



# ANTERO RESOURCES CORPORATION

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

Slot: Slot L  
Well: Makar Unit 2H  
Wellbore: Makar Unit 2H PWB

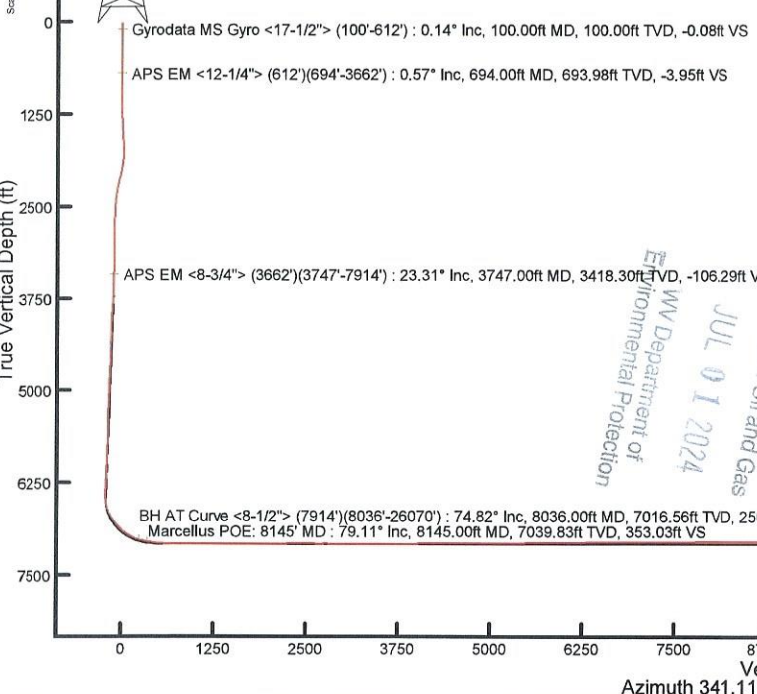


Plot reference wellpath is Makar Unit 2H PWP Rev-B.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 317 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 317 (RKB)	Scale: True distance
H&P 317 (RKB) to Mean Sea Level: 1237.5 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot L): -1212 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: edstaryar 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)	Latitude
Slot L	-293.58	153.77	1716257.410	14364660.930	39°33'23.3040"N
Comment: Makar Unit 2H					
H&P 317 (RKB) to Ground level (At Slot: Slot L)		25.5ft			
Mean Sea Level to Ground level (At Slot: Slot L)		-1212ft			
H&P 317 (RKB) to Mean Sea Level		1237.5ft			

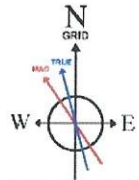
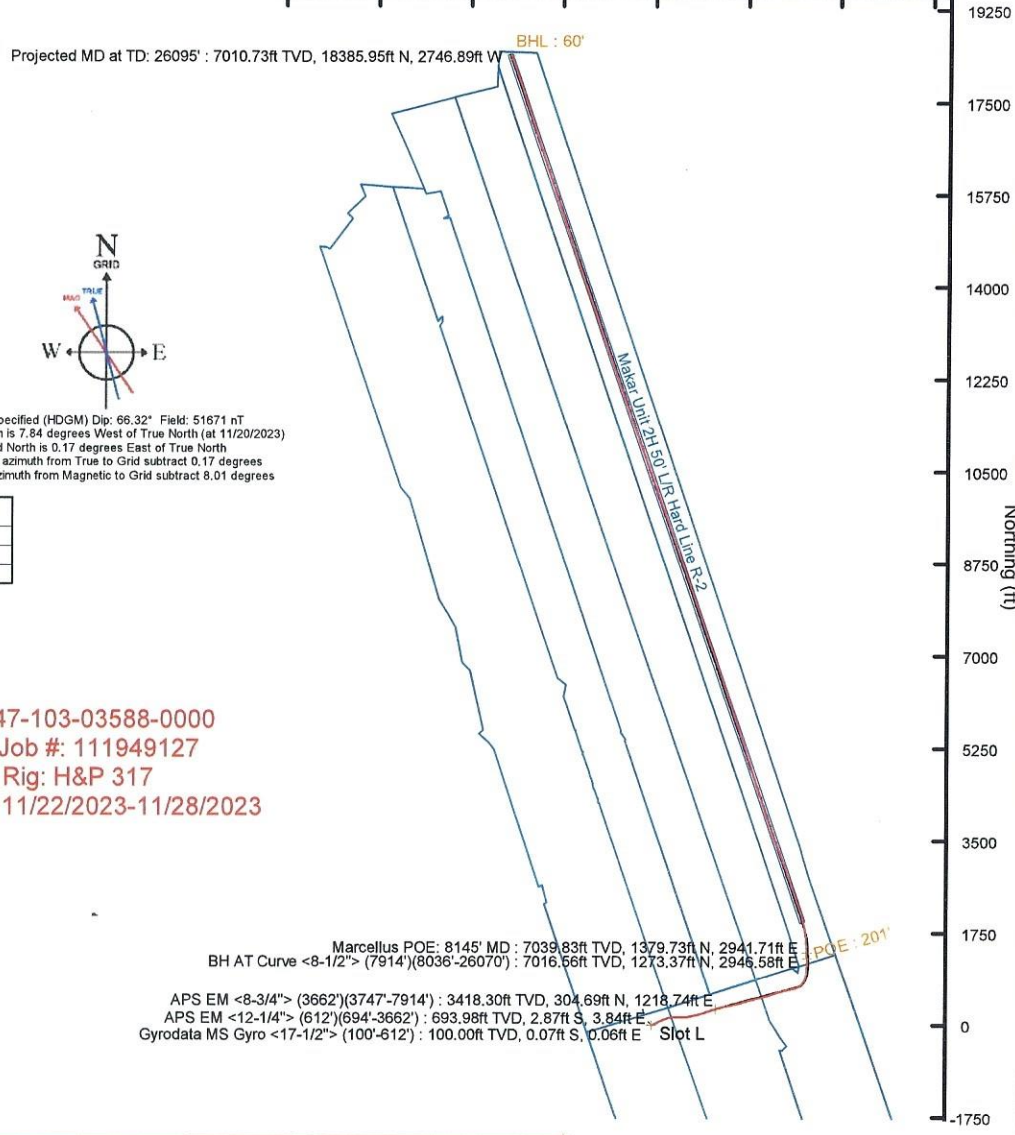
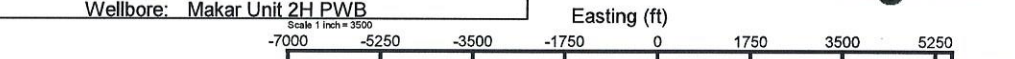
Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (*/100ft)	VS (ft)
Tie On	3662.00	23.870	72.680	3340.40	294.31	1186.35	1.01	-105.63
Proj. to Bottom	3737.00	23.870	72.680	3408.99	303.34	1215.32	0.00	-106.46
Drill Out	3817.00	23.870	72.680	3482.15	312.98	1246.23	0.00	-107.34
End of 3D Arc	3965.31	28.216	74.857	3615.37	331.08	1308.75	3.00	-110.46
Curve KOP	7183.68	28.216	74.857	6451.30	728.57	2777.56	0.00	-209.91
POE	8067.85	73.926	355.767	7040.00	1278.50	2973.51	8.00	246.96
Landing Pt.	8268.78	90.000	355.767	7068.00	1476.25	2958.87	8.00	438.81
On AZI	8757.29	90.000	341.112	7068.00	1953.55	2861.23	3.00	922.01
BHL	26136.00	90.000	341.112	7068.00	18396.44	-2764.69	0.00	18390.72

Well Data			
Slot	Well	Wellbore	Wellpath
Slot L	Makar Unit 2H	Makar Unit 2H AWB	Makar Unit 2H AWP Proj: 26095'
Slot L	Makar Unit 2H	Makar Unit 2H PWB	Makar Unit 2H PWP Rev-B.0



API: 47-103-03588-0000  
BH Job #: 111949127  
Rig: H&P 317  
Duration: 11/22/2023-11/28/2023

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User specified (HDGM) Dip: 66.32° Field: 51671 nT  
Magnetic North is 7.84 degrees West of True North (at 11/20/2023)  
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

Scale 1 inch = 2500'

Northing (ft)

Vertical Section (ft)  
Azimuth 341.11° with reference 0.00 N, 0.00 E

Scale 1 inch = 2500'



# Actual Wellpath Report

Makar Unit 2H AWP Proj: 26095'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 2H
Field	Wetzel	API	47-103-03588-0000
Facility	Furbee Pad	Wellbore	Makar Unit 2H AWB
Slot	Slot L		

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 2:26:33 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	-293.58	153.77	1716257.41	14364660.93	39°33'23.3040"N	80°43'51.3460"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 L)	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	341.11°

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# Actual Wellpath Report

Makar Unit 2H AWP Proj: 26095'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 2H
Field	Wetzel	API	47-103-03588-0000
Facility	Furbee Pad	Wellbore	Makar Unit 2H AWB
Slot	Slot L		

