



# Actual Wellpath Report

Callahan Unit 1H AWP Proj: 17113'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Doddridge Co., WV	Well	Callahan Unit 1H
Field	Doddridge	Wellbore	Callahan Unit 1H AWB
Facility	Deets Pad		

## REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Delaset
Scale	0.999607	Report Generated	9/9/2019 at 2:47:55 PM
Convergence at slot	0.17° East	Database/Source file	WA_MPL_EasternUS_Defn/Callahan_Unit_1H_AWP_Proj_17113_.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	9.71	-2.19	1718080.45	14276571.70	39°18'52.282"N	80°43'31.487"W
Facility Reference Pt			1718082.64	14276561.99	39°18'52.186"N	80°43'31.460"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

## WELLPATH DATUM

Calculation method	Minimum curvature	H&P 317 (RKB) to Facility Vertical Datum	25.50ft
Horizontal Reference Pt	Slot	H&P 317 (RKB) to Mean Sea Level	1401.50ft
Vertical Reference Pt	H&P 317 (RKB)	H&P 317 (RKB) to Ground Level at Slot (Slot #04)	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	161.29°



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Area	Doddridge Co., WV	Wellbore	Callahan Unit 1H AWB
Field	Doddridge		
Facility	Deets Pad		

WELLPATH DATA (201 stations) † = interpolated/extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
0.00†	0.00	215.390	0.00	0.00	0.00	0.00	1718080.45	14276571.70	39°18'52.282"N	80°43'31.487"W	0.00	0.000	0.00	0.00	0.00	
25.50	0.00	215.390	25.50	0.00	0.00	0.00	1718080.45	14276571.70	39°18'52.282"N	80°43'31.487"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.13	215.390	100.00	0.05	-0.07	-0.05	1718080.40	14276571.63	39°18'52.281"N	80°43'31.488"W	0.08	215.390	0.17	0.17	-194.11	Gyrodatta MS Gyro <17-1/2">(100'-300')
125.00	0.11	226.580	125.00	0.08	-0.11	-0.08	1718080.37	14276571.59	39°18'52.281"N	80°43'31.488"W	0.14	217.345	0.12	-0.08	44.76	
150.00	0.07	221.610	150.00	0.09	-0.14	-0.11	1718080.34	14276571.56	39°18'52.281"N	80°43'31.488"W	0.18	218.974	0.16	-0.16	-19.88	
175.00	0.04	91.210	175.00	0.10	-0.15	-0.11	1718080.34	14276571.55	39°18'52.281"N	80°43'31.488"W	0.19	217.059	0.40	-0.12	-521.60	
200.00	0.09	191.040	200.00	0.12	-0.17	-0.11	1718080.34	14276571.53	39°18'52.280"N	80°43'31.488"W	0.20	212.530	0.42	0.20	399.32	
225.00	0.11	161.050	225.00	0.17	-0.21	-0.10	1718080.35	14276571.49	39°18'52.280"N	80°43'31.488"W	0.23	206.140	0.22	0.08	-119.96	
250.00	0.17	149.600	250.00	0.23	-0.26	-0.08	1718080.37	14276571.44	39°18'52.279"N	80°43'31.488"W	0.27	196.098	0.26	0.24	-45.80	
275.00	0.27	161.550	275.00	0.32	-0.35	-0.04	1718080.41	14276571.35	39°18'52.278"N	80°43'31.488"W	0.35	186.294	0.44	0.40	47.80	
300.00	0.25	153.760	300.00	0.43	-0.46	0.00	1718080.45	14276571.24	39°18'52.277"N	80°43'31.487"W	0.46	179.507	0.16	-0.08	-31.16	
427.00	0.60	137.630	427.00	1.32	-1.20	0.57	1718081.02	14276570.50	39°18'52.270"N	80°43'31.480"W	1.33	154.352	0.29	0.28	-12.70	Gyrodatta MS Gyro <12-1/4">(300')(427'-663')
478.00	0.66	132.330	477.99	1.82	-1.59	0.97	1718081.42	14276570.11	39°18'52.266"N	80°43'31.475"W	1.86	148.597	0.16	0.12	-10.39	
572.00	2.14	104.140	571.96	3.25	-2.39	3.07	1718083.52	14276569.32	39°18'52.258"N	80°43'31.448"W	3.89	127.808	1.69	1.57	-29.99	
663.00	4.00	101.040	662.83	5.74	-3.41	7.84	1718088.28	14276568.29	39°18'52.248"N	80°43'31.387"W	8.55	113.502	2.05	2.04	-3.41	
793.00	5.61	96.900	792.37	10.74	-5.04	18.60	1718099.04	14276566.66	39°18'52.232"N	80°43'31.251"W	19.27	105.163	1.27	1.24	-3.18	APS EM <12-1/4"> (663')(793'-2532')
888.00	7.46	87.810	886.75	14.50	-5.36	29.37	1718109.81	14276566.34	39°18'52.228"N	80°43'31.114"W	29.86	100.346	2.23	1.95	-9.57	
982.00	6.95	88.260	980.01	17.89	-4.96	41.15	1718121.59	14276566.75	39°18'52.232"N	80°43'30.964"W	41.45	96.867	0.55	-0.54	0.48	
1077.00	5.15	79.500	1074.47	20.18	-4.00	51.09	1718131.52	14276567.70	39°18'52.241"N	80°43'30.837"W	51.25	94.482	2.12	-1.89	-9.22	
1172.00	4.58	43.440	1169.15	19.02	-0.47	57.89	1718138.32	14276571.23	39°18'52.276"N	80°43'30.750"W	57.89	90.468	3.22	-0.60	-37.96	
1267.00	4.03	9.880	1263.90	14.31	5.57	61.07	1718141.50	14276577.27	39°18'52.335"N	80°43'30.710"W	61.33	84.788	2.67	-0.58	-35.33	
1362.00	2.84	338.920	1358.74	9.03	11.06	60.80	1718141.23	14276582.75	39°18'52.389"N	80°43'30.713"W	61.80	79.693	2.28	-1.25	-32.59	
1457.00	3.33	316.480	1453.60	4.17	15.25	58.05	1718138.48	14276586.95	39°18'52.431"N	80°43'30.748"W	60.02	75.278	1.36	0.52	-23.62	
1552.00	4.42	291.110	1548.39	-0.67	18.57	52.74	1718133.17	14276590.27	39°18'52.464"N	80°43'30.815"W	55.91	70.599	2.11	1.15	-26.71	
1646.00	5.54	271.280	1642.04	-4.55	19.98	44.82	1718125.25	14276591.67	39°18'52.478"N	80°43'30.916"W	49.07	65.975	2.17	1.19	-21.10	
1741.00	6.50	273.240	1736.52	-8.12	20.39	34.87	1718115.30	14276592.08	39°18'52.482"N	80°43'31.043"W	40.39	59.688	1.03	1.01	-2.06	
1836.00	6.28	292.910	1830.94	-13.58	22.71	24.71	1718105.15	14276594.40	39°18'52.506"N	80°43'31.172"W	33.56	47.415	2.30	-0.23	20.71	
1930.00	6.16	334.980	1924.43	-22.02	29.29	17.84	1718098.28	14276600.98	39°18'52.571"N	80°43'31.259"W	34.29	31.348	4.74	-0.13	44.76	
2025.00	6.25	3.370	2018.90	-31.88	39.07	15.99	1718096.43	14276610.75	39°18'52.668"N	80°43'31.282"W	42.22	22.256	3.20	0.09	29.88	
2120.00	5.24	46.020	2113.46	-38.52	47.25	19.42	1718099.86	14276618.93	39°18'52.748"N	80°43'31.238"W	51.08	22.339	4.50	-1.06	44.89	



