7650"N	80°43'41.6011"W	784.59	79.831	0.48	0.46	-0.29	
3305.00	26.690	80.970	3132.93	-130.60	145.03	814.03	1717061.68	14364817.50	39°33'24.8281"N	80°43'41.0677"W	826.84	79.898	0.17	-0.06	-0.36	
3400.00	26.840	79.930	3217.75	-137.77	152.12	856.21	1717103.85	14364824.59	39°33'24.8970"N	80°43'40.5288"W	869.62	79.925	0.52	0.16	-1.09	
3495.00	27.090	78.420	3302.43	-144.03	160.22	898.52	1717146.14	14364832.68	39°33'24.9757"N	80°43'39.9884"W	912.69	79.890	0.77	0.26	-1.59	
3589.00	26.150	78.350	3386.46	-149.58	168.70	939.78	1717187.38	14364841.16	39°33'25.0583"N	80°43'39.4613"W	954.80	79.823	1.00	-1.00	-0.07	
3648.00	25.320	77.210	3439.61	-152.70	174.11	964.81	1717212.41	14364846.58	39°33'25.1111"N	80°43'39.1415"W	980.40	79.770	1.64	-1.41	-1.93	
3749.00	23.550	74.940	3531.56	-156.56	184.14	1005.36	1717252.95	14364856.60	39°33'25.2090"N	80°43'38.6234"W	1022.09	79.621	1.98	-1.75	-2.25	APS EM <8-3/4"> (3648')(3749'-7346')
3843.00	25.850	74.670	3616.96	-159.29	194.44	1043.27	1717290.83	14364866.89	39°33'25.3096"N	80°43'38.1391"W	1061.23	79.443	2.45	2.45	-0.29	
3938.00	27.150	78.920	3701.98	-163.74	204.08	1084.52	1717332.07	14364876.53	39°33'25.4037"N	80°43'37.6120"W	1103.55	79.343	2.42	1.37	4.47	
4033.00	29.700	85.520	3785.54	-172.78	210.09	1129.27	1717376.80	14364882.53	39°33'25.4617"N	80°43'37.0405"W	1148.64	79.461	4.26	2.68	6.95	
4127.00	30.980	85.820	3866.67	-184.96	213.67	1176.61	1717424.13	14364886.11	39°33'25.4957"N	80°43'36.4358"W	1195.86	79.707	1.37	1.36	0.32	
4222.00	31.480	83.400	3947.90	-196.70	218.30	1225.64	1717473.14	14364890.75	39°33'25.5400"N	80°43'35.8097"W	1244.93	79.901	1.42	0.53	-2.55	
4316.00	30.090	78.710	4028.67	-205.29	225.74	1273.14	1717520.62	14364898.18	39°33'25.6121"N	80°43'35.2030"W	1293.00	79.946	2.95	-1.48	-4.99	
4411.00	28.390	73.270	4111.57	-209.53	236.90	1318.13	1717565.59	14364909.34	39°33'25.7211"N	80°43'34.6281"W	1339.25	79.811	3.32	-1.79	-5.73	
4505.00	27.240	75.090	4194.71	-212.10	248.87	1360.33	1717607.77	14364921.30	39°33'25.8381"N	80°43'34.0890"W	1382.90	79.632	1.52	-1.22	1.94	
4600.00	26.330	72.730	4279.52	-214.43	260.72	1401.46	1717648.88	14364933.15	39°33'25.9540"N	80°43'33.5634"W	1425.50	79.461	1.47	-0.96	-2.48	
4694.00	25.370	75.110	4364.12	-216.63	272.09	1440.83	1717688.24	14364944.51	39°33'26.0651"N	80°43'33.0604"W	1466.29	79.306	1.50	-1.02	2.53	
4789.00	25.740	77.800	4449.83	-220.67	281.68	1480.66	1717728.05	14364954.09	39°33'26.1587"N	80°43'32.5514"W	1507.21	79.229	1.28	0.39	2.83	
4883.00	25.020	76.400	4534.75	-225.09	290.66	1519.93	1717767.31	14364963.08	39°33'26.2463"N	80°43'32.0497"W	1547.47	79.174	1.00	-0.77	-1.49	
4978.00	26.050	76.480	4620.47	-229.11	300.26	1559.74	1717807.10	14364972.68	39°33'26.3400"N	80°43'31.5411"W	1588.38	79.103	1.08	1.08	0.08	
5073.00	27.080	78.270	4705.45	-233.98	309.54	1601.20	1717848.54	14364981.95	39°33'26.4304"N	80°43'31.0114"W	1630.84	79.059	1.37	1.08	1.88	
5167.00	26.600	75.930	4789.32	-238.63	319.00	1642.56	1717889.89	14364991.41	39°33'26.5227"N	80°43'30.4830"W	1673.25	79.009	1.23	-0.51	-2.49	
5262.00	27.580	75.920	4873.90	-242.49	329.52	1684.52	1717931.84	14365001.92	39°33'26.6254"N	80°43'29.9468"W	1716.45	78.932	1.03	1.03	-0.01	
5357.00	28.350	77.910	4957.81	-247.24	339.60	1727.91	1717975.21	14365012.00	39°33'26.7237"N	80°43'29.3925"W	1760.97	78.881	1.27	0.81	2.09	
5451.00	27.550	74.810	5040.85	-251.51	349.97	1770.72	1718018.00	14365022.36	39°33'26.8249"N	80°43'28.8456"W	1804.97	78.820	1.76	-0.85	-3.30	

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Makar Unit 1H AWP Proj: 25373'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 1H
Field	Wetzel	API	47-103-03587-0000
Facility	Furbee Pad	Wellbore	Makar Unit 1H AWB
Slot	Slot K		

