



Actual Wellpath Report

Coldwater Unit 1H AWP Proj: 22464'

Page 1 of 12



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Coldwater Unit 1H
Field	Doddridge	API	47-017-06966-0000
Facility	Haught Pad	Wellbore	Coldwater Unit 1H AWB
Slot	Slot D		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999609	Report Generated	1/22/2024 at 9:14:30 PM
Convergence at slot	0.20° 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	11.72	42.95	1730683.59	14230365.54	39°11'15.0044"N	80°40'53.1440"W
Facility Reference Pt			1730640.66	14230353.82	39°11'14.8900"N	80°40'53.6900"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	1219.50ft
Horizontal Reference Pt	Slot	H&P 317 (RKB) to Mean Sea Level	1219.50ft
Vertical Reference Pt	H&P 317 (RKB)	H&P 317 (RKB) to Ground Level at Slot (Slot D)	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	162.68°



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Page 2 of 12



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Facility	Haught Pad	Wellbore	Coldwater Unit 1H AWB
Slot	Slot D		

WELLPATH DATA (243 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 (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
0.00	0.00	148.830	0.00	0.00	0.00	0.00	1730683.59	14230365.54	39°11'15.0044"N	80°40'53.1440"W	0.00	0.000	0.00	0.00	0.00	
25.50	0.00	148.830	25.50	0.00	0.00	0.00	1730683.59	14230365.54	39°11'15.0044"N	80°40'53.1440"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.170	148.830	100.00	0.11	-0.09	0.06	1730683.65	14230365.45	39°11'15.0034"N	80°40'53.1433"W	0.11	148.830	0.23	0.23	0.00	Gyrodata MS Gyro <17-1/2> (100'-383')
200.00	0.280	104.790	200.00	0.38	-0.28	0.37	1730683.95	14230365.26	39°11'15.0015"N	80°40'53.1393"W	0.47	127.479	0.20	0.11	-44.04	
300.00	0.310	140.280	300.00	0.76	-0.55	0.78	1730684.37	14230364.99	39°11'14.9988"N	80°40'53.1342"W	0.96	125.423	0.18	0.03	35.49	
383.00	0.660	126.760	382.99	1.36	-1.01	1.31	1730684.90	14230364.53	39°11'14.9943"N	80°40'53.1275"W	1.65	127.806	0.44	0.42	-16.29	
410.00	0.620	140.440	409.99	1.62	-1.22	1.52	1730685.11	14230364.32	39°11'14.9923"N	80°40'53.1247"W	1.95	128.661	0.58	-0.15	50.67	APS EM <12-1/4> (383')(410'-3298')
498.00	1.260	98.180	497.98	2.47	-1.72	2.78	1730686.37	14230363.82	39°11'14.9872"N	80°40'53.1087"W	3.27	121.758	1.03	0.73	-48.02	
589.00	2.600	85.810	588.93	3.37	-1.72	5.83	1730689.42	14230363.83	39°11'14.9872"N	80°40'53.0700"W	6.08	106.384	1.53	1.47	-13.59	
678.00	4.300	81.240	677.75	4.33	-1.06	11.14	1730694.73	14230364.48	39°11'14.9935"N	80°40'53.0025"W	11.19	95.430	1.93	1.91	-5.13	
769.00	5.810	76.060	768.41	5.11	0.57	18.99	1730702.57	14230366.11	39°11'15.0093"N	80°40'52.9029"W	19.00	88.281	1.73	1.66	-5.89	
859.00	7.240	71.520	857.82	5.26	3.47	28.79	1730712.37	14230369.00	39°11'15.0376"N	80°40'52.7783"W	29.00	83.137	1.69	1.58	-5.04	
950.00	8.730	67.700	947.94	4.55	7.90	40.62	1730724.19	14230373.44	39°11'15.0811"N	80°40'52.6278"W	41.38	78.989	1.74	1.64	-4.20	
1041.00	10.300	68.830	1037.88	3.40	13.46	54.59	1730738.16	14230379.00	39°11'15.1355"N	80°40'52.4501"W	56.23	76.148	1.74	1.73	1.24	
1136.00	10.680	68.860	1131.10	2.24	19.70	70.72	1730754.29	14230385.24	39°11'15.1967"N	80°40'52.2450"W	73.42	74.432	0.40	0.40	0.03	
1325.00	10.770	75.320	1316.80	1.89	30.50	104.14	1730767.89	14230396.02	39°11'15.3022"N	80°40'51.8201"W	108.51	73.678	0.64	0.05	3.42	
1420.00	10.480	74.670	1410.17	2.60	35.03	121.06	1730804.80	14230400.56	39°11'15.3464"N	80°40'51.6050"W	126.03	73.862	0.33	-0.31	-0.89	
1514.00	10.340	73.950	1502.63	3.08	39.62	137.41	1730820.95	14230405.15	39°11'15.3912"N	80°40'51.3971"W	143.01	73.915	0.20	-0.15	-0.77	
1609.00	10.400	79.180	1596.08	4.24	43.59	154.03	1730837.56	14230409.11	39°11'15.4298"N	80°40'51.1859"W	160.08	74.199	0.99	0.06	5.51	
1703.00	11.150	82.690	1688.42	6.78	46.34	171.38	1730854.90	14230411.86	39°11'15.4564"N	80°40'50.9655"W	177.53	74.870	1.06	0.80	3.73	
1797.00	11.260	83.950	1780.63	10.16	48.46	189.52	1730873.03	14230413.98	39°11'15.4768"N	80°40'50.7350"W	195.62	75.656	0.29	0.12	1.34	
1892.00	12.280	83.220	1873.63	13.81	50.63	208.76	1730892.27	14230416.15	39°11'15.4975"N	80°40'50.4905"W	214.81	76.367	1.06	1.05	-0.77	
1986.00	12.830	75.010	1965.39	16.06	54.51	228.75	1730912.25	14230420.03	39°11'15.5352"N	80°40'50.2364"W	235.16	76.597	1.99	0.81	-8.73	
2080.00	12.860	73.210	2057.04	16.59	60.23	248.85	1730932.34	14230425.75	39°11'15.5910"N	80°40'49.9910"W	256.03	76.394	0.43	0.03	-1.91	
2175.00	12.730	72.320	2149.88	16.62	66.46	268.94	1730952.43	14230431.98	39°11'15.6519"N	80°40'49.7255"W	277.03	76.119	0.25	-0.14	-0.94	
2269.00	12.620	71.260	2241.39	16.30	72.91	288.53	1730972.01	14230438.42	39°11'15.7149"N	80°40'49.4764"W	297.60	75.819	0.27	-0.12	-1.13	
2364.00	12.720	70.370	2334.08	15.62	79.75	308.21	1730991.68	14230445.26	39°11'15.7819"N	80°40'49.2261"W	318.37	75.492	0.23	0.11	-0.94	
2458.00	12.760	69.600	2425.77	14.64	86.85	327.69	1731011.15	14230452.36	39°11'15.8514"N	80°40'48.9785"W	339.00	75.156	0.19	0.04	-0.82	
2553.00	12.490	68.230	2518.47	13.28	94.32	347.06	1731030.52	14230459.82	39°11'15.9245"N	80°40'48.7321"W	359.65	74.797	0.42	-0.26	-1.44	
2648.00	12.470	67.970	2611.22	11.84	101.97	366.11	1731049.56	14230467.47	39°11'15.9995"N	80°40'48.4898"W	380.05	74.436	0.06	-0.03	-0.27	



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Coldwater Unit 1H AWP Proj: 22464'
Page 3 of 12



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Field	Doddridge		API	47-017-06966-0000
Facility	Haught Pad		Wellbore	Coldwater Unit 1H AWB
Slot	Slot D			