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Operator	ANTERO RESOURCES CORPORATION	Well	Callahan Unit 1H
Area	Doddridge Co., WV	Wellbore	Callahan Unit 1H AWB
Field	Doddridge		
Facility	Deets Pad		

WELLPATH DATA (201 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 (F/100ft)	Build Rate (F/100ft)	Turn Rate (F/100ft)	Comments
2215.00	6.010	64.630	2208.01	-40.95	52.39	27.03	1718107.47	14276624.07	39°18'52.799"N	80°43'31.141"W	58.95	27.291	2.07	0.81	19.59	
2309.00	7.810	64.770	2301.32	-42.25	37.26	1718117.69	14276628.90	14276633.48	39°18'52.846"N	80°43'31.011"W	68.28	33.067	1.91	1.91	0.15	
2404.00	7.150	71.940	2395.51	-42.91	61.81	48.72	1718129.15	14276633.48	39°18'52.891"N	80°43'30.865"W	78.70	38.245	1.20	-0.69	7.55	
2499.00	4.700	86.090	2490.01	-41.85	63.91	58.22	1718138.65	14276635.58	39°18'52.912"N	80°43'30.744"W	86.45	42.335	2.98	-2.58	14.83	
2532.00	4.160	91.960	2522.91	-41.09	63.96	60.77	1718141.19	14276635.63	39°18'52.912"N	80°43'30.711"W	88.22	43.535	2.13	-1.64	17.79	
2650.00	3.610	100.680	2640.64	-37.75	63.12	68.70	1718149.12	14276634.80	39°18'52.904"N	80°43'30.611"W	93.29	47.421	0.68	-0.47	7.39	APS EM <8-3/4"> (2532-7207)
2745.00	3.410	99.360	2735.46	-34.95	62.11	74.42	1718154.84	14276633.78	39°18'52.894"N	80°43'30.538"W	96.93	50.153	0.23	-0.21	-1.38	
2839.00	6.560	91.840	2829.09	-31.75	61.48	82.55	1718162.97	14276633.16	39°18'52.887"N	80°43'30.434"W	102.93	53.322	3.42	3.35	-8.00	
2934.00	9.970	82.290	2923.10	-28.28	62.41	96.13	1718176.54	14276634.09	39°18'52.896"N	80°43'30.262"W	114.61	57.006	3.86	3.59	-10.05	
3029.00	10.540	83.070	3016.58	-24.93	64.56	112.90	1718193.31	14276636.24	39°18'52.917"N	80°43'30.048"W	130.06	60.237	0.62	0.60	0.82	
3124.00	11.780	71.600	3109.79	-23.11	68.67	130.73	1718211.13	14276640.35	39°18'52.957"N	80°43'29.821"W	147.67	62.287	2.67	1.31	-12.07	
3219.00	10.650	71.850	3202.97	-22.97	74.47	148.28	1718228.67	14276646.14	39°18'53.014"N	80°43'29.598"W	165.93	63.333	1.19	-1.19	0.26	
3313.00	13.030	64.050	3294.97	-24.22	81.81	166.06	1718246.45	14276653.48	39°18'53.086"N	80°43'29.371"W	185.12	63.772	3.05	2.53	-8.30	
3408.00	16.500	59.790	3386.83	-28.26	93.29	187.36	1718267.73	14276664.95	39°18'53.198"N	80°43'29.100"W	209.30	63.530	3.82	3.65	-4.48	
3503.00	19.720	59.680	3477.11	-34.18	108.17	212.86	1718293.22	14276679.83	39°18'53.345"N	80°43'28.775"W	238.77	63.060	3.39	3.39	-0.12	
3600.00	18.720	57.600	3568.70	-41.16	124.78	240.13	1718320.48	14276696.43	39°18'53.508"N	80°43'28.427"W	270.61	62.542	1.25	-1.03	-2.14	
3695.00	19.010	63.700	3658.61	-46.81	139.80	266.87	1718347.22	14276711.45	39°18'53.656"N	80°43'28.086"W	301.27	62.352	2.10	0.31	6.42	
3790.00	21.720	65.560	3747.66	-50.61	153.93	296.75	1718377.09	14276725.57	39°18'53.794"N	80°43'27.705"W	334.30	62.583	2.93	2.85	1.96	
3885.00	24.440	64.840	3835.05	-54.57	169.56	330.55	1718410.87	14276741.20	39°18'53.948"N	80°43'27.275"W	371.51	62.843	2.88	2.86	-0.76	
3979.00	23.530	61.570	3920.94	-59.92	186.77	364.65	1718444.96	14276758.39	39°18'54.117"N	80°43'26.840"W	409.70	62.880	1.71	-0.97	-3.48	
4074.00	21.690	58.940	4008.63	-66.88	204.85	396.37	1718476.67	14276776.47	39°18'54.295"N	80°43'26.436"W	446.18	62.669	2.21	-1.94	-2.77	
4169.00	22.460	55.740	4096.67	-75.50	224.13	426.41	1718506.69	14276795.74	39°18'54.484"N	80°43'26.053"W	481.73	62.273	1.50	0.81	-3.37	
4264.00	23.190	58.620	4184.23	-84.47	244.08	457.38	1718537.65	14276815.69	39°18'54.681"N	80°43'25.658"W	518.43	61.913	1.40	0.77	3.03	
4359.00	21.340	52.570	4272.16	-94.12	264.33	487.08	1718567.34	14276835.93	39°18'54.880"N	80°43'25.280"W	554.18	61.512	3.10	-1.95	-6.37	
4454.00	20.600	52.200	4360.87	-105.13	285.08	514.01	1718594.26	14276856.67	39°18'55.084"N	80°43'24.936"W	587.78	60.986	0.79	-0.78	-0.39	
4548.00	20.380	58.430	4448.93	-114.19	303.79	541.03	1718621.26	14276875.37	39°18'55.268"N	80°43'24.592"W	620.48	60.686	2.33	-0.23	6.63	
4643.00	23.530	62.240	4537.03	-120.85	321.29	571.91	1718652.14	14276892.86	39°18'55.440"N	80°43'24.198"W	655.98	60.674	3.64	3.32	4.01	
4738.00	22.380	67.510	4624.52	-125.03	337.04	605.41	1718685.62	14276908.61	39°18'55.595"N	80°43'23.771"W	692.90	60.894	2.48	-1.21	5.55	
4833.00	22.530	70.280	4712.32	-126.54	350.10	639.25	1718719.45	14276921.66	39°18'55.723"N	80°43'23.340"W	728.84	61.292	1.12	0.16	2.92	
4928.00	25.300	69.000	4799.15	-127.67	363.52	675.34	1718755.53	14276935.08	39°18'55.855"N	80°43'22.880"W	766.96	61.708	2.97	2.92	-1.35	