WELLPATH DATA (285 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	136.510	0.00	0.00	0.00	1716257.41	14364660.93	39°33'23.3040"N	80°43'51.3460"W	0.00	0.000	0.00	0.00	0.00		
25.50		0.000	136.510	25.50	0.00	0.00	1716257.41	14364660.93	39°33'23.3040"N	80°43'51.3460"W	0.00	0.000	0.00	0.00	0.00		
100.00		0.140	136.510	100.00	-0.08	-0.07	0.06	1716257.47	14364660.86	39°33'23.3034"N	80°43'51.3452"W	0.09	136.510	0.19	0.19	0.00	Gyrodata MS Gyro <17-1/2"> (100'-612')
200.00		0.290	123.750	200.00	-0.39	-0.30	0.36	1716257.77	14364660.63	39°33'23.3011"N	80°43'51.3415"W	0.46	129.582	0.16	0.15	-12.76	
300.00		0.270	132.800	300.00	-0.80	-0.60	0.74	1716258.15	14364660.33	39°33'23.2981"N	80°43'51.3366"W	0.95	128.829	0.05	-0.02	9.05	
400.00		0.490	123.700	400.00	-1.35	-0.99	1.27	1716258.68	14364659.94	39°33'23.2942"N	80°43'51.3298"W	1.61	128.050	0.23	0.22	-9.10	
500.00		0.640	131.760	499.99	-2.18	-1.60	2.04	1716259.45	14364659.33	39°33'23.2881"N	80°43'51.3200"W	2.60	128.132	0.17	0.15	8.06	
600.00		0.710	122.970	599.98	-3.15	-2.31	2.98	1716260.39	14364658.62	39°33'23.2811"N	80°43'51.3081"W	3.77	127.822	0.12	0.07	-8.79	
612.00		0.670	116.990	611.98	-3.26	-2.38	3.10	1716260.51	14364658.55	39°33'23.2804"N	80°43'51.3065"W	3.91	127.537	0.69	-0.33	-49.83	
694.00		0.570	130.420	693.98	-3.95	-2.87	3.84	1716261.25	14364658.07	39°33'23.2756"N	80°43'51.2971"W	4.79	126.733	0.21	-0.12	16.38	APS EM <12-1/4"> (612')(694'-3662')
769.00		1.160	91.370	768.97	-4.54	-3.13	4.88	1716262.29	14364657.81	39°33'23.2730"N	80°43'51.2838"W	5.80	122.625	1.07	0.79	-52.07	
857.00		4.080	71.720	856.87	-4.88	-2.17	8.75	1716266.15	14364658.77	39°33'23.2824"N	80°43'51.2344"W	9.01	103.903	3.42	3.32	-22.33	
947.00		6.490	68.140	946.48	-4.65	0.73	16.51	1716273.91	14364661.66	39°33'23.3108"N	80°43'51.1352"W	16.53	87.457	2.70	2.68	-3.98	
1036.00		8.900	66.560	1034.67	-3.84	5.35	27.50	1716284.89	14364666.27	39°33'23.3560"N	80°43'50.9948"W	28.01	78.998	2.72	2.71	-1.78	
1131.00		11.990	66.430	1128.09	-2.46	12.22	43.29	1716300.68	14364673.14	39°33'23.4235"N	80°43'50.7929"W	44.98	74.240	3.25	3.25	-0.14	
1226.00		14.790	66.410	1220.50	-0.66	21.02	63.45	1716320.83	14364681.94	39°33'23.5099"N	80°43'50.5352"W	66.84	71.673	2.95	2.95	-0.02	
1320.00		16.840	63.480	1310.93	2.13	31.90	86.63	1716344.00	14364692.82	39°33'23.6167"N	80°43'50.2388"W	92.31	69.785	2.34	2.18	-3.12	
1414.00		19.400	62.650	1400.27	6.24	45.15	112.68	1716370.05	14364706.07	39°33'23.7469"N	80°43'49.9057"W	121.39	68.164	2.74	2.72	-0.88	
1509.00		22.510	61.840	1488.97	11.49	60.99	142.74	1716400.09	14364721.89	39°33'23.9026"N	80°43'49.5214"W	155.22	66.864	3.29	3.27	-0.85	
1604.00		25.570	64.260	1575.72	16.87	78.48	177.25	1716434.59	14364739.38	39°33'24.0744"N	80°43'49.0801"W	193.84	66.118	3.38	3.22	2.55	
1698.00		28.670	66.190	1659.38	21.22	96.40	216.16	1716473.48	14364757.29	39°33'24.2503"N	80°43'48.5826"W	236.68	65.966	3.43	3.30	2.05	
1793.00		31.830	69.350	1741.44	23.95	114.44	260.46	1716517.77	14364775.32	39°33'24.4273"N	80°43'48.0163"W	284.49	66.281	3.72	3.33	3.33	
1887.00		37.640	74.960	1818.67	22.78	130.64	311.44	1716568.72	14364791.52	39°33'24.5860"N	80°43'47.3649"W	337.73	67.242	7.05	6.18	5.97	
1981.00		40.080	80.040	1891.88	16.15	143.33	368.98	1716626.25	14364804.20	39°33'24.7097"N	80°43'46.6297"W	395.84	68.771	4.27	2.60	5.40	
2076.00		39.180	83.780	1965.06	4.82	151.87	428.95	1716686.19	14364812.74	39°33'24.7923"N	80°43'45.8638"W	455.04	70.503	2.68	-0.95	3.94	
2171.00		36.760	90.050	2039.97	-11.00	155.10	487.24	1716744.45	14364815.97	39°33'24.8225"N	80°43'45.1195"W	511.33	72.342	4.79	-2.55	6.60	
2267.00		36.220	90.220	2117.15	-29.61	154.97	544.33	1716801.52	14364815.84	39°33'24.8195"N	80°43'44.3906"W	565.96	74.109	0.57	-0.56	0.18	
2361.00		36.580	89.860	2192.81	-47.70	154.93	600.11	1716857.28	14364815.80	39°33'24.8174"N	80°43'43.6785"W	619.78	75.524	0.45	0.38	-0.38	
2456.00		36.480	86.740	2269.16	-64.41	156.61	656.61	1716913.77	14364817.47	39°33'24.8323"N	80°43'42.9570"W	675.03	76.585	1.96	-0.11	-3.28	
2550.00		34.330	81.850	2345.79	-76.88	161.95	710.77	1716967.90	14364822.82	39°33'24.8835"N	80°43'42.2654"W	728.99	77.164	3.78	-2.29	-5.20	

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# Actual Wellpath Report

Makar Unit 2H AWP Proj: 26095'  
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### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 2H
Field	Wetzel	API	47-103-03588-0000
Facility	Furbee Pad	Wellbore	Makar Unit 2H AWB
Slot	Slot L		

### WELLPATH DATA (285 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
2644.00	32.050	80.110	2424.45	-85.72	170.00	761.59	1717018.69	14364830.86	39°33'24.9615"N	80°43'41.6163"W	780.33	77.417	2.63	-2.43	-1.85	
2738.00	29.290	76.970	2505.30	-91.98	179.47	808.57	1717065.66	14364840.33	39°33'25.0537"N	80°43'41.0160"W	828.25	77.486	3.39	-2.94	-3.34	
2833.00	26.540	75.680	2589.24	-96.04	189.96	851.78	1717108.86	14364850.81	39°33'25.1561"N	80°43'40.4639"W	872.71	77.428	2.96	-2.89	-1.36	
2927.00	25.940	74.560	2673.55	-98.95	200.63	891.95	1717149.01	14364861.48	39°33'25.2603"N	80°43'39.9507"W	914.23	77.323	0.83	-0.64	-1.19	
3021.00	25.220	73.230	2758.34	-100.93	211.88	930.94	1717187.98	14364872.72	39°33'25.3704"N	80°43'39.4525"W	954.75	77.178	0.98	-0.77	-1.41	
3116.00	24.140	71.690	2844.66	-101.87	223.82	968.76	1717225.79	14364884.66	39°33'25.4873"N	80°43'38.9691"W	994.28	76.991	1.32	-1.14	-1.62	
3211.00	24.630	70.310	2931.18	-101.79	236.59	1005.85	1717262.86	14364897.43	39°33'25.6124"N	80°43'38.4952"W	1033.30	76.764	0.79	0.52	-1.45	
3305.00	24.870	70.530	3016.55	-101.32	249.78	1042.92	1717299.92	14364910.61	39°33'25.7416"N	80°43'38.0213"W	1072.42	76.531	0.27	0.26	0.23	
3400.00	25.450	72.280	3102.54	-101.54	262.65	1081.20	1717338.19	14364923.48	39°33'25.8677"N	80°43'37.5321"W	1112.65	76.346	0.99	0.61	1.84	
3495.00	25.080	73.500	3188.45	-102.79	274.58	1119.95	1717376.92	14364935.41	39°33'25.9845"N	80°43'37.0369"W	1153.12	76.224	0.67	-0.39	1.28	
3589.00	24.460	73.760	3273.80	-104.52	285.68	1157.74	1717414.69	14364946.50	39°33'26.0930"N	80°43'36.5540"W	1192.47	76.139	0.67	-0.66	0.28	
3682.00	23.870	72.680	3340.40	-105.63	294.31	1186.35	1717443.29	14364955.12	39°33'26.1774"N	80°43'36.1884"W	1222.31	76.067	1.01	-0.81	-1.48	
3747.00	23.310	71.770	3418.30	-106.29	304.69	1218.74	1717475.67	14364965.50	39°33'26.2790"N	80°43'35.7745"W	1256.25	75.964	0.79	-0.66	-1.07	APS EM <8-3/4"> (3662')(3747'-7914')
3843.00	23.820	73.080	3506.29	-107.18	316.27	1255.33	1717512.24	14364977.08	39°33'26.3924"N	80°43'35.3069"W	1294.56	75.859	0.76	0.53	1.36	
3937.00	26.290	73.800	3591.44	-108.81	327.61	1293.49	1717550.38	14364988.41	39°33'26.5033"N	80°43'34.8193"W	1334.33	75.787	2.65	2.63	0.77	
4032.00	28.260	77.050	3675.88	-112.12	338.52	1335.61	1717592.50	14364999.32	39°33'26.6099"N	80°43'34.2810"W	1377.85	75.778	2.60	2.07	3.42	
4126.00	29.710	79.640	3758.11	-117.88	347.70	1380.22	1717637.08	14365008.49	39°33'26.6992"N	80°43'33.7112"W	1423.34	75.861	2.04	1.54	2.76	
4221.00	29.580	78.980	3840.67	-124.58	356.41	1426.39	1717683.24	14365017.20	39°33'26.7840"N	80°43'33.1214"W	1470.25	75.971	0.37	-0.14	-0.69	
4315.00	28.920	77.410	3922.69	-130.25	365.80	1471.35	1717728.18	14365026.59	39°33'26.8754"N	80°43'32.5470"W	1516.14	76.038	1.08	-0.70	-1.67	
4410.00	30.060	78.440	4005.38	-135.81	375.58	1517.08	1717773.89	14365036.36	39°33'26.9706"N	80°43'31.9628"W	1562.88	76.095	1.31	1.20	1.08	
4505.00	29.610	76.650	4087.79	-141.11	385.76	1563.23	1717820.02	14365046.54	39°33'27.0699"N	80°43'31.3732"W	1610.12	76.138	1.05	-0.47	-1.88	
4599.00	27.810	73.410	4170.24	-144.23	397.39	1606.84	1717863.62	14365058.16	39°33'27.1835"N	80°43'30.8159"W	1655.25	76.109	2.53	-1.91	-3.45	
4693.00	28.150	73.050	4253.25	-145.86	410.11	1649.07	1717905.82	14365070.88	39°33'27.3080"N	80°43'30.2763"W	1699.30	76.034	0.40	0.36	-0.38	
4788.00	26.530	74.190	4337.63	-147.76	422.43	1690.92	1717947.66	14365083.19	39°33'27.4284"N	80°43'29.7415"W	1742.89	75.973	1.79	-1.71	1.20	
4883.00	26.460	73.800	4422.66	-149.90	434.11	1731.66	1717988.38	14365094.87	39°33'27.5427"N	80°43'29.2209"W	1785.24	75.926	0.20	-0.07	-0.41	
4977.00	27.180	73.270	4506.55	-151.69	446.14	1772.33	1718029.04	14365106.89	39°33'27.6603"N	80°43'28.7012"W	1827.62	75.871	0.81	0.77	-0.56	
5072.00	28.380	74.110	4590.59	-153.69	458.56	1814.83	1718071.52	14365119.31	39°33'27.7818"N	80°43'28.1582"W	1871.86	75.820	1.33	1.26	0.88	
5166.00	28.480	76.290	4673.26	-156.88	469.99	1858.09	1718114.76	14365130.74	39°33'27.8935"N	80°43'27.6054"W	1916.61	75.805	1.11	0.11	2.32	
5261.00	29.170	77.200	4756.49	-161.38	480.49	1902.67	1718159.33	14365141.23	39°33'27.9959"N	80°43'27.0358"W	1962.40	75.827	0.86	0.73	0.96	
5356.00	30.180	74.370	4839.03	-165.20	492.05	1948.24	1718204.88	14365152.79	39°33'28.1088"N	80°43'26.4535"W	2009.42	75.826	1.82	1.06	-2.98	





