

11/09/2018



# ANTERO RESOURCES CORPORATION

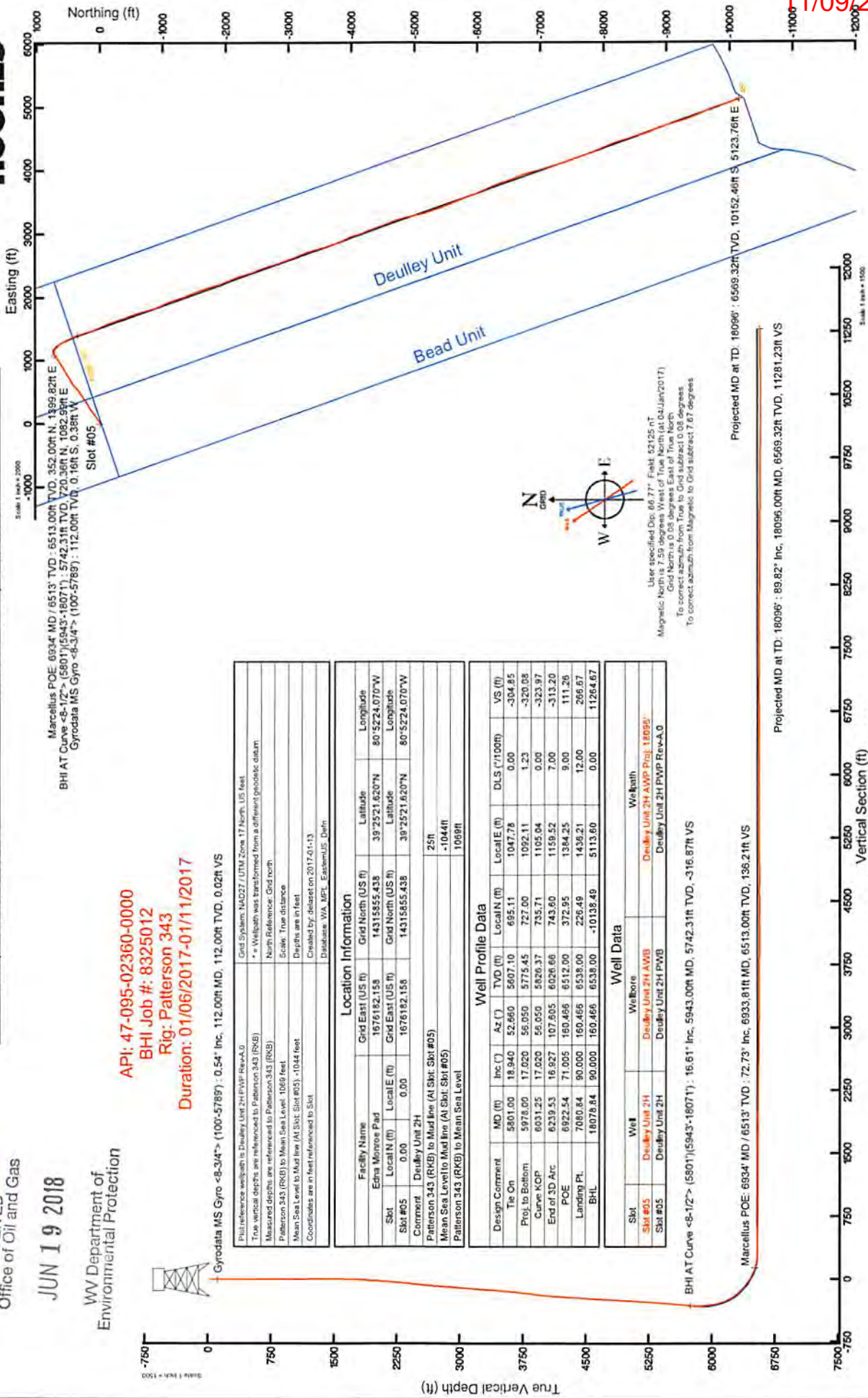
Location: Tyler County, WV  
 Field: Tyler  
 Facility: Edna Monroe Pad  
 Slot: Slot #05  
 Well: Deulley Unit 2H  
 Wellbore: Deulley Unit 2H PWB



JUN 19 2018

WV Department of Environmental Protection

API: 47-095-02360-0000  
 BHI Job #: 8325012  
 Rig: Patterson 343  
 Duration: 01/06/2017-01/11/2017



Marcellus POE: 693.4° MD / 651.3° TVD, 6513.00R TVD, 352.00R N, 1399.82R E  
 BHI AT Curve <8-1/2> (58011)5943-180711, 5742.31R TVD, 720.36R N, 1062.98R E  
 Gyrodatta MS Gyro <8-3/4> (100-57897) : 112.00R TVD, 0.16R S, 0.38R W

