



# ANTERO RESOURCES CORPORATION

Location: Doddridge Co., WV  
 Field: Doddridge  
 Facility: Long Run Pad

Slot: Slot #01  
 Well: Janice Unit 1H  
 Wellbore: Janice Unit 1H PWB



06/01/2018

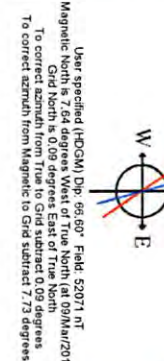
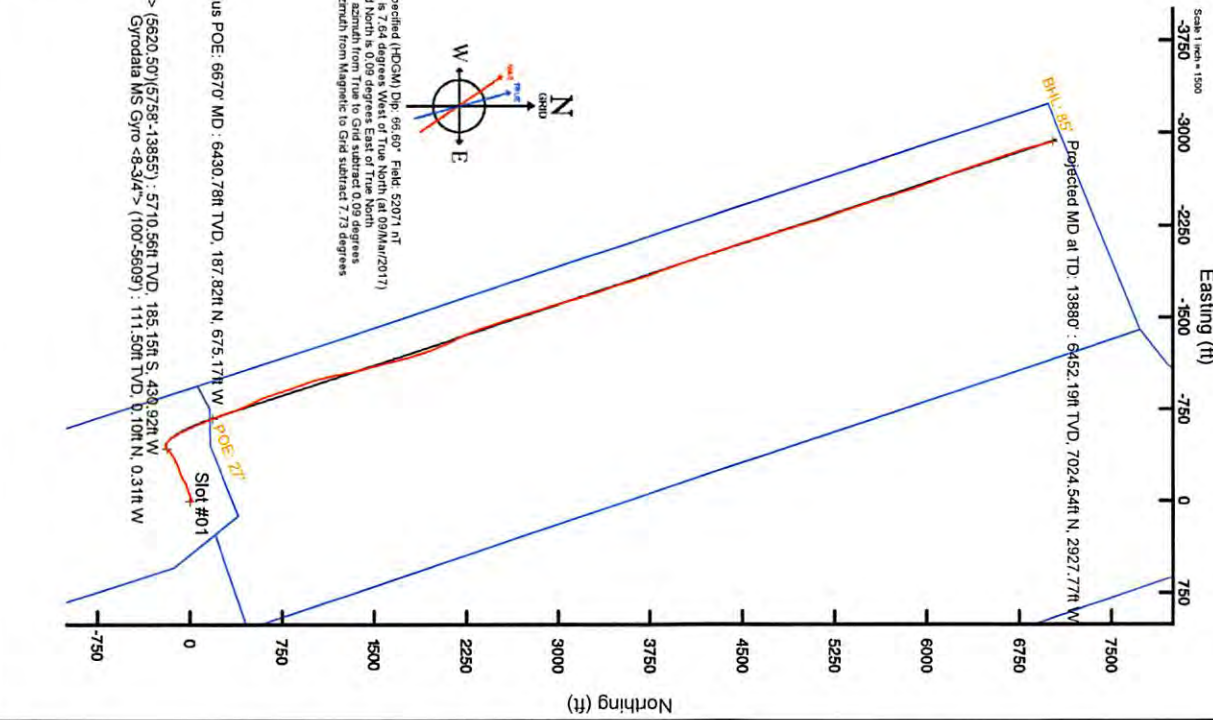
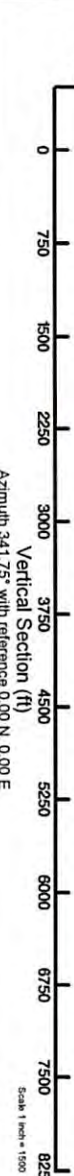
API: 47-017-06780-0000  
 BHI Job #: 8448852  
 Rig: Frontier 22  
 Duration: 03/15/2017-03/19/2017

Plot reference wellpath is Janice Unit 1H PWB Rev.A.0	Grid System: NAD83 / UTM Zone 17 North, US feet
True vertical depths are referenced to Frontier 22 (RKB)	* Wellpath was transformed from a different geoid datum
Measured depths are referenced to Frontier 22 (RKB)	North Reference: Grid north
Frontier 22 (RKB) to Mean Sea Level: 1045.5 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #01): -1021 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: dabbat on 2017-03-21
	Database: WA_MPL_EasternUS_Data

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude
Long Run Pad	1678891.242	14271319.517	39°18'01.230"N
Slot	Local N (ft)	Grid East (US ft)	Latitude
Slot #01	26.28	1678977.090	39°18'01.490"N
			80°51'50.570"W
Comment	Janice Unit 1H		
Frontier 22 (RKB) to Mud line (At Slot: Slot #01)			24.5ft
Mean Sea Level to Mud line (At Slot: Slot #01)			-1021ft
Frontier 22 (RKB) to Mean Sea Level			1045.5ft

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	5620.50	13.620	231.070	5576.82	-163.82	-407.18	0.00	-28.07
Proj. To Bottom	5766.50	12.180	226.960	5719.14	-185.14	-431.81	1.17	-40.60
Cure KOP	5784.50	12.180	226.960	5736.73	-187.73	-434.59	0.00	-42.19
End of 3D Arc	6363.30	41.980	331.733	6263.77	-51.41	-578.83	8.00	132.45
POE	6706.37	71.756	341.756	6449.50	210.74	-686.79	9.00	415.22
Landing Pt.	6858.40	90.000	341.754	6473.50	352.70	-733.59	12.00	564.70
BHI	13908.49	90.000	341.754	6473.50	7048.31	-2940.99	0.00	7614.79

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #01	Janice Unit 1H	Janice Unit 1H AWB	Janice Unit 1H AWB Proj: 13880
Slot #01	Janice Unit 1H	Janice Unit 1H PWB	Janice Unit 1H PWB Rev.A.0



User specified (HDCM) Dip: 69.60° Field: 52071 nT  
 Magnetic North is 7.64 degrees West of True North (at 09Mhr/2017)  
 Grid North is 0.09 degrees East of True North  
 To correct Azimuth from True to Grid subtract 0.09 degrees  
 To correct Azimuth from Magnetic to Grid subtract 7.73 degrees

