



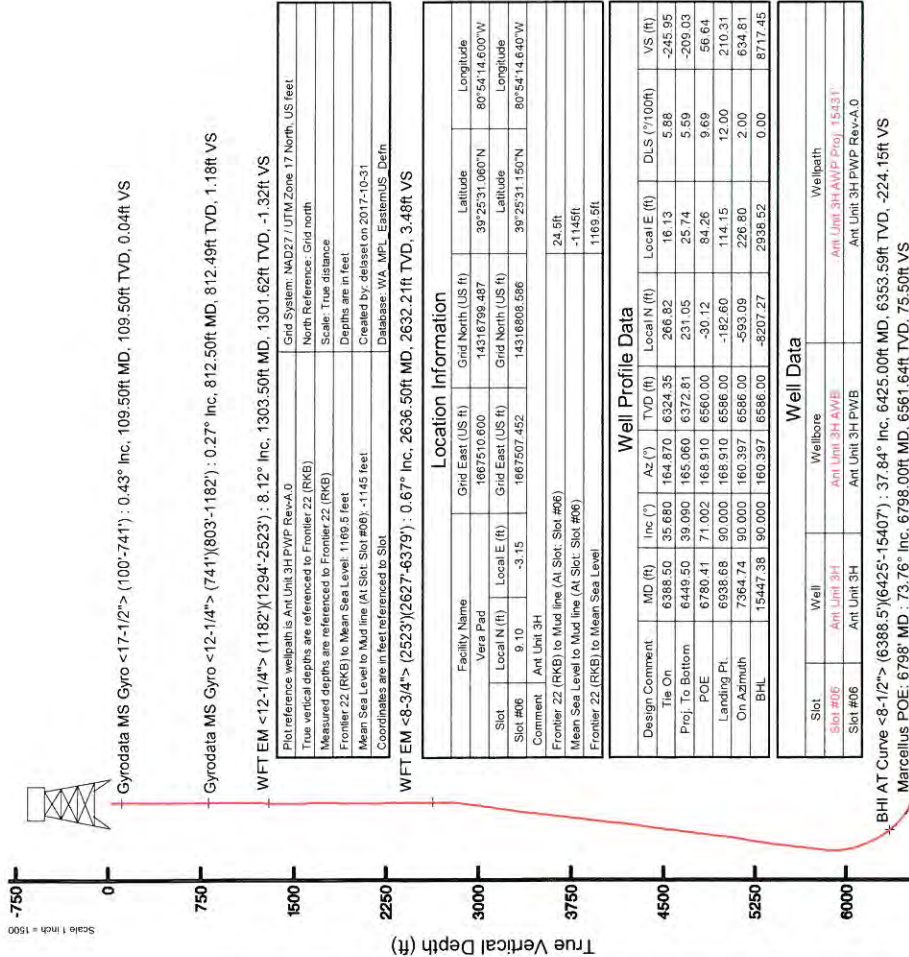
# ANTERO RESOURCES CORPORATION

Location: Tyler County, WV  
 Field: Tyler  
 Facility: Vera Pad

Slot: Slot #06  
 Well: Ant Unit 3H  
 Wellbore: Ant Unit\_3H\_PWB



API: 47-095-02402-0000  
 BHI Job #: 8754395  
 Rig: Frontier 22  
 Duration: 09/11/2017-09/13/2017



Gyrodatta MS Gyro <17-1/2° > (100-741°) : 0.43° Inc, 109.50ft MD, 109.50ft TVD, 0.04ft VS

Gyrodatta MS Gyro <12-1/4° > (741°)(803-1182°) : 0.27° Inc, 812.50ft MD, 812.49ft TVD, 1.18ft VS

WFT EM <12-1/4° > (1182°)(1294-2523°) : 8.12° Inc, 1303.50ft MD, 1301.62ft TVD, -1.32ft VS

Plot reference wellpath is Ant Unit\_3H\_PWB\_Rev-A.0

Grid System: NAD27 / UTM Zone 17 North, US feet

North Reference: Grid North

Scale: True distance

Measured depths are referenced to Frontier 22 (RKB)

Frontier 22 (RKB) to Mean Sea Level: 1169.5 feet

Depths are in feet

Mean Sea Level to Mud line (At Slot: Slot #06) : -11.45 feet

Coordinates are in feet referenced to Slot

Created by: delasson.2017-10-31

Database: WA\_MFL\_EasternUS\_Defn

WFT EM <8-3/4° > (2523°)(2627-6379°) : 0.67° Inc, 2636.50ft MD, 2632.21ft TVD, 3.48ft VS

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Vera Pad	1667510.600	14316799.487	39°25'31.060"N	80°54'14.600"W
Slot	Local E (ft)	Grid East (US ft)	Latitude	Longitude
Slot #06	9.10	1667507.452	39°25'31.150"N	80°54'14.640"W
Comment	Ant Unit 3H			
Frontier 22 (RKB) to Mud line (At Slot: Slot #06)			24.5ft	
Mean Sea Level to Mud line (At Slot: Slot #06)			-11.45ft	
Frontier 22 (RKB) to Mean Sea Level			1169.5ft	

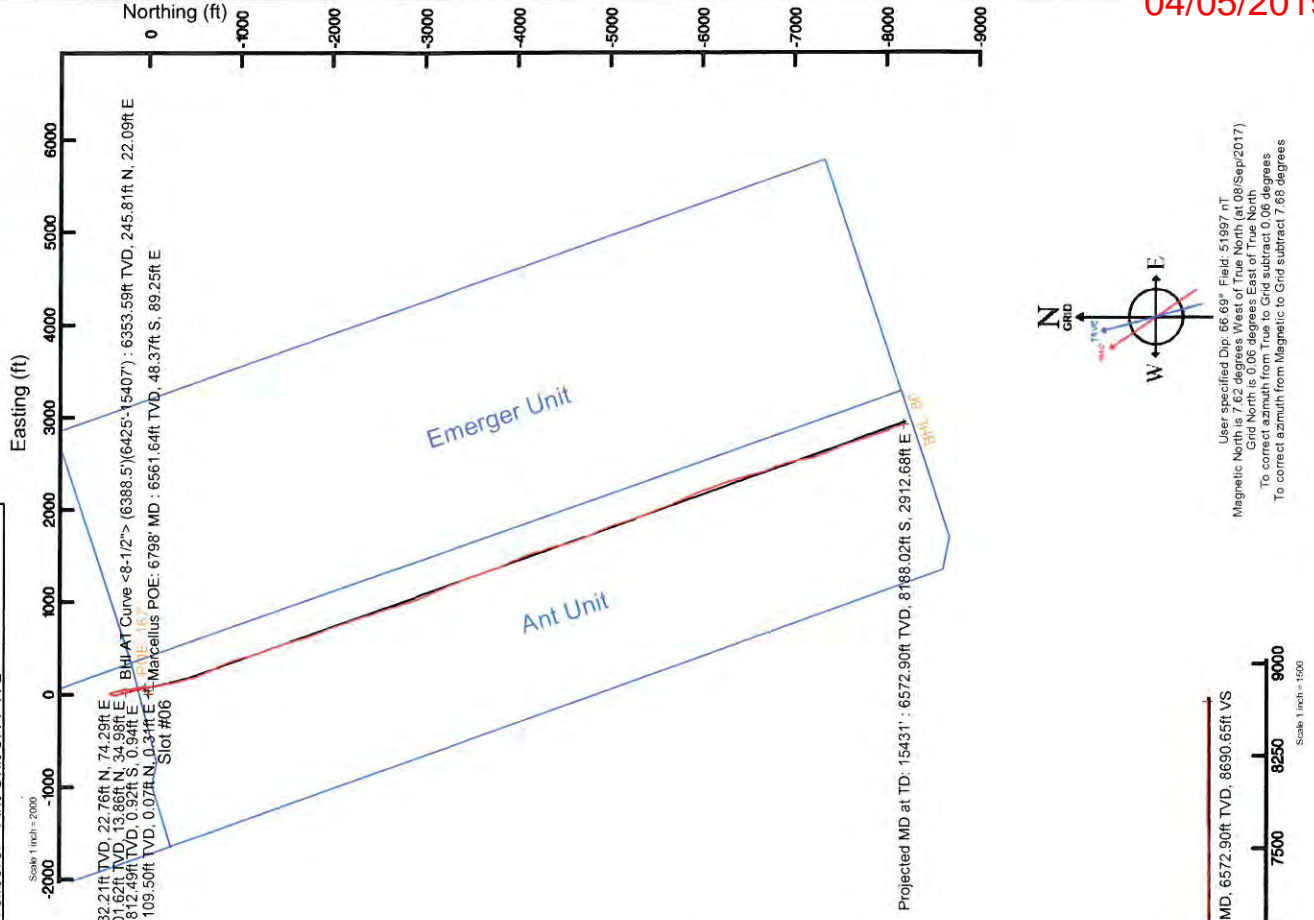
Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local E (ft)	Local N (ft)	DLS (°/100ft)	VS (ft)
Tie On	6385.50	35.680	164.870	6324.35	266.82	16.13	5.88	-245.95
Proj. To Bottom	6449.50	39.090	165.060	6372.81	231.05	25.74	5.59	-209.03
POE	6780.41	71.002	168.910	6560.00	-30.12	84.26	9.69	56.64
Landing Pt.	6936.68	90.000	168.910	6586.00	-182.60	114.15	12.00	210.31
On Azimuth	7364.74	90.000	160.397	6586.00	-593.09	226.80	2.00	634.81
BHL	15447.38	90.000	160.397	6586.00	-8207.27	2938.52	0.00	8717.45