# Actual Wellpath Report

Makar Unit 2H AWP Proj: 26095'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 2H
Field	Wetzel	API	47-103-03588-0000
Facility	Furbee Pad	Wellbore	Makar Unit 2H AWB
Slot	Slot L		

WELLPATH DATA (285 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
5450.00	28.470	75.040	4920.98	-168.08	504.20	1992.65	1718249.27	14365164.94	39°33'28.2275"N	80°43'25.8861"W	2055.45	75.800	1.85	-1.82	0.71	
5545.00	27.850	74.970	5004.74	-171.12	515.80	2035.95	1718292.56	14365176.53	39°33'28.3408"N	80°43'25.3327"W	2100.28	75.783	0.65	-0.65	-0.07	
5640.00	27.930	76.050	5088.71	-174.53	526.92	2078.98	1718335.57	14365187.64	39°33'28.4494"N	80°43'24.7830"W	2144.71	75.778	0.54	0.08	1.14	
5737.00	28.600	75.410	5174.14	-178.23	538.25	2123.49	1718380.06	14365198.96	39°33'28.5600"N	80°43'24.2142"W	2190.65	75.777	0.76	0.69	-0.66	
5831.00	27.880	76.470	5256.95	-181.97	549.06	2166.64	1718423.19	14365209.77	39°33'28.6655"N	80°43'23.6630"W	2235.12	75.780	0.93	-0.77	1.13	
5926.00	28.370	71.730	5340.74	-184.29	561.33	2209.67	1718466.21	14365222.04	39°33'28.7855"N	80°43'23.1131"W	2279.85	75.746	2.41	0.52	-4.99	
6021.00	28.390	73.390	5424.33	-185.43	574.86	2252.74	1718509.26	14365235.57	39°33'28.9179"N	80°43'22.5626"W	2324.94	75.685	0.83	0.02	1.75	
6115.00	29.240	71.310	5506.69	-186.40	588.61	2295.91	1718552.41	14365249.31	39°33'29.0525"N	80°43'22.0109"W	2370.16	75.621	1.40	0.90	-2.21	
6210.00	28.190	71.890	5590.01	-186.79	603.02	2339.22	1718595.70	14365263.71	39°33'29.1936"N	80°43'21.4574"W	2415.69	75.545	1.14	-1.11	0.61	
6305.00	27.650	72.990	5673.95	-187.81	616.44	2381.62	1718638.09	14365277.13	39°33'29.3250"N	80°43'20.9155"W	2460.11	75.488	0.79	-0.57	1.16	
6399.00	26.170	74.880	5757.77	-189.89	628.23	2422.49	1718678.95	14365288.91	39°33'29.4402"N	80°43'20.3932"W	2502.63	75.462	1.82	-1.57	2.01	
6494.00	23.890	74.230	5843.84	-192.32	638.92	2461.24	1718717.67	14365299.60	39°33'29.5447"N	80°43'19.8982"W	2542.81	75.448	2.42	-2.40	-0.68	
6589.00	25.600	76.140	5930.12	-195.16	649.07	2499.68	1718756.10	14365309.74	39°33'29.6438"N	80°43'19.4070"W	2582.57	75.444	1.99	1.80	2.01	
6684.00	26.650	74.320	6015.41	-198.16	659.75	2540.12	1718796.52	14365320.41	39°33'29.7481"N	80°43'18.8902"W	2624.40	75.440	1.39	1.11	-1.92	
6778.00	26.480	76.360	6099.49	-201.26	670.38	2580.78	1718837.17	14365331.05	39°33'29.8520"N	80°43'18.3706"W	2666.43	75.439	0.99	-0.18	2.17	
6873.00	26.190	77.850	6184.63	-205.65	679.79	2621.86	1718878.23	14365340.45	39°33'29.9437"N	80°43'17.8458"W	2708.55	75.465	0.76	-0.31	1.57	
6968.00	26.690	78.740	6269.69	-210.95	688.37	2663.28	1718919.64	14365349.03	39°33'30.0272"N	80°43'17.3167"W	2750.80	75.508	0.67	0.53	0.94	
7062.00	29.930	74.100	6352.45	-214.97	698.92	2706.55	1718962.89	14365359.57	39°33'30.1302"N	80°43'16.7637"W	2795.34	75.521	4.16	3.45	-4.94	
7157.00	33.430	69.620	6433.29	-215.53	714.53	2753.90	1719010.22	14365375.18	39°33'30.2830"N	80°43'16.1586"W	2845.09	75.455	4.44	3.68	-4.72	
7251.00	34.260	59.160	6511.43	-209.37	737.13	2800.93	1719057.23	14365397.77	39°33'30.5050"N	80°43'15.5573"W	2896.30	75.256	6.25	0.88	-11.13	
7346.00	36.630	45.560	6588.94	-191.58	770.74	2844.20	1719100.48	14365431.37	39°33'30.8358"N	80°43'15.0035"W	2946.78	74.838	8.65	2.49	-14.32	
7441.00	39.940	32.360	6663.63	-160.21	816.44	2880.83	1719137.10	14365477.04	39°33'31.2863"N	80°43'14.5341"W	2994.28	74.177	9.27	3.48	-13.89	
7483.00†	40.940	27.119	6695.60	-142.21	840.08	2894.32	1719150.58	14365500.68	39°33'31.5195"N	80°43'14.3609"W	3013.77	73.815	8.44	2.38	-12.48	Sycamore: 7483' MD
7535.00	42.490	20.950	6734.43	-116.88	871.66	2908.37	1719164.63	14365532.24	39°33'31.8312"N	80°43'14.1802"W	3036.18	73.316	8.44	2.98	-11.86	
7630.00	45.430	12.900	6802.86	-63.43	934.67	2927.42	1719183.67	14365595.23	39°33'32.4534"N	80°43'13.9345"W	3073.01	72.293	6.64	3.09	-8.47	
7667.00†	46.874	10.289	6828.50	-40.43	960.81	2932.77	1719189.02	14365621.36	39°33'32.7115"N	80°43'13.8651"W	3086.15	71.861	6.41	3.90	-7.06	Middlesex: 7667' MD
7725.00	49.250	6.440	6867.26	-2.08	1003.48	2939.02	1719195.27	14365664.01	39°33'33.1330"N	80°43'13.7837"W	3105.61	71.148	6.41	4.10	-6.64	
7819.00	56.840	1.890	6923.75	67.01	1078.32	2944.32	1719200.56	14365738.82	39°33'33.8725"N	80°43'13.7130"W	3135.57	69.885	8.95	8.07	-4.84	
7823.00†	57.065	1.884	6925.94	70.15	1081.67	2944.43	1719200.68	14365742.17	39°33'33.9057"N	80°43'13.7115"W	3136.82	69.829	5.63	5.63	-0.16	Burkett: 7823' MD
7885.00†	60.557	1.791	6958.04	119.74	1134.67	2946.13	1719202.37	14365795.15	39°33'34.4294"N	80°43'13.6877"W	3157.08	68.936	5.63	5.63	-0.15	Tully: 7885' MD

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# Actual Wellpath Report

Makar Unit 2H AWP Proj: 26095'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 2H
Field	Wetzel	API	47-103-03588-0000
Facility	Furbee Pad	Wellbore	Makar Unit 2H AWB
Slot	Slot L		