BHI AT Curve <-8-1/2°> (5620.50/5758-13855) : 5710.56ft TVD, 185.15ft S, 436.92ft W  
 Gyrodala NS Gyro <-8-3/4°> (100°-5609') : 111.50ft TVD, 0.10ft N, 0.31ft W  
 Marcellus POE: 6670' MD : 6430.78ft TVD, 187.82ft N, 675.17ft W  
 Projected MD at TD: 13880' : 90.46° Inc, 13880.00ft MD, 6452.19ft TVD, 7588.07ft VS  
 Marcellus POE: 6670' MD : 70.20° Inc, 6670.00ft MD, 6430.78ft TVD, 389.81ft VS



# Actual Wellpath Report

Janice Unit 1H AWP Proj: 13880'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Janice Unit 1H
Field	Doddridge	Wellbore	Janice Unit 1H AWB
Facility	Long Run Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect@ 5.0
North Reference	Grid	User	Delaset
Scale	0.999602	Report Generated	21/Mar/2017 at 14:02
Convergence at slot	0.09° East	Database/Source file	WA_MPL_EasternUS_Defn/Janice_Unit_1H_AWP_Proj_13880_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	26.28	-14.19	1678877.06	14271345.79	39°18'01.490"N	80°51'50.570"W
Facility Reference Pt			1678891.24	14271319.52	39°18'01.230"N	80°51'50.390"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Frontier 22 (RKB) to Facility Vertical Datum	24.50ft
Horizontal Reference Pt	Slot	Frontier 22 (RKB) to Mean Sea Level	1045.50ft
Vertical Reference Pt	Frontier 22 (RKB)	Frontier 22 (RKB) to Mud Line at Slot (Slot #01)	24.50ft
MD Reference Pt	Frontier 22 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	341.75°





# Actual Wellpath Report

Janice Unit 1H AWP Proj: 13880'  
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## REFERENCE WELLPATH IDENTIFICATION

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Area	Doddridge Co., WV	Well	Janice Unit 1H
Field	Doddridge	Wellbore	Janice Unit 1H AWP
Facility	Long Run Pad		

## WELLPATH DATA (163 stations) † = Interpolated/extrapolated station

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	D/S	Build Rate	Turn Rate	Comments
ft	°	°	ft	ft	ft	ft	US-ft	US-ft	°	°	ft	°	ft/100ft	ft/100ft	ft/100ft	
0.00†	0.000	287.590	0.00	0.00	0.00	0.00	1678877.06	14271345.79	39°18'01.490"N	80°51'50.570"W	0.00	0.000	0.00	0.00	0.00	
24.50	0.000	287.590	24.50	0.00	0.00	0.00	1678887.06	14271345.79	39°18'01.490"N	80°51'50.570"W	0.00	0.000	0.00	0.00	0.00	
111.50	0.430	287.590	111.50	0.19	0.10	-0.31	1678876.75	14271345.89	39°18'01.491"N	80°51'50.574"W	0.33	287.590	0.49	0.49	-83.23	Synodalia MS Gyro <-3/4"> (100'-5609')
211.50	0.370	329.250	211.50	0.73	0.49	-0.83	1678876.23	14271346.28	39°18'01.495"N	80°51'50.581"W	0.97	300.413	0.29	-0.06	41.66	
311.50	0.420	83.020	311.50	0.97	0.81	-0.64	1678876.42	14271346.60	39°18'01.498"N	80°51'50.578"W	1.03	321.948	0.66	0.05	113.77	
411.50	0.460	98.220	411.49	0.72	0.80	0.13	1678877.19	14271346.59	39°18'01.498"N	80°51'50.568"W	0.81	8.952	0.12	0.04	15.20	
511.50	0.440	94.520	511.49	0.39	0.71	0.91	1678877.97	14271346.50	39°18'01.497"N	80°51'50.558"W	1.15	51.870	0.04	-0.02	-3.70	
611.50	0.860	20.240	611.48	0.83	1.38	1.55	1678878.61	14271347.17	39°18'01.504"N	80°51'50.550"W	2.08	48.188	0.85	0.42	-74.28	