WELLPATH DATA (276 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
5546.00	27.850	75.570	5124.96	-254.89	361.26	1813.41	1718060.67	14365033.64	39°33'26.9351"N	80°43'28.3000"W	1849.04	78.733	0.49	0.32	0.80	
5642.00	27.550	78.180	5209.96	-259.60	371.39	1856.86	1718104.10	14365043.78	39°33'27.0340"N	80°43'27.7449"W	1893.63	78.689	1.30	-0.31	2.72	
5737.00	26.480	74.770	5294.60	-263.88	381.46	1898.80	1718146.03	14365053.84	39°33'27.1322"N	80°43'27.2090"W	1936.74	78.641	1.98	-1.13	-3.59	
5831.00	26.130	77.370	5378.87	-267.69	391.49	1939.22	1718186.43	14365063.86	39°33'27.2301"N	80°43'26.6926"W	1978.34	78.587	1.28	-0.37	2.77	
5926.00	27.160	79.660	5463.78	-273.42	399.96	1980.97	1718228.16	14365072.33	39°33'27.3125"N	80°43'26.1593"W	2020.94	78.585	1.53	1.08	2.41	
6021.00	26.210	76.780	5548.66	-278.93	408.65	2022.72	1718269.90	14365081.01	39°33'27.3971"N	80°43'25.6258"W	2063.59	78.578	1.69	-1.00	-3.03	
6115.00	25.860	76.790	5633.12	-283.23	418.08	2062.89	1718310.05	14365090.44	39°33'27.4891"N	80°43'25.1127"W	2104.83	78.543	0.37	-0.37	0.01	
6210.00	27.190	78.470	5718.12	-288.28	427.15	2104.33	1718351.48	14365099.51	39°33'27.5776"N	80°43'24.5832"W	2147.24	78.526	1.61	1.40	1.77	
6305.00	27.970	82.270	5802.33	-295.60	434.49	2147.67	1718394.80	14365106.84	39°33'27.6487"N	80°43'24.0295"W	2191.18	78.563	2.03	0.82	4.00	
6399.00	28.040	83.440	5885.33	-304.81	439.98	2191.47	1718438.58	14365112.33	39°33'27.7017"N	80°43'23.4702"W	2235.20	78.648	0.59	0.07	1.24	
6494.00	25.890	79.330	5970.00	-312.77	446.37	2234.04	1718481.14	14365118.72	39°33'27.7635"N	80°43'22.9264"W	2278.20	78.701	2.99	-2.26	-4.33	
6589.00	25.120	81.590	6055.75	-319.61	453.16	2274.37	1718521.45	14365125.51	39°33'27.8294"N	80°43'22.4112"W	2319.08	78.732	1.31	-0.81	2.38	
6684.00	24.090	83.940	6142.12	-327.79	458.15	2313.60	1718560.67	14365130.50	39°33'27.8776"N	80°43'21.9102"W	2358.53	78.799	1.50	-1.08	2.47	
6778.00	26.380	82.800	6227.14	-336.49	462.80	2353.40	1718600.45	14365135.14	39°33'27.9223"N	80°43'21.4018"W	2398.47	78.875	2.49	2.44	-1.21	
6873.00	30.560	66.260	6310.77	-338.96	475.19	2396.53	1718643.57	14365147.53	39°33'28.0435"N	80°43'20.8507"W	2443.19	78.785	9.36	4.40	-17.41	
6967.00	34.070	47.890	6390.39	-326.78	502.54	2438.06	1718685.07	14365174.87	39°33'28.3125"N	80°43'20.3195"W	2489.31	78.353	11.05	3.73	-19.54	
7062.00	33.790	28.580	6469.45	-298.58	543.70	2470.53	1718717.53	14365216.02	39°33'28.7183"N	80°43'19.9032"W	2529.65	77.588	11.31	-0.29	-20.33	
7157.00	31.660	7.710	6549.62	-258.45	591.77	2486.57	1718733.56	14365264.06	39°33'29.1929"N	80°43'19.6966"W	2556.01	76.613	12.03	-2.24	-21.97	
7251.00	32.790	354.310	6629.24	-211.64	641.61	2487.35	1718734.35	14365313.88	39°33'29.6854"N	80°43'19.6846"W	2568.77	75.536	7.68	1.20	-14.26	
7326.00†	35.369	355.988	6691.36	-170.94	683.48	2483.82	1718730.82	14365355.74	39°33'30.0993"N	80°43'19.7281"W	2576.14	74.615	3.66	3.44	2.24	Sycamore: 7326' MD
7346.00	36.060	356.400	6707.60	-159.68	695.13	2483.04	1718730.04	14365367.38	39°33'30.2145"N	80°43'19.7375"W	2578.51	74.360	3.66	3.46	2.06	
7410.00	39.870	354.680	6758.04	-121.61	734.37	2479.96	1718726.96	14365406.61	39°33'30.6024"N	80°43'19.7753"W	2586.40	73.505	6.18	5.95	-2.69	BH AT Curve <8-1/2"> (7346')(7410'-25348')
7496.00†	44.145	350.764	6821.94	-65.31	791.41	2472.59	1718719.59	14365463.63	39°33'31.1664"N	80°43'19.8672"W	2596.16	72.252	5.83	4.97	-4.55	Middlesex: 7496' MD
7505.00	44.600	350.390	6828.38	-59.11	797.62	2471.56	1718718.56	14365469.83	39°33'31.2278"N	80°43'19.8801"W	2597.08	72.114	5.83	5.05	-4.16	
7599.00	53.500	343.390	6889.97	11.37	866.55	2455.21	1718702.22	14365538.74	39°33'31.9095"N	80°43'20.0861"W	2603.64	70.560	11.00	9.47	-7.45	
7653.00†	58.059	340.528	6920.33	55.99	908.98	2441.36	1718688.37	14365581.15	39°33'32.3293"N	80°43'20.2613"W	2605.08	69.578	9.51	8.44	-5.30	Burkett: 7653' MD
7694.00	61.560	338.540	6940.95	91.41	942.17	2428.96	1718675.98	14365614.32	39°33'32.6577"N	80°43'20.4183"W	2605.29	68.799	9.51	8.54	-4.85	
7713.00†	62.884	337.935	6949.80	108.20	957.78	2422.72	1718669.75	14365629.93	39°33'32.8122"N	80°43'20.4973"W	2605.17	68.430	7.52	6.97	-3.18	Tully: 7713' MD
7739.00	64.700	337.130	6961.28	131.49	979.33	2413.81	1718660.83	14365651.48	39°33'33.0255"N	80°43'20.6103"W	2604.91	67.917	7.52	6.98	-3.10	
7788.00	67.800	336.770	6981.02	176.24	1020.60	2396.25	1718643.28	14365692.72	39°33'33.4338"N	80°43'20.8328"W	2604.54	66.930	6.36	6.33	-0.73	



Actual Wellpath Report

Makar Unit 1H AWP Proj: 25373'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 1H
Field	Wetzel	API	47-103-03587-0000
Facility	Furbee Pad	Wellbore	Makar Unit 1H AWB
Slot	Slot K		