WELLPATH DATA (285 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
7914.00	62.190	1.750	6971.93	143.56	1160.11	2946.92	1719203.16	14365820.58	39°33'34.6809"N	80°43'13.6767"W	3167.05	68.512	5.63	5.63	-0.14	
7997.00†	70.774	359.180	7005.02	215.31	1236.14	2947.48	1719203.72	14365896.58	39°33'35.4322"N	80°43'13.6665"W	3196.19	67.247	10.72	10.34	-3.10	Hamilton: 7997' MD
8036.00	74.820	358.070	7016.56	250.83	1273.37	2946.58	1719202.82	14365933.80	39°33'35.8003"N	80°43'13.6765"W	3209.95	66.628	10.72	10.37	-2.85	BH AT Curve <8-1/2"> (7914')(8036'-26070')
8069.00	77.530	357.390	7024.44	281.53	1305.39	2945.31	1719201.55	14365965.80	39°33'36.1167"N	80°43'13.6914"W	3221.63	66.097	8.45	8.21	-2.06	
8145.00†	79.107	357.074	7039.83	353.03	1379.73	2941.71	1719197.96	14366040.11	39°33'36.8515"N	80°43'13.7343"W	3249.20	64.872	2.11	2.07	-0.42	Marcellus POE: 8145' MD
8163.00	79.480	357.000	7043.17	370.04	1397.39	2940.80	1719197.05	14366057.77	39°33'37.0261"N	80°43'13.7453"W	3255.92	64.584	2.11	2.07	-0.41	
8258.00	82.810	356.860	7057.80	460.34	1491.11	2935.77	1719192.02	14366151.45	39°33'37.9525"N	80°43'13.8058"W	3292.74	63.074	3.51	3.51	-0.15	
8351.00	86.340	356.870	7066.59	549.43	1583.54	2930.71	1719186.96	14366243.84	39°33'38.8662"N	80°43'13.8668"W	3331.16	61.617	3.80	3.80	0.01	
8446.00	90.250	354.990	7069.41	641.21	1678.23	2923.97	1719180.22	14366338.50	39°33'39.8023"N	80°43'13.9490"W	3371.36	60.146	4.57	4.12	-1.98	
8540.00	89.380	349.280	7069.72	733.43	1771.31	2911.11	1719167.37	14366431.54	39°33'40.7226"N	80°43'14.1095"W	3407.66	58.681	6.14	-0.93	-6.07	
8635.00	89.350	349.900	7070.77	827.39	1864.74	2893.95	1719150.22	14366524.93	39°33'41.6465"N	80°43'14.3250"W	3442.70	57.204	0.65	-0.03	0.65	
8730.00	89.630	346.320	7071.62	921.66	1957.68	2874.38	1719130.65	14366617.84	39°33'42.5656"N	80°43'14.5711"W	3477.73	55.742	3.78	0.29	-3.77	
8824.00	90.340	343.880	7071.64	1015.42	2048.52	2850.21	1719106.49	14366708.64	39°33'43.4641"N	80°43'14.8761"W	3510.00	54.294	2.70	0.76	-2.60	
8919.00	89.970	339.880	7071.38	1110.40	2138.78	2820.67	1719076.97	14366798.87	39°33'44.3572"N	80°43'15.2497"W	3539.86	52.829	4.23	-0.39	-4.21	
9012.00	90.430	340.450	7071.06	1203.38	2226.27	2789.12	1719045.42	14366886.32	39°33'45.2227"N	80°43'15.6492"W	3568.67	51.403	0.79	0.49	0.61	
9106.00	90.400	341.230	7070.38	1297.38	2315.06	2758.27	1719014.59	14366975.07	39°33'46.1012"N	80°43'16.0395"W	3601.04	49.993	0.83	-0.03	0.83	
9200.00	90.430	340.690	7069.70	1391.37	2403.91	2727.60	1718983.93	14367063.89	39°33'46.9803"N	80°43'16.4276"W	3635.74	48.609	0.58	0.03	-0.57	
9294.00	90.180	341.130	7069.20	1485.37	2492.74	2696.86	1718953.20	14367152.68	39°33'47.8592"N	80°43'16.8166"W	3672.44	47.252	0.54	-0.27	0.47	
9388.00	89.660	340.760	7069.33	1579.37	2581.59	2666.17	1718922.53	14367241.50	39°33'48.7382"N	80°43'17.2049"W	3711.21	45.923	0.68	-0.55	-0.39	
9483.00	90.180	340.220	7069.46	1674.36	2671.13	2634.44	1718890.81	14367331.01	39°33'49.6242"N	80°43'17.6065"W	3751.70	44.604	0.79	0.55	-0.57	
9577.00	90.770	339.750	7068.68	1768.34	2759.45	2602.27	1718858.65	14367419.29	39°33'50.4980"N	80°43'18.0137"W	3792.94	43.321	0.80	0.63	-0.50	
9672.00	90.120	341.060	7067.94	1863.33	2848.95	2570.41	1718826.81	14367508.75	39°33'51.3835"N	80°43'18.4170"W	3837.12	42.058	1.54	-0.68	1.38	
9767.00	90.000	340.490	7067.84	1958.33	2938.65	2539.13	1718795.54	14367598.42	39°33'52.2710"N	80°43'18.8129"W	3883.66	40.829	0.61	-0.13	-0.60	
9861.00	89.820	340.210	7067.99	2052.32	3027.17	2507.52	1718763.94	14367686.91	39°33'53.1469"N	80°43'19.2130"W	3930.83	39.636	0.35	-0.19	-0.30	
9956.00	89.910	340.690	7068.21	2147.31	3116.70	2475.73	1718732.16	14367776.39	39°33'54.0326"N	80°43'19.6154"W	3980.33	38.462	0.51	0.09	0.51	
10050.00	90.650	339.970	7067.76	2241.30	3205.21	2444.09	1718700.54	14367864.87	39°33'54.9083"N	80°43'20.0159"W	4030.75	37.327	1.10	0.79	-0.77	
10145.00	89.720	339.740	7067.45	2336.28	3294.40	2411.38	1718667.83	14367954.02	39°33'55.7908"N	80°43'20.4301"W	4082.62	36.203	1.01	-0.98	-0.24	
10239.00	90.060	337.920	7067.63	2430.20	3382.05	2377.43	1718633.90	14368041.64	39°33'56.6581"N	80°43'20.8601"W	4134.06	35.106	1.97	0.36	-1.94	
10334.00	90.060	339.650	7067.53	2525.12	3470.61	2343.05	1718599.54	14368130.16	39°33'57.5344"N	80°43'21.2955"W	4187.48	34.024	1.82	0.00	1.82	
10429.00	89.750	339.990	7067.69	2620.09	3559.77	2310.28	1718566.78	14368219.30	39°33'58.4167"N	80°43'21.7105"W	4243.75	32.983	0.48	-0.33	0.36	





# Actual Wellpath Report

Makar Unit 2H AWP Proj: 26095'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 2H
Field	Wetzel	API	47-103-03588-0000
Facility	Furbee Pad	Wellbore	Makar Unit 2H AWB
Slot	Slot L		