WELLPATH DATA (243 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
2742.00	12.380	66.860	2703.02	9.79	109.74	384.79	1731088.22	14230475.24	39°11'16.0756"N	80°40'46.2523"W	400.13	74.082	0.27	-0.10	-1.18	
2837.00	11.970	65.540	2795.89	7.53	117.82	403.12	1731086.55	14230483.32	39°11'16.1549"N	80°40'48.0192"W	419.98	73.708	0.52	-0.43	-1.39	
2931.00	11.530	69.780	2857.92	5.55	125.10	420.81	1731104.23	14230490.60	39°11'16.2262"N	80°40'47.7942"W	439.01	73.443	1.03	-0.47	-4.51	
3025.00	11.290	77.410	2980.07	6.13	130.36	438.60	1731122.02	14230495.85	39°11'16.2775"N	80°40'47.5679"W	457.56	73.447	1.62	-0.26	8.12	
3120.00	10.610	76.830	3073.34	7.53	134.39	455.19	1731139.61	14230499.89	39°11'16.3166"N	80°40'47.3443"W	475.57	73.667	0.73	-0.72	-0.61	
3214.00	9.920	73.360	3165.83	8.25	138.67	472.38	1731155.78	14230504.15	39°11'16.3585"N	80°40'47.1386"W	492.31	73.640	0.99	-0.73	-3.69	
3298.00	9.440	71.270	3248.64	8.17	142.95	485.84	1731169.23	14230508.44	39°11'16.4003"N	80°40'46.9675"W	506.43	73.604	0.71	-0.57	-2.49	
3398.00	8.200	66.820	3347.45	7.24	148.39	500.18	1731183.55	14230513.87	39°11'16.4538"N	80°40'46.7854"W	521.71	73.475	1.41	-1.24	-4.45	APS EM <8-3/4"> (3298')(3398'-6896')
3493.00	9.740	68.770	3441.29	6.00	153.97	513.88	1731197.27	14230519.45	39°11'16.5093"N	80°40'46.6109"W	536.45	73.321	1.65	1.62	2.09	
3588.00	10.810	67.770	3524.76	4.89	160.35	529.62	1731213.00	14230525.73	39°11'16.5698"N	80°40'46.4107"W	553.33	73.165	1.14	1.13	-1.05	
3682.00	11.630	70.950	3626.97	3.65	166.68	546.73	1731230.11	14230532.15	39°11'16.6327"N	80°40'46.1931"W	571.57	73.046	1.09	0.87	3.38	
3776.00	13.850	76.450	3718.65	4.10	172.41	566.63	1731250.00	14230537.88	39°11'16.6887"N	80°40'45.9401"W	592.28	73.077	2.69	2.36	5.85	
3871.00	14.610	75.590	3810.73	5.46	178.05	589.29	1731272.65	14230543.52	39°11'16.7437"N	80°40'45.6521"W	615.60	73.188	0.83	0.80	-0.91	
3965.00	13.970	73.040	3901.83	6.13	184.31	611.62	1731294.97	14230549.78	39°11'16.8048"N	80°40'45.3681"W	638.79	73.230	0.95	-0.68	-2.71	
4060.00	13.970	69.420	3994.02	5.55	191.69	633.33	1731316.67	14230557.15	39°11'16.8769"N	80°40'45.0922"W	661.70	73.161	0.92	0.00	-3.81	
4154.00	13.360	73.600	4085.36	5.08	198.74	654.37	1731337.70	14230564.21	39°11'16.9459"N	80°40'44.8246"W	683.88	73.105	1.23	-0.65	4.45	
4248.00	11.710	78.710	4177.12	6.26	203.88	674.14	1731357.47	14230569.14	39°11'16.9940"N	80°40'44.5733"W	704.24	73.189	2.11	-1.76	5.44	
4343.00	10.010	76.760	4270.41	7.86	207.46	691.64	1731374.96	14230572.92	39°11'17.0307"N	80°40'44.3509"W	722.08	73.303	1.83	-1.79	-2.05	
4437.00	10.740	70.270	4362.88	8.07	212.28	707.83	1731391.15	14230577.74	39°11'17.0779"N	80°40'44.1450"W	738.98	73.306	1.46	0.78	-6.90	
4532.00	10.030	63.530	4456.33	6.38	216.96	723.57	1731406.88	14230584.41	39°11'17.1433"N	80°40'43.9448"W	755.98	73.154	1.48	-0.75	-7.09	
4626.00	9.460	67.460	4548.97	4.38	225.57	738.03	1731421.33	14230591.02	39°11'17.2081"N	80°40'43.7609"W	771.74	73.005	0.93	-0.61	4.18	
4724.00	10.390	69.660	4645.50	3.18	231.73	753.76	1731437.05	14230597.18	39°11'17.2684"N	80°40'43.5609"W	788.58	72.911	1.02	0.95	2.24	
4818.00	11.520	75.270	4737.79	3.16	237.06	770.79	1731454.07	14230602.51	39°11'17.3206"N	80°40'43.3444"W	806.42	72.904	1.65	1.20	5.97	
4912.00	11.160	72.270	4829.96	3.51	242.22	788.53	1731471.81	14230607.66	39°11'17.3709"N	80°40'43.1188"W	824.89	72.924	0.74	-0.38	-3.19	
5007.00	9.870	67.040	4923.36	2.65	248.20	804.78	1731488.06	14230613.64	39°11'17.4294"N	80°40'42.9121"W	842.19	72.860	1.69	-1.36	-5.51	
5101.00	10.030	65.730	5015.95	0.87	254.70	819.66	1731502.93	14230620.14	39°11'17.4932"N	80°40'42.7228"W	858.33	72.738	0.29	0.17	-1.39	
5195.00	10.850	71.420	5108.39	-0.32	260.89	835.51	1731518.77	14230626.32	39°11'17.5538"N	80°40'42.5213"W	875.30	72.659	1.40	0.87	6.05	
5290.00	13.030	80.930	5201.34	1.02	265.43	854.57	1731537.82	14230630.86	39°11'17.5980"N	80°40'42.2791"W	894.84	72.745	3.08	2.29	10.01	
5384.00	12.620	79.510	5293.00	3.76	268.97	875.13	1731558.38	14230634.40	39°11'17.6322"N	80°40'42.0178"W	915.63	72.916	0.55	-0.44	-1.51	
5479.00	11.500	75.580	5385.80	5.47	273.22	894.51	1731577.74	14230638.65	39°11'17.6736"N	80°40'41.7715"W	935.30	73.015	1.46	-1.18	-4.18	



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Coldwater Unit 1H AWP Proj: 22464'