Well Data		
Slot	Well	Wellbore
Slot #06	Ant Unit 3H	Ant Unit_3H_PWB
Slot #06	Ant Unit 3H	Ant Unit_3H_PWB_Rev-A.0

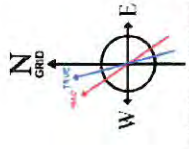
BHI AT Curve <8-1/2° > (6388.5°)(6425-15407°) : 37.84° Inc, 6425.00ft MD, 6353.59ft TVD, -224.15ft VS

Marcellus POE: 6798 MD : 73.76° Inc, 6798.00ft MD, 6561.64ft TVD, 75.50ft VS

Projected MD at TD: 15431' : 90.03° Inc, 15431.00ft MD, 6572.90ft TVD, 8690.65ft VS



WFT EM <8-3/4° > (2523°)(2627-6379°) : 2632.21ft TVD, 22.76ft N, 74.29ft E  
 WFT EM <12-1/4° > (1182°)(1294-2523°) : 1301.62ft TVD, 13.88ft N, 34.98ft E  
 Gyrodatta MS Gyro <12-1/4° > (741°)(803-1182°) : 812.49ft TVD, 0.52ft S, 0.94ft E  
 Gyrodatta MS Gyro <17-1/2° > (100-741°) : 109.50ft TVD, 0.07ft N, 0.34ft E  
 Slot #06  
 Marcellus POE: 6798 MD : 6561.64ft TVD, 48.37ft S, 89.25ft E



User specified Dip: 66.69° Field: 51957 nT  
 Magnetic North is 7.62 degrees West of True North (at 08/09/2017)  
 Grid North is 0.06 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.06 degrees  
 To correct azimuth from Magnetic to Grid subtract 7.66 degrees

04/05/2019



# Actual Wellpath Report

Ant Unit 3H AWP Proj: 15431'

Page 1 of 10



REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Vera Pad
Slot	Slot #06
Well	Ant Unit 3H
Wellbore	Ant Unit 3H AWB

REPORT SETUP INFORMATION	
Projection System	NAD27 / UTM Zone 17 North, US feet
North Reference	Grid
Scale	0.999601
Convergence at slot	0.06° East
Software System	WellArchitect® 5.1
User	Delaset
Report Generated	31/Oct/2017 at 16:52
Database/Source file	WA_MPL_EasternUS_Defn/Ant_Unit_3H_AWP_Proj_15431_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North [ft]	East [ft]	Easting [US ft]	Northing [US ft]	Latitude	Longitude
Slot Location	9.10	-3.15	1667507.45	14316808.59	39°25'31.150"N	80°54'14.640"W
Facility Reference Pt			1667510.60	14316799.49	39°25'31.060"N	80°54'14.600"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM	
Calculation method	Minimum curvature
Horizontal Reference Pt	Slot
Vertical Reference Pt	Frontier 22 (RKB)
MD Reference Pt	Frontier 22 (RKB)
Field Vertical Reference	Mean Sea Level
	Frontier 22 (RKB) to Facility Vertical Datum
	Frontier 22 (RKB) to Mean Sea Level
	Frontier 22 (RKB) to Mud Line at Slot (Slot #06)
	Section Origin
	Section Azimuth
	24.50ft
	1169.50ft
	24.50ft
	N 0.00, E 0.00 ft
	160.40°





# Actual Wellpath Report

Ant Unit 3H AWP Proj: 15431'

Page 2 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Ant Unit 3H
Field	Tyler	Wellbore	Ant Unit 3H AWB
Facility	Vera Pad		