## WELLPATH DATA (285 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
10523.00	90.150	339.780	7067.77	2714.07	3648.04	2277.96	1718534.46	14368307.53	39°33'59.2900"N	80°43'22.1198"W	4300.85	31.982	0.48	0.43	-0.22	
10618.00	89.910	339.280	7067.72	2809.03	3737.04	2244.73	1718501.25	14368396.49	39°34'0.1706"N	80°43'22.5405"W	4359.39	30.992	0.58	-0.25	-0.53	
10713.00	89.630	340.700	7068.10	2904.01	3826.30	2212.23	1718468.76	14368485.72	39°34'1.0538"N	80°43'22.9521"W	4419.79	30.035	1.52	-0.29	1.49	
10807.00	89.690	341.330	7068.66	2998.01	3915.19	2181.65	1718438.19	14368574.57	39°34'1.9332"N	80°43'23.3390"W	4481.99	29.128	0.67	0.06	0.67	
10902.00	89.820	341.560	7068.55	3188.00	4095.62	2122.11	1718378.68	14368754.93	39°34'2.8254"N	80°43'23.7168"W	4546.78	28.246	0.98	0.65	0.74	
10997.00	89.820	342.090	7068.85	3281.99	4184.92	2092.79	1718349.37	14368844.20	39°34'3.7182"N	80°43'24.0922"W	4612.74	27.391	0.71	-0.52	-0.49	
11091.00	89.820	341.560	7068.55	3188.00	4095.62	2122.11	1718378.68	14368754.93	39°34'2.8254"N	80°43'23.7168"W	4546.78	28.246	0.98	0.65	0.74	
11186.00	90.180	341.410	7068.85	3376.98	4275.15	2063.04	1718319.63	14368934.39	39°34'5.4943"N	80°43'24.8395"W	4746.89	25.760	0.81	0.38	-0.72	
11281.00	90.000	341.930	7068.70	3471.98	4365.33	2033.16	1718289.77	14369024.53	39°34'6.3865"N	80°43'25.2174"W	4815.58	24.974	0.58	-0.19	0.55	
11376.00	89.970	341.610	7068.72	3566.97	4455.56	2003.44	1718260.06	14369114.72	39°34'7.2792"N	80°43'25.5934"W	4885.26	24.211	0.34	-0.03	-0.34	
11470.00	90.060	342.070	7068.70	3660.96	4544.87	1974.14	1718230.77	14369204.01	39°34'8.1628"N	80°43'25.9640"W	4955.11	23.479	0.50	0.10	0.49	
11565.00	90.000	342.020	7068.65	3755.95	4635.25	1944.86	1718201.50	14369294.34	39°34'9.0569"N	80°43'26.3344"W	5026.73	22.762	0.08	-0.06	-0.05	
11660.00	90.120	341.960	7068.55	3850.94	4725.59	1915.49	1718172.14	14369384.65	39°34'9.9507"N	80°43'26.7059"W	5099.05	22.065	0.14	0.13	-0.06	
11754.00	90.030	342.170	7068.43	3944.93	4815.02	1886.54	1718143.20	14369474.05	39°34'10.8354"N	80°43'27.0720"W	5171.41	21.395	0.24	-0.10	0.22	
11849.00	90.890	342.030	7067.66	4039.91	4905.42	1857.34	1718114.02	14369564.41	39°34'11.7297"N	80°43'27.4413"W	5245.27	20.738	0.92	0.91	-0.15	
11943.00	90.150	341.980	7066.81	4133.89	4994.82	1828.30	1718084.99	14369653.78	39°34'12.6141"N	80°43'27.8086"W	5318.92	20.105	0.79	-0.79	-0.05	
12038.00	90.550	341.840	7066.23	4228.88	5085.12	1798.81	1718055.50	14369744.04	39°34'13.5075"N	80°43'28.1818"W	5393.90	19.481	0.45	0.42	-0.15	
12132.00	90.280	342.210	7065.55	4322.87	5174.53	1769.80	1718026.51	14369833.42	39°34'14.3920"N	80°43'28.5487"W	5468.82	18.882	0.49	-0.29	0.39	
12226.00	90.310	342.380	7065.06	4416.84	5264.08	1741.21	1717997.93	14369922.93	39°34'15.2779"N	80°43'28.9102"W	5544.58	18.303	0.18	0.03	0.18	
12321.00	90.340	341.130	7064.53	4511.83	5354.30	1711.47	1717968.20	14370013.11	39°34'16.1705"N	80°43'29.2865"W	5621.18	17.726	1.32	0.03	-1.32	
12415.00	90.220	339.970	7064.07	4605.83	5442.93	1680.17	1717936.92	14370101.71	39°34'17.0474"N	80°43'29.6827"W	5696.36	17.155	1.24	-0.13	-1.23	
12509.00	90.370	342.300	7063.58	4699.82	5531.88	1649.78	1717906.54	14370190.62	39°34'17.9274"N	80°43'30.0673"W	5772.64	16.606	2.48	0.16	2.48	
12604.00	90.280	341.860	7063.04	4794.80	5622.26	1620.55	1717877.32	14370280.97	39°34'18.8216"N	80°43'30.4371"W	5851.16	16.079	0.47	-0.09	-0.46	
12699.00	90.310	341.990	7062.55	4889.79	5712.58	1591.07	1717847.86	14370371.25	39°34'19.7150"N	80°43'30.8099"W	5930.01	15.564	0.14	0.03	0.14	
12793.00	90.120	341.750	7062.20	4983.78	5801.91	1561.82	1717818.62	14370460.54	39°34'20.5988"N	80°43'31.1800"W	6008.45	15.066	0.33	-0.20	-0.26	
12888.00	90.150	342.010	7061.98	5078.78	5892.20	1532.28	1717789.08	14370550.80	39°34'21.4920"N	80°43'31.5538"W	6088.17	14.577	0.28	0.03	0.27	
12983.00	90.460	342.050	7061.47	5173.76	5982.56	1502.97	1717759.79	14370641.13	39°34'22.3860"N	80°43'31.9245"W	6168.46	14.102	0.33	0.33	0.04	
13077.00	90.120	341.890	7061.00	5267.75	6071.94	1473.88	1717730.70	14370730.47	39°34'23.2703"N	80°43'32.2926"W	6248.26	13.644	0.40	-0.36	-0.17	
13172.00	90.490	342.200	7060.49	5362.74	6162.32	1444.59	1717701.43	14370820.81	39°34'24.1643"N	80°43'32.6630"W	6329.37	13.193	0.51	0.39	0.33	
13267.00	90.460	342.040	7059.70	5457.72	6252.72	1415.42	1717672.27	14370911.18	39°34'25.0587"N	80°43'33.0319"W	6410.93	12.755	0.17	-0.03	-0.17	

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# Actual Wellpath Report

Makar Unit 2H AWP Proj: 26095'  
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### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 2H
Field	Wetzel	API	47-103-03588-0000
Facility	Furbee Pad	Wellbore	Makar Unit 2H AWB
Slot	Slot L		

### WELLPATH DATA (285 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
13361.00	90.580	341.640	7058.85	5551.71	6342.04	1386.13	1717642.99	14371000.46	39°34'25.9423"N	80°43'33.4026"W	6491.75	12.329	0.44	0.13	-0.43	
13456.00	90.430	341.950	7058.01	5646.69	6432.28	1356.45	1717613.32	14371090.67	39°34'26.8351"N	80°43'33.7781"W	6573.75	11.908	0.36	-0.16	0.33	
13551.00	90.550	342.320	7057.20	5741.68	6522.69	1327.31	1717584.19	14371181.05	39°34'27.7295"N	80°43'34.1467"W	6656.37	11.502	0.41	0.13	0.39	
13646.00	90.490	341.860	7056.34	5836.66	6613.09	1298.09	1717554.99	14371271.40	39°34'28.6238"N	80°43'34.5163"W	6739.29	11.105	0.49	-0.06	-0.48	
13740.00	90.550	340.510	7055.48	5930.65	6702.06	1267.78	1717524.69	14371360.34	39°34'29.5040"N	80°43'34.8999"W	6820.91	10.712	1.44	0.06	-1.44	
13835.00	90.830	340.480	7054.34	6025.64	6791.60	1236.06	1717492.98	14371449.84	39°34'30.3899"N	80°43'35.3015"W	6903.16	10.315	0.30	0.29	-0.03	
13930.00	90.740	340.690	7053.04	6120.63	6881.19	1204.49	1717461.42	14371539.40	39°34'31.2763"N	80°43'35.7013"W	6985.81	9.928	0.24	-0.09	0.22	
14024.00	90.680	340.470	7051.87	6214.62	6969.83	1173.23	1717430.18	14371628.01	39°34'32.1533"N	80°43'36.0969"W	7067.89	9.555	0.24	-0.06	-0.23	
14119.00	90.370	340.910	7051.00	6309.61	7059.49	1141.82	1717398.78	14371717.62	39°34'33.0403"N	80°43'36.4946"W	7151.23	9.188	0.57	-0.33	0.46	
14214.00	90.220	340.150	7050.51	6404.60	7149.05	1110.16	1717367.13	14371807.16	39°34'33.9265"N	80°43'36.8955"W	7234.74	8.827	0.82	-0.16	-0.80	
14308.00	90.580	340.830	7049.86	6498.59	7237.65	1078.77	1717335.75	14371895.72	39°34'34.8031"N	80°43'37.2930"W	7317.60	8.477	0.82	0.38	0.72	
14402.00	90.400	340.300	7049.05	6592.58	7326.29	1047.49	1717304.49	14371984.33	39°34'35.6801"N	80°43'37.6889"W	7400.80	8.137	0.60	-0.19	-0.56	
14496.00	90.800	340.850	7048.07	6686.57	7414.94	1016.23	1717273.24	14372072.93	39°34'36.5571"N	80°43'38.0847"W	7484.25	7.804	0.72	0.43	0.59	
14591.00	90.090	340.860	7047.33	6781.57	7504.68	985.07	1717242.09	14372162.64	39°34'37.4449"N	80°43'38.4791"W	7569.05	7.478	0.75	-0.75	0.01	
14686.00	90.250	340.940	7047.05	6876.57	7594.45	953.99	1717211.02	14372252.38	39°34'38.3331"N	80°43'38.8726"W	7654.13	7.160	0.19	0.17	0.08	
14780.00	90.250	340.990	7046.64	6970.57	7683.31	923.33	1717180.38	14372341.20	39°34'39.2122"N	80°43'39.2607"W	7738.59	6.853	0.05	0.00	0.05	
14874.00	90.340	340.730	7046.16	7064.57	7772.11	892.51	1717149.57	14372429.97	39°34'40.0908"N	80°43'39.6509"W	7823.19	6.551	0.29	0.10	-0.28	
14969.00	90.180	340.820	7045.72	7159.56	7861.81	861.23	1717118.30	14372519.63	39°34'40.9783"N	80°43'40.0469"W	7908.84	6.252	0.19	-0.17	0.09	
15063.00	90.220	341.050	7045.40	7253.56	7950.65	830.53	1717087.61	14372608.44	39°34'41.8572"N	80°43'40.4356"W	7993.92	5.963	0.25	0.04	0.24	
15157.00	90.400	341.050	7044.89	7347.56	8039.56	800.00	1717057.09	14372697.31	39°34'42.7368"N	80°43'40.8220"W	8079.26	5.683	0.19	0.19	0.00	
15252.00	90.340	341.030	7044.27	7442.56	8129.40	769.14	1717026.24	14372787.12	39°34'43.6257"N	80°43'41.2127"W	8165.71	5.405	0.07	-0.06	-0.02	
15346.00	90.310	341.030	7043.74	7536.56	8218.30	738.58	1716995.70	14372875.98	39°34'44.5051"N	80°43'41.5995"W	8251.42	5.135	0.03	-0.03	0.00	
15441.00	89.970	340.830	7043.51	7631.56	8308.08	707.54	1716964.67	14372965.73	39°34'45.3934"N	80°43'41.9925"W	8338.16	4.868	0.42	-0.36	-0.21	
15534.00	90.490	341.030	7043.14	7724.55	8395.98	677.16	1716934.30	14373053.59	39°34'46.2630"N	80°43'42.3771"W	8423.24	4.611	0.60	0.56	0.22	
15629.00	90.180	340.860	7042.58	7819.55	8485.77	646.14	1716903.30	14373143.34	39°34'47.1514"N	80°43'42.7697"W	8510.33	4.354	0.37	-0.33	-0.18	
15723.00	90.340	340.580	7042.15	7913.55	8574.50	615.10	1716872.27	14373232.04	39°34'48.0292"N	80°43'43.1627"W	8596.53	4.103	0.34	0.17	-0.30	
15818.00	90.280	340.660	7041.64	8008.54	8664.11	583.58	1716840.76	14373321.62	39°34'48.9158"N	80°43'43.5619"W	8683.74	3.853	0.11	-0.06	0.08	
15913.00	90.220	340.820	7041.23	8103.54	8753.79	552.24	1716809.44	14373411.26	39°34'49.8031"N	80°43'43.9586"W	8771.20	3.610	0.18	-0.06	0.17	
16007.00	90.250	340.460	7040.84	8197.54	8842.48	521.08	1716778.29	14373499.91	39°34'50.6805"N	80°43'44.3532"W	8857.82	3.373	0.38	0.03	-0.38	
16102.00	90.030	340.260	7040.61	8292.53	8931.95	489.15	1716746.37	14373589.35	39°34'51.5658"N	80°43'44.7575"W	8945.34	3.135	0.31	-0.23	-0.21	