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Field	Doddridge		
Facility	Deets Pad		

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5023.00	25.500	64.870	4884.98	-130.77	379.48	712.81	1718792.98	14276951.03	39°18'56.011"N	80°43'22.403"W	807.53	61.970	1.88	0.21	-4.35	
5118.00	24.100	58.990	4971.23	-137.19	398.16	747.96	1718828.11	14276969.70	39°18'56.195"N	80°43'21.955"W	847.33	61.972	2.98	-1.47	-6.19	
5213.00	22.600	53.690	5058.46	-146.84	418.97	779.29	1718859.44	14276990.50	39°18'56.399"N	80°43'21.556"W	884.78	61.737	2.72	-1.58	-5.58	
5308.00	20.680	59.430	5146.77	-155.81	438.31	808.45	1718888.58	14277009.84	39°18'56.590"N	80°43'21.184"W	919.63	61.535	3.01	-2.02	6.04	
5403.00	19.400	57.530	5236.01	-163.01	455.31	836.21	1718916.33	14277026.83	39°18'56.757"N	80°43'20.830"W	952.13	61.432	1.51	-1.35	-2.00	
5497.00	20.260	63.770	5324.45	-168.86	470.89	863.98	1718944.09	14277042.40	39°18'56.910"N	80°43'20.476"W	983.97	61.409	2.43	0.91	6.64	
5592.00	22.730	67.340	5412.84	-172.28	485.23	895.68	1718975.78	14277056.74	39°18'57.051"N	80°43'20.072"W	1018.67	61.553	2.94	2.60	3.76	
5687.00	22.450	60.620	5500.56	-176.90	501.21	928.43	1719008.51	14277072.71	39°18'57.208"N	80°43'19.655"W	1055.08	61.638	2.73	-0.29	-7.07	
5782.00	20.870	55.430	5588.86	-184.88	519.71	958.17	1719038.24	14277091.20	39°18'57.390"N	80°43'19.276"W	1090.04	61.525	2.61	-1.66	-5.46	
5877.00	22.640	53.910	5677.09	-194.97	540.08	986.88	1719066.95	14277111.57	39°18'57.590"N	80°43'18.910"W	1125.00	61.310	1.96	1.86	-1.60	
5971.00	22.670	58.550	5763.85	-204.37	560.19	1016.96	1719097.01	14277131.67	39°18'57.788"N	80°43'18.526"W	1161.05	61.152	1.90	0.03	4.94	
6066.00	22.430	60.810	5851.58	-211.71	578.59	1048.40	1719128.44	14277150.06	39°18'57.969"N	80°43'18.126"W	1197.46	61.107	0.95	-0.25	2.38	
6164.00	21.330	55.430	5942.53	-219.98	597.82	1079.40	1719159.43	14277169.28	39°18'58.158"N	80°43'17.730"W	1233.90	61.020	2.33	-1.12	-5.49	
6259.00	20.560	57.790	6031.26	-228.59	616.52	1107.75	1719187.76	14277187.97	39°18'58.342"N	80°43'17.369"W	1267.75	60.902	1.20	-0.81	2.48	
6354.00	21.210	61.110	6120.02	-235.53	633.71	1136.91	1719216.91	14277205.16	39°18'58.511"N	80°43'16.997"W	1301.59	60.865	1.42	0.68	3.49	
6448.00	25.430	63.410	6206.32	-241.30	650.97	1169.86	1719249.85	14277222.41	39°18'58.681"N	80°43'16.577"W	1338.78	60.906	4.59	4.49	2.45	
6543.00	25.680	56.230	6292.05	-249.45	671.54	1205.22	1719285.19	14277242.98	39°18'58.883"N	80°43'16.127"W	1379.68	60.874	3.27	0.26	-7.56	
6638.00	22.790	58.010	6378.67	-259.02	692.74	1237.94	1719317.90	14277264.16	39°18'59.091"N	80°43'15.710"W	1418.59	60.769	3.14	-3.04	1.87	
6733.00	22.320	73.220	6466.48	-262.65	707.71	1270.85	1719350.79	14277279.13	39°18'59.238"N	80°43'15.290"W	1454.61	60.888	6.15	-0.49	16.01	
6828.00	22.780	87.750	6554.28	-256.82	713.64	1306.52	1719386.46	14277285.06	39°18'59.296"N	80°43'14.836"W	1488.72	61.356	5.87	0.48	15.29	
6923.00	26.020	107.270	6640.93	-239.34	708.17	1344.87	1719424.79	14277279.59	39°18'59.241"N	80°43'14.348"W	1519.93	62.230	9.10	3.41	20.55	
7018.00	31.030	121.770	6724.47	-208.15	689.05	1385.66	1719465.57	14277260.48	39°18'59.050"N	80°43'13.830"W	1547.53	63.560	8.96	5.27	15.26	
7112.00	33.250	133.540	6804.14	-166.61	658.51	1424.98	1719504.87	14277229.95	39°18'58.747"N	80°43'13.331"W	1569.78	65.198	7.06	2.36	12.52	
7185.00†	37.559	141.468	6863.66	-127.93	627.29	1453.38	1719533.26	14277198.74	39°18'58.438"N	80°43'12.971"W	1582.97	66.655	8.62	5.90	10.86	Middlesex: 7185' MD
7207.00	38.950	143.550	6880.93	-115.03	616.48	1461.67	1719541.54	14277187.94	39°18'58.331"N	80°43'12.866"W	1586.35	67.132	8.62	6.32	9.46	
7245.00	42.180	145.840	6909.80	-91.35	596.31	1475.93	1719555.80	14277167.77	39°18'58.131"N	80°43'12.685"W	1591.84	68.000	9.36	8.50	6.03	BH AT Curve <8-1/2'>(7207)-(7245)-17088'
7292.00	45.300	146.130	6943.75	-60.01	569.38	1494.11	1719573.96	14277140.85	39°18'57.864"N	80°43'12.455"W	1598.92	69.139	6.65	6.64	0.62	
7340.00	49.540	146.620	6976.22	-25.86	539.95	1513.67	1719593.52	14277111.44	39°18'57.573"N	80°43'12.207"W	1607.09	70.368	8.87	8.83	1.02	
7385.00†	53.255	147.752	7004.29	8.24	510.39	1532.71	1719612.56	14277081.89	39°18'57.280"N	80°43'11.966"W	1615.46	71.582	8.49	8.25	2.52	Burkett: 7385' MD
7387.00	53.420	147.800	7005.49	9.80	509.04	1533.57	1719613.41	14277080.54	39°18'57.267"N	80°43'11.955"W	1615.85	71.637	8.49	8.27	2.39	