Page 4 of 12



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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
5673.00	12.110	74.740	5477.91	6.30	278.15	913.09	1731596.32	14230643.58	39°11'17.7217"N	80°40'41.5352"W	954.52	73.058	0.67	0.65	-0.87	
5867.00	11.890	71.680	5569.89	6.49	283.74	931.65	1731614.87	14230649.17	39°11'17.7762"N	80°40'41.2993"W	973.89	73.062	0.81	-0.45	-3.26	
5762.00	10.290	67.210	5863.15	5.51	290.05	948.61	1731631.82	14230655.48	39°11'17.8380"N	80°40'41.0837"W	991.96	72.998	1.72	-1.47	-4.71	
5856.00	10.280	88.220	5755.64	3.77	296.68	964.02	1731647.23	14230662.11	39°11'17.9031"N	80°40'40.8876"W	1008.64	72.894	0.19	-0.01	-1.05	
5950.00	9.840	71.350	5848.20	2.64	302.63	979.31	1731662.51	14230668.06	39°11'17.9614"N	80°40'40.6832"W	1025.00	72.827	1.06	-0.47	-5.48	
6045.00	9.390	80.580	5941.87	3.51	306.50	994.65	1731677.84	14230671.92	39°11'17.9990"N	80°40'40.4982"W	1040.80	72.873	1.69	-0.47	9.72	
6140.00	10.200	80.550	6035.48	5.73	309.15	1010.59	1731693.78	14230674.57	39°11'18.0246"N	80°40'40.2956"W	1056.82	72.991	0.85	0.85	-0.03	
6234.00	10.040	75.240	6128.02	7.24	312.60	1026.72	1731709.91	14230678.02	39°11'18.0582"N	80°40'40.0906"W	1073.26	73.066	1.01	-0.17	-5.65	
6328.00	10.750	69.640	6220.48	7.14	317.74	1042.87	1731726.05	14230683.16	39°11'18.1084"N	80°40'39.8853"W	1090.20	73.055	1.31	0.76	-5.96	
6423.00	10.330	69.220	6313.88	8.15	323.84	1059.14	1731742.31	14230689.26	39°11'18.1682"N	80°40'39.6784"W	1107.54	72.998	0.45	-0.44	-0.44	
6517.00	8.110	69.100	6406.66	5.23	329.20	1073.21	1731756.38	14230694.61	39°11'18.2206"N	80°40'39.4994"W	1122.57	72.947	2.36	-2.36	-0.13	
6612.00	11.710	92.260	6500.26	8.04	331.21	1089.12	1731772.28	14230696.62	39°11'18.2400"N	80°40'39.2973"W	1138.36	73.085	5.58	3.79	24.38	
6707.00	15.430	108.350	6592.62	18.65	326.85	1110.76	1731793.91	14230692.26	39°11'18.1961"N	80°40'39.0226"W	1157.85	73.603	5.54	3.92	16.94	
6801.00	18.410	123.870	6682.59	37.52	314.83	1134.97	1731818.11	14230680.05	39°11'18.0745"N	80°40'38.7157"W	1177.77	74.506	5.73	3.17	18.51	
6875.00†	19.243	135.255	6752.65	57.46	299.45	1153.26	1731836.40	14230684.88	39°11'17.9238"N	80°40'38.4841"W	1191.51	75.444	5.08	1.13	15.38	Sycamore: 6875' MD
6898.00	19.600	138.280	6772.46	63.74	294.37	1158.04	1731841.18	14230659.79	39°11'17.8734"N	80°40'38.4236"W	1194.87	75.738	5.08	1.70	14.41	
6948.00	21.880	143.730	6819.22	80.19	280.59	1169.14	1731852.27	14230646.02	39°11'17.7368"N	80°40'38.2833"W	1202.34	76.504	5.97	4.56	10.90	BH AT Curve <8-1/2"> (6898')(6946'-22439')
7018.00	26.380	149.170	6884.92	105.45	256.03	1185.28	1731868.41	14230621.47	39°11'17.4834"N	80°40'38.0794"W	1212.62	77.811	6.97	6.25	7.56	
7052.00†	30.405	150.748	6914.83	124.22	242.03	1193.36	1731876.48	14230607.47	39°11'17.3548"N	80°40'37.9774"W	1217.66	78.535	12.04	11.84	4.63	Middlesax: 7052' MD
7112.00	37.540	152.770	6964.55	157.13	212.49	1209.17	1731892.28	14230577.94	39°11'17.0823"N	80°40'37.7780"W	1227.70	80.033	12.04	11.89	3.37	
7207.00	49.590	156.940	7033.26	221.87	153.24	1236.88	1731919.79	14230518.72	39°11'16.4758"N	80°40'37.4312"W	1246.14	82.936	13.03	12.68	4.39	
7253.00†	53.625	157.755	7061.84	257.77	119.98	1250.56	1731933.68	14230485.47	39°11'16.1485"N	80°40'37.2565"W	1256.30	84.520	8.88	8.77	1.77	Burkett: 7253' MD
7301.00	57.840	158.520	7088.86	297.30	83.17	1265.32	1731948.41	14230448.68	39°11'15.7821"N	80°40'37.0707"W	1268.05	86.239	8.88	8.78	1.59	
7312.00†	58.651	158.497	7094.65	306.63	74.46	1268.75	1731951.84	14230439.98	39°11'15.6960"N	80°40'37.0276"W	1270.93	86.641	7.37	7.37	-0.21	Tully: 7312' MD
7396.00	64.840	158.330	7134.40	380.38	5.70	1295.96	1731979.04	14230371.24	39°11'15.0153"N	80°40'36.6851"W	1295.97	89.748	7.37	7.37	-0.20	
7490.00	73.250	159.430	7167.96	467.89	-76.12	1327.54	1732010.61	14230289.45	39°11'14.2055"N	80°40'36.2877"W	1329.72	93.282	9.01	8.95	1.17	
7585.00	78.010	162.100	7191.56	559.83	-162.99	1357.82	1732040.88	14230202.62	39°11'13.3459"N	80°40'35.9071"W	1367.57	96.845	5.70	5.01	2.61	
7596.00†	78.611	162.144	7193.79	570.60	-173.24	1361.13	1732044.19	14230192.37	39°11'13.2445"N	80°40'35.8655"W	1372.11	97.253	5.48	5.47	0.40	Marcellus POE: 7596' MD
7679.00	83.150	162.470	7206.94	652.53	-251.29	1386.03	1732069.07	14230114.35	39°11'12.4721"N	80°40'35.5529"W	1408.62	100.276	5.48	5.47	0.39	
7773.00	87.890	161.780	7214.44	746.20	-340.44	1414.78	1732097.82	14230026.23	39°11'11.6899"N	80°40'35.1917"W	1455.17	103.830	4.88	4.83	-0.73	



Actual Wellpath Report

Coldwater Unit 1H AWP Proj: 22464'
Page 5 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Coldwater Unit 1H
Field	Doddridge	API	47-017-06966-0000
Facility	Haught Pad	Wellbore	Coldwater Unit 1H AWP
Slot	Slot D		