711.50	1.990	351.850	711.45	3.13	3.81	1.56	1678878.62	14271349.60	39°18'01.528"N	80°51'50.550"W	4.12	22.301	1.30	1.13	-28.39	
811.50	2.630	342.920	811.37	7.13	7.72	0.64	1678877.70	14271353.51	39°18'01.613"N	80°51'50.562"W	7.75	4.752	0.73	0.64	-8.93	
911.50	3.400	329.540	911.23	12.32	12.47	-1.54	1678875.53	14271358.25	39°18'01.613"N	80°51'50.589"W	12.56	352.980	1.04	0.77	-13.38	
1011.50	3.620	323.460	1011.05	18.22	17.56	-4.92	1678872.14	14271363.34	39°18'01.664"N	80°51'50.632"W	18.24	344.355	0.43	0.22	-6.08	
1111.50	2.450	308.910	1110.91	23.01	21.44	-8.46	1678868.60	14271367.22	39°18'01.702"N	80°51'50.677"W	23.05	338.464	1.39	-1.17	-14.55	
1211.50	0.340	259.630	1210.87	24.85	22.73	-10.42	1678866.65	14271368.51	39°18'01.715"N	80°51'50.702"W	25.00	335.380	2.24	-2.11	-49.28	
1311.50	0.610	113.630	1310.87	24.53	22.46	-10.22	1678866.84	14271368.24	39°18'01.712"N	80°51'50.700"W	24.68	335.635	0.91	0.27	-146.00	
1411.50	0.850	101.470	1410.86	23.81	22.10	-9.01	1678868.06	14271367.88	39°18'01.709"N	80°51'50.684"W	23.87	337.831	0.28	0.24	-12.16	
1511.50	0.880	100.240	1510.85	23.08	21.82	-7.52	1678869.54	14271367.60	39°18'01.706"N	80°51'50.665"W	23.08	340.975	0.04	0.03	-1.23	
1611.50	0.840	99.290	1610.84	22.37	21.56	-6.04	1678871.02	14271367.34	39°18'01.703"N	80°51'50.646"W	22.39	344.342	0.04	-0.04	-0.95	
1711.50	0.880	111.230	1710.83	21.54	21.17	-4.61	1678872.46	14271366.95	39°18'01.699"N	80°51'50.628"W	21.66	347.726	0.18	0.04	11.94	
1811.50	0.830	160.100	1810.82	20.33	20.21	-3.64	1678873.42	14271365.99	39°18'01.690"N	80°51'50.616"W	20.53	349.781	0.71	-0.05	48.87	
1911.50	0.710	201.230	1910.81	19.13	18.95	-3.62	1678873.44	14271364.73	39°18'01.677"N	80°51'50.616"W	19.29	349.183	0.55	-0.12	41.13	
2011.50	0.720	288.080	2010.80	18.83	18.35	-4.47	1678872.59	14271364.13	39°18'01.671"N	80°51'50.627"W	18.89	346.302	0.79	0.01	66.85	
2111.50	0.770	286.920	2110.80	19.39	18.53	-5.74	1678871.32	14271364.31	39°18'01.673"N	80°51'50.643"W	19.40	342.774	0.25	0.05	18.84	
2211.50	0.860	292.490	2210.79	20.27	19.01	-7.08	1678869.98	14271364.79	39°18'01.678"N	80°51'50.660"W	20.28	339.571	0.12	0.09	5.57	
2311.50	0.150	220.490	2310.78	20.69	19.20	-7.86	1678869.20	14271364.98	39°18'01.680"N	80°51'50.670"W	20.74	337.737	0.83	-0.71	-72.00	
2411.50	0.870	114.560	2410.78	20.11	18.78	-7.25	1678869.81	14271364.56	39°18'01.676"N	80°51'50.662"W	20.13	338.884	0.92	0.72	-105.93	
2511.50	0.880	114.590	2510.77	19.07	18.15	-5.86	1678871.20	14271363.93	39°18'01.669"N	80°51'50.644"W	19.07	342.091	0.01	0.01	0.03	
2611.50	0.720	109.370	2610.76	18.16	17.62	-4.57	1678872.49	14271363.40	39°18'01.664"N	80°51'50.628"W	18.20	345.449	0.18	-0.16	-5.22	
2711.50	0.600	106.440	2710.75	17.48	17.26	-3.48	1678873.58	14271363.04	39°18'01.661"N	80°51'50.614"W	17.61	348.607	0.12	-0.12	-2.93	
2811.50	0.560	250.720	2810.75	17.17	16.95	-3.44	1678873.62	14271362.73	39°18'01.658"N	80°51'50.613"W	17.30	348.538	1.10	-0.04	144.28	