WELLPATH DATA (276 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
7834.00†	70.710	336.087	6997.31	219.12	1060.02	2379.05	1718626.09	14365732.13	39°33'33.8240"N	80°43'21.0509"W	2604.52	65.984	6.48	6.33	-1.48	Hamilton: 7834' MD
7882.00	73.750	335.400	7011.96	264.65	1101.69	2360.27	1718607.31	14365773.78	39°33'34.2364"N	80°43'21.2890"W	2604.72	64.979	6.48	6.33	-1.43	
7957.00†	76.531	332.759	7031.19	336.62	1166.87	2328.58	1718575.64	14365838.94	39°33'34.8815"N	80°43'21.6911"W	2604.58	63.384	5.03	3.71	-3.52	Marcellus POE: 7957' MD
7976.00	77.240	332.100	7035.50	354.93	1183.27	2320.01	1718567.07	14365855.34	39°33'35.0439"N	80°43'21.7998"W	2604.34	62.977	5.03	3.73	-3.47	
8071.00	82.230	333.370	7052.43	447.45	1266.34	2277.21	1718524.29	14365938.37	39°33'35.8662"N	80°43'22.3430"W	2605.63	60.922	5.41	5.25	1.34	
8165.00	90.890	334.790	7058.06	540.55	1350.65	2236.24	1718483.34	14366022.65	39°33'36.7007"N	80°43'22.8628"W	2612.48	58.869	9.34	9.21	1.51	
8259.00	90.150	334.640	7057.21	634.01	1435.64	2196.09	1718443.20	14366107.61	39°33'37.5419"N	80°43'23.3720"W	2623.72	56.826	0.80	-0.79	-0.16	
8353.00	90.090	336.780	7057.01	727.63	1521.32	2157.43	1718404.55	14366193.25	39°33'38.3898"N	80°43'23.8623"W	2639.87	54.810	2.28	-0.06	2.28	
8447.00	89.910	339.300	7057.01	821.52	1608.49	2122.28	1718369.42	14366280.38	39°33'39.2524"N	80°43'24.3077"W	2662.95	52.841	2.69	-0.19	2.68	
8542.00	90.180	341.590	7056.94	916.51	1698.00	2090.48	1718337.64	14366369.86	39°33'40.1381"N	80°43'24.7101"W	2693.20	50.915	2.43	0.28	2.41	
8636.00	91.570	342.320	7055.50	1010.47	1787.37	2061.37	1718308.53	14366459.19	39°33'41.0222"N	80°43'25.0783"W	2728.36	49.072	1.67	1.48	0.78	
8731.00	91.170	338.840	7053.23	1105.43	1876.92	2029.80	1718276.97	14366548.71	39°33'41.9082"N	80°43'25.4779"W	2764.58	47.241	3.69	-0.42	-3.66	
8826.00	90.460	339.340	7051.88	1200.38	1965.66	1995.89	1718243.09	14366637.41	39°33'42.7862"N	80°43'25.9073"W	2801.32	45.437	0.91	-0.75	0.53	
8921.00	90.400	338.930	7051.17	1295.34	2054.42	1962.06	1718209.26	14366726.14	39°33'43.6646"N	80°43'26.3359"W	2840.83	43.683	0.44	-0.06	-0.43	
9015.00	90.680	339.250	7050.28	1389.29	2142.23	1928.51	1718175.73	14366813.91	39°33'44.5334"N	80°43'26.7607"W	2882.41	41.995	0.45	0.30	0.34	
9110.00	90.550	339.210	7049.26	1484.25	2231.05	1894.83	1718142.06	14366902.70	39°33'45.4122"N	80°43'27.1874"W	2927.11	40.341	0.14	-0.14	-0.04	
9204.00	90.250	339.600	7048.60	1578.22	2319.04	1861.76	1718109.01	14366990.65	39°33'46.2829"N	80°43'27.6061"W	2973.90	38.758	0.52	-0.32	0.41	
9299.00	90.430	339.820	7048.04	1673.20	2408.14	1828.82	1718076.08	14367079.72	39°33'47.1645"N	80°43'28.0232"W	3023.86	37.214	0.30	0.19	0.23	
9394.00	89.880	339.630	7047.78	1768.18	2497.26	1795.90	1718043.17	14367168.80	39°33'48.0462"N	80°43'28.4401"W	3075.96	35.722	0.61	-0.58	-0.20	
9488.00	89.880	339.420	7047.98	1862.16	2585.32	1763.02	1718010.30	14367256.83	39°33'48.9175"N	80°43'28.8565"W	3129.23	34.291	0.22	0.00	-0.22	
9583.00	89.910	339.650	7048.15	1957.13	2674.32	1729.80	1717977.10	14367345.80	39°33'49.7982"N	80°43'29.2771"W	3185.00	32.896	0.24	0.03	0.24	
9677.00	89.750	339.670	7048.43	2051.11	2762.46	1697.13	1717944.44	14367433.90	39°33'50.6703"N	80°43'29.6909"W	3242.14	31.565	0.17	-0.17	0.02	
9772.00	89.780	339.690	7048.82	2146.09	2851.55	1664.14	1717911.46	14367522.95	39°33'51.5517"N	80°43'30.1086"W	3301.62	30.267	0.04	0.03	0.02	
9867.00	89.880	339.530	7049.10	2241.07	2940.60	1631.04	1717878.38	14367611.96	39°33'52.4328"N	80°43'30.5277"W	3362.65	29.016	0.20	0.11	-0.17	
9961.00	89.970	339.850	7049.23	2335.05	3028.75	1598.41	1717845.76	14367700.08	39°33'53.3050"N	80°43'30.9409"W	3424.65	27.823	0.35	0.10	0.34	
10056.00	89.820	340.030	7049.40	2430.04	3117.99	1565.83	1717813.19	14367789.28	39°33'54.1880"N	80°43'31.3535"W	3489.08	26.665	0.25	-0.16	0.19	
10151.00	89.080	339.790	7050.31	2525.03	3207.20	1533.20	1717780.57	14367878.46	39°33'55.0707"N	80°43'31.7667"W	3554.83	25.550	0.82	-0.78	-0.25	
10340.00	89.660	340.650	7052.39	2714.00	3385.04	1469.24	1717716.64	14368056.23	39°33'56.8302"N	80°43'32.5764"W	3690.14	23.463	0.55	0.31	0.46	
10435.00	90.220	340.650	7052.49	2809.00	3474.67	1437.77	1717685.18	14368145.83	39°33'57.7170"N	80°43'32.9748"W	3760.39	22.479	0.59	0.59	0.00	
10530.00	90.250	341.020	7052.10	2904.00	3564.41	1406.58	1717654.00	14368235.53	39°33'58.6048"N	80°43'33.3695"W	3831.90	21.535	0.39	0.03	0.39	

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Actual Wellpath Report

Makar Unit 1H AWP Proj: 25373'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 1H
Field	Wetzel	API	47-103-03587-0000
Facility	Furbee Pad	Wellbore	Makar Unit 1H AWB
Slot	Slot K		