# Actual Wellpath Report

Callahan Unit 1H AWP Proj: 17113'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #04
Operator	ANTERO RESOURCES CORPORATION	Well	Callahan Unit 1H
Area	Doddridge Co., WV	Wellbore	Callahan Unit 1H AWB
Field	Doddridge		
Facility	Deets Pad		

WELLPATH DATA (201 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 (F/100ft)	Build Rate (F/100ft)	Turn Rate (F/100ft)	Comments
7435.00	57.300	149.490	7032.77	48.33	475.31	1554.10	1719633.94	14277046.83	39°18'56.933"N	80°43'11.696"W	1625.16	72.994	8.59	8.08	3.52	
7443.00†	57.950	149.562	7037.05	54.94	469.49	1557.53	1719637.36	14277041.01	39°18'56.875"N	80°43'11.652"W	1626.75	73.225	8.16	8.13	0.90	Tully: 7443' MD
7482.00	61.120	149.900	7056.82	87.87	440.46	1574.47	1719654.30	14277011.99	39°18'56.588"N	80°43'11.438"W	1634.92	74.371	8.16	8.13	0.87	
7530.00	65.510	151.400	7078.37	130.01	403.08	1595.47	1719675.29	14276936.34	39°18'56.218"N	80°43'11.172"W	1645.61	75.821	9.56	9.15	3.13	
7577.00	69.340	152.500	7096.41	172.83	364.79	1615.87	1719695.68	14276936.34	39°18'55.838"N	80°43'10.914"W	1656.54	77.279	8.43	8.15	2.34	
7612.00†	70.689	152.932	7108.38	205.35	335.56	1630.95	1719710.76	14276907.12	39°18'55.549"N	80°43'10.723"W	1665.11	78.374	4.02	3.85	1.23	Marcellus POE: 7612' MD
7625.00	71.190	153.090	7112.62	217.51	324.61	1636.53	1719716.33	14276896.18	39°18'55.441"N	80°43'10.653"W	1668.41	78.781	4.02	3.86	1.22	
7672.00	73.170	153.940	7127.00	261.84	284.56	1656.48	1719736.27	14276856.15	39°18'55.044"N	80°43'10.401"W	1680.74	80.253	4.55	4.21	1.81	
7720.00	75.380	155.410	7140.01	307.73	242.80	1676.24	1719756.03	14276814.40	39°18'54.631"N	80°43'10.151"W	1693.73	81.758	5.47	4.60	3.06	
7767.00	80.010	154.790	7150.03	353.37	201.16	1695.57	1719775.35	14276772.78	39°18'54.219"N	80°43'09.906"W	1707.46	83.234	9.93	9.85	-1.32	
7815.00	86.030	154.020	7159.86	400.65	158.21	1716.14	1719795.91	14276729.85	39°18'53.794"N	80°43'09.646"W	1723.42	84.733	12.64	12.54	-1.60	
7862.00	90.180	154.400	7157.41	447.26	115.93	1736.58	1719816.34	14276687.58	39°18'53.375"N	80°43'09.388"W	1740.44	86.181	8.87	8.83	0.81	
7909.00	90.220	155.080	7157.25	493.95	73.42	1756.63	1719836.39	14276645.09	39°18'52.954"N	80°43'09.135"W	1758.17	87.607	1.45	0.09	1.45	
8004.00	90.310	156.940	7156.81	588.54	-13.37	1795.25	1719874.99	14276558.34	39°18'52.095"N	80°43'08.647"W	1795.30	90.427	1.96	0.09	1.96	
8099.00	90.120	157.170	7156.45	683.28	-100.85	1832.29	1719912.02	14276470.89	39°18'51.230"N	80°43'08.179"W	1835.06	93.150	0.31	-0.20	0.24	
8194.00	90.000	158.730	7156.35	778.12	-188.90	1867.95	1719947.66	14276382.88	39°18'50.358"N	80°43'07.729"W	1877.48	95.774	1.65	-0.13	1.64	
8289.00	90.340	160.320	7156.07	873.07	-277.89	1901.18	1719980.88	14276293.92	39°18'49.478"N	80°43'07.309"W	1921.38	98.316	1.71	0.36	1.67	
8383.00	90.250	161.280	7155.59	967.06	-366.66	1932.10	1720011.78	14276205.18	39°18'48.599"N	80°43'06.920"W	1966.58	100.746	1.03	-0.10	1.02	
8478.00	90.180	161.440	7155.23	1062.06	-456.68	1962.46	1720042.13	14276115.20	39°18'47.709"N	80°43'06.537"W	2014.89	103.100	0.18	-0.07	0.17	
8573.00	90.460	161.870	7154.70	1157.06	-546.85	1992.36	1720072.02	14276025.07	39°18'46.817"N	80°43'06.160"W	2066.04	105.348	0.54	0.29	0.45	
8668.00	89.820	159.810	7154.47	1252.05	-636.58	2023.54	1720103.19	14275935.37	39°18'45.929"N	80°43'05.767"W	2121.31	107.463	2.27	-0.67	-2.17	
8763.00	90.220	157.040	7154.43	1346.92	-724.92	2058.47	1720138.10	14275847.07	39°18'45.055"N	80°43'05.326"W	2182.38	109.400	2.95	0.42	-2.92	
8858.00	91.750	158.570	7152.80	1441.72	-812.86	2094.35	1720173.97	14275759.16	39°18'44.184"N	80°43'04.873"W	2246.56	111.212	2.28	1.61	1.61	
8952.00	90.310	154.470	7151.11	1535.36	-899.04	2131.78	1720211.39	14275673.01	39°18'43.331"N	80°43'04.400"W	2313.61	112.867	4.62	-1.53	-4.36	
9047.00	90.620	151.990	7150.34	1629.41	-983.85	2174.57	1720254.16	14275588.24	39°18'42.492"N	80°43'03.859"W	2386.78	114.344	2.63	0.33	-2.61	
9142.00	90.580	154.250	7149.34	1723.44	-1068.58	2217.51	1720297.09	14275503.55	39°18'41.653"N	80°43'03.316"W	2461.55	115.728	2.38	-0.04	2.38	
9237.00	90.550	159.670	7148.41	1818.13	-1155.96	2254.68	1720334.24	14275416.20	39°18'40.788"N	80°43'02.847"W	2533.74	117.144	5.71	-0.03	5.71	
9331.00	90.650	162.800	7147.42	1912.11	-1244.95	2284.91	1720364.46	14275327.24	39°18'39.908"N	80°43'02.466"W	2602.06	118.584	3.33	0.11	3.33	
9426.00	90.580	162.720	7146.40	2007.07	-1335.68	2313.07	1720392.60	14275236.55	39°18'39.010"N	80°43'02.111"W	2671.01	120.004	0.11	-0.07	-0.08	
9521.00	90.490	159.330	7145.51	2102.05	-1425.50	2343.95	1720423.47	14275146.77	39°18'38.121"N	80°43'01.722"W	2743.38	121.306	3.57	-0.09	-3.57	