# Actual Wellpath Report

Makar Unit 2H AWP Proj: 26095'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 2H
Field	Wetzel	API	47-103-03588-0000
Facility	Furbee Pad	Wellbore	Makar Unit 2H AWB
Slot	Slot L		

## WELLPATH DATA (285 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
16196.00	90.150	340.690	7040.46	8386.52	9020.55	457.74	1716714.97	14373677.91	39°34'52.4423"N	80°43'45.1553"W	9032.15	2.905	0.47	0.13	0.46	
16291.00	90.220	340.820	7040.15	8481.52	9110.24	426.42	1716683.67	14373767.56	39°34'53.3296"N	80°43'45.5518"W	9120.21	2.680	0.16	0.07	0.14	
16385.00	90.310	340.810	7039.72	8575.52	9199.01	395.53	1716652.79	14373856.31	39°34'54.2080"N	80°43'45.9429"W	9207.51	2.462	0.10	0.10	-0.01	
16480.00	90.030	340.360	7039.44	8670.51	9288.61	363.96	1716621.22	14373945.87	39°34'55.0944"N	80°43'46.3428"W	9295.74	2.244	0.56	-0.29	-0.47	
16575.00	90.310	340.810	7039.15	8765.51	9378.21	332.38	1716589.66	14374035.43	39°34'55.9809"N	80°43'46.7427"W	9384.10	2.030	0.56	0.29	0.47	
16669.00	90.310	340.780	7038.65	8859.51	9466.98	301.46	1716558.75	14374124.16	39°34'56.8591"N	80°43'47.1342"W	9471.77	1.824	0.03	0.00	-0.03	
16764.00	90.120	340.560	7038.29	8954.50	9556.62	270.01	1716527.31	14374213.77	39°34'57.7460"N	80°43'47.5323"W	9560.43	1.618	0.31	-0.20	-0.23	
16858.00	90.280	340.800	7037.96	9048.50	9645.33	238.91	1716496.23	14374302.44	39°34'58.6236"N	80°43'47.9261"W	9648.28	1.419	0.31	0.17	0.26	
16952.00	90.250	340.760	7037.53	9142.50	9734.09	207.97	1716465.30	14374391.17	39°34'59.5017"N	80°43'48.3179"W	9736.31	1.224	0.05	-0.03	-0.04	
17047.00	90.060	340.640	7037.27	9237.49	9823.75	176.57	1716433.91	14374480.79	39°35'0.3888"N	80°43'48.7155"W	9825.33	1.030	0.24	-0.20	-0.13	
17142.00	90.310	340.800	7036.96	9332.49	9913.42	145.20	1716402.55	14374570.43	39°35'1.2760"N	80°43'49.1127"W	9914.48	0.839	0.31	0.26	0.17	
17236.00	90.340	340.740	7036.43	9426.49	10002.17	114.24	1716371.61	14374659.15	39°35'2.1541"N	80°43'49.5047"W	10002.82	0.654	0.07	0.03	-0.06	
17330.00	90.150	340.670	7036.03	9520.48	10090.89	83.18	1716340.56	14374747.83	39°35'3.0318"N	80°43'49.8980"W	10091.23	0.472	0.22	-0.20	-0.07	
17425.00	90.220	340.790	7035.72	9615.48	10180.57	51.83	1716309.22	14374837.47	39°35'3.9190"N	80°43'50.2950"W	10180.70	0.292	0.15	0.07	0.13	
17519.00	90.400	340.660	7035.21	9709.48	10269.30	20.80	1716278.20	14374926.17	39°35'4.7969"N	80°43'50.6879"W	10269.32	0.116	0.24	0.19	-0.14	
17613.00	89.940	340.570	7034.93	9803.47	10357.97	-10.40	1716247.02	14375014.80	39°35'5.6741"N	80°43'51.0830"W	10357.97	359.942	0.50	-0.49	-0.10	
17708.00	90.370	340.520	7034.68	9898.47	10447.54	-42.04	1716215.39	14375104.34	39°35'6.5604"N	80°43'51.4838"W	10447.63	359.769	0.46	0.45	-0.05	
17803.00	90.150	341.060	7034.25	9993.47	10537.25	-73.30	1716184.14	14375194.02	39°35'7.4479"N	80°43'51.8796"W	10537.51	359.601	0.61	-0.23	0.57	
17897.00	90.180	340.490	7033.98	10087.46	10626.01	-104.25	1716153.20	14375282.74	39°35'8.3260"N	80°43'52.2715"W	10626.52	359.438	0.61	0.03	-0.61	
17991.00	90.150	340.760	7033.70	10181.46	10714.69	-135.43	1716122.03	14375371.38	39°35'9.2033"N	80°43'52.6664"W	10715.54	359.276	0.29	-0.03	0.29	
18086.00	90.400	341.050	7033.25	10276.46	10804.46	-166.51	1716090.96	14375461.11	39°35'10.0915"N	80°43'53.0599"W	10805.74	359.117	0.40	0.26	0.31	
18180.00	90.180	340.450	7032.77	10370.45	10893.20	-197.50	1716059.99	14375549.82	39°35'10.9695"N	80°43'53.4524"W	10894.99	358.961	0.68	-0.23	-0.64	
18275.00	90.490	340.780	7032.22	10465.45	10982.81	-229.03	1716028.47	14375639.40	39°35'11.8560"N	80°43'53.8517"W	10985.20	358.805	0.48	0.33	0.35	
18369.00	90.030	340.520	7031.79	10559.44	11071.50	-260.18	1715997.33	14375728.05	39°35'12.7335"N	80°43'54.2461"W	11074.56	358.654	0.56	-0.49	-0.28	
18464.00	90.220	340.480	7031.58	10654.44	11161.05	-291.89	1715965.64	14375817.57	39°35'13.6195"N	80°43'54.6477"W	11164.87	358.502	0.20	0.20	-0.04	
18558.00	90.460	340.790	7031.03	10748.43	11249.73	-323.06	1715934.48	14375906.21	39°35'14.4968"N	80°43'55.0425"W	11254.37	358.355	0.42	0.26	0.33	
18653.00	90.060	340.290	7030.59	10843.43	11339.30	-354.71	1715902.84	14375995.75	39°35'15.3830"N	80°43'55.4433"W	11344.85	358.208	0.67	-0.42	-0.53	
18747.00	90.370	340.710	7030.24	10937.42	11427.91	-386.08	1715871.48	14376084.32	39°35'16.2597"N	80°43'55.8407"W	11434.43	358.065	0.56	0.33	0.45	
18842.00	90.520	340.840	7029.50	11032.42	11517.61	-417.36	1715840.21	14376173.99	39°35'17.1471"N	80°43'56.2368"W	11525.17	357.925	0.21	0.16	0.14	
18936.00	90.180	340.640	7028.93	11126.41	11606.35	-448.37	1715809.22	14376262.69	39°35'18.0250"N	80°43'56.6295"W	11615.01	357.788	0.42	-0.36	-0.21	

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# Actual Wellpath Report

Makar Unit 2H AWP Proj: 26095'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Makar Unit 2H
Field	Wetzel		API	47-103-03588-0000
Facility	Furbee Pad		Wellbore	Makar Unit 2H AWB
Slot	Slot L			