WELLPATH DATA (276 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
10624.00	90.710	340.830	7051.31	2998.00	3653.24	1375.86	1717623.30	14368324.33	39°33'59.4837"N	80°43'33.7583"W	3903.74	20.637	0.53	0.49	-0.20	
10719.00	89.850	340.970	7050.85	3092.99	3743.01	1344.78	1717592.22	14368414.06	39°34'0.3718"N	80°43'34.1517"W	3977.25	19.762	0.92	-0.91	0.15	
10814.00	91.020	341.050	7050.13	3187.99	3832.83	1313.86	1717561.32	14368503.85	39°34'1.2605"N	80°43'34.5430"W	4051.77	18.921	1.23	1.23	0.08	
10908.00	89.630	339.710	7049.59	3281.98	3921.37	1282.30	1717529.78	14368592.35	39°34'2.1365"N	80°43'34.9425"W	4125.71	18.108	2.05	-1.48	-1.43	
11003.00	89.780	340.170	7050.08	3376.97	4010.61	1249.72	1717497.20	14368681.55	39°34'3.0194"N	80°43'35.3551"W	4200.80	17.307	0.51	0.16	0.48	
11097.00	90.370	340.510	7049.96	3470.96	4099.13	1218.09	1717465.59	14368770.04	39°34'3.8952"N	80°43'35.7555"W	4276.28	16.550	0.72	0.63	0.36	
11192.00	89.970	340.830	7049.68	3565.96	4188.77	1186.65	1717434.16	14368859.64	39°34'4.7821"N	80°43'36.1536"W	4353.61	15.817	0.54	-0.42	0.34	
11286.00	89.690	340.760	7049.96	3659.96	4277.54	1155.73	1717403.25	14368948.38	39°34'5.6604"N	80°43'36.5450"W	4430.92	15.119	0.31	-0.30	-0.07	
11380.00	90.150	340.690	7050.09	3753.96	4366.27	1124.70	1717372.23	14369037.07	39°34'6.5382"N	80°43'36.9377"W	4508.80	14.445	0.49	0.49	-0.07	
11474.00	89.660	340.330	7050.25	3847.96	4454.88	1093.33	1717340.88	14369125.65	39°34'7.4150"N	80°43'37.3348"W	4587.09	13.789	0.65	-0.52	-0.38	
11569.00	90.310	340.260	7050.27	3942.96	4544.32	1061.30	1717308.86	14369215.05	39°34'8.2998"N	80°43'37.7403"W	4666.60	13.146	0.69	0.68	-0.07	
11663.00	89.970	340.870	7050.04	4036.95	4632.96	1030.03	1717277.60	14369303.66	39°34'9.1769"N	80°43'38.1363"W	4746.08	12.534	0.74	-0.36	0.65	
11758.00	90.430	341.360	7049.71	4131.95	4722.85	999.28	1717246.86	14369393.51	39°34'10.0661"N	80°43'38.5255"W	4827.40	11.947	0.71	0.48	0.52	
11853.00	89.970	341.810	7049.38	4226.94	4812.98	969.27	1717216.86	14369483.61	39°34'10.9578"N	80°43'38.9052"W	4909.61	11.386	0.68	-0.48	0.47	
11947.00	91.080	341.670	7048.52	4320.92	4902.24	939.82	1717187.42	14369572.83	39°34'11.8409"N	80°43'39.2778"W	4991.52	10.853	1.19	1.18	-0.15	
12042.00	89.780	340.120	7047.80	4415.92	4992.00	908.73	1717156.35	14369662.56	39°34'12.7290"N	80°43'39.6713"W	5074.04	10.317	2.13	-1.37	-1.63	
12137.00	90.060	340.820	7047.94	4510.91	5081.54	876.97	1717124.60	14369752.06	39°34'13.6148"N	80°43'40.0734"W	5156.65	9.792	0.79	0.29	0.74	
12231.00	90.800	341.240	7047.23	4604.91	5170.43	846.41	1717094.06	14369840.91	39°34'14.4942"N	80°43'40.4602"W	5239.25	9.297	0.91	0.79	0.45	
12326.00	89.880	340.970	7046.67	4699.91	5260.31	815.65	1717063.31	14369930.76	39°34'15.3834"N	80°43'40.8495"W	5323.17	8.814	1.01	-0.97	-0.28	
12421.00	90.180	340.760	7046.62	4794.90	5350.06	784.51	1717032.18	14370020.47	39°34'16.2714"N	80°43'41.2437"W	5407.27	8.342	0.39	0.32	-0.22	
12515.00	90.280	341.150	7046.24	4888.90	5438.91	753.83	1717001.52	14370109.29	39°34'17.1505"N	80°43'41.6320"W	5490.90	7.891	0.43	0.11	0.41	
12610.00	89.850	340.940	7046.13	4983.90	5528.76	722.98	1716970.67	14370199.10	39°34'18.0394"N	80°43'42.0226"W	5575.83	7.450	0.50	-0.45	-0.22	
12705.00	90.280	342.140	7046.02	5078.89	5618.87	692.90	1716940.60	14370289.18	39°34'18.9308"N	80°43'42.4032"W	5661.43	7.030	1.34	0.45	1.26	
12800.00	89.910	340.810	7045.87	5173.88	5708.94	662.71	1716910.43	14370379.22	39°34'19.8220"N	80°43'42.7852"W	5747.28	6.621	1.45	-0.39	-1.40	
12894.00	89.660	340.500	7046.22	5267.88	5797.64	631.58	1716879.31	14370467.87	39°34'20.6995"N	80°43'43.1794"W	5831.94	6.217	0.42	-0.27	-0.33	
12989.00	89.780	340.280	7046.68	5362.88	5887.12	599.69	1716847.44	14370557.33	39°34'21.5848"N	80°43'43.5831"W	5917.59	5.816	0.26	0.13	-0.23	
13084.00	89.970	340.630	7046.89	5457.88	5976.65	567.91	1716815.67	14370646.82	39°34'22.4706"N	80°43'43.9855"W	6003.57	5.428	0.42	0.20	0.37	
13178.00	90.180	339.390	7046.77	5551.87	6064.98	535.78	1716783.54	14370735.12	39°34'23.3446"N	80°43'44.3924"W	6088.60	5.048	1.34	0.22	-1.32	
13273.00	91.140	341.070	7045.67	5646.85	6154.38	503.65	1716751.43	14370824.47	39°34'24.2290"N	80°43'44.7993"W	6174.95	4.678	2.04	1.01	1.77	
13368.00	90.340	340.780	7044.45	5741.84	6244.15	472.60	1716720.40	14370914.21	39°34'25.1172"N	80°43'45.1923"W	6262.01	4.328	0.90	-0.84	-0.31	



Actual Wellpath Report

Makar Unit 1H AWP Proj: 25373'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 1H
Field	Wetzel	API	47-103-03587-0000
Facility	Furbee Pad	Wellbore	Makar Unit 1H AWP
Slot	Slot K		