# Actual Wellpath Report

Janice Unit 1H AWP Proj: 13880'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Janice Unit 1H
Field	Doddridge	Wellbore	Janice Unit 1H AWP
Facility	Long Run Pad		

## WELLPATH DATA (163 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
ft	°	°	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft/100ft	ft/100ft	ft/100ft	
2911.50	0.950	256.03	2910.74	17.23	16.59	-4.70	1678872.36	14271362.37	39°18'01.654"N	80°51'50.629"W	17.24	344.173	0.40	0.39	5.31	
3011.50	0.980	255.24	3010.72	17.34	16.17	-6.33	1678870.73	14271361.96	39°18'01.650"N	80°51'50.650"W	17.37	338.610	0.03	0.33	-0.79	
3111.50	0.980	254.61	3110.71	17.44	15.73	-7.99	1678868.08	14271361.51	39°18'01.646"N	80°51'50.671"W	17.64	333.079	0.01	0.00	-0.63	
3211.50	2.640	258.22	3210.66	17.74	15.03	-11.07	1678866.00	14271360.81	39°18'01.639"N	80°51'50.710"W	18.66	323.639	1.66	1.66	3.61	
3311.50	5.680	256.62	3310.38	18.42	13.41	-18.14	1678858.93	14271359.20	39°18'01.623"N	80°51'50.800"W	22.56	306.488	3.04	3.04	-1.60	
3411.50	5.530	250.17	3409.90	18.71	10.63	-27.48	1678849.59	14271356.42	39°18'01.596"N	80°51'50.919"W	29.47	291.154	0.65	-0.15	-6.45	
3511.50	5.420	248.99	3509.45	18.35	7.31	-36.42	1678840.65	14271353.09	39°18'01.563"N	80°51'51.033"W	37.15	281.343	0.16	-0.11	-1.18	
3611.50	5.980	251.69	3608.95	18.11	3.98	-45.78	1678831.30	14271349.77	39°18'01.530"N	80°51'51.152"W	45.95	274.965	0.62	0.56	2.70	
3711.50	7.150	253.36	3708.30	18.28	0.56	-56.69	1678820.40	14271346.35	39°18'01.496"N	80°51'51.291"W	56.69	270.564	1.19	1.17	1.67	
3811.50	9.670	246.39	3807.22	17.67	-4.59	-70.35	1678806.74	14271341.20	39°18'01.446"N	80°51'51.465"W	70.50	266.268	2.71	2.52	-6.97	
3911.50	10.700	249.08	3905.72	16.48	-11.11	-86.31	1678790.79	14271334.68	39°18'01.381"N	80°51'51.668"W	87.02	262.664	0.70	0.52	2.69	
4011.50	10.700	251.36	4004.06	16.00	-17.24	-103.37	1678773.74	14271328.56	39°18'01.321"N	80°51'51.885"W	104.79	250.533	0.66	0.51	2.28	
4111.50	11.000	250.23	4102.27	15.68	-23.43	-121.14	1678755.97	14271322.37	39°18'01.260"N	80°51'52.111"W	123.38	259.053	0.37	0.30	-1.13	
4211.50	12.980	245.04	4200.09	14.12	-31.40	-140.30	1678736.81	14271314.40	39°18'01.182"N	80°51'52.355"W	143.77	257.386	2.25	1.98	-5.19	
4311.50	12.690	241.59	4297.59	10.87	-41.36	-160.14	1678716.98	14271304.44	39°18'01.084"N	80°51'52.608"W	165.40	255.518	0.82	-0.29	-3.45	
4411.50	12.180	238.10	4395.25	6.44	-52.16	-178.76	1678698.37	14271293.65	39°18'00.977"N	80°51'52.845"W	186.22	253.732	0.91	-0.51	-3.49	
4511.50	11.790	246.49	4493.07	3.02	-61.81	-197.09	1678680.05	14271284.00	39°18'00.882"N	80°51'53.078"W	206.55	252.586	1.78	-0.39	8.39	
4611.50	11.980	248.02	4590.93	1.40	-69.77	-216.08	1678661.07	14271276.04	39°18'00.804"N	80°51'53.320"W	227.07	252.104	1.53	0.19	1.53	
4711.50	12.290	253.70	4688.71	1.10	-76.62	-235.89	1678641.26	14271269.20	39°18'00.736"N	80°51'53.572"W	248.02	252.005	1.24	0.27	5.75	
4811.50	12.030	251.72	4786.47	1.47	-82.86	-255.87	1678621.19	14271262.96	39°18'00.675"N	80°51'53.828"W	269.05	252.063	0.48	-0.22	-2.05	
4911.50	11.940	249.34	4884.29	1.03	-89.78	-275.55	1678601.62	14271256.05	39°18'00.607"N	80°51'54.077"W	289.80	251.954	0.50	-0.09	-2.38	
5011.50	11.810	246.10	4982.15	-0.41	-97.57	-294.58	1678582.60	14271248.26	39°18'00.530"N	80°51'54.319"W	310.32	251.674	0.68	-0.13	-3.24	
5111.50	11.510	243.97	5080.09	-2.77	-106.10	-312.80	1678564.28	14271239.74	39°18'00.446"N	80°51'54.552"W	330.40	251.270	0.52	-0.30	-2.13	
5211.50	12.640	245.13	5177.88	-5.38	-115.08	-331.10	1678545.40	14271230.76	39°18'00.358"N	80°51'54.793"W	351.19	250.872	1.16	1.13	1.16	
5311.50	12.330	241.96	5275.51	-8.46	-124.70	-351.15	1678526.05	14271221.14	39°18'00.263"N	80°51'55.038"W	372.63	250.449	0.75	-0.31	-3.17	
5411.50	12.500	237.57	5373.18	-12.93	-135.52	-369.78	1678507.50	14271210.32	39°18'00.156"N	80°51'55.275"W	393.76	249.869	0.96	0.17	-4.39	
5511.50	12.870	231.67	5470.74	-19.40	-148.23	-387.58	1678489.64	14271193.62	39°18'00.031"N	80°51'55.503"W	414.96	248.070	1.35	0.37	-5.90	
5611.50	13.640	234.40	5568.07	-27.32	-162.50	-405.53	1678471.59	14271183.36	39°17'59.890"N	80°51'55.732"W	436.87	248.164	0.77	0.77	-0.27	
5620.50	13.620	231.07	5576.82	-28.07	-163.82	-407.18	1678470.04	14271182.03	39°17'59.877"N	80°51'55.753"W	438.90	248.083	0.89	-0.22	-3.67	
5758.00	13.280	224.98	5710.56	-40.89	-185.15	-430.92	1678446.31	14271160.71	39°17'59.666"N	80°51'56.055"W	469.02	246.749	1.06	-0.26	-4.43	BH AT Curve <8-1/2"> (5620.50)(5758-13855)