## WELLPATH DATA (187 stations) † = interpolated/extrapolated station

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	VertSect (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†	0.000	77.680	0.00	0.00	0.00	0.00	1667507.45	14316808.59	39°25'31.150"N	80°54'14.640"W	0.00	0.000	0.00	0.00	0.00	
24.50	0.000	77.680	24.50	0.00	0.00	0.00	1667507.45	14316808.59	39°25'31.150"N	80°54'14.640"W	0.00	0.000	0.00	0.00	0.00	
109.50	0.430	77.680	109.50	0.04	0.07	0.31	1667507.76	14316808.65	39°25'31.151"N	80°54'14.636"W	0.32	77.680	0.51	0.51	91.39	Gyrodata MS Gyro <17-1/2"> (100'-741')
209.50	0.330	95.680	209.50	0.21	0.12	0.96	1667508.42	14316808.71	39°25'31.151"N	80°54'14.628"W	0.97	82.932	0.15	-0.10	18.00	
309.50	0.130	177.960	309.50	0.44	-0.02	1.26	1667508.71	14316808.56	39°25'31.150"N	80°54'14.624"W	1.26	91.016	0.34	-0.20	82.28	
409.50	0.090	257.520	409.50	0.54	-0.15	1.18	1667508.63	14316808.43	39°25'31.148"N	80°54'14.625"W	1.19	97.352	0.14	-0.04	79.56	
509.50	0.120	195.560	509.50	0.62	-0.27	1.08	1667508.53	14316808.32	39°25'31.147"N	80°54'14.626"W	1.11	104.085	0.11	0.03	-61.96	
609.50	0.090	187.990	609.50	0.77	-0.45	1.04	1667508.49	14316808.14	39°25'31.143"N	80°54'14.628"W	1.23	127.039	0.16	0.16	4.82	
709.50	0.250	192.710	709.50	1.03	-0.74	0.98	1667508.43	14316807.85	39°25'31.143"N	80°54'14.628"W	1.28	134.733	0.25	0.00	58.85	
750.50	0.250	216.840	750.50	1.15	-0.90	0.91	1667508.36	14316807.69	39°25'31.141"N	80°54'14.628"W	1.31	134.250	0.83	0.03	-266.65	Gyrodata MS Gyro <12-1/4"> (741')(803'-1182')
812.50	0.270	51.520	812.49	1.18	-0.92	0.94	1667508.39	14316807.67	39°25'31.141"N	80°54'14.613"W	2.15	93.564	1.27	1.26	7.00	
907.50	1.470	58.170	907.48	0.85	-0.13	2.15	1667509.60	14316808.45	39°25'31.149"N	80°54'14.613"W	5.91	72.011	1.97	1.97	3.61	
1002.50	3.340	61.600	1002.39	0.17	1.83	5.62	1667513.07	14316810.41	39°25'31.168"N	80°54'14.568"W	12.98	68.600	2.07	2.00	7.17	
1097.50	5.240	68.410	1097.12	-0.41	4.74	12.09	1667519.54	14316813.32	39°25'31.197"N	80°54'14.486"W	22.96	68.728	1.81	1.81	0.90	
1191.50	6.940	69.260	1190.59	-0.67	8.33	21.39	1667528.84	14316816.91	39°25'31.232"N	80°54'14.194"W	37.63	68.387	1.10	1.05	-2.33	WFT EM <12-1/4"> (1182')(1294'-2523')
1303.50	8.120	66.650	1301.62	-1.32	13.86	34.98	1667542.42	14316822.44	39°25'31.287"N	80°54'14.042"W	50.62	68.010	0.54	-0.54	0.59	
1398.50	7.610	67.210	1395.73	-2.11	18.96	46.94	1667554.38	14316827.53	39°25'31.337"N	80°54'13.907"W	61.81	68.400	1.82	-1.62	7.06	
1492.50	6.090	73.650	1489.06	-2.18	22.75	57.47	1667564.90	14316831.33	39°25'31.374"N	80°54'13.799"W	70.51	69.332	1.73	-1.66	5.11	
1587.50	4.510	78.700	1583.65	-1.31	24.89	65.97	1667573.40	14316833.46	39°25'31.395"N	80°54'13.717"W	77.03	70.023	1.07	-1.05	-3.03	
1681.50	3.520	75.850	1677.42	-0.51	26.32	72.40	1667579.82	14316834.99	39°25'31.409"N	80°54'13.665"W	81.38	70.097	1.95	-1.85	-14.02	
1776.50	1.760	62.530	1772.31	-0.43	27.70	76.52	1667583.94	14316836.28	39°25'31.423"N	80°54'13.665"W	82.54	69.675	2.22	-1.21	-123.15	
1871.50	0.610	305.540	1867.30	-1.04	28.67	77.40	1667584.82	14316837.24	39°25'31.433"N	80°54'13.676"W	80.83	69.241	1.48	1.19	-50.68	
1966.50	1.740	257.390	1962.28	-1.64	28.65	75.58	1667583.00	14316837.22	39°25'31.432"N	80°54'13.706"W	78.42	69.085	0.59	-0.55	-7.96	
2060.50	1.220	249.910	2056.25	-1.80	27.99	73.25	1667580.67	14316836.02	39°25'31.426"N	80°54'13.721"W	77.15	69.160	0.97	-0.93	-26.07	
2154.50	0.350	225.400	2150.24	-1.67	27.45	72.11	1667579.53	14316836.02	39°25'31.421"N	80°54'13.720"W	76.93	69.696	0.73	0.40	-73.79	
2249.50	0.730	155.300	2245.23	-0.94	26.70	72.15	1667579.58	14316835.27	39°25'31.413"N	80°54'13.712"W	77.14	70.662	0.18	0.14	-8.05	
2344.50	0.860	147.650	2340.22	0.35	25.54	72.79	1667580.21	14316834.12	39°25'31.402"N	80°54'13.704"W	77.40	71.646	0.11	-0.07	5.38	
2438.50	0.790	152.710	2434.21	1.68	24.37	73.46	1667580.88	14316832.95	39°25'31.390"N	80°54'13.700"W	77.38	72.383	0.48	-0.35	30.86	
2532.50	0.460	181.720	2528.21	2.68	23.42	73.75	1667581.17	14316831.99	39°25'31.381"N	80°54'13.693"W	77.70	72.967	0.63	0.20	-65.87	WFT EM <8-3/4"> (2523')(2627'-6379')
2636.50	0.670	113.220	2632.21	3.48	22.76	74.29	1667581.72	14316831.72	39°25'31.374"N	80°54'13.693"W	77.70	72.967	0.63	0.20	-65.87	WFT EM <8-3/4"> (2523')(2627'-6379')





# Actual Wellpath Report

Ant Unit 3H AWP Proj: 15431'  
Page 3 of 10



04/05/2019

## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Ant Unit 3H
Field	Tyler	Wellbore	Ant Unit 3H AWB
Facility	Vera Pad		