WELLPATH DATA (276 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
13462.00	90.280	340.980	7043.94	5835.84	6332.96	441.81	1716689.62	14371002.99	39°34'25.9959"N	80°43'45.5821"W	6348.36	3.991	0.22	-0.06	0.21	
13557.00	90.280	340.750	7043.47	5930.84	6422.71	410.67	1716658.49	14371092.70	39°34'26.8838"N	80°43'45.9763"W	6435.83	3.659	0.24	0.00	-0.24	
13651.00	90.770	341.040	7042.61	6024.83	6511.53	379.91	1716627.74	14371181.49	39°34'27.7625"N	80°43'46.3657"W	6522.61	3.339	0.61	0.52	0.31	
13746.00	90.620	340.670	7041.46	6119.83	6601.27	348.76	1716596.60	14371271.19	39°34'28.6504"N	80°43'46.7601"W	6610.48	3.024	0.42	-0.16	-0.39	
13840.00	90.890	341.020	7040.22	6213.82	6690.06	317.91	1716565.77	14371359.94	39°34'29.5288"N	80°43'47.1506"W	6697.61	2.721	0.47	0.29	0.37	
13935.00	90.460	340.870	7039.10	6308.81	6779.85	286.90	1716534.77	14371449.70	39°34'30.4171"N	80°43'47.5432"W	6785.91	2.423	0.48	-0.45	-0.16	
14029.00	90.120	340.970	7038.63	6402.81	6868.68	256.17	1716504.05	14371538.50	39°34'31.2960"N	80°43'47.9322"W	6873.46	2.136	0.38	-0.36	0.11	
14123.00	90.400	340.950	7038.20	6496.81	6957.54	225.51	1716473.40	14371627.32	39°34'32.1751"N	80°43'48.3204"W	6961.19	1.856	0.30	0.30	-0.02	
14218.00	90.490	340.960	7037.46	6591.81	7047.34	194.51	1716442.41	14371717.08	39°34'33.0635"N	80°43'48.7128"W	7050.02	1.581	0.10	0.09	0.01	
14312.00	90.490	341.090	7036.66	6685.80	7136.22	163.95	1716411.86	14371805.93	39°34'33.9429"N	80°43'49.0997"W	7138.11	1.316	0.14	0.00	0.14	
14406.00	90.340	340.580	7035.98	6779.80	7225.01	133.09	1716381.02	14371894.68	39°34'34.8213"N	80°43'49.4904"W	7226.24	1.055	0.57	-0.16	-0.54	
14501.00	90.580	340.890	7035.21	6874.79	7314.69	101.75	1716349.69	14371984.33	39°34'35.7085"N	80°43'49.8872"W	7315.40	0.797	0.41	0.25	0.33	
14596.00	90.370	341.050	7034.43	6969.79	7404.49	70.77	1716318.72	14372074.10	39°34'36.5970"N	80°43'50.2794"W	7404.83	0.548	0.28	-0.22	0.17	
14690.00	90.490	340.710	7033.72	7063.79	7493.31	39.98	1716287.95	14372162.87	39°34'37.4757"N	80°43'50.6692"W	7493.41	0.306	0.38	0.13	-0.36	
14785.00	90.400	340.740	7032.98	7158.79	7582.98	8.62	1716256.60	14372252.51	39°34'38.3628"N	80°43'51.0662"W	7582.98	0.065	0.10	-0.09	0.03	
14879.00	90.650	341.100	7032.12	7252.78	7671.81	-22.10	1716225.89	14372341.31	39°34'39.2417"N	80°43'51.4552"W	7671.84	359.835	0.47	0.27	0.38	
14974.00	90.220	341.070	7031.40	7347.78	7761.68	-52.90	1716195.10	14372431.14	39°34'40.1308"N	80°43'51.8451"W	7761.86	359.610	0.45	-0.45	-0.03	
15069.00	90.090	341.000	7031.14	7442.78	7851.52	-83.77	1716164.24	14372520.94	39°34'41.0196"N	80°43'52.2359"W	7851.97	359.389	0.16	-0.14	-0.07	
15163.00	90.120	341.080	7030.97	7536.77	7940.42	-114.31	1716133.71	14372609.81	39°34'41.8991"N	80°43'52.6226"W	7941.24	359.175	0.09	0.03	0.09	
15258.00	90.120	341.290	7030.77	7631.77	8030.34	-144.95	1716103.09	14372699.70	39°34'42.7888"N	80°43'53.0104"W	8031.65	358.966	0.22	0.00	0.22	
15352.00	90.060	340.630	7030.62	7725.77	8119.20	-175.62	1716072.43	14372788.52	39°34'43.6679"N	80°43'53.3987"W	8121.10	358.761	0.71	-0.06	-0.70	
15447.00	90.250	341.160	7030.37	7820.77	8208.97	-206.71	1716041.35	14372878.25	39°34'44.5560"N	80°43'53.7923"W	8211.57	358.558	0.59	0.20	0.56	
15541.00	90.310	341.450	7029.91	7914.77	8298.01	-236.84	1716011.23	14372967.25	39°34'45.4368"N	80°43'54.1737"W	8301.38	358.365	0.32	0.06	0.31	
15636.00	90.250	340.780	7029.44	8009.76	8387.89	-267.59	1715980.50	14373057.10	39°34'46.3261"N	80°43'54.5630"W	8392.16	358.173	0.71	-0.06	-0.71	
15731.00	90.120	340.870	7029.14	8104.76	8477.62	-298.79	1715949.31	14373146.80	39°34'47.2138"N	80°43'54.9581"W	8482.88	357.981	0.17	-0.14	0.09	
15825.00	90.030	340.650	7029.01	8198.76	8566.37	-329.77	1715918.34	14373235.51	39°34'48.0919"N	80°43'55.3503"W	8572.71	357.795	0.25	-0.10	-0.23	
15920.00	90.030	340.820	7028.96	8293.76	8656.05	-361.11	1715887.01	14373325.16	39°34'48.9791"N	80°43'55.7472"W	8663.58	357.611	0.18	0.00	0.18	
16014.00	89.820	340.600	7029.09	8387.76	8744.77	-392.16	1715855.97	14373413.84	39°34'49.8569"N	80°43'56.1404"W	8753.56	357.432	0.32	-0.22	-0.23	
16108.00	90.370	340.870	7028.93	8481.76	8833.51	-423.18	1715824.97	14373502.54	39°34'50.7348"N	80°43'56.5331"W	8843.64	357.257	0.65	0.59	0.29	
16203.00	90.370	340.550	7028.32	8576.76	8923.17	-454.56	1715793.60	14373592.17	39°34'51.6219"N	80°43'56.9305"W	8934.74	357.084	0.34	0.00	-0.34	

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Actual Wellpath Report

Makar Unit 1H AWP Proj: 25373'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 1H
Field	Wetzel	API	47-103-03587-0000
Facility	Furbee Pad	Wellbore	Makar Unit 1H AWP
Slot	Slot K		

WELLPATH DATA (276 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
16297.00	90.310	340.840	7027.76	8670.76	9011.88	-485.63	1715762.54	14373680.85	39°34'52.4996"N	80°43'57.3241"W	9024.96	356.915	0.32	-0.06	0.31	
16392.00	90.430	340.930	7027.15	8765.75	9101.64	-516.74	1715731.44	14373770.58	39°34'53.3876"N	80°43'57.7179"W	9116.30	356.751	0.16	0.13	0.09	
16486.00	90.490	341.090	7026.39	8859.75	9190.53	-547.33	1715700.87	14373859.42	39°34'54.2669"N	80°43'58.1052"W	9206.81	356.592	0.18	0.06	0.17	
16580.00	90.430	340.690	7025.64	8953.75	9279.34	-578.10	1715670.11	14373948.20	39°34'55.1456"N	80°43'58.4949"W	9297.33	356.435	0.43	-0.06	-0.43	
16675.00	90.460	341.060	7024.90	9048.74	9369.10	-609.23	1715638.99	14374037.92	39°34'56.0336"N	80°43'58.8890"W	9388.88	356.280	0.39	0.03	0.39	
16769.00	90.340	340.730	7024.24	9142.74	9457.92	-639.99	1715608.24	14374126.71	39°34'56.9123"N	80°43'59.2785"W	9479.55	356.129	0.37	-0.13	-0.35	
16862.00	90.340	340.600	7023.69	9235.74	9545.67	-670.78	1715577.46	14374214.43	39°34'57.7805"N	80°43'59.6685"W	9569.21	355.980	0.14	0.00	-0.14	
16956.00	90.430	341.040	7023.06	9329.74	9634.45	-701.66	1715546.59	14374303.17	39°34'58.6588"N	80°44'0.0595"W	9659.97	355.835	0.48	0.10	0.47	
17051.00	90.490	341.020	7022.30	9424.73	9724.29	-732.55	1715515.72	14374392.97	39°34'59.5476"N	80°44'0.4505"W	9751.84	355.692	0.07	0.06	-0.02	
17145.00	90.520	340.810	7021.47	9518.73	9813.12	-763.28	1715485.00	14374481.77	39°35'0.4264"N	80°44'0.8397"W	9842.76	355.552	0.23	0.03	-0.22	
17239.00	90.340	340.720	7020.76	9612.73	9901.87	-794.25	1715454.05	14374570.48	39°35'1.3045"N	80°44'1.2318"W	9933.67	355.414	0.21	-0.19	-0.10	
17334.00	90.400	340.880	7020.15	9707.73	9991.58	-825.49	1715422.82	14374660.16	39°35'2.1920"N	80°44'1.6275"W	10025.62	355.277	0.18	0.06	0.17	
17428.00	90.430	340.670	7019.47	9801.72	10080.34	-856.44	1715391.88	14374748.88	39°35'3.0701"N	80°44'2.0194"W	10116.65	355.144	0.23	0.03	-0.22	
17523.00	90.430	340.890	7018.76	9896.72	10170.04	-887.71	1715360.62	14374838.55	39°35'3.9576"N	80°44'2.4155"W	10208.71	355.011	0.23	0.00	0.23	
17618.00	90.490	340.540	7017.99	9991.72	10259.70	-919.09	1715329.26	14374928.18	39°35'4.8447"N	80°44'2.8128"W	10300.79	354.881	0.37	0.06	-0.37	
17712.00	90.430	340.620	7017.24	10085.71	10348.35	-950.34	1715298.02	14375016.79	39°35'5.7217"N	80°44'3.2086"W	10391.90	354.753	0.11	-0.06	0.09	
17807.00	90.520	340.700	7016.45	10180.71	10437.99	-981.80	1715266.57	14375106.39	39°35'6.6085"N	80°44'3.6071"W	10484.06	354.627	0.13	0.09	0.08	
17901.00	90.430	340.170	7015.67	10274.70	10526.56	-1013.28	1715235.10	14375194.93	39°35'7.4848"N	80°44'4.0057"W	10575.22	354.502	0.57	-0.10	-0.56	
17996.00	90.400	340.660	7014.98	10369.70	10616.06	-1045.12	1715203.27	14375284.39	39°35'8.3703"N	80°44'4.4091"W	10667.38	354.378	0.52	-0.03	0.52	
18090.00	90.400	340.590	7014.33	10463.70	10704.73	-1076.30	1715172.10	14375373.03	39°35'9.2476"N	80°44'4.8040"W	10758.71	354.259	0.07	0.00	-0.07	
18185.00	90.430	340.810	7013.64	10558.69	10794.39	-1107.70	1715140.72	14375462.66	39°35'10.1346"N	80°44'5.2017"W	10851.08	354.141	0.23	0.03	0.23	
18279.00	90.650	340.950	7012.75	10652.69	10883.20	-1138.49	1715109.94	14375551.43	39°35'11.0132"N	80°44'5.5916"W	10942.59	354.028	0.28	0.23	0.15	
18374.00	90.430	340.530	7011.86	10747.68	10972.88	-1169.83	1715078.62	14375641.07	39°35'11.9005"N	80°44'5.9884"W	11035.06	353.915	0.50	-0.23	-0.44	
18468.00	90.030	340.610	7011.48	10841.68	11061.53	-1201.09	1715047.36	14375729.68	39°35'12.7775"N	80°44'6.3845"W	11126.55	353.803	0.43	-0.43	0.09	
18563.00	90.180	340.720	7011.31	10936.68	11151.17	-1232.55	1715015.92	14375819.29	39°35'13.6643"N	80°44'6.7829"W	11219.08	353.693	0.20	0.16	0.12	
18657.00	90.180	340.570	7011.01	11030.68	11239.86	-1263.70	1714984.78	14375907.94	39°35'14.5417"N	80°44'7.1774"W	11310.67	353.585	0.16	0.00	-0.16	
18752.00	90.150	340.460	7010.74	11125.68	11329.42	-1295.39	1714953.10	14375997.47	39°35'15.4278"N	80°44'7.5788"W	11403.23	353.477	0.12	-0.03	-0.12	
18847.00	90.180	340.620	7010.46	11220.68	11418.99	-1327.04	1714921.47	14376087.00	39°35'16.3140"N	80°44'7.9797"W	11495.84	353.371	0.17	0.03	0.17	
18941.00	90.250	340.680	7010.11	11314.68	11507.68	-1358.18	1714890.33	14376175.66	39°35'17.1914"N	80°44'8.3742"W	11587.55	353.269	0.10	0.07	0.06	
19036.00	90.000	340.370	7009.90	11409.68	11597.24	-1389.86	1714858.67	14376265.19	39°35'18.0775"N	80°44'8.7754"W	11680.23	353.166	0.42	-0.26	-0.33	