# Actual Wellpath Report

Janice Unit 1H AWP Proj: 13880'  
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06/01/2018

REFERENCE WELLPATH IDENTIFICATION									
Operator	ANTERO RESOURCES CORPORATION								
Area	Doddridge Co. WV								
Field	Doddridge								
Facility	Long Run Pad								
Slot	Janice Unit 1H								
Well	Wellbore								
Slot #01	Janice Unit 1H AWP								

WELLPATH DATA (163 stations) † = Interpolated/extrapolated station																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
ft	°	°	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft/100ft	ft/100ft	ft/100ft	
5811.00	11.300	236.780	5762.36	-44.97	-192.30	-439.57	1678437.67	14271153.57	39°17'59.596"N	80°51'56.165"W	479.79	246.372	5.99	-3.70	22.26	
5858.00	12.090	270.290	5808.43	-44.59	-194.80	-448.35	1678428.89	14271151.07	39°17'59.571"N	80°51'56.277"W	488.84	246.516	14.35	1.68	71.30	
5906.00	13.350	283.180	5855.26	-40.10	-193.51	-458.78	1678418.47	14271152.36	39°17'59.584"N	80°51'56.409"W	497.92	247.130	6.45	2.63	26.85	
5953.00	15.030	293.010	5900.83	-33.25	-189.89	-469.67	1678407.58	14271152.98	39°17'59.620"N	80°51'56.548"W	506.60	247.986	6.24	3.57	20.91	
6001.00	18.070	303.000	5946.85	-23.34	-183.40	-481.65	1678395.61	14271162.46	39°17'59.684"N	80°51'56.700"W	515.38	249.154	8.65	6.33	20.81	
6048.00	19.420	313.280	5991.37	-10.78	-174.07	-493.46	1678383.80	14271171.79	39°17'59.777"N	80°51'56.850"W	523.26	250.569	7.56	2.87	21.81	
6096.00	21.090	320.140	6036.40	4.26	-161.97	-504.81	1678372.46	14271183.88	39°17'59.897"N	80°51'56.994"W	530.15	252.211	6.06	3.48	14.35	
6143.00	24.380	323.680	6079.75	21.35	-147.66	-515.97	1678361.29	14271198.19	39°18'00.038"N	80°51'57.136"W	536.69	254.030	7.58	7.00	7.53	
6191.00	27.470	326.410	6122.91	41.45	-130.45	-527.97	1678349.30	14271215.39	39°18'00.208"N	80°51'57.288"W	543.85	256.121	6.90	6.44	5.69	
6238.00	30.950	329.730	6163.93	63.73	-110.98	-540.06	1678337.21	14271234.86	39°18'00.401"N	80°51'57.442"W	551.35	258.388	8.16	7.40	7.06	
6286.00	35.080	331.170	6204.17	89.38	-88.22	-552.94	1678324.34	14271257.60	39°18'00.626"N	80°51'57.605"W	559.94	260.935	8.76	8.60	3.00	
6333.00	39.290	331.780	6241.61	117.32	-63.27	-566.50	1678310.79	14271282.55	39°18'00.873"N	80°51'57.777"W	570.02	263.628	8.99	8.96	1.30	
6344.00†	40.320	332.221	6250.06	124.26	-57.05	-569.80	1678307.48	14271288.76	39°18'00.935"N	80°51'57.819"W	572.65	264.283	9.71	9.36	4.01	Middlesex: 6344' MD
6382.00	43.890	333.610	6278.25	149.43	-34.36	-581.39	1678295.90	14271311.44	39°18'01.159"N	80°51'57.966"W	582.41	266.617	9.71	9.39	3.66	
6429.00	48.610	335.190	6310.74	183.10	-3.75	-596.04	1678281.26	14271342.04	39°18'01.462"N	80°51'58.152"W	596.05	269.640	10.33	10.04	3.36	
6477.00	52.940	335.980	6341.09	220.06	30.10	-611.40	1678265.91	14271375.88	39°18'01.797"N	80°51'58.347"W	612.14	272.819	9.11	9.02	1.65	
6524.00	58.240	337.140	6367.64	258.66	65.67	-626.81	1678250.50	14271411.44	39°18'02.148"N	80°51'58.542"W	630.24	275.981	11.46	11.28	2.47	
6532.00†	59.010	337.377	6371.81	285.47	71.97	-629.45	1678247.87	14271417.73	39°18'02.211"N	80°51'58.575"W	633.55	276.523	9.98	9.65	2.97	Burket: 6532' MD
6572.00	62.880	338.510	6391.23	300.35	104.37	-642.57	1678234.75	14271450.12	39°18'02.531"N	80°51'58.742"W	650.99	279.226	9.98	9.67	2.83	
6592.00†	64.080	338.579	6400.16	318.22	121.03	-649.11	1678228.21	14271466.77	39°18'02.696"N	80°51'58.825"W	660.30	280.562	6.01	6.00	0.35	Tully: 6592' MD
6619.00	65.700	338.670	6411.62	342.63	143.79	-658.02	1678219.30	14271489.53	39°18'02.921"N	80°51'58.938"W	673.55	282.327	6.01	6.00	0.34	
6653.00†	68.661	338.734	6424.80	373.92	172.99	-669.41	1678207.92	14271518.71	39°18'03.210"N	80°51'59.082"W	691.40	284.490	8.71	8.71	0.19	Hamilton: 6653' MD
6667.00	69.880	338.760	6429.76	387.00	185.19	-674.15	1678203.18	14271530.91	39°18'03.330"N	80°51'59.142"W	699.13	285.361	8.71	8.71	0.18	
6670.00†	70.204	338.807	6430.78	389.81	187.82	-675.17	1678202.16	14271533.54	39°18'03.356"N	80°51'59.155"W	700.81	285.546	10.91	10.81	1.57	Marcellus POE: 6670' MD
6714.00	74.960	339.480	6443.95	431.74	227.04	-690.11	1678187.22	14271572.74	39°18'03.744"N	80°51'59.344"W	726.50	288.211	10.91	10.81	1.53	
6762.00	79.480	341.030	6454.56	478.52	271.09	-705.92	1678171.43	14271616.77	39°18'04.180"N	80°51'59.544"W	756.18	291.008	9.93	9.42	3.23	
6809.00	84.480	341.910	6461.12	525.05	315.20	-720.70	1678156.65	14271660.87	39°18'04.616"N	80°51'59.732"W	786.61	293.623	10.80	10.64	1.87	
6857.00	89.170	341.430	6463.78	572.96	350.69	-735.77	1678141.59	14271706.33	39°18'05.066"N	80°51'59.923"W	819.42	296.115	9.82	9.77	-1.00	
6952.00	89.940	334.770	6464.51	667.71	448.78	-771.18	1678106.19	14271794.39	39°18'05.937"N	80°52'00.371"W	892.26	300.197	7.06	0.81	-0.01	
7047.00	91.450	332.060	6463.36	761.69	533.72	-813.69	1678063.70	14271879.29	39°18'06.777"N	80°52'00.910"W	973.11	303.262	3.27	1.59	-2.85	





# Actual Wellpath Report

Janice Unit 1H AWP Proj: 13880'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Janice Unit 1H
Field	Doddridge	Wellbore	Janice Unit 1H AWB
Facility	Long Run Pad		