WELLPATH DATA (243 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
7868.00	89.660	162.350	7216.64	841.16	-430.80	1444.03	1732127.05	14229934.91	39°11'10.6958"N	80°40'34.8244"W	1506.92	106.612	2.16	2.07	0.60	
7963.00	89.110	161.380	7217.66	936.15	-521.07	1473.59	1732156.61	14229844.67	39°11'9.8026"N	80°40'34.4530"W	1563.01	109.474	1.17	-0.58	-1.02	
8057.00	87.510	161.390	7220.43	1030.08	-610.11	1503.59	1732186.59	14229755.66	39°11'8.9214"N	80°40'34.0762"W	1622.66	112.086	1.70	-1.70	0.01	
8151.00	89.850	161.650	7222.60	1124.03	-699.24	1533.37	1732216.36	14229666.58	39°11'8.0395"N	80°40'33.7020"W	1685.28	114.514	2.50	2.49	0.28	
8246.00	89.510	161.580	7223.13	1219.01	-789.30	1563.33	1732246.31	14229576.48	39°11'7.1474"N	80°40'33.3255"W	1751.33	116.791	0.37	-0.30	-0.07	
8338.00	89.350	161.290	7224.04	1310.98	-876.60	1592.62	1732275.59	14229489.29	39°11'6.2844"N	80°40'32.9575"W	1817.93	118.829	0.36	-0.17	-0.32	
8435.00	91.750	163.250	7223.11	1407.97	-968.97	1622.16	1732305.11	14229396.95	39°11'5.3704"N	80°40'32.5866"W	1889.53	120.851	3.19	2.47	2.02	
8530.00	89.630	162.860	7221.97	1502.95	-1059.84	1649.84	1732332.79	14229306.12	39°11'4.4713"N	80°40'32.2392"W	1960.93	122.715	2.27	-2.23	-0.41	
8624.00	89.600	162.760	7222.80	1596.95	-1149.63	1677.62	1732360.55	14229216.36	39°11'3.5828"N	80°40'31.8905"W	2033.74	124.422	0.11	-0.03	-0.11	
8719.00	89.280	162.310	7223.54	1691.94	-1240.25	1706.13	1732389.05	14229125.78	39°11'2.6861"N	80°40'31.5325"W	2109.29	126.015	0.59	-0.34	-0.47	
8813.00	89.260	162.210	7224.76	1785.93	-1329.77	1734.77	1732417.68	14229036.29	39°11'1.8003"N	80°40'31.1729"W	2185.80	127.472	0.11	0.00	-0.11	
8908.00	90.490	161.250	7224.97	1880.92	-1419.98	1764.55	1732447.45	14228946.12	39°11'0.9076"N	80°40'30.7988"W	2264.95	128.825	1.64	1.28	-1.01	
9002.00	90.060	162.860	7224.51	1974.91	-1509.40	1793.51	1732476.40	14228856.73	39°11'0.0228"N	80°40'30.4351"W	2344.14	130.084	1.77	-0.46	1.71	
9097.00	88.920	161.770	7225.36	2069.90	-1599.91	1822.37	1732505.25	14228766.26	39°10'59.1272"N	80°40'30.0727"W	2425.02	131.281	1.66	-1.20	-1.15	
9191.00	89.410	161.620	7226.73	2163.87	-1689.14	1851.89	1732534.75	14228677.08	39°10'58.2442"N	80°40'29.7019"W	2506.53	132.368	0.55	0.52	-0.16	
9285.00	89.570	161.900	7227.57	2257.86	-1778.42	1881.31	1732564.16	14228587.82	39°10'57.3608"N	80°40'29.3324"W	2588.84	133.389	0.34	0.17	0.30	
9380.00	89.720	163.440	7228.15	2352.85	-1869.10	1909.61	1732592.45	14228497.18	39°10'56.4635"N	80°40'28.9772"W	2672.10	134.386	1.63	0.16	1.62	
9475.00	89.630	162.280	7228.69	2447.85	-1959.65	1937.61	1732620.43	14228406.43	39°10'55.5653"N	80°40'28.6258"W	2755.98	135.327	1.22	-0.09	-1.22	
9569.00	89.690	162.260	7229.25	2541.85	-2049.41	1966.23	1732649.05	14228316.94	39°10'54.6793"N	80°40'28.2663"W	2840.10	136.187	0.07	0.06	-0.02	
9664.00	89.320	162.570	7230.07	2636.84	-2139.97	1994.93	1732677.74	14228226.41	39°10'53.7832"N	80°40'27.9060"W	2925.61	137.009	0.51	-0.39	0.33	
9758.00	88.890	162.700	7231.54	2730.83	-2229.67	2022.98	1732705.78	14228136.74	39°10'52.8956"N	80°40'27.5539"W	3010.63	137.783	0.48	-0.46	0.14	
9851.00	88.770	163.730	7233.44	2823.80	-2318.69	2049.83	1732732.62	14228047.76	39°10'52.0148"N	80°40'27.2170"W	3094.86	138.522	1.11	-0.13	1.11	
9946.00	89.230	163.240	7235.10	2918.78	-2409.76	2076.83	1732759.61	14227956.73	39°10'51.1138"N	80°40'26.8782"W	3181.22	139.244	0.71	0.48	-0.52	
10040.00	89.140	163.170	7236.43	3012.77	-2499.74	2103.99	1732786.76	14227866.78	39°10'50.2235"N	80°40'26.5375"W	3267.33	139.913	0.12	-0.10	-0.07	
10135.00	89.260	163.110	7237.76	3107.75	-2590.64	2131.54	1732814.30	14227775.91	39°10'49.3240"N	80°40'26.1918"W	3354.83	140.553	0.14	0.13	-0.06	
10229.00	89.140	163.060	7239.07	3201.74	-2680.57	2158.89	1732841.63	14227686.02	39°10'48.4342"N	80°40'25.8486"W	3441.84	141.153	0.14	-0.13	-0.05	
10323.00	89.110	163.540	7240.51	3295.73	-2770.59	2185.90	1732868.63	14227596.03	39°10'47.5434"N	80°40'25.5097"W	3529.07	141.728	0.51	-0.03	0.51	
10418.00	88.950	163.110	7242.12	3390.71	-2861.59	2213.15	1732895.88	14227505.08	39°10'46.6431"N	80°40'25.1678"W	3617.56	142.282	0.48	-0.17	-0.45	
10513.00	89.170	163.380	7243.68	3485.69	-2952.54	2240.54	1732923.25	14227414.16	39°10'45.7432"N	80°40'24.8242"W	3706.41	142.807	0.37	0.23	0.28	
10702.00	89.420	163.260	7246.00	3674.66	-3133.57	2294.78	1732977.47	14227233.20	39°10'43.9519"N	80°40'24.1437"W	3883.98	143.784	0.15	0.13	-0.06	



Actual Wellpath Report

Coldwater Unit 1H AWP Proj: 22464'

Page 6 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Coldwater Unit 1H
Field	Doddridge	API	47-017-06966-0000
Facility	Haught Pad	Wellbore	Coldwater Unit 1H AWB
Slot	Slot D		