# Actual Wellpath Report

Callahan Unit 1H AWP Proj: 17113'

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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Doddridge Co., WV
Field	Doddridge
Facility	Deets Pad
Slot	Slot #04
Well	Callahan Unit 1H
Wellbore	Callahan Unit 1H AWB

WELLPATH DATA (201 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (IUS ft)	Grid North (IUS ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
9616.00	90.520	160.350	7144.68	2197.02	-1514.67	2376.69	1720456.20	14275057.63	39°18'37.239"N	80°43'01.309"W	2818.31	122.509	1.07	0.03	1.07	0.07
9711.00	90.120	161.070	7144.15	2292.01	-1604.34	2408.07	1720487.57	14274968.00	39°18'36.352"N	80°43'00.913"W	2893.56	123.673	0.87	-0.42	0.76	0.76
9806.00	90.060	165.500	7144.00	2386.93	-1695.30	2435.39	1720514.88	14274877.07	39°18'35.452"N	80°43'00.569"W	2967.35	124.842	4.66	-0.06	4.66	4.66
9900.00	90.310	170.300	7143.69	2480.28	-1787.18	2455.09	1720534.57	14274785.22	39°18'34.543"N	80°43'00.322"W	3036.69	126.053	5.11	0.27	5.11	5.11
9995.00	90.280	171.280	7143.20	2573.97	-1880.96	2470.29	1720549.77	14274691.49	39°18'33.616"N	80°43'00.133"W	3104.89	127.287	1.03	-0.03	1.03	1.03
10090.00	90.180	162.330	7142.82	2668.43	-1973.35	2491.95	1720571.42	14274599.13	39°18'32.702"N	80°42'59.861"W	3178.67	128.375	9.42	-0.11	-9.42	-9.42
10185.00	90.310	158.710	7142.42	2763.41	-2062.90	2523.63	1720603.08	14274509.62	39°18'31.816"N	80°42'59.461"W	3259.49	129.264	3.81	0.14	-3.81	-3.81
10280.00	90.150	160.680	7142.03	2858.37	-2151.99	2556.59	1720636.03	14274420.56	39°18'30.935"N	80°42'59.045"W	3341.74	130.089	2.08	-0.17	2.07	2.07
10375.00	90.250	161.970	7141.70	2953.36	-2241.99	2587.01	1720666.44	14274330.60	39°18'30.044"N	80°42'58.662"W	3423.32	130.913	1.36	0.11	1.36	1.36
10469.00	90.490	166.870	7141.10	3047.19	-2332.50	2612.25	1720691.67	14274240.12	39°18'29.149"N	80°42'58.345"W	3502.06	131.762	5.22	0.26	5.21	5.21
10564.00	91.080	171.620	7139.79	3141.24	-2425.80	2629.97	1720709.38	14274146.86	39°18'28.226"N	80°42'58.123"W	3577.88	132.687	5.04	0.62	5.00	5.00
10659.00	90.890	172.240	7138.16	3234.60	-2519.84	2643.31	1720722.71	14274052.85	39°18'27.296"N	80°42'57.957"W	3651.94	133.630	0.68	-0.20	0.65	0.65
10754.00	90.370	170.870	7137.12	3328.07	-2613.80	2657.26	1720736.66	14273958.93	39°18'26.367"N	80°42'57.783"W	3727.33	134.528	1.54	-0.55	-1.44	-1.44
10849.00	90.620	167.350	7136.29	3422.16	-2707.08	2675.20	1720754.59	14273865.69	39°18'25.445"N	80°42'57.559"W	3805.91	135.339	3.71	0.26	-3.71	-3.71
10943.00	91.080	161.370	7134.90	3515.98	-2797.54	2700.53	1720779.91	14273775.26	39°18'24.550"N	80°42'57.240"W	3888.33	136.011	6.38	0.48	-6.36	-6.36
11038.00	90.460	157.680	7133.62	3610.91	-2886.52	2733.75	1720813.12	14273686.32	39°18'23.669"N	80°42'56.821"W	3975.60	136.557	3.94	-0.65	-3.88	-3.88
11133.00	90.310	156.580	7132.98	3705.65	-2974.05	2770.67	1720850.03	14273598.83	39°18'22.803"N	80°42'56.355"W	4064.67	137.028	1.17	-0.16	-1.16	-1.16
11228.00	90.400	155.720	7132.39	3800.27	-3060.93	2809.08	1720888.42	14273511.98	39°18'21.943"N	80°42'55.870"W	4154.55	137.457	0.91	0.08	-0.91	-0.91
11323.00	90.340	155.430	7131.78	3894.79	-3147.43	2848.36	1720927.69	14273425.52	39°18'21.087"N	80°42'55.373"W	4244.94	137.855	0.31	-0.06	-0.31	-0.31
11418.00	90.490	155.650	7131.09	3989.31	-3233.90	2887.70	1720967.01	14273339.08	39°18'20.231"N	80°42'54.877"W	4335.54	138.237	0.28	0.16	0.23	0.23
11513.00	90.310	156.520	7130.43	4083.92	-3320.74	2926.21	1721005.50	14273252.27	39°18'19.372"N	80°42'54.390"W	4426.06	138.614	0.94	-0.19	0.92	0.92
11608.00	90.280	157.240	7129.94	4178.63	-3408.11	2963.51	1721042.79	14273164.94	39°18'18.507"N	80°42'53.919"W	4516.37	138.992	0.76	-0.03	0.76	0.76
11702.00	90.250	156.550	7129.51	4272.36	-3494.57	3000.40	1721079.66	14273078.51	39°18'17.651"N	80°42'53.453"W	4605.91	139.351	0.73	-0.03	-0.73	-0.73
11797.00	90.250	156.350	7129.09	4367.02	-3581.65	3038.35	1721117.60	14272991.46	39°18'16.789"N	80°42'52.974"W	4696.79	139.692	0.21	0.00	-0.21	-0.21
11892.00	90.340	157.220	7128.60	4461.72	-3668.96	3075.80	1721155.03	14272904.19	39°18'15.925"N	80°42'52.501"W	4787.67	140.026	0.92	0.09	0.92	0.92
11987.00	90.310	156.620	7128.06	4556.44	-3756.35	3113.04	1721192.26	14272816.83	39°18'15.060"N	80°42'52.031"W	4878.65	140.350	0.63	-0.03	-0.63	-0.63
12082.00	90.340	157.140	7127.52	4651.16	-3843.72	3150.34	1721229.55	14272729.50	39°18'14.196"N	80°42'51.560"W	4969.79	140.662	0.55	0.03	0.55	0.55
12177.00	90.340	158.640	7126.96	4745.99	-3931.73	3186.70	1721265.29	14272641.52	39°18'13.325"N	80°42'51.109"W	5060.61	140.980	1.58	0.00	1.58	1.58
12272.00	90.220	158.790	7126.50	4840.89	-4020.25	3220.58	1721299.76	14272553.04	39°18'12.449"N	80°42'50.673"W	5151.17	141.302	0.20	-0.13	0.16	0.16
12367.00	90.180	162.270	7126.16	4935.87	-4109.80	3252.24	1721331.41	14272463.52	39°18'11.563"N	80°42'50.274"W	5240.95	141.644	3.66	-0.04	3.66	3.66