## WELLPATH DATA (187 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 (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
2731.50	3.190	48.360	2727.15	2.86	24.30	76.78	1667584.20	14316832.88	39°25'31.389"N	80°54'13.661"W	80.53	72.439	3.12	2.65	-68.27	
2826.50	5.660	19.210	2821.87	-1.78	30.48	80.30	1667587.72	14316839.05	39°25'31.450"N	80°54'13.616"W	85.89	69.213	3.44	2.60	-30.68	
2920.50	7.990	0.810	2915.21	-11.52	41.39	81.92	1667589.34	14316849.96	39°25'31.558"N	80°54'13.596"W	91.78	63.192	3.37	2.48	-19.57	
3016.50	8.840	353.070	3010.18	-24.97	55.39	81.12	1667588.54	14316863.95	39°25'31.697"N	80°54'13.606"W	98.23	55.675	1.47	0.89	-8.06	
3110.50	8.440	350.610	3103.11	-38.80	69.36	79.12	1667586.54	14316877.92	39°25'31.835"N	80°54'13.631"W	105.22	48.760	0.58	-0.43	-2.62	
3205.50	8.380	348.700	3197.09	-52.51	83.03	76.63	1667584.05	14316891.58	39°25'31.970"N	80°54'13.662"W	112.99	42.704	0.30	-0.06	-2.01	
3299.50	8.100	345.490	3290.12	-65.89	96.16	73.63	1667581.05	14316904.71	39°25'32.100"N	80°54'13.745"W	121.36	37.441	0.57	-0.30	-3.41	
3394.50	7.640	343.420	3384.22	-78.86	108.69	70.15	1667577.57	14316917.23	39°25'32.224"N	80°54'13.794"W	129.18	28.889	0.83	-0.56	-4.79	
3488.50	7.110	338.920	3477.45	-90.92	120.11	66.27	1667573.70	14316928.65	39°25'32.336"N	80°54'13.794"W	144.87	25.677	1.14	-0.92	5.79	
3583.50	6.240	344.420	3571.80	-101.94	130.57	62.77	1667570.20	14316939.10	39°25'32.440"N	80°54'13.838"W	153.59	23.517	1.72	0.31	15.26	
3677.50	6.530	358.760	3665.23	-112.11	140.83	61.28	1667568.71	14316949.36	39°25'32.541"N	80°54'13.857"W	162.93	21.933	0.68	-0.62	-2.48	
3772.50	5.940	356.400	3759.66	-121.97	151.14	60.86	1667568.29	14316959.66	39°25'32.643"N	80°54'13.862"W	173.19	20.271	1.95	1.95	-1.34	
3867.50	7.790	355.130	3853.98	-132.92	162.46	60.00	1667567.43	14316970.98	39°25'32.755"N	80°54'13.873"W	184.72	18.739	0.62	-0.33	3.99	
3961.50	7.480	358.880	3947.15	-144.88	174.93	59.34	1667566.77	14316983.44	39°25'32.878"N	80°54'13.881"W	195.84	17.436	0.79	-0.55	-4.52	
4056.50	6.960	354.590	4041.39	-156.33	186.84	58.68	1667566.11	14316995.95	39°25'32.996"N	80°54'13.890"W	205.82	16.168	0.75	-0.60	-3.94	
4150.50	6.400	350.890	4134.75	-167.00	197.68	57.31	1667564.74	14317006.19	39°25'33.103"N	80°54'13.907"W	216.44	15.063	1.36	1.03	7.38	
4245.50	7.380	357.900	4229.07	-178.03	209.01	56.25	1667563.68	14317017.51	39°25'33.215"N	80°54'13.920"W	228.82	14.025	1.12	1.05	-2.79	
4340.50	8.380	355.250	4323.17	-190.54	222.00	55.45	1667562.88	14317030.50	39°25'33.344"N	80°54'13.930"W	241.38	12.999	0.60	-0.60	-0.57	
4434.50	7.820	354.710	4416.23	-203.36	235.20	54.30	1667561.73	14317043.69	39°25'33.474"N	80°54'13.945"W	253.36	11.996	0.64	-0.23	-4.47	
4529.50	7.600	350.460	4510.38	-215.80	247.83	52.66	1667560.09	14317056.31	39°25'33.599"N	80°54'13.966"W	264.98	11.037	0.26	-0.21	1.23	
4624.50	7.400	351.630	4604.56	-227.99	260.08	50.73	1667558.16	14317068.66	39°25'33.720"N	80°54'14.014"W	276.22	10.180	0.30	-0.20	-1.79	
4718.50	7.210	349.950	4697.80	-239.74	271.87	48.82	1667556.25	14317080.95	39°25'33.837"N	80°54'14.043"W	287.30	9.323	0.29	-0.09	-2.17	
4813.50	7.120	347.890	4792.06	-251.46	283.50	46.54	1667553.98	14317091.97	39°25'33.951"N	80°54'14.073"W	297.87	8.532	0.58	-0.58	0.27	
4908.50	6.570	348.150	4886.38	-262.68	294.58	44.19	1667551.63	14317103.04	39°25'34.061"N	80°54'14.101"W	307.96	7.828	0.16	-0.15	-0.44	
5003.50	6.430	347.730	4980.77	-273.34	305.09	41.94	1667549.38	14317113.56	39°25'34.165"N	80°54'14.129"W	319.84	7.145	0.29	2.53	4.21	
5097.50	8.810	351.690	5073.93	-285.63	317.36	39.79	1667547.22	14317125.82	39°25'34.286"N	80°54'14.160"W	334.28	6.411	0.92	-0.44	-2.27	
5191.50	9.600	349.560	5166.72	-300.42	332.19	37.32	1667544.76	14317140.64	39°25'34.433"N	80°54'14.195"W	349.15	5.676	0.44	-0.44	0.13	
5286.50	9.180	349.680	5260.45	-315.72	347.44	34.53	1667541.97	14317155.88	39°25'34.584"N	80°54'14.235"W	362.80	4.959	1.30	-1.01	-5.41	
5381.50	8.220	344.540	5354.36	-329.98	361.44	31.36	1667538.80	14317169.88	39°25'34.722"N	80°54'14.279"W	374.65	4.277	1.05	-1.04	-0.56	
5475.50	7.240	344.010	5447.50	-342.59	373.61	27.94	1667535.38	14317182.05	39°25'34.842"N	80°54'14.279"W						





# Actual Wellpath Report

Ant Unit 3H AWP Proj: 15431'

Page 4 of 10



04/05/2019

REFERENCE WELLPATH IDENTIFICATION																
Operator	ANTERO RESOURCES CORPORATION															
Area	Tyler County, WV															
Field	Tyler															
Facility	Vera Pad															
	Slot	Slot #06														
	Well	Ant Unit 3H														
	Wellbore	Ant Unit 3H AWB														
WELLPATH DATA (187 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 (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
5569.50	7.420	342.050	5540.73	-354.57	385.08	24.44	1667531.88	14317193.51	39°25'34.956"N	80°54'14.323"W	385.85	3.631	0.33	0.19	-2.09	
5664.50	5.710	344.190	5635.11	-365.42	395.46	21.26	1667528.70	14317203.89	39°25'35.058"N	80°54'14.364"W	396.03	3.077	1.82	-1.80	2.25	
5758.50	5.890	343.320	5728.63	-374.90	404.58	18.60	1667526.05	14317213.01	39°25'35.148"N	80°54'14.397"W	405.01	2.632	0.21	0.19	-0.93	
5853.50	6.700	340.060	5823.05	-385.31	414.46	15.31	1667522.76	14317222.88	39°25'35.246"N	80°54'14.439"W	414.74	2.116	0.93	0.85	-3.43	
5884.50	4.750	326.890	5853.90	-388.37	417.24	13.99	1667521.44	14317225.66	39°25'35.274"N	80°54'14.466"W	417.47	1.921	7.55	-6.29	-42.48	
5916.50	3.880	268.920	5885.82	-390.00	418.33	12.19	1667519.63	14317226.74	39°25'35.284"N	80°54'14.479"W	418.50	1.669	13.27	-2.72	-181.16	
5947.50	7.110	233.550	5916.68	-389.78	417.17	9.59	1667517.04	14317225.58	39°25'35.273"N	80°54'14.512"W	417.28	1.317	14.64	10.42	-114.10	
5979.50	10.190	219.740	5948.32	-387.76	413.81	6.19	1667513.64	14317222.23	39°25'35.240"N	80°54'14.566"W	413.86	0.857	11.54	9.63	-43.16	
6010.50	13.050	214.270	5978.68	-384.30	408.81	2.47	1667509.92	14317217.23	39°25'35.190"N	80°54'14.603"W	408.82	0.346	9.88	9.23	-17.65	
6042.50	14.520	206.120	6009.76	-379.36	402.22	-1.34	1667506.12	14317210.65	39°25'35.125"N	80°54'14.652"W	402.22	359.810	7.60	4.59	-25.47	
6074.50	16.030	197.100	6040.63	-373.02	394.40	-4.40	1667503.05	14317202.82	39°25'35.048"N	80°54'14.691"W	394.42	359.361	8.78	4.72	-28.19	
6105.50	18.130	189.710	6070.27	-365.38	385.55	-6.47	1667500.98	14317193.98	39°25'34.961"N	80°54'14.717"W	385.60	359.038	9.73	6.77	-23.84	
6136.50	20.330	183.880	6099.54	-356.23	375.42	-7.65	1667499.80	14317183.85	39°25'34.861"N	80°54'14.732"W	375.50	358.832	9.41	7.10	-18.81	
6168.50	21.240	178.340	6129.46	-345.62	364.08	-7.86	1667499.60	14317172.52	39°25'34.748"N	80°54'14.735"W	364.16	358.763	6.77	2.84	-17.31	
6199.50	21.260	171.240	6158.36	-334.75	352.91	-6.84	1667500.61	14317161.35	39°25'34.638"N	80°54'14.722"W	352.97	358.889	8.30	0.06	-22.90	
6231.50	22.820	166.410	6188.02	-322.88	341.14	-4.50	1667502.95	14317149.59	39°25'34.522"N	80°54'14.693"W	341.17	359.244	7.47	4.87	-15.09	
6262.50	25.350	165.210	6216.32	-310.29	328.88	-1.39	1667506.06	14317137.33	39°25'34.400"N	80°54'14.653"W	328.88	359.757	8.31	8.16	-3.87	
6294.50	28.080	163.830	6244.90	-295.94	315.02	2.45	1667509.91	14317123.48	39°25'34.263"N	80°54'14.604"W	315.03	0.446	8.75	8.53	-4.31	
6325.50	30.960	163.540	6271.87	-280.70	300.36	6.75	1667514.20	14317108.83	39°25'34.119"N	80°54'14.550"W	300.44	1.287	9.30	9.29	-0.94	
6357.50	33.870	164.500	6298.88	-263.58	283.87	11.46	1667518.91	14317092.34	39°25'33.956"N	80°54'14.490"W	284.10	2.312	9.23	9.09	3.00	
6388.50	35.680	164.870	6324.35	-245.95	266.82	16.13	1667523.58	14317075.30	39°25'33.787"N	80°54'14.431"W	267.31	3.460	5.88	5.84	1.19	
6425.00	37.840	163.480	6353.59	-224.15	245.81	22.09	1667529.54	14317054.29	39°25'33.579"N	80°54'14.355"W	246.80	5.136	6.34	5.92	-3.81	BHI AT Curve <8-1/2"> (6388.5)(6425-15407')
6483.00	42.620	164.150	6397.86	-186.77	209.84	32.52	1667539.96	14317018.34	39°25'33.224"N	80°54'14.223"W	212.35	8.810	8.27	8.24	1.16	
6498.00†	44.128	164.643	6408.76	-176.50	199.92	35.29	1667542.73	14317008.42	39°25'33.126"N	80°54'14.188"W	203.01	10.011	10.30	10.05	3.28	Middlesex 6498' MD
6530.00†	47.350	165.810	6431.09	-153.66	177.77	41.17	1667548.60	14316986.29	39°25'32.907"N	80°54'14.113"W	182.48	13.039	10.30	10.07	3.02	
6578.00	51.830	167.250	6462.20	-117.33	142.25	49.72	1667557.16	14316950.78	39°25'32.555"N	80°54'14.004"W	150.69	19.267	9.69	9.33	3.42	
6625.00	56.400	168.110	6489.74	-79.57	105.06	57.84	1667565.27	14316913.60	39°25'32.188"N	80°54'13.902"W	119.93	28.835	9.84	9.72	1.83	
6651.00†	59.157	168.127	6503.60	-57.77	83.53	62.37	1667569.79	14316892.09	39°25'31.975"N	80°54'13.844"W	104.25	36.745	10.60	10.60	0.06	Burkett: 6651' MD
6673.00	61.490	168.140	6514.49	-38.83	64.83	66.30	1667573.72	14316873.39	39°25'31.790"N	80°54'13.794"W	92.73	45.641	10.60	10.60	0.06	
6705.00†	64.751	168.340	6528.96	-10.56	36.89	72.11	1667579.54	14316845.46	39°25'31.514"N	80°54'13.721"W	81.00	62.908	10.21	10.19	0.62	Tully: 6705' MD