WELLPATH DATA (243 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	
10796.00	89.510	162.750	7246.88	3768.66	-3223.46	2322.25	1733004.93	14227143.34	39°10'43.0625"N	80°40'23.7989"W	3972.86	144.230	0.55	0.10	-0.54		
10891.00	89.380	163.130	7247.80	3863.65	-3314.28	2350.12	1733032.79	14227052.56	39°10'42.1639"N	80°40'23.4492"W	4062.95	144.660	0.42	-0.14	0.40		
10986.00	88.920	163.120	7249.21	3958.64	-3405.18	2377.70	1733060.35	14226961.70	39°10'41.2648"N	80°40'23.1032"W	4153.15	145.075	0.48	-0.48	-0.01		
11080.00	89.880	161.820	7250.19	4052.63	-3494.75	2406.16	1733088.81	14226872.16	39°10'40.3781"N	80°40'22.7458"W	4242.99	145.452	1.89	1.02	-1.60		
11175.00	88.710	162.240	7251.36	4147.61	-3585.06	2435.63	1733116.26	14226781.89	39°10'39.4845"N	80°40'22.3758"W	4334.16	145.808	1.39	-1.23	0.55		
11269.00	89.630	162.210	7252.72	4241.60	-3674.56	2464.32	1733146.94	14226692.42	39°10'38.5988"N	80°40'22.0156"W	4424.40	146.152	0.98	0.98	-0.02		
11363.00	89.380	163.530	7253.54	4335.59	-3764.39	2492.01	1733174.62	14226602.63	39°10'37.7100"N	80°40'21.6681"W	4514.50	146.496	1.43	-0.27	1.40		
11458.00	89.380	162.870	7254.56	4430.58	-3855.33	2519.46	1733202.06	14226511.73	39°10'36.8102"N	80°40'21.3237"W	4605.57	146.835	0.69	0.00	-0.69		
11552.00	89.230	163.010	7255.70	4524.57	-3945.18	2547.04	1733229.63	14226421.90	39°10'35.9211"N	80°40'20.9776"W	4695.94	147.153	0.22	-0.16	0.15		
11646.00	89.480	163.100	7256.76	4618.56	-4035.10	2574.43	1733257.01	14226332.03	39°10'35.0314"N	80°40'20.6339"W	4786.41	147.482	0.28	0.27	0.10		
11741.00	89.110	162.850	7257.93	4713.56	-4125.88	2602.40	1733284.97	14226241.28	39°10'34.1332"N	80°40'20.2829"W	4878.05	147.758	0.61	-0.39	-0.47		
11835.00	89.050	162.320	7259.42	4807.54	-4215.51	2630.69	1733313.25	14226151.69	39°10'33.2463"N	80°40'19.9278"W	4969.01	148.034	0.35	-0.03	-0.35		
11930.00	92.590	163.090	7258.03	4902.52	-4306.19	2658.93	1733341.47	14226061.04	39°10'32.3490"N	80°40'19.5734"W	5060.94	148.306	3.78	3.69	0.81		
12024.00	90.030	160.990	7255.88	4996.47	-4395.57	2687.90	1733370.44	14225971.69	39°10'31.4645"N	80°40'19.2096"W	5152.27	148.554	3.52	-2.72	-2.23		
12119.00	89.910	163.140	7255.93	5091.46	-4485.95	2717.15	1733399.68	14225881.35	39°10'30.5702"N	80°40'18.8423"W	5244.88	148.797	2.27	-0.13	2.26		
12214.00	89.080	161.950	7256.77	5186.46	-4576.57	2745.65	1733428.16	14225790.77	39°10'29.6735"N	80°40'18.4847"W	5337.00	149.039	1.53	-0.87	-1.29		
12308.00	89.780	162.570	7257.70	5280.45	-4666.10	2774.29	1733456.79	14225701.28	39°10'28.7876"N	80°40'18.1252"W	5428.55	149.266	0.99	0.74	0.66		
12403.00	89.540	162.740	7258.27	5375.45	-4756.77	2802.61	1733485.10	14225610.63	39°10'27.8903"N	80°40'17.7697"W	5521.01	149.494	0.31	-0.25	0.18		
12592.00	89.720	162.920	7259.49	5464.44	-4847.35	2830.40	1733513.40	14225520.13	39°10'26.9930"N	80°40'17.4146"W	5613.57	149.722	0.13	0.10	0.10		
12686.00	89.140	162.780	7260.42	5558.44	-4937.18	2858.12	1733541.71	14225430.35	39°10'26.0957"N	80°40'17.0595"W	5706.04	149.950	0.63	-0.62	-0.15		
12781.00	89.260	163.380	7263.06	5647.41	-5027.96	2886.12	1733569.55	14225340.35	39°10'25.1984"N	80°40'16.7044"W	5798.51	150.178	0.63	-0.62	-0.15		
12875.00	89.260	163.380	7263.06	5647.41	-5027.96	2914.12	1733597.55	14225250.35	39°10'24.2984"N	80°40'16.3493"W	5891.06	150.406	0.32	0.06	0.32		
12970.00	89.170	162.590	7264.36	5742.40	-5118.79	2942.09	1733625.34	14225160.35	39°10'23.3984"N	80°40'15.9942"W	5983.61	150.634	0.84	-0.09	-0.83		
13064.00	89.480	162.530	7265.47	5836.39	-5209.57	2970.06	1733653.13	14225070.35	39°10'22.4984"N	80°40'15.6391"W	6076.16	150.862	0.34	0.33	-0.06		
13158.00	90.250	163.060	7265.69	5930.38	-5300.35	3002.03	1733681.13	14224980.35	39°10'21.5984"N	80°40'15.2840"W	6168.71	151.090	0.99	0.82	0.56		
13253.00	89.510	163.130	7265.89	6024.37	-5391.13	3034.00	1733709.13	14224890.35	39°10'20.6984"N	80°40'14.9289"W	6261.26	151.318	0.99	0.82	0.56		
13347.00	90.220	163.850	7266.11	6118.36	-5481.91	3065.97	1733737.13	14224800.35	39°10'19.7984"N	80°40'14.5738"W	6353.81	151.546	0.78	-0.78	0.07		
13441.00	90.220	163.440	7265.75	6212.35	-5572.69	3097.94	1733765.13	14224710.35	39°10'18.8984"N	80°40'14.2187"W	6446.36	151.774	1.05	0.76	0.77		
13536.00	89.970	163.380	7265.59	6306.34	-5663.47	3129.91	1733793.13	14224620.35	39°10'17.9984"N	80°40'13.8636"W	6538.91	152.002	0.44	0.00	-0.44		
13630.00	89.450	162.530	7266.07	6400.33	-5754.25	3161.88	1733821.13	14224530.35	39°10'17.0984"N	80°40'13.5085"W	6631.46	152.230	0.27	-0.26	-0.06		
13725.00	90.280	163.240	7266.29	6494.32	-5845.03	3193.85	1733849.13	14224440.35	39°10'16.1984"N	80°40'13.1534"W	6724.01	152.458	1.06	-0.55	-0.90		
13820.00	90.280	163.240	7266.29	6588.31	-5935.81	3225.82	1733877.13	14224350.35	39°10'15.2984"N	80°40'12.7983"W	6816.56	152.686	1.15	0.87	0.75		



Actual Wellpath Report

Coldwater Unit 1H AWP Proj: 22464'

Page 7 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Coldwater Unit 1H
Field	Doddridge	API	47-017-06966-0000
Facility	Haught Pad	Wellbore	Coldwater Unit 1H AWB
Slot	Slot D		