# Actual Wellpath Report

Callahan Unit 1H AWP Proj: 17113'  
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #04
Operator	ANTERO RESOURCES CORPORATION	Well	Callahan Unit 1H
Area	Doddridge Co., WV	Wellbore	Callahan Unit 1H AWB
Field	Doddridge		
Facility	Deets Pad		

WELLPATH DATA (201 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
12461.00	90.310	166.490	7125.76	5029.71	-4200.31	3277.55	1721356.70	14272373.05	39°18'10.667"N	80°42'49.956"W	5327.75	142.035	4.49	0.14	4.49	
12556.00	90.340	169.330	7125.22	5124.06	-4293.19	3297.44	1721376.59	14272280.20	39°18'09.749"N	80°42'49.707"W	5413.38	142.473	2.99	0.03	2.99	
12651.00	90.310	171.050	7124.68	5217.92	-4386.80	3313.63	1721392.77	14272186.63	39°18'08.823"N	80°42'49.505"W	5497.65	142.934	1.81	-0.03	1.81	
12746.00	90.400	172.410	7124.10	5311.34	-4480.81	3327.29	1721406.43	14272092.66	39°18'07.893"N	80°42'49.335"W	5581.08	143.404	1.43	0.09	1.43	
12841.00	90.580	167.600	7123.28	5405.21	-4574.33	3343.77	1721422.90	14271999.17	39°18'06.968"N	80°42'49.129"W	5666.16	143.834	5.07	0.19	-5.06	
12936.00	90.550	163.330	7122.35	5499.93	-4666.27	3367.61	1721446.73	14271907.28	39°18'06.059"N	80°42'48.829"W	5754.55	144.182	4.49	-0.03	-4.49	
13031.00	90.550	161.730	7121.43	5594.90	-4756.88	3396.13	1721475.23	14271816.70	39°18'05.163"N	80°42'48.470"W	5844.79	144.475	1.68	0.00	-1.68	
13125.00	90.340	157.710	7120.70	5688.85	-4845.03	3428.70	1721507.80	14271728.58	39°18'04.290"N	80°42'48.059"W	5935.51	144.714	4.28	-0.22	-4.28	
13220.00	90.490	150.620	7120.01	5783.05	-4930.48	3470.07	1721529.48	14271643.17	39°18'03.444"N	80°42'47.536"W	6029.18	144.862	7.46	0.16	-7.46	
13315.00	90.430	145.730	7119.25	5875.54	-5011.17	3520.15	1721599.21	14271562.51	39°18'02.645"N	80°42'46.903"W	6123.99	144.913	5.15	-0.06	-5.15	
13410.00	90.150	149.080	7118.77	5967.75	-5091.20	3571.32	1721650.36	14271482.52	39°18'01.853"N	80°42'46.255"W	6218.89	144.952	3.54	-0.28	-3.53	
13505.00	89.540	156.620	7119.03	6061.65	-5175.67	3614.64	1721693.66	14271398.08	39°18'01.017"N	80°42'45.707"W	6312.93	145.070	7.96	-0.64	7.94	
13599.00	89.820	158.560	7119.55	6155.45	-5262.56	3650.47	1721729.48	14271311.22	39°18'00.157"N	80°42'45.255"W	6404.72	145.252	2.09	0.30	2.06	
13694.00	90.370	159.840	7119.40	6250.38	-5351.37	3684.21	1721763.20	14271222.45	39°17'59.278"N	80°42'44.830"W	6496.96	145.454	1.47	0.58	1.35	
13789.00	90.460	164.830	7118.71	6345.34	-5441.86	3713.02	1721792.01	14271131.99	39°17'58.383"N	80°42'44.467"W	6587.89	145.694	5.25	0.09	5.25	
13884.00	90.680	168.560	7117.76	6439.89	-5534.29	3734.88	1721813.86	14271039.60	39°17'57.468"N	80°42'44.192"W	6676.65	145.986	3.93	0.23	3.93	
13979.00	90.830	172.160	7116.51	6533.68	-5627.92	3750.79	1721829.75	14270946.00	39°17'56.542"N	80°42'43.994"W	6763.28	146.318	3.79	0.16	3.79	
14073.00	90.460	174.600	7115.45	6625.58	-5721.28	3761.62	1721840.59	14270852.68	39°17'55.619"N	80°42'43.860"W	6847.11	146.676	2.63	-0.38	2.60	
14168.00	90.800	169.850	7114.41	6718.83	-5815.38	3774.47	1721853.43	14270758.62	39°17'54.689"N	80°42'43.700"W	6932.91	147.014	5.01	0.36	-5.00	
14263.00	90.830	166.860	7113.05	6813.08	-5908.40	3793.64	1721872.59	14270665.63	39°17'53.769"N	80°42'43.460"W	7021.46	147.296	3.15	0.03	-3.15	
14358.00	90.830	166.460	7111.68	6907.66	-6000.83	3815.56	1721894.50	14270573.24	39°17'52.855"N	80°42'43.185"W	7111.15	147.550	0.42	0.00	-0.42	
14453.00	90.220	164.910	7110.81	7002.37	-6092.87	3839.04	1721917.98	14270481.24	39°17'51.944"N	80°42'42.890"W	7201.48	147.785	1.75	-0.64	-1.63	
14548.00	89.880	159.000	7110.72	7097.32	-6183.16	3868.46	1721947.38	14270390.99	39°17'51.051"N	80°42'42.520"W	7293.59	147.968	6.23	-0.36	-6.22	
14643.00	90.060	155.440	7110.77	7192.07	-6270.73	3905.24	1721984.14	14270303.44	39°17'50.184"N	80°42'42.055"W	7387.35	148.087	3.75	0.19	-3.75	
14738.00	90.770	155.690	7110.09	7286.59	-6357.22	3944.53	1722023.42	14270216.99	39°17'49.328"N	80°42'41.559"W	7481.55	148.181	0.79	0.75	0.26	