## WELLPATH DATA (163 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
MM	°	°	MM	MM	MM	MM	USM	USM			MM	°	°/100M	°/100M	°/100M	
7142.00	91.230	341.150	6461.14	856.18	620.79	-851.36	1678026.04	14271966.33	39°18'07.638"N	80°52'01.388"W	1053.66	306.099	9.57	-0.23	9.57	
7237.00	90.860	342.240	6459.40	951.16	710.97	-881.19	1677996.22	14272056.47	39°18'08.530"N	80°52'01.766"W	1132.24	308.898	1.21	-0.39	1.15	
7333.00	89.970	340.700	6458.71	1047.16	801.98	-911.70	1677965.73	14272147.45	39°18'09.430"N	80°52'02.152"W	1214.24	311.337	1.85	-0.93	-1.60	
7428.00	89.910	339.410	6458.81	1142.11	891.28	-944.10	1677933.33	14272236.72	39°18'10.313"N	80°52'02.563"W	1298.35	313.352	1.36	-0.06	-1.36	
7523.00	89.910	341.350	6458.96	1237.08	980.76	-976.00	1677901.45	14272326.16	39°18'11.198"N	80°52'02.967"W	1383.65	315.140	2.04	0.00	2.04	
7618.00	89.970	344.590	6459.06	1332.05	1071.59	-1003.82	1677873.64	14272416.95	39°18'12.086"N	80°52'03.319"W	1468.32	316.870	3.41	0.06	3.41	
7713.00	89.940	348.420	6459.13	1426.70	1163.95	-1025.98	1677851.49	14272502.35	39°18'13.009"N	80°52'03.599"W	1551.59	318.605	4.03	-0.03	4.03	
7808.00	89.860	348.720	6459.30	1521.03	1257.06	-1044.81	1677832.67	14272592.62	39°18'13.930"N	80°52'03.837"W	1634.58	320.268	0.33	-0.09	0.32	
7903.00	89.940	347.560	6459.48	1615.44	1350.03	-1064.34	1677813.15	14272685.28	39°18'14.849"N	80°52'04.084"W	1719.13	321.749	1.22	0.09	-1.22	
7998.00	89.150	346.250	6459.40	1710.05	1442.56	-1085.86	1677791.64	14272780.56	39°18'15.764"N	80°52'04.356"W	1805.57	323.030	1.40	0.22	-1.38	
8094.00	89.940	344.230	6459.33	1805.87	1535.39	-1110.32	1677767.19	14272880.56	39°18'16.682"N	80°52'04.665"W	1894.79	324.127	2.12	-0.22	-2.10	
8188.00	90.220	345.500	6459.20	1899.73	1626.13	-1134.86	1677742.66	14272971.26	39°18'17.579"N	80°52'04.976"W	1982.97	325.089	1.38	0.30	1.35	
8283.00	90.090	345.220	6459.94	1994.54	1718.04	-1158.87	1677718.66	14273063.14	39°18'18.488"N	80°52'05.279"W	2072.35	325.999	0.32	-0.14	-0.29	
8378.00	90.520	343.470	6458.43	2089.43	1809.51	-1184.50	1677693.03	14273154.58	39°18'19.392"N	80°52'05.604"W	2162.72	326.791	1.90	0.45	-1.84	
8473.00	89.940	341.790	6458.05	2184.42	1900.17	-1212.86	1677664.68	14273245.20	39°18'20.289"N	80°52'05.963"W	2254.26	327.450	1.87	-0.61	-1.77	
8568.00	89.970	339.100	6458.13	2279.38	1989.69	-1244.66	1677632.90	14273334.68	39°18'21.174"N	80°52'06.366"W	2346.92	327.972	2.83	0.03	-2.83	
8663.00	89.910	336.260	6458.23	2374.14	2077.56	-1280.73	1677596.84	14273422.52	39°18'22.043"N	80°52'06.823"W	2440.60	328.348	2.99	-0.06	-2.99	
8758.00	90.000	332.980	6458.30	2468.39	2163.38	-1321.45	1677556.14	14273508.30	39°18'22.891"N	80°52'07.339"W	2535.04	328.582	3.45	0.09	-3.45	
8852.00	89.910	336.310	6458.38	2561.65	2248.31	-1361.69	1677515.91	14273593.20	39°18'23.731"N	80°52'07.850"W	2628.52	328.789	3.54	-0.10	3.54	
8947.00	89.910	340.880	6458.53	2656.48	2336.74	-1396.35	1677481.26	14273681.59	39°18'24.606"N	80°52'08.289"W	2722.16	329.139	4.81	0.00	4.81	
9042.00	89.850	341.120	6458.72	2751.48	2426.56	-1427.28	1677450.35	14273771.38	39°18'25.484"N	80°52'08.681"W	2815.20	329.536	0.26	-0.06	0.25	
9137.00	89.850	341.880	6458.97	2846.47	2516.65	-1457.43	1677420.22	14273861.43	39°18'26.385"N	80°52'09.063"W	2908.20	329.924	0.80	0.00	0.80	
9231.00	89.940	342.680	6459.15	2940.47	2606.19	-1486.04	1677391.62	14273950.94	39°18'27.270"N	80°52'09.425"W	3000.09	330.308	0.86	0.10	0.85	
9326.00	89.910	343.380	6459.27	3035.44	2697.05	-1513.76	1677363.90	14274041.76	39°18'28.169"N	80°52'09.776"W	3092.83	330.696	0.74	-0.03	0.74	
9420.00	89.910	342.870	6459.42	3129.42	2787.00	-1541.05	1677336.63	14274131.66	39°18'29.058"N	80°52'10.122"W	3184.69	331.060	0.54	0.00	-0.54	
9515.00	89.970	341.590	6459.52	3224.41	2877.47	-1570.04	1677307.64	14274222.11	39°18'29.953"N	80°52'10.489"W	3277.94	331.382	1.35	0.06	-1.35	
9610.00	89.660	342.680	6459.82	3319.41	2967.89	-1599.19	1677278.51	14274312.49	39°18'30.847"N	80°52'10.858"W	3371.31	331.683	1.19	-0.33	1.15	
9705.00	90.060	344.250	6460.06	3414.36	3058.95	-1626.22	1677251.49	14274403.52	39°18'31.747"N	80°52'11.200"W	3464.36	332.004	1.71	0.42	1.65	
9801.00	89.880	343.360	6460.11	3510.30	3151.14	-1653.00	1677224.72	14274495.67	39°18'32.659"N	80°52'11.539"W	3558.39	332.320	0.95	-0.19	-0.93	
9896.00	89.970	343.200	6460.23	3605.28	3242.13	-1680.33	1677197.40	14274586.62	39°18'33.559"N	80°52'11.885"W	3651.70	332.603	0.19	0.09	-0.17	





# Actual Wellpath Report

Janice Unit 1H AWP Proj: 13880'  
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #01
Operator	ANTERO RESOURCES CORPORATION	Well	Janice Unit 1H
Area	Doddridge Co., WV	Wellbore	Janice Unit 1H AWB
Field	Doddridge		
Facility	Long Run Pad		