WELLPATH DATA (243 stations)																
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [ft/100ft]	Build Rate [ft/100ft]	Turn Rate [ft/100ft]	Comments
13819.00	89.630	162.690	7266.37	6791.35	-6111.10	3215.71	1733898.04	14224256.84	39°10'14.4896"N	80°40'12.5868"W	6905.53	152.246	0.79	-0.69	-0.37	
13914.00	89.940	163.410	7266.72	6886.34	-6202.02	3243.25	1733925.56	14224165.95	39°10'13.5899"N	80°40'12.2414"W	6998.84	152.393	0.64	0.33	0.59	
14008.00	91.020	160.720	7265.94	6980.32	-6291.44	3272.19	1733954.49	14224076.57	39°10'12.7051"N	80°40'11.8781"W	7091.51	152.521	3.08	1.15	-2.86	
14103.00	89.320	163.270	7265.66	7075.31	-6381.78	3301.55	1733983.84	14223986.27	39°10'11.8111"N	80°40'11.5094"W	7185.21	152.646	3.23	-1.79	2.68	
14197.00	89.450	163.390	7266.66	7169.29	-6471.82	3328.52	1734010.60	14223896.26	39°10'10.9202"N	80°40'11.1712"W	7277.80	152.783	0.18	0.14	0.12	
14291.00	91.230	162.670	7266.11	7263.29	-6561.72	3355.96	1734038.23	14223806.40	39°10'10.0307"N	80°40'10.8269"W	7370.12	152.913	2.04	1.89	-0.76	
14386.00	90.220	162.990	7264.90	7358.28	-6652.48	3384.00	1734066.27	14223715.68	39°10'9.1326"N	80°40'10.4750"W	7463.71	153.038	1.12	-1.06	0.34	
14480.00	90.000	163.450	7264.72	7452.27	-6742.47	3411.14	1734093.39	14223625.71	39°10'8.2421"N	80°40'10.1346"W	7556.24	153.164	0.54	-0.23	0.49	
14574.00	90.120	163.700	7264.63	7546.26	-6832.64	3437.72	1734119.96	14223535.59	39°10'7.3500"N	80°40'9.8013"W	7648.72	153.292	0.30	0.13	0.27	
14669.00	89.780	163.290	7264.71	7641.25	-6923.72	3464.71	1734146.94	14223444.54	39°10'6.4488"N	80°40'9.4628"W	7742.23	153.416	0.56	-0.36	-0.43	
14764.00	90.460	162.950	7264.51	7736.25	-7014.63	3492.30	1734174.51	14223353.67	39°10'5.5493"N	80°40'9.1169"W	7835.89	153.533	0.80	0.72	-0.36	
14859.00	90.800	163.890	7263.46	7831.23	-7105.67	3519.40	1734201.61	14223262.86	39°10'4.6484"N	80°40'8.7769"W	7929.49	153.651	1.05	0.36	0.96	
14953.00	90.950	162.740	7262.03	7925.21	-7195.70	3546.39	1734228.58	14223172.66	39°10'3.7578"N	80°40'8.4385"W	8022.16	153.764	1.23	0.16	-1.22	
15048.00	92.030	162.630	7259.56	8020.18	-7286.36	3574.65	1734256.04	14223082.04	39°10'2.8605"N	80°40'8.0838"W	8115.99	153.868	1.14	1.14	-0.12	
15142.00	90.220	162.010	7257.71	8114.18	-7375.90	3603.19	1734283.37	14222992.53	39°10'1.9745"N	80°40'7.7256"W	8208.95	153.964	2.04	-1.93	-0.66	
15237.00	89.880	161.300	7257.63	8209.14	-7466.07	3633.09	1734315.26	14222902.40	39°10'1.0622"N	80°40'7.3502"W	8303.11	154.052	0.83	-0.36	-0.75	
15331.00	92.220	163.720	7255.91	8303.11	-7555.70	3661.33	1734343.49	14222812.81	39°10'0.1953"N	80°40'6.9958"W	8396.07	154.148	3.58	2.49	2.57	
15426.00	90.990	162.170	7253.26	8398.07	-7646.48	3689.19	1734371.33	14222722.06	39°09'59.2970"N	80°40'6.6464"W	8489.92	154.244	2.09	-1.31	-1.63	
15520.00	91.230	162.800	7251.44	8492.05	-7736.06	3717.63	1734399.76	14222632.52	39°09'58.4106"N	80°40'6.2894"W	8582.97	154.333	0.53	0.27	0.46	
15615.00	90.740	163.110	7249.81	8587.03	-7826.82	3745.63	1734427.75	14222541.79	39°09'57.5125"N	80°40'5.9381"W	8676.92	154.426	0.74	-0.52	0.54	
15709.00	91.390	162.980	7248.06	8681.02	-7916.72	3773.03	1734455.14	14222451.93	39°09'56.6230"N	80°40'5.5944"W	8769.85	154.518	0.71	0.69	-0.14	
15804.00	90.460	162.920	7246.53	8776.00	-8007.53	3800.89	1734482.98	14222361.15	39°09'55.7244"N	80°40'5.2450"W	8863.82	154.608	0.98	-0.98	-0.06	
15898.00	91.230	162.720	7245.14	8869.99	-8097.33	3828.65	1734510.73	14222271.39	39°09'54.8359"N	80°40'4.8967"W	8956.86	154.694	0.85	0.82	-0.21	
15992.00	90.400	162.720	7243.81	8963.98	-8187.08	3856.57	1734538.64	14222181.88	39°09'53.9478"N	80°40'4.5464"W	9049.93	154.777	0.88	-0.88	0.00	
16087.00	90.620	162.800	7242.96	9058.98	-8277.83	3884.64	1734566.71	14222090.96	39°09'53.0498"N	80°40'4.1942"W	9144.01	154.860	0.30	0.23	0.19	
16181.00	90.620	162.810	7241.94	9152.97	-8367.65	3912.35	1734594.40	14222001.18	39°09'52.1611"N	80°40'3.8466"W	9237.10	154.941	0.10	0.00	-0.10	
16276.00	91.200	162.950	7240.43	9247.96	-8458.42	3940.31	1734622.35	14221910.44	39°09'51.2628"N	80°40'3.4958"W	9331.18	155.022	0.63	0.61	0.15	
16370.00	91.260	162.480	7238.42	9341.93	-8548.16	3968.24	1734650.27	14221820.74	39°09'50.3749"N	80°40'3.1455"W	9424.32	155.098	0.50	0.06	-0.50	
16465.00	91.800	162.260	7236.05	9436.90	-8638.67	3997.00	1734679.02	14221730.26	39°09'49.4792"N	80°40'2.7845"W	9518.54	155.171	0.43	0.36	-0.23	
16559.00	90.150	162.000	7234.61	9530.89	-8728.12	4025.84	1734707.85	14221640.85	39°09'48.5941"N	80°40'2.4226"W	9611.84	155.239	1.57	-1.54	-0.28	



Actual Wellpath Report

Coldwater Unit 1H AWP Proj: 22464'
Page 8 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Coldwater Unit 1H
Field	Doddridge	API	47-017-06966-0000
Facility	Haught Pad	Wellbore	Coldwater Unit 1H AWB
Slot	Slot D		