WELLPATH DATA (285 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
19031.00	90.220	340.460	7028.60	11221.41	11695.93	-480.00	1715777.60	14376352.23	39°35'18.9113"N	80°43'57.0301"W	11705.77	357.650	0.19	0.04	-0.19	
19126.00	90.370	340.660	7028.11	11316.40	11785.51	-511.62	1715745.99	14376441.78	39°35'19.7975"N	80°43'57.4306"W	11796.61	357.514	0.26	0.16	0.21	
19220.00	90.370	340.730	7027.50	11410.40	11874.22	-542.70	1715714.93	14376530.46	39°35'20.6752"N	80°43'57.8241"W	11886.62	357.383	0.07	0.00	0.07	
19314.00	90.310	340.610	7026.94	11504.39	11962.92	-573.81	1715683.83	14376619.12	39°35'21.5528"N	80°43'58.2182"W	11976.67	357.254	0.14	-0.06	-0.13	
19409.00	90.220	340.630	7026.50	11599.39	12052.54	-605.33	1715652.31	14376708.70	39°35'22.4394"N	80°43'58.6174"W	12067.73	357.125	0.10	-0.09	0.02	
19503.00	90.400	340.820	7026.00	11693.38	12141.27	-636.36	1715621.30	14376797.40	39°35'23.3172"N	80°43'59.0104"W	12157.93	357.000	0.28	0.19	0.20	
19598.00	90.220	340.860	7025.48	11788.38	12231.00	-667.54	1715590.13	14376887.10	39°35'24.2050"N	80°43'59.4053"W	12249.21	356.876	0.19	-0.19	0.04	
19693.00	90.280	340.500	7025.07	11883.38	12320.65	-698.97	1715558.71	14376976.71	39°35'25.0920"N	80°43'59.8033"W	12340.46	356.753	0.38	0.06	-0.38	
19788.00	90.340	340.680	7024.55	11978.37	12410.25	-730.54	1715527.16	14377066.27	39°35'25.9784"N	80°44'0.2032"W	12431.73	356.631	0.20	0.06	0.19	
19882.00	90.370	341.160	7023.97	12072.37	12499.09	-761.27	1715496.44	14377155.07	39°35'26.8573"N	80°44'0.5923"W	12522.25	356.515	0.51	0.03	0.51	
19977.00	90.460	340.930	7023.28	12167.37	12588.93	-792.13	1715465.60	14377244.88	39°35'27.7461"N	80°44'0.9831"W	12613.83	356.400	0.26	0.09	-0.24	
20072.00	90.220	340.470	7022.72	12262.36	12678.59	-823.53	1715434.21	14377334.51	39°35'28.6332"N	80°44'1.3807"W	12705.31	356.284	0.55	-0.25	-0.48	
20166.00	90.400	341.100	7022.21	12356.36	12767.35	-854.46	1715403.29	14377423.23	39°35'29.5113"N	80°44'1.7725"W	12795.91	356.171	0.70	0.19	0.67	
20261.00	90.400	340.520	7021.55	12451.36	12857.07	-885.69	1715372.07	14377512.92	39°35'30.3989"N	80°44'2.1680"W	12887.54	356.059	0.61	0.00	-0.61	
20355.00	90.340	340.710	7020.94	12545.35	12945.74	-916.89	1715340.89	14377601.55	39°35'31.2762"N	80°44'2.5632"W	12978.17	355.949	0.21	-0.06	0.20	
20450.00	90.370	340.710	7020.35	12640.35	13035.40	-948.27	1715309.52	14377691.18	39°35'32.1633"N	80°44'2.9606"W	13069.85	355.839	0.03	0.03	0.00	
20545.00	90.280	340.950	7019.81	12735.34	13125.14	-979.46	1715278.33	14377780.88	39°35'33.0510"N	80°44'3.3557"W	13161.63	355.732	0.27	-0.09	0.25	
20639.00	90.310	340.620	7019.33	12829.34	13213.90	-1010.40	1715247.41	14377869.60	39°35'33.9292"N	80°44'3.7475"W	13252.47	355.627	0.35	0.03	-0.35	
20734.00	90.220	341.080	7018.89	12924.34	13303.64	-1041.56	1715216.26	14377959.31	39°35'34.8170"N	80°44'4.1422"W	13344.35	355.523	0.49	-0.09	0.48	
20828.00	90.280	340.960	7018.48	13018.34	13392.53	-1072.14	1715185.70	14378048.16	39°35'35.6964"N	80°44'4.5294"W	13435.37	355.423	0.14	0.06	-0.13	
20922.00	90.090	340.720	7018.18	13112.34	13481.32	-1102.99	1715154.86	14378136.92	39°35'36.5748"N	80°44'4.9201"W	13526.37	355.323	0.33	-0.20	-0.26	
21017.00	90.400	340.600	7017.77	13207.33	13570.96	-1134.45	1715123.41	14378226.52	39°35'37.4617"N	80°44'5.3186"W	13618.29	355.222	0.35	0.33	-0.13	
21207.00	90.180	340.850	7016.81	13397.33	13750.31	-1197.17	1715060.72	14378405.80	39°35'39.2360"N	80°44'6.1131"W	13802.32	355.024	0.18	-0.12	0.13	
21301.00	89.820	340.710	7016.81	13491.32	13839.07	-1228.11	1715029.78	14378494.52	39°35'40.1141"N	80°44'6.5050"W	13893.45	354.929	0.41	-0.38	-0.15	
21395.00	90.000	340.970	7016.96	13585.32	13927.86	-1258.96	1714998.94	14378583.28	39°35'40.9926"N	80°44'6.8957"W	13984.64	354.835	0.34	0.19	0.28	
21489.00	89.910	340.670	7017.03	13679.32	14016.64	-1289.85	1714968.07	14378672.03	39°35'41.8709"N	80°44'7.2869"W	14075.86	354.742	0.33	-0.10	-0.32	
21584.00	89.970	340.760	7017.13	13774.32	14106.31	-1321.22	1714936.71	14378761.66	39°35'42.7581"N	80°44'7.6843"W	14168.05	354.649	0.11	0.06	0.09	
21678.00	89.970	340.640	7017.18	13868.32	14195.03	-1352.29	1714905.66	14378850.34	39°35'43.6358"N	80°44'8.0779"W	14259.29	354.558	0.13	0.00	-0.13	
21772.00	89.940	341.700	7017.25	13962.31	14283.99	-1382.63	1714875.33	14378939.28	39°35'44.5159"N	80°44'8.4621"W	14350.75	354.471	1.13	-0.03	1.13	
21867.00	89.940	341.640	7017.35	14057.31	14374.17	-1412.50	1714845.46	14379029.42	39°35'45.4081"N	80°44'8.8403"W	14443.41	354.388	0.06	0.00	-0.06	





# Actual Wellpath Report

Makar Unit 2H AWP Proj: 26095'  
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### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 2H
Field	Wetzel	API	47-103-03588-0000
Facility	Furbee Pad	Wellbore	Makar Unit 2H AWB
Slot	Slot L		

### WELLPATH DATA (285 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
21961.00	89.940	341.840	7017.45	14151.30	14463.44	-1441.96	1714816.02	14379118.65	39°35'46.2912"N	80°44'9.2132"W	14535.14	354.307	0.21	0.00	0.21	
22055.00	90.000	341.860	7017.50	14245.30	14552.76	-1471.24	1714786.75	14379207.94	39°35'47.1748"N	80°44'9.5839"W	14626.94	354.227	0.07	0.06	0.02	
22150.00	90.030	341.800	7017.47	14340.29	14643.03	-1500.86	1714757.14	14379298.17	39°35'48.0677"N	80°44'9.9590"W	14719.74	354.148	0.07	0.03	-0.06	
22245.00	90.030	341.650	7017.42	14435.28	14733.24	-1530.65	1714727.36	14379388.34	39°35'48.9602"N	80°44'10.3362"W	14812.53	354.069	0.16	0.00	-0.16	
22340.00	89.820	341.710	7017.55	14530.28	14823.42	-1560.51	1714697.51	14379478.49	39°35'49.8523"N	80°44'10.7142"W	14905.33	353.990	0.23	-0.22	0.06	
22434.00	89.970	341.640	7017.72	14624.27	14912.65	-1590.07	1714667.97	14379567.69	39°35'50.7351"N	80°44'11.0884"W	14997.18	353.914	0.18	0.16	-0.07	
22529.00	89.600	341.740	7018.08	14719.27	15002.84	-1619.91	1714638.14	14379657.84	39°35'51.6273"N	80°44'11.4663"W	15090.04	353.837	0.40	-0.39	0.11	
22623.00	90.430	342.110	7018.05	14813.26	15092.20	-1649.08	1714608.98	14379747.16	39°35'52.5113"N	80°44'11.8355"W	15182.03	353.764	0.97	0.88	0.39	
22718.00	90.180	341.750	7017.55	14908.25	15182.52	-1678.54	1714579.53	14379837.44	39°35'53.4047"N	80°44'12.2086"W	15275.02	353.691	0.46	-0.26	-0.38	
22813.00	90.180	341.680	7017.25	15003.24	15272.72	-1708.35	1714549.74	14379927.61	39°35'54.2971"N	80°44'12.5859"W	15367.97	353.618	0.07	0.00	-0.07	
22907.00	90.430	341.720	7016.75	15097.23	15361.96	-1737.86	1714520.23	14380016.82	39°35'55.1800"N	80°44'12.9597"W	15459.95	353.546	0.27	0.27	0.04	
23002.00	90.340	341.590	7016.11	15192.23	15452.13	-1767.76	1714490.35	14380106.95	39°35'56.0720"N	80°44'13.3382"W	15552.92	353.474	0.17	-0.09	-0.14	
23097.00	90.520	341.570	7015.40	15287.22	15542.26	-1797.78	1714460.34	14380197.05	39°35'56.9636"N	80°44'13.7183"W	15645.89	353.402	0.19	0.19	-0.02	
23191.00	90.280	342.160	7014.74	15381.21	15631.59	-1827.04	1714431.09	14380286.34	39°35'57.8473"N	80°44'14.0888"W	15738.00	353.333	0.68	-0.26	0.63	
23286.00	90.400	341.850	7014.18	15476.20	15721.94	-1856.39	1714401.76	14380376.66	39°35'58.7411"N	80°44'14.4603"W	15831.16	353.266	0.35	0.13	-0.33	
23380.00	90.490	341.530	7013.45	15570.19	15811.18	-1885.92	1714372.24	14380465.86	39°35'59.6239"N	80°44'14.8342"W	15923.26	353.198	0.35	0.10	-0.34	
23475.00	90.460	342.000	7012.66	15665.18	15901.41	-1915.64	1714342.53	14380556.05	39°36'0.5165"N	80°44'15.2106"W	16016.38	353.131	0.50	-0.03	0.49	
23569.00	90.370	341.480	7011.98	15759.17	15990.67	-1945.09	1714313.08	14380645.28	39°36'1.3996"N	80°44'15.5835"W	16108.54	353.065	0.56	-0.10	-0.55	
23664.00	89.820	341.820	7011.82	15854.17	16080.84	-1975.00	1714283.19	14380735.41	39°36'2.2916"N	80°44'15.9622"W	16201.67	352.998	0.68	-0.58	0.36	
23758.00	90.030	341.630	7011.94	15948.16	16170.10	-2004.48	1714253.72	14380824.63	39°36'3.1746"N	80°44'16.3355"W	16293.86	352.934	0.30	0.22	-0.20	
23853.00	90.000	341.770	7011.92	16043.16	16260.29	-2034.31	1714223.91	14380914.79	39°36'4.0669"N	80°44'16.7132"W	16387.05	352.869	0.15	-0.03	0.15	
23947.00	89.940	341.520	7011.97	16137.15	16349.51	-2063.91	1714194.32	14381003.98	39°36'4.9495"N	80°44'17.0880"W	16479.27	352.805	0.27	-0.06	-0.27	
24042.00	89.940	341.770	7012.07	16232.15	16439.68	-2093.82	1714164.41	14381094.11	39°36'5.8414"N	80°44'17.4669"W	16572.48	352.742	0.26	0.00	0.26	
24136.00	89.940	341.670	7012.17	16326.14	16528.93	-2123.31	1714134.94	14381183.33	39°36'6.7244"N	80°44'17.8402"W	16664.76	352.680	0.11	0.00	-0.11	
24231.00	89.970	341.560	7012.24	16421.14	16619.08	-2153.27	1714104.99	14381273.44	39°36'7.6163"N	80°44'18.2196"W	16758.00	352.618	0.12	0.03	-0.12	
24325.00	89.880	341.490	7012.36	16515.14	16708.24	-2183.06	1714075.21	14381362.56	39°36'8.4983"N	80°44'18.5969"W	16850.25	352.556	0.12	-0.10	-0.07	
24420.00	89.940	341.660	7012.51	16610.13	16798.37	-2213.09	1714045.20	14381452.66	39°36'9.3899"N	80°44'18.9771"W	16943.52	352.495	0.19	0.06	0.18	
24514.00	90.030	341.880	7012.54	16704.13	16887.65	-2242.49	1714015.81	14381541.90	39°36'10.2731"N	80°44'19.3495"W	17035.89	352.436	0.25	0.10	0.23	
24609.00	90.000	341.850	7012.51	16799.12	16977.93	-2272.06	1713986.25	14381632.15	39°36'11.1662"N	80°44'19.7239"W	17129.29	352.378	0.04	-0.03	-0.03	
24704.00	89.940	341.910	7012.56	16894.11	17068.22	-2301.61	1713956.71	14381722.40	39°36'12.0594"N	80°44'20.0980"W	17222.70	352.320	0.09	-0.06	0.06	