WELLPATH DATA (163 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
ft	°	°	ft	ft	ft	ft	ft	ft	°	°	ft	ft	ft/100ft	ft/100ft	ft/100ft	
9991.00	89.850	341.800	6460.38	3700.25	3332.73	-1708.90	1677168.85	14274677.18	39°18'34.454"N	80°52'12.247"W	3745.32	332.853	1.48	-0.13	-1.47	
10086.00	89.820	339.660	6460.65	3795.23	3422.40	-1740.25	1677137.51	14274766.82	39°18'35.241"N	80°52'12.644"W	3839.44	333.047	2.25	-0.03	-2.25	
10181.00	89.940	342.380	6460.85	3890.22	3512.23	-1771.14	1677106.63	14274856.61	39°18'36.229"N	80°52'13.036"W	3933.53	333.239	2.87	0.13	2.86	
10277.00	90.000	344.350	6460.90	3986.17	3604.20	-1798.62	1677079.16	14274948.55	39°18'37.139"N	80°52'13.384"W	4028.07	333.479	2.05	0.06	2.05	
10372.00	90.000	341.610	6460.90	4081.14	3695.04	-1826.43	1677051.37	14275039.35	39°18'38.037"N	80°52'13.736"W	4121.79	333.697	2.88	0.00	-2.88	
10467.00	90.060	338.840	6460.85	4176.10	3784.42	-1858.56	1677019.24	14275128.70	39°18'38.921"N	80°52'14.143"W	4216.17	333.844	2.92	0.06	-2.92	
10562.00	90.220	340.370	6460.62	4271.03	3873.47	-1891.67	1676986.15	14275217.71	39°18'39.802"N	80°52'14.562"W	4310.70	333.971	1.62	0.17	1.61	
10656.00	90.250	341.490	6460.23	4365.02	3962.31	-1922.38	1676955.45	14275306.51	39°18'40.680"N	80°52'14.951"W	4404.02	334.119	1.19	0.03	1.19	
10751.00	90.310	341.070	6459.77	4460.01	4052.28	-1952.87	1676924.97	14275396.45	39°18'41.570"N	80°52'15.338"W	4498.29	334.270	0.45	0.06	-0.44	
10845.00	90.310	341.680	6459.26	4554.01	4141.35	-1982.89	1676894.99	14275485.49	39°18'42.451"N	80°52'15.718"W	4591.59	334.415	0.65	0.00	0.65	
10940.00	90.120	342.410	6458.91	4649.01	4231.73	-2012.18	1676865.69	14275575.82	39°18'43.344"N	80°52'16.089"W	4685.76	334.569	0.79	-0.20	0.77	
11034.00	90.490	340.570	6458.40	4743.00	4320.86	-2042.02	1676835.86	14275664.92	39°18'44.226"N	80°52'16.467"W	4779.08	334.705	2.00	0.39	-1.96	
11129.00	90.340	340.860	6457.72	4837.98	4410.62	-2073.40	1676804.49	14275754.55	39°18'45.112"N	80°52'16.865"W	4873.67	334.822	0.33	-0.16	0.29	
11223.00	90.830	341.010	6456.76	4931.97	4499.36	-2104.11	1676773.79	14275843.35	39°18'45.991"N	80°52'17.254"W	4967.04	334.937	0.55	0.52	0.17	
11318.00	90.340	342.900	6455.79	5026.96	4589.68	-2133.53	1676744.38	14275933.63	39°18'46.884"N	80°52'17.627"W	5061.33	335.068	2.06	-0.52	1.99	
11413.00	90.400	342.890	6455.17	5121.94	4680.47	-2161.47	1676716.45	14276024.39	39°18'47.782"N	80°52'17.980"W	5155.46	335.212	0.06	0.06	-0.01	
11507.00	90.340	343.420	6454.57	5215.91	4770.44	-2188.71	1676689.22	14276114.32	39°18'48.671"N	80°52'18.325"W	5248.57	335.354	0.57	-0.06	0.56	
11601.00	90.370	342.900	6453.98	5309.87	4860.40	-2215.94	1676662.00	14276204.25	39°18'49.561"N	80°52'18.670"W	5341.72	335.491	0.55	0.03	-0.55	
11696.00	90.460	343.060	6453.30	5404.85	4951.24	-2243.75	1676634.21	14276295.05	39°18'50.459"N	80°52'19.022"W	5435.92	335.621	0.19	0.09	0.17	
11790.00	90.220	343.180	6452.74	5498.82	5041.19	-2271.04	1676606.92	14276384.96	39°18'51.348"N	80°52'19.368"W	5529.13	335.749	0.29	-0.26	0.13	
11885.00	89.940	341.190	6452.61	5593.81	5131.63	-2300.11	1676577.87	14276475.36	39°18'52.243"N	80°52'19.736"W	5623.53	335.857	2.12	-0.29	-2.09	
11980.00	90.150	340.760	6452.53	5688.80	5221.44	-2331.08	1676546.92	14276565.14	39°18'53.131"N	80°52'20.128"W	5718.16	335.942	0.50	0.22	-0.45	
12074.00	90.180	340.890	6452.26	5782.79	5310.22	-2361.96	1676515.06	14276653.89	39°18'54.009"N	80°52'20.500"W	5811.82	336.021	0.14	0.03	0.14	
12170.00	90.220	342.050	6451.93	5878.79	5401.24	-2392.46	1676485.56	14276744.87	39°18'54.909"N	80°52'20.906"W	5907.39	336.109	1.21	0.04	1.21	
12265.00	89.880	341.830	6451.84	5973.79	5491.56	-2421.91	1676456.12	14276835.16	39°18'55.802"N	80°52'21.279"W	6001.91	336.201	0.43	-0.36	-0.23	
12359.00	89.940	342.590	6451.99	6067.78	5581.07	-2450.63	1676427.41	14276924.62	39°18'56.687"N	80°52'21.643"W	6095.40	336.294	0.81	0.06	0.81	
12455.00	89.910	342.720	6452.12	6163.77	5672.70	-2479.25	1676398.80	14277016.22	39°18'57.593"N	80°52'22.006"W	6190.82	336.392	0.14	-0.03	0.14	
12550.00	89.910	343.090	6452.26	6258.75	5763.51	-2507.17	1676370.89	14277106.99	39°18'58.491"N	80°52'22.359"W	6285.21	336.491	0.39	0.00	0.39	
12645.00	90.030	341.990	6452.31	6353.74	5854.13	-2535.68	1676342.40	14277197.57	39°18'59.387"N	80°52'22.700"W	6379.69	336.580	1.16	0.13	-1.16	
12740.00	89.910	340.880	6452.36	6448.74	5944.18	-2565.92	1676312.16	14277287.59	39°19'00.277"N	80°52'23.104"W	6474.35	336.652	1.18	-0.13	-1.17	





# Actual Wellpath Report

Janice Unit 1H AWP Proj: 13880'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Janice Unit 1H
Field	Doddridge	Wellbore	Janice Unit 1H AWP
Facility	Long Run Pad		