# Actual Wellpath Report

Ant Unit 3H AWP Proj: 15431'

Page 5 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	Antero RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Ant Unit 3H
Field	Tyler	Wellbore	Ant Unit 3H AWB
Facility	Vera Pad		

## WELLPATH DATA (187 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 °/100ft	Comments
6720.00	66.280	168.430	6535.18	2.96	23.52	74.86	1667582.28	14316832.10	39°25'31.382"N	80°54'13.686"W	78.47	72.559	10.21	10.19	0.60	
6768.00	71.140	168.690	6552.60	47.21	-20.30	83.73	1667591.15	14316798.29	39°25'30.948"N	80°54'13.573"W	86.16	103.631	10.14	10.12	0.54	
6798.00†	73.763	169.031	6561.64	75.50	-48.37	89.25	1667596.67	14316760.24	39°25'30.671"N	80°54'13.503"W	101.52	118.453	8.81	8.74	1.14	Marcellus POE: 6798' MD
6815.00	75.250	169.220	6566.19	91.70	-64.45	92.34	1667599.76	14316744.16	39°25'30.512"N	80°54'13.464"W	112.61	124.914	8.81	8.75	1.11	
6862.00	79.170	171.000	6576.59	136.86	-109.60	100.21	1667607.62	14316699.03	39°25'30.066"N	80°54'13.365"W	148.50	137.562	9.12	8.34	3.79	
6909.00	84.360	171.480	6583.32	182.53	-155.55	107.29	1667614.70	14316663.09	39°25'29.611"N	80°54'13.275"W	188.97	145.405	11.09	11.04	1.02	
6957.00	90.400	171.740	6585.51	229.54	-202.97	114.28	1667621.69	14316605.70	39°25'29.143"N	80°54'13.186"W	232.93	150.618	12.59	12.58	0.54	
7052.00	90.250	167.510	6584.97	323.29	-296.39	131.39	1667638.79	14316512.31	39°25'28.219"N	80°54'12.970"W	324.21	156.093	4.46	-0.16	-4.45	
7147.00	90.000	164.680	6584.77	417.81	-388.60	154.21	1667661.60	14316420.14	39°25'27.308"N	80°54'12.680"W	418.08	158.355	2.99	-0.26	-2.98	
7242.00	89.970	164.140	6584.79	512.58	-480.10	179.75	1667687.13	14316328.67	39°25'26.403"N	80°54'12.356"W	512.65	159.475	0.57	-0.03	-0.57	
7338.00	90.280	159.660	6584.58	608.52	-571.33	209.56	1667716.93	14316237.49	39°25'25.501"N	80°54'11.977"W	608.55	159.857	4.68	0.32	-4.67	
7433.00	89.720	154.590	6584.58	703.34	-658.83	246.48	1667753.83	14316150.02	39°25'24.636"N	80°54'11.508"W	703.43	159.488	5.37	-0.59	-5.34	
7528.00	89.540	155.250	6585.19	797.90	-744.87	286.75	1667794.08	14316064.01	39°25'23.785"N	80°54'10.996"W	798.16	158.945	0.72	-0.19	0.69	
7623.00	89.750	157.690	6585.78	892.67	-831.96	324.67	1667831.99	14315976.96	39°25'22.924"N	80°54'10.514"W	893.07	158.682	2.58	0.22	2.57	
7717.00	89.020	159.980	6586.79	986.62	-919.61	358.60	1667865.91	14315889.34	39°25'22.057"N	80°54'10.083"W	987.06	158.697	2.56	-0.78	2.44	
7812.00	89.910	164.890	6587.68	1081.53	-1010.15	387.26	1667894.56	14315796.84	39°25'21.162"N	80°54'09.719"W	1081.84	159.025	5.25	0.94	5.17	
7907.00	89.720	165.520	6587.99	1176.19	-1102.00	411.52	1667918.81	14315707.03	39°25'20.254"N	80°54'09.411"W	1176.33	159.523	0.69	-0.20	0.66	
8001.00	89.970	160.370	6588.24	1270.07	-1191.83	439.08	1667946.36	14315617.23	39°25'19.366"N	80°54'09.061"W	1270.14	159.776	5.49	0.27	-5.48	
8097.00	90.090	158.070	6588.19	1366.04	-1281.58	473.14	1667980.40	14315527.52	39°25'18.478"N	80°54'08.628"W	1366.13	159.737	2.40	0.13	-2.40	
8192.00	90.150	160.160	6587.99	1461.01	-1370.34	507.00	1668014.25	14315438.80	39°25'17.601"N	80°54'08.198"W	1461.12	159.696	2.20	0.06	2.20	
8287.00	90.060	162.480	6587.82	1555.99	-1460.33	537.43	1668044.67	14315348.85	39°25'16.711"N	80°54'07.812"W	1556.08	159.795	2.44	-0.09	2.44	
8382.00	90.060	163.970	6587.72	1650.87	-1551.28	564.85	1668072.07	14315257.93	39°25'15.812"N	80°54'07.464"W	1650.92	159.993	1.57	0.00	1.57	
8477.00	90.000	164.290	6587.67	1745.67	-1642.66	590.82	1668098.04	14315166.59	39°25'14.909"N	80°54'07.134"W	1745.68	160.218	0.34	-0.06	0.34	
8572.00	90.000	160.320	6587.67	1840.60	-1733.15	619.69	1668126.90	14315076.13	39°25'14.014"N	80°54'06.767"W	1840.60	160.325	4.18	0.00	-4.18	
8668.00	90.090	159.500	6587.59	1936.60	-1823.30	652.67	1668159.86	14314986.01	39°25'13.122"N	80°54'06.348"W	1936.60	160.305	0.86	0.09	-0.85	
8763.00	90.120	160.180	6587.42	2031.59	-1912.48	685.41	1668192.59	14314896.87	39°25'12.241"N	80°54'05.932"W	2031.60	160.283	0.72	0.03	0.72	
8857.00	90.180	160.140	6587.17	2125.59	-2000.90	717.31	1668224.48	14314808.49	39°25'11.366"N	80°54'05.521"W	2125.59	160.278	0.08	0.06	-0.04	
8952.00	89.970	157.830	6587.05	2220.55	-2089.58	751.38	1668258.53	14314719.85	39°25'10.490"N	80°54'05.094"W	2220.57	160.222	2.44	-0.22	-2.43	
9048.00	89.940	160.180	6587.12	2316.52	-2179.20	785.77	1668292.91	14314630.26	39°25'09.604"N	80°54'04.657"W	2316.54	160.172	2.45	-0.03	2.45	
9143.00	90.710	162.420	6586.58	2411.50	-2269.18	816.23	1668323.35	14314540.32	39°25'08.714"N	80°54'04.270"W	2411.51	160.216	2.49	0.81	2.36	