WELLPATH DATA (243 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
16654.00	92.190	163.100	7232.67	9625.86	-8518.72	4054.32	1734736.32	14221550.28	39°09'47.6975"N	80°40'2.0651"W	9706.05	155.310	2.44	2.15	1.16	
16748.00	90.310	162.200	7230.62	9719.83	-8908.42	4082.34	1734764.33	14221480.62	39°09'46.8100"N	80°40'1.7136"W	9799.26	155.380	2.22	-2.00	-0.96	
16842.00	90.890	162.410	7229.64	9813.82	-8997.97	4110.91	1734792.89	14221371.11	39°09'45.9238"N	80°40'1.3550"W	9892.57	155.446	0.66	0.62	0.22	
16937.00	90.980	162.960	7228.09	9908.81	-9088.65	4139.18	1734821.15	14221280.46	39°09'45.0285"N	80°40'1.0003"W	9986.81	155.514	0.59	0.09	0.58	
17032.00	90.660	162.300	7226.71	10003.80	-9179.31	4167.54	1734849.49	14221189.84	39°09'44.1295"N	80°40'0.6445"W	10081.08	155.581	0.76	-0.32	-0.89	
17126.00	91.450	162.500	7224.96	10097.78	-9268.89	4195.96	1734877.90	14221100.29	39°09'43.2430"N	80°40'0.2879"W	10174.40	155.644	0.85	0.82	0.21	
17221.00	91.200	162.790	7222.76	10192.76	-9359.54	4224.29	1734906.22	14221009.67	39°09'42.3460"N	80°39'59.9325"W	10268.67	155.709	0.40	-0.26	0.31	
17315.00	90.980	163.390	7220.98	10286.74	-9449.46	4251.63	1734933.55	14220919.79	39°09'41.4562"N	80°39'59.5897"W	10361.88	155.775	0.68	-0.23	0.64	
17410.00	90.830	163.260	7219.48	10381.72	-9540.45	4278.88	1734960.79	14220828.83	39°09'40.5559"N	80°39'59.2479"W	10456.06	155.844	0.21	-0.16	-0.14	
17505.00	91.140	162.440	7217.84	10476.70	-9631.22	4306.89	1734988.78	14220738.11	39°09'39.6578"N	80°39'58.8965"W	10550.34	155.907	0.92	0.33	-0.86	
17599.00	91.170	162.520	7215.95	10570.68	-9720.84	4335.18	1735017.07	14220648.52	39°09'38.7710"N	80°39'58.5416"W	10643.71	155.965	0.09	0.03	0.09	
17693.00	91.200	162.880	7214.00	10664.68	-9810.52	4363.29	1735045.16	14220558.88	39°09'37.8836"N	80°39'58.1890"W	10737.06	156.023	0.17	0.03	0.17	
17788.00	93.600	162.960	7212.03	10759.57	-9901.19	4391.32	1735073.19	14220468.24	39°09'36.9863"N	80°39'57.8373"W	10831.31	156.082	2.54	2.53	0.28	
17882.00	91.660	161.830	7205.71	10853.47	-9990.69	4419.72	1735101.57	14220378.78	39°09'36.1007"N	80°39'57.4810"W	10924.64	156.136	2.39	-2.06	-1.20	
17977.00	91.750	162.770	7202.89	10948.42	-10081.15	4448.59	1735130.43	14220288.35	39°09'35.2055"N	80°39'57.1187"W	11019.05	156.189	0.99	0.09	0.99	
18071.00	91.260	162.760	7200.42	11042.39	-10170.90	4476.43	1735158.26	14220198.64	39°09'34.3175"N	80°39'56.7694"W	11112.41	156.245	0.52	-0.52	-0.01	
18165.00	91.350	162.860	7198.28	11136.36	-10260.63	4504.21	1735186.03	14220108.69	39°09'33.4291"N	80°39'56.4210"W	11205.77	156.300	0.14	0.10	0.11	
18260.00	92.090	162.600	7195.43	11231.32	-10351.35	4532.40	1735214.21	14220018.25	39°09'32.5319"N	80°39'56.0674"W	11300.14	156.354	0.83	0.78	-0.27	
18354.00	89.970	162.640	7193.74	11325.30	-10441.04	4560.47	1735242.27	14219928.80	39°09'31.6444"N	80°39'55.7152"W	11393.56	156.405	2.26	-2.26	0.04	
18448.00	91.720	164.660	7192.35	11419.27	-10531.22	4588.92	1735268.71	14219838.46	39°09'30.7521"N	80°39'55.3836"W	11486.80	156.464	2.84	1.86	2.15	
18542.00	91.480	164.280	7189.72	11513.18	-10621.75	4612.07	1735293.85	14219747.96	39°09'29.8583"N	80°39'55.0686"W	11579.85	156.529	0.47	-0.26	-0.39	
18637.00	91.350	163.580	7187.38	11608.13	-10713.02	4638.36	1735320.12	14219656.73	39°09'28.9533"N	80°39'54.7392"W	11674.03	156.589	0.76	-0.14	-0.75	
18731.00	90.090	162.590	7186.20	11702.12	-10802.94	4665.70	1735347.46	14219566.84	39°09'28.0635"N	80°39'54.3963"W	11767.42	156.641	1.70	-1.34	-1.05	
18825.00	90.830	162.460	7185.44	11795.11	-10892.60	4693.93	1735375.67	14219477.22	39°09'27.1763"N	80°39'54.0421"W	11860.93	156.687	0.80	0.78	-0.14	
18914.00	90.280	162.830	7183.61	11885.10	-11072.95	4750.30	1735432.03	14219386.90	39°09'25.3914"N	80°39'53.3360"W	12048.91	156.781	0.35	-0.29	0.20	
19108.00	91.350	163.270	7182.28	12079.09	-11162.89	4777.70	1735459.42	14219297.03	39°09'24.5018"N	80°39'52.9913"W	12142.35	156.829	1.23	1.14	0.47	
19202.00	90.650	164.090	7180.63	12173.06	-11253.09	4804.11	1735485.82	14219116.87	39°09'23.6093"N	80°39'52.6803"W	12235.68	156.882	1.15	-0.74	0.87	
19297.00	90.340	161.830	7179.81	12268.05	-11343.91	4831.95	1735513.64	14219026.09	39°09'22.7106"N	80°39'52.3112"W	12330.12	156.926	2.40	-0.33	-2.38	
19391.00	90.950	162.770	7178.76	12362.04	-11433.45	4860.53	1735542.21	14218936.58	39°09'21.8245"N	80°39'51.9526"W	12423.71	156.969	1.19	0.65	1.00	
19485.00	90.620	162.840	7177.47	12456.03	-11523.24	4888.31	1735569.98	14218846.82	39°09'20.9361"N	80°39'51.6041"W	12517.22	157.013	0.36	-0.36	0.07	



Actual Wellpath Report

Coldwater Unit 1H AWP Proj: 22464'

Page 9 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Coldwater Unit 1H
Field	Doddridge	API	47-017-06968-0000
Facility	Haught Pad	Wellbore	Coldwater Unit 1H AWB
Slot	Slot D		

WELLPATH DATA (243 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
19580.00	90.030	162.740	7176.93	12551.03	-11613.99	4916.42	1735598.08	14218756.11	39°09'20.0381"N	80°39'51.2516"W	12611.73	157.056	0.63	-0.62	-0.11	
19674.00	90.680	162.970	7176.35	12645.03	-11703.81	4944.13	1735625.78	14218666.33	39°09'19.1493"N	80°39'50.9041"W	12705.25	157.099	0.73	0.69	0.24	
19769.00	90.120	163.420	7175.68	12740.02	-11794.75	4971.59	1735653.23	14218575.43	39°09'18.2495"N	80°39'50.5597"W	12799.72	157.144	0.76	-0.59	0.47	
19863.00	90.980	163.340	7174.78	12834.01	-11884.81	4998.48	1735680.11	14218485.39	39°09'17.3583"N	80°39'50.2226"W	12893.16	157.190	0.92	0.91	-0.09	
19958.00	90.460	162.900	7173.59	12929.00	-11975.71	5026.06	1735707.68	14218394.53	39°09'16.4588"N	80°39'49.8788"W	12987.65	157.233	0.72	-0.55	-0.46	
20052.00	90.460	162.510	7172.83	13022.99	-12065.48	5054.01	1735735.61	14218304.82	39°09'15.5708"N	80°39'49.5263"W	13081.22	157.272	0.41	0.00	-0.41	
20146.00	90.710	162.410	7171.87	13116.99	-12155.09	5082.33	1735763.93	14218215.23	39°09'14.6839"N	80°39'49.1709"W	13174.83	157.309	0.29	0.27	-0.11	
20241.00	90.890	162.810	7170.55	13211.98	-12245.73	5110.72	1735792.31	14218124.61	39°09'13.7869"N	80°39'48.8148"W	13269.42	157.347	0.46	0.19	0.42	
20336.00	90.800	163.400	7169.15	13306.97	-12336.62	5138.33	1735819.90	14218033.76	39°09'12.8875"N	80°39'48.4686"W	13363.93	157.388	0.63	-0.09	0.62	
20430.00	89.850	163.030	7168.61	13400.96	-12426.62	5165.47	1735847.04	14217943.80	39°09'11.9971"N	80°39'48.1283"W	13457.45	157.428	1.08	-1.01	-0.38	
20525.00	90.950	162.890	7167.95	13495.95	-12517.44	5193.31	1735874.86	14217853.01	39°09'11.0983"N	80°39'47.7792"W	13552.00	157.467	1.17	1.16	-0.15	
20619.00	90.830	163.250	7166.49	13589.94	-12607.36	5220.68	1735902.22	14217763.13	39°09'10.2086"N	80°39'47.4360"W	13645.55	157.506	0.40	-0.13	0.38	
20713.00	90.890	162.390	7165.08	13683.93	-12697.15	5248.44	1735929.97	14217673.37	39°09'9.3201"N	80°39'47.0879"W	13739.13	157.542	0.92	0.06	-0.91	
20808.00	91.450	162.860	7163.14	13778.91	-12787.80	5276.81	1735958.32	14217582.76	39°09'8.4231"N	80°39'46.7321"W	13833.74	157.577	0.77	0.59	0.49	
20903.00	90.950	163.360	7161.15	13873.88	-12878.68	5304.40	1735985.91	14217491.92	39°09'7.5238"N	80°39'46.3861"W	13928.28	157.614	0.74	-0.53	0.53	
20997.00	90.950	163.350	7159.59	13967.86	-12968.73	5331.32	1736012.82	14217401.90	39°09'6.8328"N	80°39'46.0486"W	14021.80	157.653	0.01	0.00	-0.01	
21092.00	90.430	162.950	7158.45	14062.85	-13059.64	5358.86	1736040.34	14217311.03	39°09'5.7332"N	80°39'45.7034"W	14116.36	157.690	0.69	-0.55	-0.42	
21186.00	90.580	162.870	7157.62	14156.85	-13149.49	5386.48	1736067.96	14217221.22	39°09'4.8442"N	80°39'45.3570"W	14209.97	157.724	0.18	0.16	-0.09	
21281.00	89.780	162.710	7157.32	14251.85	-13240.23	5414.59	1736096.05	14217130.51	39°09'3.9462"N	80°39'45.0045"W	14304.60	157.758	0.86	-0.84	-0.17	
21376.00	90.310	162.800	7157.24	14346.85	-13330.96	5442.75	1736124.20	14217039.81	39°09'3.0484"N	80°39'44.5513"W	14399.24	157.791	0.57	0.56	0.09	
21470.00	90.890	162.700	7156.26	14440.84	-13420.73	5470.63	1736152.07	14216950.08	39°09'2.1602"N	80°39'44.3017"W	14492.88	157.823	0.63	0.62	-0.11	
21565.00	90.860	162.650	7154.81	14535.83	-13511.41	5498.91	1736180.34	14216859.44	39°09'1.2629"N	80°39'43.9470"W	14587.54	157.855	0.06	-0.03	-0.05	
21659.00	91.020	162.870	7153.27	14629.82	-13601.17	5526.77	1736208.18	14216769.71	39°09'0.3746"N	80°39'43.5976"W	14681.18	157.886	0.29	0.17	0.23	
21754.00	91.020	163.020	7151.58	14724.80	-13691.98	5554.63	1736236.03	14216678.94	39°08'59.4760"N	80°39'43.2483"W	14775.80	157.918	0.16	0.00	0.16	
21848.00	90.550	162.560	7150.29	14818.79	-13781.76	5582.44	1736263.83	14216589.19	39°08'58.5876"N	80°39'42.8996"W	14869.45	157.949	0.70	-0.50	-0.49	
21943.00	91.110	163.010	7148.91	14913.78	-13872.50	5610.55	1736291.93	14216498.49	39°08'57.6898"N	80°39'42.5470"W	14964.10	157.980	0.76	0.59	0.47	
22037.00	90.370	162.550	7147.70	15007.77	-13962.26	5638.37	1736319.75	14216408.75	39°08'56.9014"N	80°39'42.1981"W	15057.77	158.010	0.93	-0.79	-0.49	
22131.00	90.310	163.870	7147.14	15101.76	-14052.26	5665.53	1736348.89	14216318.79	39°08'55.9110"N	80°39'41.8577"W	15151.38	158.042	1.41	-0.06	1.40	
22226.00	90.030	162.350	7146.86	15196.76	-14143.18	5693.13	1736374.48	14216227.93	39°08'55.0115"N	80°39'41.5117"W	15246.01	158.073	1.83	-0.29	-1.60	
22320.00	90.680	162.390	7146.28	15290.76	-14232.75	5721.59	1736402.94	14216138.38	39°08'54.1250"N	80°39'41.1545"W	15339.74	158.100	0.69	0.69	0.04	