WELLPATH DATA (163 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
ft	°	°	ft	ft	ft	ft	ft	ft	°	°	ft	°	ft/100ft	ft/100ft	ft/100ft	
12835.00	89.910	339.410	6452.51	6543.70	6033.53	-2598.19	1676279.91	14277376.91	39°19'01.161"N	80°52'23.512"W	6569.18	336.702	1.55	0.00	-1.55	
12930.00	90.000	339.190	6452.59	6638.61	6122.40	-2631.77	1676246.34	14277465.74	39°19'02.040"N	80°52'23.938"W	6664.08	336.739	0.25	0.09	-0.23	
13025.00	89.910	338.680	6452.66	6733.50	6211.05	-2665.91	1676212.21	14277554.35	39°19'02.916"N	80°52'24.371"W	6759.01	336.770	0.55	-0.09	-0.54	
13120.00	89.820	340.770	6452.89	6828.43	6300.16	-2698.83	1676179.31	14277643.43	39°19'03.797"N	80°52'24.788"W	6853.88	336.811	2.20	-0.09	2.20	
13215.00	89.970	341.810	6453.06	6923.43	6390.14	-2729.31	1676148.85	14277733.37	39°19'04.687"N	80°52'25.174"W	6948.59	336.872	1.11	0.16	-1.09	
13311.00	89.970	341.430	6453.11	7019.43	6481.24	-2759.58	1676118.59	14277824.44	39°19'05.588"N	80°52'25.558"W	7044.27	336.937	0.40	0.00	-0.40	
13406.00	89.970	340.250	6453.16	7114.41	6570.98	-2790.76	1676087.42	14277914.14	39°19'06.475"N	80°52'25.953"W	7139.05	336.989	1.24	0.00	-1.24	
13501.00	90.000	342.040	6453.19	7209.40	6660.87	-2821.46	1676056.73	14278004.00	39°19'07.364"N	80°52'26.342"W	7233.80	337.043	1.88	0.03	-1.88	
13596.00	89.880	341.710	6453.29	7304.40	6751.16	-2851.01	1676027.19	14278094.25	39°19'08.257"N	80°52'26.716"W	7328.47	337.106	0.37	-0.13	-0.35	
13691.00	90.060	344.610	6453.33	7399.37	6842.08	-2878.53	1675999.68	14278185.13	39°19'09.156"N	80°52'27.065"W	7422.93	337.183	3.06	0.19	3.05	
13786.00	90.430	345.530	6452.93	7494.20	6933.87	-2903.00	1675975.22	14278276.88	39°19'10.064"N	80°52'27.375"W	7517.04	337.282	1.04	0.39	0.97	
13855.00	90.460	344.250	6452.39	7563.10	7000.48	-2920.99	1675957.24	14278367.52	39°19'10.722"N	80°52'27.602"W	7585.44	337.351	1.86	0.04	-1.86	
13880.00	90.460	344.250	6452.19	7588.07	7024.54	-2927.77	1675950.46	14278367.52	39°19'10.960"N	80°52'27.688"W	7610.26	337.374	0.00	0.00	0.00	Projected MD at TD: 13880'

## HOLE & CASING SECTIONS - Ref Wellbore: Janice Unit 1H AWP Proj: 13880'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start EW [ft]	End N/S [ft]	End EW [ft]
20in Conductor	24.50	64.50	40.00	24.50	64.50	0.00	0.00	0.02	-0.07
17.5in Open Hole	64.50	524.10	459.60	64.50	524.09	0.02	-0.07	0.72	1.00
13.375in Casing Surface	24.50	524.10	499.60	24.50	524.09	0.00	0.00	0.72	1.00
12.25in Open Hole	524.10	2534.50	2010.40	524.09	2533.76	0.72	1.00	18.00	-5.55
9.625in Casing Intermediate	24.50	2534.50	2510.00	24.50	2533.76	0.00	0.00	18.00	-5.55
8.75in Open Hole	2534.50	5766.50	3232.00	2533.76	5718.84	18.00	-5.55	-186.49	-432.30
8.5in Open Hole	5766.50	13880.00	8113.50	5718.84	6452.19	-186.49	-432.30	7024.54	-2927.77
5.5in Casing Production	24.50	13880.00	13855.50	24.50	6452.19	0.00	0.00	7024.54	-2927.77





# Actual Wellpath Report

Janice Unit 1H AWP Proj: 13880'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Janice Unit 1H
Field	Doddridge	Wellbore	Janice Unit 1H AWB
Facility	Long Run Pad		

## TARGETS

Name	TVD (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Shape
Janice Unit 1H POE - Rev-1	6449.50	210.74	-686.79	1678190.54	14271556.45	39°18'03.583"N	80°51'59.302"W	point
Janice Unit 1H BHL - Rev-1	6473.50	7048.31	-2940.99	1675937.25	14278391.28	39°19'11.195"N	80°52'27.856"W	point
Janice Unit 1H LP Rev-1	6473.50	352.70	-733.59	1678143.76	14271698.35	39°18'04.987"N	80°51'59.895"W	point

## WELLPATH COMPOSITION - Ref Wellbore: Janice Unit 1H AWB Ref Wellpath: Janice Unit 1H AWP Proj: 13880'

Start MD (ft)	End MD (ft)	Positional Uncertainty Model	Log Name/Comment	Wellbore
24.50	5620.50	Gyrodata standard - Drop gyro or Multi-shot	05 Gyrodata MS Gyro <8-3/4"> (100'-5609')	Janice Unit 1H AWB
5620.50	13855.00	BH AutoTrak Curve (Short)	06 BH AT Curve <8-1/2"> (5620.50)(5758'-13855')	Janice Unit 1H AWB
13855.00	13880.00	Blind Drilling (sid)	Projection to bit	Janice Unit 1H AWB





# Actual Wellpath Report

Janice Unit 1H AWP Proj: 13880'  
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## REFERENCE WELLPATH IDENTIFICATION

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Area	Doddridge Co., WV	Well	Janice Unit 1H
Field	Doddridge	Wellbore	Janice Unit 1H AWP
Facility	Long Run Pad		

## COMMENTS

Wellpath general comments  
 API: 47-017-06780-0000  
 BHI Job #: 8448852  
 Rig: Frontier 22  
 Duration: 03/15/2017-03/19/2017  
 Gyrodala MS Gyro <8-3/4"> (100'-5609')  
 BHI AT Curve <8-1/2"> (5620.50')(5758'-13855')  
 Middlesex: 6344' MD  
 Burket: 6532' MD  
 Tully: 6592' MD  
 Hamilton: 6653' MD  
 Marcellus POE: 6670' MD  
 Projected MD at TD: 13880'