# Actual Wellpath Report

Ant Unit 3H AWP Proj: 15431'

Page 6 of 10



REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #06
Operator	ANTERO RESOURCES CORPORATION	Well	Ant Unit 3H
Area	Tyler County, WV	Wellbore	Ant Unit 3H AWB
Field	Tyler		
Facility	Vera Pad		

WELLPATH DATA (187 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
9238.00	90.770	163.880	6585.36	2506.38	-2360.09	843.76	1668350.88	14314449.45	39°25'07.815"N	80°54'03.921"W	2506.38	160.327	1.54	0.06	0.06	1.54
9333.00	90.120	161.860	6584.62	2601.29	-2450.82	871.90	1668379.00	14314358.75	39°25'06.918"N	80°54'03.564"W	2601.29	160.417	2.43	-0.68	-0.68	-2.34
9428.00	90.920	161.530	6583.76	2696.26	-2540.95	901.89	1668408.98	14314268.65	39°25'06.027"N	80°54'03.183"W	2696.26	160.458	0.85	0.84	0.84	-0.14
9523.00	90.250	162.140	6582.79	2791.23	-2631.21	931.51	1668438.59	14314178.43	39°25'05.134"N	80°54'02.807"W	2791.23	160.505	0.95	-0.71	-0.71	0.64
9618.00	90.150	162.750	6582.46	2886.17	-2721.79	960.16	1668467.23	14314087.89	39°25'04.239"N	80°54'02.443"W	2886.18	160.569	0.65	-0.11	-0.11	0.64
9713.00	90.520	162.550	6581.90	2981.09	-2812.46	988.49	1668495.55	14313997.25	39°25'03.342"N	80°54'02.083"W	2981.12	160.635	0.44	0.39	0.39	-0.21
9808.00	90.460	159.790	6581.09	3076.07	-2902.37	1019.15	1668526.19	14313907.38	39°25'02.454"N	80°54'01.694"W	3076.10	160.652	2.91	-0.06	-0.06	-2.91
9903.00	90.150	156.160	6580.58	3170.97	-2990.42	1054.77	1668561.80	14313819.37	39°25'01.583"N	80°54'01.241"W	3170.98	160.571	3.83	-0.33	-0.33	-3.82
9998.00	90.120	155.930	6580.36	3265.69	-3077.23	1093.34	1668600.35	14313732.59	39°25'00.724"N	80°54'00.751"W	3265.69	160.440	0.24	-0.03	-0.03	-0.24
10093.00	90.120	157.120	6580.16	3360.47	-3164.37	1131.18	1668638.18	14313645.49	39°24'59.863"N	80°54'00.270"W	3360.48	160.329	1.25	0.00	0.00	1.25
10188.00	90.060	157.770	6580.01	3455.35	-3252.10	1167.62	1668674.60	14313557.79	39°24'58.995"N	80°53'59.807"W	3455.36	160.250	0.69	-0.06	-0.06	0.68
10283.00	89.940	158.220	6580.01	3550.26	-3340.18	1203.22	1668710.19	14313469.75	39°24'58.124"N	80°53'59.355"W	3550.29	160.190	0.49	-0.13	-0.13	0.47
10377.00	90.000	158.500	6580.06	3644.20	-3427.56	1237.88	1668744.84	14313382.41	39°24'57.260"N	80°53'58.914"W	3644.24	160.143	0.30	0.06	0.06	0.30
10472.00	90.000	160.500	6580.06	3739.19	-3516.53	1271.15	1668778.09	14313293.46	39°24'56.381"N	80°53'58.491"W	3739.23	160.126	2.11	0.00	0.00	2.11
10567.00	90.280	161.830	6579.83	3834.18	-3606.45	1301.82	1668808.75	14313203.59	39°24'55.492"N	80°53'58.102"W	3834.21	160.152	1.43	0.29	0.29	1.40
10663.00	90.180	160.930	6579.44	3930.16	-3697.42	1332.47	1668839.39	14313112.65	39°24'54.592"N	80°53'57.713"W	3930.19	160.182	0.94	-0.10	-0.10	-0.94
10758.00	89.780	158.190	6579.48	4025.14	-3786.43	1363.64	1668872.55	14313023.68	39°24'53.712"N	80°53'57.291"W	4025.17	160.167	2.91	-0.42	-0.42	-2.88
10852.00	89.880	156.190	6579.75	4118.99	-3873.07	1402.08	1668908.97	14312937.07	39°24'52.855"N	80°53'56.828"W	4119.04	160.099	2.13	0.11	0.11	-2.13
10947.00	88.580	155.380	6581.03	4213.67	-3959.70	1441.04	1668947.92	14312850.47	39°24'51.999"N	80°53'56.333"W	4213.77	160.002	1.61	-1.37	-1.37	-0.85
11041.00	90.120	159.540	6582.10	4307.52	-4046.50	1477.06	1668983.92	14312763.71	39°24'51.141"N	80°53'55.875"W	4307.65	159.947	4.72	1.64	1.64	4.43
11136.00	90.150	160.950	6581.87	4402.51	-4135.90	1509.17	1669016.02	14312674.34	39°24'50.257"N	80°53'55.468"W	4402.65	159.953	1.48	0.03	0.03	1.48
11230.00	90.030	161.410	6581.73	4496.50	-4224.88	1539.50	1669046.33	14312585.40	39°24'49.377"N	80°53'55.082"W	4496.62	159.979	0.51	-0.13	-0.13	0.49
11325.00	90.310	163.950	6581.44	4591.42	-4315.56	1567.78	1669074.60	14312494.76	39°24'48.480"N	80°53'54.723"W	4591.51	160.035	2.69	0.29	0.29	2.67
11420.00	90.460	166.030	6580.81	4686.11	-4407.31	1592.38	1669099.19	14312403.04	39°24'47.573"N	80°53'54.411"W	4686.16	160.135	2.20	0.16	0.16	2.19
11515.00	90.280	165.820	6580.19	4780.66	-4499.46	1615.48	1669122.29	14312310.93	39°24'46.662"N	80°53'54.118"W	4780.68	160.250	0.29	-0.19	-0.19	-0.22
11610.00	90.340	161.250	6579.68	4875.50	-4590.54	1642.40	1669149.19	14312219.89	39°24'45.762"N	80°53'53.777"W	4875.50	160.314	4.81	0.06	0.06	-4.81
11705.00	90.120	158.600	6579.30	4970.48	-4679.76	1675.01	1669181.79	14312130.71	39°24'44.880"N	80°53'53.363"W	4970.49	160.306	2.80	-0.23	-0.23	-2.79
11799.00	89.970	156.640	6579.22	5064.37	-4766.67	1710.79	1669217.56	14312043.83	39°24'44.020"N	80°53'52.908"W	5064.38	160.257	2.09	-0.16	-0.16	-2.09
11894.00	90.280	156.600	6579.02	5159.16	-4853.87	1748.49	1669255.24	14311956.66	39°24'43.158"N	80°53'52.429"W	5159.20	160.190	0.33	0.33	0.33	-0.04
11989.00	90.220	158.330	6578.60	5254.03	-4941.61	1784.90	1669291.64	14311868.95	39°24'42.290"N	80°53'51.966"W	5254.09	160.140	1.82	-0.06	-0.06	1.82