Actual Wellpath Report

Coldwater Unit 1H AWP Proj: 22464'
Page 10 of 12



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Coldwater Unit 1H
Field	Doddridge	API	47-017-06966-0000
Facility	Haught Pad	Wellbore	Coldwater Unit 1H AWB
Slot	Slot D		

WELLPATH DATA (243 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
22415.00	90.580	162.600	7145.23	15385.75	-14323.34	5750.17	1736431.50	14216047.82	39°08'53.2285"N	80°39'40.7962"W	15434.46	158.127	0.24	-0.11	0.22	
22439.00	89.690	162.900	7145.18	15409.75	-14346.26	5757.28	1736438.61	14216024.91	39°08'53.0017"N	80°39'40.7069"W	15458.38	158.134	3.91	-3.71	1.25	
22464.00‡	89.690	162.900	7145.31	15434.75	-14370.16	5764.64	1736445.96	14216001.03	39°08'52.7653"N	80°39'40.6147"W	15483.29	158.142	0.00	0.00	0.00	Projected MD at TD: 22464'

HOLE & CASING SECTIONS - Ref Wellbore: Coldwater Unit 1H AWB Ref Wellpath: Coldwater Unit 1H AWP Proj: 22464'

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	-0.16	0.11
17.5in Open Hole	125.50	372.00	246.50	125.50	372.00	-0.16	0.11	-0.94	1.21
13.375in Casing Surface	25.50	352.00	326.50	25.50	352.00	0.00	0.00	-0.82	1.05
12.25in Open Hole	372.00	3369.00	2997.00	372.00	3318.76	-0.94	1.21	146.78	496.25
9.625in Casing Intermediate	25.50	3339.00	3313.50	25.50	3289.11	0.00	0.00	145.14	492.00
8.75in Open Hole	3369.00	6970.00	3601.00	3318.76	6841.37	146.78	496.25	273.05	1174.46
8.5in Open Hole	6970.00	22464.00	15494.00	6841.37	7145.31	273.05	1174.46	-14370.16	5764.64
5.5in Casing Production	25.50	22444.00	22418.50	25.50	7145.20	0.00	0.00	-14351.04	5758.75



Actual Wellpath Report

Coldwater Unit 1H AWP Proj: 22464'
Page 11 of 12



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Coldwater Unit 1H
Field	Doddridge	API	47-017-06966-0000
Facility	Haught Pad	Wellbore	Coldwater Unit 1H AWB
Slot	Slot D		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Coldwater Unit 1H POE Rev-2	7190.00	-191.83	1370.58	1732053.63	14230173.79	39°11'13.0604"N	80°40'35.7464"W	point
Coldwater Unit 1H BHL Rev-3	7216.00	-14308.59	5773.91	1738455.23	14216062.57	39°08'53.3735"N	80°39'40.4941"W	point
Coldwater Unit 1H LP Rev-3	7216.00	-374.37	1427.52	1732110.55	14229991.31	39°11'11.2541"N	80°40'35.0315"W	point
Coldwater Unit 1H 50' L/R Hard Line	7500.00	-7250.21	3572.24	1734254.43	14223118.18	39°10'3.2180"N	80°40'8.1127"W	rectangle
2D Rectangle 14787.6 x 100.								

WELLPATH COMPOSITION - Ref Wellbore: Coldwater Unit 1H AWB Ref Wellpath: Coldwater Unit 1H AWP Proj: 22464'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
25.50	383.00	Gyrodata 2015 - GC+WIR+DPIPE	01 Gyrodata MS Gyro <17-1/2"> (100'-383')	Coldwater Unit 1H AWB	12/29/2023
383.00	3298.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02 APS EM <12-1/4"> (383')(410'-3298')	Coldwater Unit 1H AWB	12/29/2023
3298.00	6896.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03 APS EM <8-3/4"> (3298')(3398'-6896')	Coldwater Unit 1H AWB	1/10/2024
6896.00	22464.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04 BH AT Curve <8-1/2"> (6896')(6946'-22439')	Coldwater Unit 1H AWB	1/10/2024



Actual Wellpath Report

Coldwater Unit 1H AWP Proj: 22464'
Page 12 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Coldwater Unit 1H
Field	Doddridge	API	47-017-06966-0000
Facility	Haught Pad	Wellbore	Coldwater Unit 1H AWB
Slot	Slot D		

COMMENTS
<p>Wellpath general comments API: 47-017-06966-0000 BH Job #: 112081140 Rig: H&P 317 Duration: 1/14/2024-1/20/2024 Gyrodatta MS Gyro <17-1/2"> (100'-383') APS EM <12-1/4"> (383')(410'-3298') APS EM <8-3/4"> (3298')(3398'-6896') BH AT Curve <8-1/2"> (6896')(6946'-22439') Sycamore: 6875' MD Middlesex: 7052' MD Burkett: 7253' MD Tully: 7312' MD Marcellus POE: 7596' MD Projected MD at TD: 22464'</p>