Actual Wellpath Report

Makar Unit 1H AWP Proj: 25373'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 1H
Field	Wetzel	API	47-103-03587-0000
Facility	Furbee Pad	Wellbore	Makar Unit 1H AWB
Slot	Slot K		

WELLPATH DATA (276 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
19131.00	90.340	340.350	7009.62	11504.67	11686.72	-1421.79	1714826.76	14376354.62	39°35'18.9627"N	80°44'9.1798"W	11772.88	353.064	0.36	0.36	-0.02	
19226.00	90.370	340.640	7009.03	11599.67	11776.26	-1453.51	1714795.05	14376444.13	39°35'19.8486"N	80°44'9.5816"W	11865.62	352.964	0.31	0.03	0.31	
19320.00	90.400	340.910	7008.40	11693.67	11865.02	-1484.46	1714764.11	14376532.86	39°35'20.7267"N	80°44'9.9736"W	11957.52	352.869	0.29	0.03	0.29	
19415.00	90.280	340.610	7007.84	11788.66	11954.71	-1515.76	1714732.82	14376622.51	39°35'21.6141"N	80°44'10.3701"W	12050.42	352.774	0.34	-0.13	-0.32	
19509.00	90.250	340.990	7007.40	11882.66	12043.48	-1546.67	1714701.92	14376711.25	39°35'22.4923"N	80°44'10.7617"W	12142.39	352.682	0.41	-0.03	0.40	
19604.00	90.220	340.700	7007.01	11977.66	12133.22	-1577.85	1714670.76	14376800.95	39°35'23.3801"N	80°44'11.1565"W	12235.38	352.591	0.31	-0.03	-0.31	
19699.00	90.220	340.840	7006.65	12072.66	12222.92	-1609.13	1714639.48	14376890.61	39°35'24.2675"N	80°44'11.5528"W	12328.38	352.500	0.15	0.00	0.15	
19793.00	90.220	340.800	7006.29	12166.66	12311.70	-1640.02	1714608.61	14376979.36	39°35'25.1459"N	80°44'11.9439"W	12420.45	352.412	0.04	0.00	-0.04	
19887.00	90.060	340.630	7006.06	12260.66	12400.42	-1671.06	1714577.58	14377068.05	39°35'26.0236"N	80°44'12.3371"W	12512.51	352.325	0.25	-0.17	-0.18	
19982.00	90.680	340.280	7005.45	12355.66	12489.95	-1702.84	1714545.81	14377157.54	39°35'26.9093"N	80°44'12.7397"W	12605.49	352.236	0.75	0.65	-0.37	
20076.00	90.180	340.740	7004.74	12449.65	12578.56	-1734.20	1714514.46	14377246.11	39°35'27.7860"N	80°44'13.1370"W	12697.54	352.150	0.72	-0.53	0.49	
20171.00	90.030	340.980	7004.57	12544.65	12668.31	-1765.35	1714483.33	14377335.83	39°35'28.6739"N	80°44'13.5315"W	12790.72	352.067	0.30	-0.16	0.25	
20266.00	89.970	340.670	7004.57	12639.65	12758.04	-1796.56	1714452.13	14377425.52	39°35'29.5616"N	80°44'13.9267"W	12883.91	351.984	0.33	-0.06	-0.33	
20361.00	89.780	340.320	7004.77	12734.65	12847.58	-1828.28	1714420.43	14377515.03	39°35'30.4475"N	80°44'14.3286"W	12977.02	351.901	0.42	-0.20	-0.37	
20455.00	90.120	340.790	7004.85	12828.65	12936.22	-1859.57	1714389.15	14377603.64	39°35'31.3245"N	80°44'14.7250"W	13069.19	351.820	0.62	0.36	0.50	
20549.00	89.880	340.680	7004.85	12922.65	13024.96	-1890.58	1714358.15	14377692.34	39°35'32.2024"N	80°44'15.1178"W	13161.45	351.741	0.28	-0.26	-0.12	
20643.00	90.000	340.620	7004.95	13016.65	13113.65	-1921.73	1714327.01	14377780.99	39°35'33.0798"N	80°44'15.5124"W	13253.71	351.663	0.14	0.13	-0.06	
20738.00	89.970	340.530	7004.98	13111.65	13203.24	-1953.32	1714295.43	14377870.55	39°35'33.9662"N	80°44'15.9126"W	13346.95	351.585	0.10	-0.03	-0.09	
20833.00	89.940	340.510	7005.05	13206.65	13292.80	-1985.00	1714263.76	14377960.08	39°35'34.8522"N	80°44'16.3139"W	13440.19	351.507	0.04	-0.03	-0.02	
20927.00	90.030	340.590	7005.08	13300.64	13381.44	-2016.30	1714232.47	14378048.68	39°35'35.7291"N	80°44'16.7105"W	13532.49	351.431	0.13	0.10	0.09	
21021.00	89.970	340.550	7005.08	13394.64	13470.08	-2047.57	1714201.22	14378137.29	39°35'36.6061"N	80°44'17.1066"W	13624.82	351.357	0.08	-0.06	-0.04	
21115.00	90.000	340.600	7005.10	13488.64	13558.73	-2078.83	1714169.97	14378225.90	39°35'37.4832"N	80°44'17.5026"W	13717.17	351.283	0.06	0.03	0.05	
21210.00	89.940	340.530	7005.15	13583.64	13648.32	-2110.44	1714138.37	14378315.45	39°35'38.3695"N	80°44'17.9031"W	13810.53	351.210	0.10	-0.06	-0.07	
21304.00	90.030	340.710	7005.18	13677.64	13736.99	-2141.64	1714107.19	14378404.09	39°35'39.2468"N	80°44'18.2982"W	13902.94	351.139	0.21	0.10	0.19	
21399.00	90.060	340.830	7005.10	13772.64	13826.69	-2172.93	1714075.91	14378493.76	39°35'40.1342"N	80°44'18.6946"W	13996.40	351.069	0.13	0.03	0.13	
21494.00	90.340	340.710	7004.77	13867.64	13916.39	-2204.22	1714044.64	14378583.42	39°35'41.0216"N	80°44'19.0910"W	14089.87	351.000	0.32	0.29	-0.13	
21588.00	90.120	340.440	7004.39	13961.64	14005.04	-2235.48	1714013.39	14378672.03	39°35'41.8986"N	80°44'19.4870"W	14182.33	350.931	0.37	-0.23	-0.29	
21683.00	89.880	339.940	7004.39	14056.63	14094.42	-2267.67	1713981.20	14378761.38	39°35'42.7829"N	80°44'19.8950"W	14275.68	350.860	0.58	-0.25	-0.53	
21778.00	90.220	340.510	7004.31	14151.63	14183.82	-2299.81	1713949.08	14378850.74	39°35'43.6673"N	80°44'20.3022"W	14369.06	350.790	0.70	0.36	0.60	
21872.00	89.940	340.470	7004.18	14245.63	14272.42	-2331.21	1713917.70	14378939.31	39°35'44.5439"N	80°44'20.6999"W	14461.55	350.723	0.30	-0.30	-0.04	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 1H
Field	Wetzel	API	47-103-03587-0000
Facility	Furbee Pad	Wellbore	Makar Unit 1H AWB
Slot	Slot K		