# Actual Wellpath Report

Ant Unit 3H AWP Proj: 15431'

Page 7 of 10



04/05/2019

REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Vera Pad
Slot	Slot #06
Well	Ant Unit 3H
Wellbore	Ant Unit 3H AWB

WELLPATH DATA (187 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
12084.00	90.280	160.920	6578.19	5349.01	-5030.66	1817.97	1669324.89	14311779.94	39°24'41.410"N	80°53'51.546"W	5349.07	160.131	2.73	0.06	2.73	
12179.00	90.220	161.820	6577.77	5444.00	-5120.68	1848.32	1669355.03	14311689.96	39°24'40.520"N	80°53'51.161"W	5444.05	160.153	0.95	-0.06	0.95	
12274.00	90.150	161.040	6577.47	5538.98	-5210.73	1878.57	1669385.27	14311599.94	39°24'39.629"N	80°53'50.777"W	5539.02	160.175	0.82	-0.07	-0.82	
12369.00	90.090	161.050	6577.27	5633.98	-5300.58	1909.43	1669416.12	14311510.13	39°24'38.741"N	80°53'50.385"W	5634.01	160.189	0.06	-0.06	0.01	
12464.00	90.030	158.730	6577.17	5728.97	-5389.79	1942.09	1669448.77	14311420.96	39°24'37.859"N	80°53'49.970"W	5729.01	160.184	2.44	-0.06	-2.44	
12558.00	90.090	159.410	6577.07	5822.94	-5477.58	1975.67	1669482.33	14311333.20	39°24'36.991"N	80°53'49.543"W	5822.99	160.166	0.73	0.06	0.72	
12653.00	90.030	159.590	6576.97	5917.93	-5566.57	2008.94	1669515.99	14311244.25	39°24'36.111"N	80°53'49.121"W	5917.98	160.156	0.20	-0.06	0.19	
12748.00	90.220	157.550	6576.76	6012.87	-5654.99	2043.65	1669550.28	14311155.86	39°24'35.237"N	80°53'48.680"W	6012.94	160.131	2.16	0.20	-2.15	
12843.00	89.880	154.970	6576.68	6107.62	-5741.95	2081.89	1669588.51	14311068.94	39°24'34.377"N	80°53'48.194"W	6107.72	160.071	2.74	-0.36	-2.72	
12938.00	89.910	154.990	6576.85	6202.16	-5827.89	2122.37	1669628.97	14310983.03	39°24'33.527"N	80°53'47.680"W	6202.32	159.990	0.40	0.03	-0.40	
13032.00	90.030	157.910	6576.90	6295.90	-5913.92	2160.22	1669666.81	14310897.04	39°24'32.676"N	80°53'47.199"W	6296.11	159.934	3.53	0.13	3.53	
13127.00	90.150	160.890	6576.75	6390.88	-6002.83	2193.64	1669700.22	14310808.16	39°24'31.797"N	80°53'46.774"W	6391.09	159.926	3.14	0.13	3.14	
13222.00	90.060	159.710	6576.58	6485.87	-6092.27	2225.67	1669732.23	14310718.76	39°24'30.913"N	80°53'46.367"W	6486.09	159.931	1.25	-0.09	-1.24	
13317.00	90.090	160.360	6576.45	6580.87	-6181.56	2258.10	1669764.65	14310629.50	39°24'30.030"N	80°53'45.955"W	6581.09	159.933	0.68	0.03	0.68	
13412.00	90.120	161.910	6576.28	6675.86	-6271.46	2288.82	1669795.35	14310539.65	39°24'29.141"N	80°53'45.565"W	6676.07	159.950	1.63	0.03	1.63	
13507.00	89.350	163.370	6576.72	6770.78	-6362.12	2317.17	1669823.69	14310449.01	39°24'28.245"N	80°53'45.206"W	6770.96	159.988	1.74	-0.81	1.54	
13602.00	90.120	165.450	6577.16	6865.54	-6453.62	2342.69	1669849.21	14310357.55	39°24'27.340"N	80°53'44.882"W	6865.67	160.049	2.33	0.81	2.19	
13698.00	90.090	165.240	6576.98	6961.19	-6546.50	2366.98	1669873.49	14310264.71	39°24'26.422"N	80°53'44.574"W	6961.27	160.122	0.22	-0.03	-0.22	
13792.00	90.120	162.850	6576.81	7054.99	-6636.87	2392.82	1669899.31	14310174.38	39°24'25.528"N	80°53'44.246"W	7055.04	160.174	2.54	0.03	-2.54	
13887.00	90.120	159.580	6576.61	7149.97	-6726.80	2423.41	1669929.89	14310084.49	39°24'24.639"N	80°53'43.858"W	7150.02	160.188	3.44	0.00	-3.44	
13982.00	90.220	158.130	6576.33	7244.93	-6815.40	2457.68	1669964.14	14309995.92	39°24'23.763"N	80°53'43.422"W	7244.99	160.170	1.53	0.11	-1.53	
14078.00	89.910	162.850	6576.22	7340.90	-6905.86	2489.73	1669996.18	14309905.49	39°24'22.869"N	80°53'43.015"W	7340.96	160.175	4.93	-0.32	4.92	
14173.00	90.120	168.400	6576.20	7435.47	-6997.85	2513.30	1670019.75	14309813.54	39°24'21.969"N	80°53'42.716"W	7435.50	160.244	5.85	0.22	5.84	
14268.00	90.120	169.780	6576.00	7529.38	-7091.13	2531.28	1670037.72	14309720.30	39°24'21.037"N	80°53'42.489"W	7529.38	160.355	1.45	0.00	1.45	
14363.00	90.340	166.150	6575.62	7623.53	-7184.03	2551.09	1670057.52	14309627.44	39°24'20.119"N	80°53'42.238"W	7623.54	160.450	3.83	0.23	-3.82	
14458.00	90.250	160.230	6575.13	7718.38	-7274.93	2578.55	1670084.97	14309536.58	39°24'19.220"N	80°53'41.889"W	7718.39	160.483	6.23	-0.09	-6.23	
14552.00	90.060	157.940	6574.87	7812.35	-7362.73	2612.10	1670118.51	14309448.81	39°24'18.352"N	80°53'41.463"W	7812.35	160.467	2.44	-0.20	-2.44	
14647.00	90.000	155.710	6574.82	7907.15	-7450.06	2649.49	1670155.88	14309361.52	39°24'17.488"N	80°53'40.988"W	7907.16	160.423	2.35	-0.06	-2.35	
14742.00	90.150	158.000	6574.70	8001.97	-7537.40	2686.83	1670193.20	14309274.21	39°24'16.624"N	80°53'40.514"W	8001.97	160.381	2.42	0.16	2.41	
14837.00	90.250	162.630	6574.37	8096.94	-7626.83	2718.82	1670225.18	14309184.82	39°24'15.740"N	80°53'40.107"W	8096.94	160.380	4.87	0.11	4.87	