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# Actual Wellpath Report

Makar Unit 2H AWP Proj: 26095'  
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### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 2H
Field	Wetzel	API	47-103-03588-0000
Facility	Furbee Pad	Wellbore	Makar Unit 2H AWB
Slot	Slot L		

### WELLPATH DATA (285 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
24798.00	89.970	341.620	7012.64	16988.10	17157.50	-2331.02	1713927.31	14381811.65	39°36'12.9426"N	80°44'20.4705"W	17315.12	352.263	0.31	0.03	-0.31	
24893.00	89.970	341.690	7012.69	17083.10	17247.67	-2360.92	1713897.42	14381901.78	39°36'13.8347"N	80°44'20.8491"W	17408.51	352.206	0.07	0.00	0.07	
24988.00	89.720	341.810	7012.94	17178.09	17337.89	-2390.67	1713867.68	14381991.97	39°36'14.7272"N	80°44'21.2259"W	17501.94	352.149	0.29	-0.26	0.13	
25083.00	90.120	341.920	7013.08	17273.08	17428.17	-2420.24	1713838.13	14382082.21	39°36'15.6203"N	80°44'21.6003"W	17595.42	352.094	0.44	0.42	0.12	
25177.00	90.220	341.710	7012.80	17367.08	17517.48	-2449.58	1713808.80	14382171.48	39°36'16.5037"N	80°44'21.9718"W	17687.92	352.040	0.25	0.11	-0.22	
25272.00	90.120	341.710	7012.52	17462.07	17607.68	-2479.39	1713779.00	14382261.65	39°36'17.3960"N	80°44'22.3493"W	17781.39	351.985	0.11	-0.11	0.00	
25366.00	90.120	341.570	7012.32	17556.07	17696.89	-2509.00	1713749.40	14382350.83	39°36'18.2786"N	80°44'22.7243"W	17873.87	351.931	0.15	0.00	-0.15	
25460.00	90.180	341.830	7012.07	17650.06	17786.14	-2538.51	1713719.90	14382440.04	39°36'19.1615"N	80°44'23.0981"W	17966.38	351.877	0.28	0.06	0.28	
25555.00	90.280	341.720	7011.69	17745.05	17876.37	-2568.22	1713690.20	14382530.23	39°36'20.0541"N	80°44'23.4744"W	18059.91	351.824	0.16	0.11	-0.12	
25649.00	90.060	340.540	7011.41	17839.05	17965.32	-2598.63	1713659.81	14382619.15	39°36'20.9341"N	80°44'23.8595"W	18152.29	351.769	1.28	-0.23	-1.26	
25744.00	90.030	340.460	7011.34	17934.05	18054.87	-2630.34	1713628.11	14382708.66	39°36'21.8200"N	80°44'24.2613"W	18245.47	351.711	0.09	-0.03	-0.08	
25838.00	90.120	340.770	7011.21	18028.04	18143.54	-2661.54	1713596.93	14382797.30	39°36'22.6973"N	80°44'24.6566"W	18337.72	351.655	0.34	0.10	0.33	
26027.00	90.180	340.430	7010.72	18217.03	18321.81	-2724.32	1713534.17	14382975.49	39°36'24.4609"N	80°44'25.4521"W	18523.24	351.543	0.18	0.03	-0.18	
26070.00	89.910	340.700	7010.69	18260.03	18362.36	-2738.62	1713519.87	14383016.03	39°36'24.8621"N	80°44'25.6334"W	18565.46	351.517	0.89	-0.63	0.63	
26095.00‡	89.910	340.700	7010.73	18285.03	18385.95	-2746.89	1713511.61	14383039.61	39°36'25.0955"N	80°44'25.7381"W	18590.02	351.503	0.00	0.00	0.00	Projected MD at TD: 26095'

### HOLE & CASING SECTIONS - Ref Wellbore: Makar Unit 2H AWB Ref Wellpath: Makar Unit 2H AWP Proj: 26095'

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	-0.11	0.11
17.5in Open Hole	125.50	696.00	570.50	125.50	695.98	-0.11	0.11	-2.88	3.86
13.375in Casing Surface	25.50	676.00	650.50	25.50	675.98	0.00	0.00	-2.75	3.70
12.25in Open Hole	696.00	3737.00	3041.00	695.98	3409.12	-2.88	3.86	303.45	1214.98
9.625in Casing Intermediate	25.50	3707.00	3681.50	25.50	3381.60	0.00	0.00	299.77	1203.61
8.75in Open Hole	3737.00	8058.00	4321.00	3409.12	7021.98	303.45	1214.98	1294.68	2945.78





# Actual Wellpath Report

Makar Unit 2H AWP Proj: 26095'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 2H
Field	Wetzel	API	47-103-03588-0000
Facility	Furbee Pad	Wellbore	Makar Unit 2H AWB
Slot	Slot L		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Makar Unit 2H POE Rev-3	7040.00	1278.50	2973.51	1719229.74	14365938.92	39°33'35.8500"N	80°43'13.3325"W	point
Makar Unit 2H AZI Rev-3	7068.00	1953.55	2861.24	1719117.51	14366613.71	39°33'42.5252"N	80°43'14.7391"W	point
Makar Unit 2H BHL Rev-3	7068.00	18815.80	-2908.18	1713350.38	14383469.29	39°36'29.3483"N	80°44'27.7831"W	point
Makar Unit 2H BHL Rev-4	7068.00	18396.44	-2764.70	1713493.81	14383050.09	39°36'25.1996"N	80°44'25.9653"W	point
Makar Unit 2H LP Rev-3	7068.00	1476.26	2958.87	1719215.11	14366136.60	39°33'37.8050"N	80°43'13.5115"W	point
Makar Unit 2H 50' L/R Hard Line R-2	7500.00	10174.99	48.27	1716305.66	14374831.90	39°35'3.8641"N	80°43'50.3407"W	rectangle
2D Rectangle 17378.7 x 100.								

WELLPATH COMPOSITION - Ref Wellbore: Makar Unit 2H AWB Ref Wellpath: Makar Unit 2H AWP Proj: 26095'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
25.50	612.00	Gyrodata 2015 - GC+WIR+DPIPE	01 Gyrodata MS Gyro <17-1/2"> (100'-612')	Makar Unit 2H AWB	9/15/2023
612.00	3662.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02 APS EM <12-1/4"> (612')(694'-3662')	Makar Unit 2H AWB	9/15/2023
3662.00	7914.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03 APS EM <8-3/4"> (3662')(3747'-7914')	Makar Unit 2H AWB	11/20/2023
7914.00	26095.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04 BH AT Curve <8-1/2"> (7914')(8036'-26070')	Makar Unit 2H AWB	11/20/2023

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# Actual Wellpath Report

Makar Unit 2H AWP Proj: 26095'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Makar Unit 2H
Field	Wetzel	API	47-103-03588-0000
Facility	Furbee Pad	Wellbore	Makar Unit 2H AWB
Slot	Slot L		

COMMENTS
<p><b>Wellpath general comments</b> API: 47-103-03588-0000 BH Job #: 111949127 Rig: H&amp;P 317 Duration: 11/22/2023-11/28/2023 Gyrodata MS Gyro &lt;17-1/2"&gt; (100'-612') APS EM &lt;12-1/4"&gt; (612')(694'-3662') APS EM &lt;8-3/4"&gt; (3662')(3747'-7914') BH AT Curve &lt;8-1/2"&gt; (7914')(8036'-26070') Sycamore: 7483' MD Middlesex: 7667' MD Burkett: 7823' MD Tully: 7885' MD Hamilton: 7997' MD Marcellus POE: 8145' MD Projected MD at TD: 26095'</p>