14833.00	90.460	150.720	7109.07	7380.61	-6441.99	3987.34	1722066.22	14270132.26	39°17'48.489"N	80°42'41.018"W	7576.15	148.244	5.24	-0.33	-5.23	
14928.00	90.060	150.920	7108.63	7474.03	-6524.93	4033.66	1722112.52	14270049.35	39°17'47.668"N	80°42'40.432"W	7671.06	148.276	0.47	-0.42	0.21	
15023.00	90.180	153.340	7108.44	7567.81	-6608.91	4078.07	1722156.90	14269965.41	39°17'46.836"N	80°42'39.871"W	7765.84	148.323	2.55	0.13	2.55	
15117.00	90.430	159.110	7107.93	7661.40	-6694.89	4115.95	1722194.77	14269879.45	39°17'45.985"N	80°42'39.392"W	7858.92	148.417	6.14	0.27	6.14	
15212.00	90.340	162.280	7107.30	7756.38	-6784.54	4147.35	1722226.16	14269789.84	39°17'45.098"N	80°42'38.997"W	7951.76	148.563	3.34	-0.09	3.34	



# Actual Wellpath Report

Callahan Unit 1H AWP Proj: 17113'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Doddridge Co., WV	Well	Callahan Unit 1H
Field	Doddridge	Wellbore	Callahan Unit 1H AWP
Facility	Deets Pad		

## WELLPATH DATA (201 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
15307.00	90.400	165.720	7106.68	7851.26	-6875.84	4173.53	1722252.33	14269698.58	39°17'44.195"N	80°42'38.667"W	8043.35	148.743	3.62	0.06	3.62	
15402.00	90.030	167.100	7106.33	7945.88	-6968.18	4195.85	1722274.64	14269606.28	39°17'43.282"N	80°42'38.387"W	8133.92	148.946	1.50	-0.39	1.45	
15497.00	90.280	167.530	7106.07	8040.35	-7060.86	4216.71	1722295.49	14269513.63	39°17'42.365"N	80°42'38.126"W	8224.13	149.155	0.52	0.26	0.45	
15592.00	90.310	165.580	7105.58	8134.94	-7153.25	4238.80	1722317.57	14269421.28	39°17'41.451"N	80°42'37.848"W	8314.83	149.350	2.05	0.03	-2.05	
15686.00	90.280	164.460	7105.10	8228.74	-7244.05	4263.09	1722341.86	14269330.51	39°17'40.553"N	80°42'37.543"W	8405.37	149.523	1.19	-0.03	-1.19	
15781.00	90.220	164.570	7104.68	8323.59	-7335.60	4288.46	1722367.21	14269239.00	39°17'39.647"N	80°42'37.224"W	8497.17	149.689	0.13	-0.06	0.12	
15876.00	90.280	163.680	7104.27	8418.47	-7426.98	4314.44	1722393.19	14269147.66	39°17'38.743"N	80°42'36.897"W	8589.20	149.847	0.94	0.06	-0.94	
15971.00	90.340	163.060	7103.75	8513.41	-7518.00	4341.63	1722420.37	14269056.67	39°17'37.843"N	80°42'36.555"W	8681.60	149.994	0.66	0.06	-0.65	
16066.00	90.220	162.060	7103.29	8608.38	-7608.63	4370.10	1722448.83	14268966.07	39°17'36.946"N	80°42'36.197"W	8774.34	150.129	1.06	-0.13	-1.05	
16161.00	90.220	161.440	7102.92	8703.38	-7698.85	4399.85	1722478.56	14268875.89	39°17'36.054"N	80°42'35.822"W	8867.41	150.252	0.65	0.00	-0.65	
16255.00	90.250	160.850	7102.54	8797.38	-7787.81	4430.23	1722508.93	14268786.97	39°17'35.173"N	80°42'35.439"W	8959.74	150.366	0.63	0.03	-0.63	
16350.00	90.370	159.700	7102.02	8892.36	-7877.23	4462.29	1722540.98	14268697.58	39°17'34.288"N	80°42'35.035"W	9053.33	150.469	1.22	0.13	-1.21	
16445.00	90.220	159.300	7101.54	8987.31	-7966.21	4495.56	1722574.24	14268608.63	39°17'33.408"N	80°42'34.616"W	9147.17	150.563	0.45	-0.16	-0.42	
16540.00	90.310	160.110	7101.01	9082.27	-8055.31	4528.51	1722607.17	14268519.57	39°17'32.526"N	80°42'34.200"W	9240.97	150.656	0.86	0.08	0.85	
16635.00	89.970	160.800	7100.86	9177.26	-8144.84	4560.29	1722638.94	14268430.08	39°17'31.640"N	80°42'33.800"W	9334.60	150.756	0.81	-0.36	0.73	
16730.00	90.150	160.650	7100.76	9272.26	-8234.51	4591.65	1722670.29	14268340.44	39°17'30.753"N	80°42'33.404"W	9428.18	150.855	0.25	0.15	-0.16	
16825.00	90.180	160.070	7100.49	9367.24	-8323.99	4623.58	1722702.21	14268251.00	39°17'29.868"N	80°42'33.002"W	9521.88	150.950	0.61	0.03	-0.61	
16919.00	89.940	159.470	7100.39	9461.21	-8412.19	4656.09	1722734.70	14268162.84	39°17'28.995"N	80°42'32.592"W	9614.78	151.036	0.69	-0.26	-0.64	
17014.00	90.180	160.560	7100.29	9556.19	-8501.46	4688.56	1722767.15	14268073.59	39°17'28.112"N	80°42'32.183"W	9708.63	151.123	1.17	0.25	1.15	
17088.00	90.340	161.310	7099.96	9630.18	-8571.40	4712.73	1722791.32	14268003.68	39°17'27.420"N	80°42'31.878"W	9781.55	151.197	1.04	0.22	1.01	Projected MD at ID: 17113'
17113.00	90.340	161.310	7099.81	9655.18	-8595.09	4720.74	1722799.32	14267980.01	39°17'27.185"N	80°42'31.777"W	9806.16	151.223	0.00	0.00	0.00	