# Actual Wellpath Report

Ant Unit 3H AWP Proj: 15431'  
Page 8 of 10



04/05/2019

## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #06
ANTERO RESOURCES CORPORATION	Well	Ant Unit 3H
Tyler County, WV	Wellbore	Ant Unit 3H AWB
Tyler		
Vera Pad		

## WELLPATH DATA (187 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
14931.00	90.250	163.970	6573.96	8190.82	-7716.86	2745.83	1670252.18	14309094.82	39°24'14.850"N	80°53'39.765"W	8190.82	160.413	1.43	0.00	1.43	
15026.00	90.090	162.100	6573.67	8285.71	-7807.72	2773.55	1670279.89	14309004.00	39°24'13.952"N	80°53'39.413"W	8285.71	160.443	1.98	-0.17	-1.97	
15122.00	90.220	159.810	6573.41	8381.70	-7898.46	2804.87	1670311.20	14308913.30	39°24'13.055"N	80°53'39.015"W	8381.70	160.449	2.39	0.14	-2.39	
15217.00	90.090	158.670	6573.16	8476.68	-7987.29	2838.54	1670344.86	14308824.50	39°24'12.176"N	80°53'38.588"W	8476.68	160.436	1.21	-0.14	-1.20	
15312.00	90.090	159.480	6573.01	8571.65	-8076.02	2872.47	1670378.77	14308735.80	39°24'11.299"N	80°53'38.157"W	8571.65	160.421	0.85	0.00	0.85	
15407.00	90.030	160.760	6572.91	8666.65	-8165.36	2904.78	1670411.06	14308646.50	39°24'10.416"N	80°53'37.747"W	8666.65	160.417	1.35	-0.06	1.35	
15431.00	90.030	160.760	6572.90	8690.65	-8188.02	2912.68	1670418.97	14308623.85	39°24'10.191"N	80°53'37.646"W	8690.65	160.418	0.00	0.00	0.00	Projected MD at TD: 15431'

## HOLE & CASING SECTIONS - Ref Wellbore: Ant Unit 3H AWP Proj: 15431'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	End N/S [ft]	Start E/W [ft]	End E/W [ft]
20in Conductor	24.50	104.50	80.00	24.50	104.50	0.00	0.06	0.00	0.28
17.5in Open Hole	104.50	767.50	663.00	104.50	767.49	0.06	-0.94	0.28	0.88
13.375in Casing Surface	24.50	767.50	743.00	24.50	767.49	0.00	-0.94	0.00	0.88
12.25in Open Hole	767.50	2616.80	1849.30	767.49	2612.51	-0.94	22.86	0.88	74.10
9.625in Casing Intermediate	24.50	2616.80	2592.30	24.50	2612.51	0.00	22.86	0.00	74.10
8.75in Open Hole	2616.80	6449.50	3832.70	2612.51	6372.67	22.86	231.06	74.10	26.42
8.5in Open Hole	6449.50	15431.00	8981.50	6372.67	6572.90	231.06	-8188.02	26.42	2912.68
5.5in Casing Production	24.50	15431.00	15406.50	24.50	6572.90	0.00	-8188.02	0.00	2912.68





# Actual Wellpath Report

Ant Unit 3H AWP Proj: 15431'  
Page 9 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Ant Unit 3H
Field	Tyler	Wellbore	Ant Unit 3H AWB
Facility	Vera Pad		

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Ant Unit 3H POE Rev-4	6560.00	-30.12	84.26	1667591.68	14316778.48	39°25'30.851"N	80°54'13.567"W	point
Ant Unit 3H BHL Rev-4	6586.00	-8207.27	2938.52	1670444.79	14308604.61	39°24'10.001"N	80°53'37.317"W	point
Ant Unit 3H LP Rev-3	6586.00	-182.60	114.15	1667621.55	14316626.06	39°25'29.344"N	80°54'13.188"W	point

## WELLPATH COMPOSITION - Ref Wellbore: Ant Unit 3H AWB Ref Wellpath: Ant Unit 3H AWP Proj: 15431'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
24.50	750.50	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(100-741')	Ant Unit 3H AWB
750.50	1191.50	Gyrodata standard - Drop gyro or Multi-shot	02 Gyrodata MS Gyro <12-1/4">(741')(803-1182')	Ant Unit 3H AWB
1191.50	2532.50	ISWISA MWD, Rev. 4 (Standard)	03 WFT EM <12-1/4">(1182')(1294'-2523')	Ant Unit 3H AWB
2532.50	6388.50	ISWISA MWD, Rev. 4 (Standard)	04 WFT EM <8-3/4">(2523')(2627'-6379')	Ant Unit 3H AWB
6388.50	15407.00	BHI AutoTrak Curve (Standard)	05 BHI AT Curve <8-1/2">(6388.5')(6425'-15407')	Ant Unit 3H AWB
15407.00	15431.00	Blind Drilling (std)	Projection to bit	Ant Unit 3H AWB





# Actual Wellpath Report

Ant Unit 3H AWP Proj: 15431'  
Page 10 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Tyler County, WV	Well	Ant Unit 3H
Field	Tyler	Wellbore	Ant Unit 3H AWB
Facility	Vera Pad		

COMMENTS
<p>Wellpath general comments            API: 47-095-02402-0000            BHI Job #: 8754395            Rig: Frontier 22            Duration: 09/11/2017-09/13/2017            Gyrodata MS Gyro &lt;17-1/2"&gt; (100'-741')            Gyrodata MS Gyro &lt;12-1/4"&gt; (741')(803'-1182)            WFT EM &lt;12-1/4"&gt; (1182')(1294'-2523')            WFT EM &lt;8-3/4"&gt; (2523')(2627'-6379')            BHI AT Curve &lt;8-1/2"&gt; (6388.5')(6425'-15407')            Middlesex: 6498' MD            Burkett: 6651' MD            Tully: 6705' MD            Marcellus POE: 6798' MD            Projected MD at TD: 15431'</p>