WELLPATH DATA (276 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
21967.00	90.030	340.290	7004.20	14340.62	14361.90	-2363.11	1713885.81	14379028.75	39°35'45.4292"N	80°44'21.1041"W	14555.02	350.656	0.21	0.09	-0.19	
22062.00	90.400	340.710	7003.85	14435.62	14451.45	-2394.82	1713854.11	14379118.27	39°35'46.3151"N	80°44'21.5059"W	14648.54	350.591	0.59	0.39	0.44	
22156.00	90.060	341.360	7003.47	14529.62	14540.35	-2425.37	1713823.57	14379207.13	39°35'47.1946"N	80°44'21.8928"W	14741.24	350.530	0.78	-0.36	0.69	
22251.00	90.310	341.450	7003.16	14624.61	14630.39	-2455.66	1713793.29	14379297.13	39°35'48.0853"N	80°44'22.2765"W	14835.04	350.472	0.28	0.26	0.09	
22345.00	90.250	341.200	7002.70	14718.61	14719.44	-2485.76	1713763.21	14379386.15	39°35'48.9663"N	80°44'22.6577"W	14927.86	350.415	0.27	-0.06	-0.27	
22439.00	90.430	341.150	7002.15	14812.60	14808.41	-2516.09	1713732.89	14379475.08	39°35'49.8465"N	80°44'23.0418"W	15020.64	350.357	0.20	0.19	-0.05	
22534.00	90.490	341.570	7001.38	14907.60	14898.42	-2546.45	1713702.54	14379565.06	39°35'50.7369"N	80°44'23.4264"W	15114.48	350.301	0.45	0.06	0.44	
22629.00	90.430	341.240	7000.62	15002.59	14988.46	-2576.74	1713672.26	14379655.06	39°35'51.6277"N	80°44'23.8100"W	15208.34	350.245	0.35	-0.06	-0.35	
22723.00	90.370	341.350	6999.96	15096.58	15077.49	-2606.89	1713642.12	14379744.06	39°35'52.5085"N	80°44'24.1918"W	15301.20	350.191	0.13	-0.06	0.12	
22818.00	90.490	341.720	6999.25	15191.57	15167.60	-2636.98	1713612.05	14379834.13	39°35'53.3999"N	80°44'24.5729"W	15395.12	350.137	0.41	0.13	0.39	
22912.00	90.370	341.670	6998.55	15285.56	15256.84	-2666.50	1713582.54	14379923.34	39°35'54.2827"N	80°44'24.9467"W	15488.11	350.086	0.14	-0.13	-0.05	
23006.00	90.550	341.610	6997.79	15379.55	15346.05	-2696.11	1713552.94	14380012.51	39°35'55.1652"N	80°44'25.3216"W	15581.09	350.036	0.20	0.19	-0.06	
23101.00	90.280	341.780	6997.10	15474.53	15436.24	-2725.94	1713523.12	14380102.67	39°35'56.0574"N	80°44'25.6995"W	15675.09	349.985	0.34	-0.28	0.18	
23195.00	90.220	341.140	6996.69	15568.52	15525.36	-2755.83	1713493.24	14380191.75	39°35'56.9391"N	80°44'26.0780"W	15768.05	349.935	0.68	-0.06	-0.68	
23290.00	90.280	341.420	6996.28	15663.52	15615.34	-2786.32	1713462.76	14380281.69	39°35'57.8292"N	80°44'26.4642"W	15861.98	349.883	0.30	0.06	0.29	
23479.00	90.180	341.530	6995.52	15852.51	15794.54	-2846.37	1713402.74	14380460.83	39°35'59.6020"N	80°44'27.2247"W	16048.97	349.784	0.08	-0.05	0.06	
23574.00	90.180	341.260	6995.22	15947.50	15884.58	-2876.68	1713372.44	14380550.83	39°36'0.4927"N	80°44'27.6086"W	16142.96	349.735	0.28	0.00	-0.28	
23668.00	89.630	341.430	6995.38	16041.50	15973.64	-2906.74	1713342.38	14380639.85	39°36'1.3737"N	80°44'27.9894"W	16235.96	349.687	0.61	-0.59	0.18	
23763.00	90.000	341.780	6995.68	16136.49	16063.78	-2936.72	1713312.42	14380729.96	39°36'2.2655"N	80°44'28.3691"W	16330.02	349.640	0.54	0.39	0.37	
23858.00	89.970	341.130	6995.71	16231.48	16153.85	-2966.94	1713282.22	14380819.99	39°36'3.1565"N	80°44'28.7518"W	16424.05	349.593	0.68	-0.03	-0.68	
23953.00	89.850	341.670	6995.86	16326.47	16243.89	-2997.24	1713251.93	14380909.99	39°36'4.0472"N	80°44'29.1356"W	16518.09	349.546	0.58	-0.13	0.57	
24047.00	90.000	340.450	6995.98	16420.47	16332.80	-3027.75	1713221.43	14380998.87	39°36'4.9268"N	80°44'29.5221"W	16611.07	349.498	1.31	0.16	-1.30	
24142.00	90.120	341.610	6995.88	16515.47	16422.63	-3058.63	1713190.56	14381088.67	39°36'5.8156"N	80°44'29.9133"W	16705.03	349.450	1.23	0.13	1.22	
24331.00	90.150	341.480	6995.44	16704.45	16601.91	-3118.46	1713130.75	14381267.88	39°36'7.5891"N	80°44'30.6710"W	16892.26	349.362	0.07	0.02	-0.07	
24425.00	89.880	341.470	6995.41	16798.45	16691.04	-3148.32	1713100.90	14381356.97	39°36'8.4708"N	80°44'31.0493"W	16985.37	349.318	0.29	-0.29	-0.01	
24520.00	90.150	341.570	6995.39	16893.44	16781.15	-3178.44	1713070.80	14381447.04	39°36'9.3622"N	80°44'31.4307"W	17079.50	349.275	0.30	0.28	0.11	
24614.00	90.030	341.350	6995.24	16987.43	16870.27	-3208.33	1713040.92	14381536.13	39°36'10.2438"N	80°44'31.8093"W	17172.63	349.232	0.27	-0.13	-0.23	
24708.00	90.060	341.480	6995.17	17081.43	16959.36	-3238.29	1713010.98	14381625.19	39°36'11.1252"N	80°44'32.1888"W	17265.76	349.190	0.14	0.03	0.14	
24803.00	90.090	341.400	6995.04	17176.42	17049.42	-3268.52	1712980.75	14381715.21	39°36'12.0162"N	80°44'32.5718"W	17359.90	349.148	0.09	0.03	-0.08	
24898.00	90.120	341.530	6994.87	17271.41	17139.50	-3298.72	1712950.56	14381805.25	39°36'12.9072"N	80°44'32.9543"W	17454.05	349.106	0.14	0.03	0.14	