# Actual Wellpath Report

Callahan Unit 1H AWP Proj: 17113'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Doddridge Co., WV	Well	Callahan Unit 1H
Field	Doddridge	Wellbore	Callahan Unit 1H AWB
Facility	Deets Pad		

HOLE & CASING SECTIONS - Ref Wellbore: Callahan Unit 1H AWB Ref Wellpath: Callahan Unit 1H AWP Proj: 17113'									
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	105.50	80.00	25.50	105.50	0.00	0.00	-0.08	-0.06
17.5in Open Hole	105.50	388.00	282.50	105.50	388.00	-0.08	-0.06	-0.92	0.33
13.375in Casing Surface	25.50	362.80	337.30	25.50	362.80	0.00	0.00	-0.76	0.20
12.25in Open Hole	388.00	2600.00	2212.00	388.00	2590.74	-0.92	0.33	63.61	65.49
9.625in Casing Intermediate	25.50	2585.00	2559.50	25.50	2575.78	0.00	0.00	63.72	64.48
8.75in Open Hole	2600.00	7273.00	4673.00	2590.74	6930.24	63.61	65.49	580.46	1486.65
8.5in Open Hole	7273.00	17113.00	9840.00	6930.24	7099.81	580.46	1486.65	-8595.09	4720.74
5.5in Casing Production	25.50	17113.00	17087.50	25.50	7099.81	0.00	0.00	-8595.09	4720.74

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Callahan Unit 1H - POE - Rev-2	7114.00	338.85	1651.34	1719731.13	14276910.41	39°18'55.581"N	80°43'10.464"W	point
Callahan Unit 1H - BHL - Rev-2	7158.00	-8578.15	4718.86	1722797.44	14267996.94	39°17'27.353"N	80°42'31.801"W	point
Callahan Unit 1H - LP - Rev-2	7158.00	99.95	1765.50	1719845.25	14276671.61	39°18'53.216"N	80°43'09.021"W	point
Callahan Unit 1H - On Azi - Rev-2	7158.00	-110.57	1851.09	1719930.81	14276461.17	39°18'51.133"N	80°43'07.940"W	point



# Actual Wellpath Report

Callahan Unit 1H AWP Proj: 17113'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #04
Area	Doddridge Co., WV	Well	Callahan Unit 1H
Field	Doddridge	Wellbore	Callahan Unit 1H AWB
Facility	Deets Pad		

WELLPATH COMPOSITION - Ref Wellbore: Callahan Unit 1H AWB Ref Wellpath: Callahan Unit 1H AWP Proj: 17113'			
Start MD (ft)	End MD (ft)	Positional Uncertainty Model	Log Name/Comment
25.50	300.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(100'-300')
300.00	663.00	Gyrodata standard - Drop gyro or Multi-shot	02 Gyrodata MS Gyro <12-1/4">(300')\427'-663')
663.00	2532.00	BHI NaviTrak (Axial)	03 APS EM <12-1/4">(663')\793'-2532')
2532.00	7207.00	BHI NaviTrak (Axial)	04 APS EM <8-3/4">(2532')\2650'-7207')
7207.00	17088.00	BHI AutoTrak Curve (Short)	05 BH AT Curve <8-1/2">(7207')\7245'-17088')
17088.00	17113.00	Blind Drilling (std)	Projection to bit
			Wellbore



# Actual Wellpath Report

Callahan Unit 1H AWP Proj: 17113'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #04
ANTERO RESOURCES CORPORATION	Well	Callahan Unit 1H
Doddridge Co., WV	Wellbore	Callahan Unit 1H AWB
Doddridge		
Deets Pad		

## COMMENTS

### Wellpath general comments

API: 47-017-06873-0000

BHI Job #: 109886808B

Rig: H&P 317

Duration: 06/29/2019-09/04/2019

Gyrodata MS Gyro <17-1/2">(100'-300')

Gyrodata MS Gyro <12-1/4">(300')(427'-663')

APS EM <12-1/4"> (663')(793'-2532')

APS EM <8-3/4"> (2532')(2650'-7207')

BH AT Curve <8-1/2">(7207')(7245'-17088')

Middlesex: 7185' MD

Burkett: 7385' MD

Tully: 7443' MD

Marcellus POE: 7612' MD

Projected MD at TD: 17113'