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Makar Unit 1H AWP Proj: 25373'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 1H
Field	Wetzel	API	47-103-03587-0000
Facility	Furbee Pad	Wellbore	Makar Unit 1H AWB
Slot	Slot K		

WELLPATH DATA (276 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
24992.00	89.970	341.540	6994.79	17365.41	17228.66	-3328.49	1712920.80	14381894.37	39°36'13.7893"N	80°44'33.3314"W	17547.24	349.065	0.16	-0.16	0.01	
25087.00	90.090	341.710	6994.74	17460.40	17318.81	-3358.44	1712890.87	14381984.49	39°36'14.6811"N	80°44'33.7107"W	17641.44	349.025	0.22	0.13	0.18	
25181.00	89.970	341.870	6994.69	17554.38	17408.10	-3387.82	1712861.50	14382073.75	39°36'15.5644"N	80°44'34.0827"W	17734.70	348.987	0.21	-0.13	0.17	
25275.00	90.000	341.510	6994.72	17648.37	17497.35	-3417.35	1712831.98	14382162.96	39°36'16.4473"N	80°44'34.4567"W	17827.94	348.949	0.38	0.03	-0.38	
25348.00	90.150	341.660	6994.62	17721.37	17566.61	-3440.41	1712808.93	14382232.19	39°36'17.1324"N	80°44'34.7488"W	17900.34	348.919	0.29	0.21	0.21	
25373.00‡	90.150	341.660	6994.56	17746.36	17590.34	-3448.27	1712801.07	14382255.91	39°36'17.3672"N	80°44'34.8485"W	17925.14	348.909	0.00	0.00	0.00	Projected MD at TD: 25373'

HOLE & CASING SECTIONS - Ref Wellbore: Makar Unit 1H AWB Ref Wellpath: Makar Unit 1H AWP Proj: 25373'									
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	25.50	125.50	100.00	25.50	125.50	0.00	0.00	-0.05	-0.28
17.5in Open Hole	125.50	688.00	562.50	125.50	687.99	-0.05	-0.28	-1.72	1.07
13.375in Casing Surface	25.50	668.00	642.50	25.50	667.99	0.00	0.00	-1.71	0.84
12.25in Open Hole	688.00	3723.00	3035.00	687.99	3507.77	-1.72	1.07	181.47	995.23
9.625in Casing Intermediate	25.50	3693.00	3667.50	25.50	3480.42	0.00	0.00	178.47	983.27
8.75in Open Hole	3723.00	7417.00	3694.00	3507.77	6763.40	181.47	995.23	738.85	2479.53
8.5in Open Hole	7417.00	25373.00	17956.00	6763.40	6994.56	738.85	2479.53	17590.34	-3448.27
5.5in Casing Production	25.50	25353.00	25327.50	25.50	6994.61	0.00	0.00	17571.35	-3441.98

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Makar Unit 1H AWP Proj: 25373'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 1H
Field	Wetzel	API	47-103-03587-0000
Facility	Furbee Pad	Wellbore	Makar Unit 1H AWB
Slot	Slot K		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Makar Unit 1H POE Rev-3	7023.00	1079.32	2356.77	1718603.82	14365751.42	39°33'34.0154"N	80°43'21.3345"W	point
Makar Unit 1H AZI Rev-3	7051.00	1572.63	2111.95	1718359.09	14366244.53	39°33'38.8983"N	80°43'24.4410"W	point
Makar Unit 1H BHL Rev-3	7051.00	17599.31	-3464.73	1712784.62	14382264.88	39°36'17.4563"N	80°44'35.0584"W	point
Makar Unit 1H LP Rev-3	7051.00	1251.41	2258.25	1718505.34	14365923.45	39°33'35.7192"N	80°43'22.5856"W	point
Makar Unit 1H 50' L/R Hard Line	7500.00	9585.97	-676.39	1715571.86	14374254.71	39°34'58.1789"N	80°43'59.7386"W	rectangle
2D Rectangle 16969.2 x 100.								

WELLPATH COMPOSITION - Ref Wellbore: Makar Unit 1H AWB Ref Wellpath: Makar Unit 1H AWP Proj: 25373'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
25.50	740.00	Gyrodata 2015 - GC+WR+DPIPE	01_Gyrodata MS Gyro <17-1/2"> (100'-740')	Makar Unit 1H AWB	9/27/2023
740.00	3648.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02_APS EM <12-1/4"> (740')(858'-3648')	Makar Unit 1H AWB	9/27/2023
3648.00	7346.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03_APS EM <8-3/4"> (3648')(3749'-7346')	Makar Unit 1H AWB	11/10/2023
7346.00	25373.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04_BH AT Curve <8-1/2"> (7346')(7410'-25348')	Makar Unit 1H AWB	11/10/2023

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Actual Wellpath Report

Makar Unit 1H AWP Proj: 25373'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 1H
Field	Wetzel	API	47-103-03587-0000
Facility	Furbee Pad	Wellbore	Makar Unit 1H AWB
Slot	Slot K		

COMMENTS
<p>Wellpath general comments API: 47-103-03587-0000 BH Job #: 111949142 Rig: H&P 317 Duration: 11/12/2023-11/18/2023 Gyrodata MS Gyro <17-1/2"> (100'-740') APS EM <12-1/4"> (740')(858'-3648') APS EM <8-3/4"> (3648')(3749'-7346') BH AT Curve <8-1/2"> (7346')(7410'-25348') Sycamore: 7326' MD Middlesex: 7496' MD Burkett: 7653' MD Tully: 7713' MD Hamilton: 7834' MD Marcellus POE: 7957' MD Projected MD at TD: 25373'</p>

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