Property	Value
Grid System	NAD83 / UTM Zone 17 North, US Feet
Wellbore	Deulley Unit 2H PWB Rev-A-0
Well	Deulley Unit 2H A/B
Slot	Slot #05
Wellbore	Deulley Unit 2H PWB
Well	Deulley Unit 2H
Slot	Slot #05
Wellbore	Deulley Unit 2H PWB
Well	Deulley Unit 2H
Slot	Slot #05

Location Information	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Edna Monroe Pad	1676182.158	14315855.438	39°25'21.620"N	80°52'24.070"W
Slot #05	1676182.158	14315855.438	39°25'21.620"N	80°52'24.070"W
Deulley Unit 2H	1676182.158	14315855.438	39°25'21.620"N	80°52'24.070"W
Deulley Unit 2H PWB	1676182.158	14315855.438	39°25'21.620"N	80°52'24.070"W
Deulley Unit 2H A/B	1676182.158	14315855.438	39°25'21.620"N	80°52'24.070"W

Well Profile Data	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Design Comment	5901.00	18.940	52.660	5607.10	695.11	1047.78	0.00	-304.85
Tie On	5978.00	17.020	56.050	5775.45	727.00	1092.11	1.23	-320.08
Curve KOP	6031.25	17.020	56.050	5826.37	735.71	1105.64	0.00	-323.97
End of 3D Arc	6239.53	16.927	107.605	6026.66	743.60	1159.52	7.00	-313.20
POE	6922.54	71.005	160.466	6512.00	372.95	1384.25	9.00	111.26
Landing PL	7060.84	90.000	160.466	6538.00	226.49	1436.21	12.00	266.67
BHL	18078.84	90.000	160.466	6538.00	-10138.49	5113.60	0.00	11264.67

Well Data	Wellbore	Wellpath
Slot #05	Deulley Unit 2H A/B	Deulley Unit 2H A/B Proj. 18095
Slot #05	Deulley Unit 2H	Deulley Unit 2H PWB Rev-A-0

Marcellus POE: 693.4° MD / 651.3° TVD : 72.73° Inc, 6933.81R MD, 6513.00R TVD, 136.21R VS  
 BHI AT Curve <8-1/2> (58011)5943-180711 : 16.61° Inc, 5943.00R MD, 5742.31R TVD, -316.87R VS  
 Gyrodatta MS Gyro <8-3/4> (100-57897) : 0.54° Inc, 112.00R MD, 112.00R TVD, 0.02R VS

User specified Dip: 66.77° Field: 52125 nT  
 Magnetic North is 7.59 degrees West of True North (at 04/Jan/2017)  
 Grid North is 0.08 degrees East of True North  
 To correct azimuth from Magnetic to Grid subtract 7.67 degrees

Projected MD at TD: 18096° : 89.82° Inc, 18096.00R MD, 6569.32R TVD, 11281.23R VS

Projected MD at TD: 18096° : 89.82° Inc, 18096.00R MD, 6569.32R TVD, 11281.23R VS

Vertical Section (ft)  
 Azimuth: 160.47° with reference 0.00 N, 0.00 E

Scale 1 inch = 1000

Scale 1 inch = 1000



# Actual Wellpath Report

Deulley Unit 2H AWP Proj: 18096'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Tyler County, WV	Well	Deulley Unit 2H
Field	Tyler	Wellbore	Deulley Unit 2H AWB
Facility	Edna Monroe Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Delaset
Scale	0.999601	Report Generated	13/Jan/2017 at 17:13
Convergence at slot	0.09° East	Database/Source file	WA_MPL_EasternUS_Defn/Deulley_Unit_2H_AWP_Proj_18096_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	1676182.16	14315855.44	39°25'21.620"N	80°52'24.070"W
Facility Reference Pt			1676182.16	14315855.44	39°25'21.620"N	80°52'24.070"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Patterson 343 (RKB) to Facility Vertical Datum	25.00ft
Horizontal Reference Pt	Slot	Patterson 343 (RKB) to Mean Sea Level	1069.00ft
Vertical Reference Pt	Patterson 343 (RKB)	Patterson 343 (RKB) to Mud Line at Slot (Slot #05)	25.00ft
MD Reference Pt	Patterson 343 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	160.47°

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# Actual Wellpath Report

Deulley Unit 2H AWP Proj: 18096'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Tyler County, WV	Well	Deulley Unit 2H
Field	Tyler	Wellbore	Deulley Unit 2H AWB
Facility	Edna Monroe Pad		

WELLPATH DATA (208 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)	(US ft)	(US ft)			(ft)	(°)	("/100ft)	("/100ft)	("/100ft)	
0.00†	0.000	247.370	0.00	0.00	0.00	0.00	1676182.16	14315855.44	39°25'21.620"N	80°52'24.070"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.000	247.370	25.00	0.00	0.00	0.00	1676182.16	14315855.44	39°25'21.620"N	80°52'24.070"W	0.00	0.000	0.00	0.00	0.00	
112.00	0.540	247.370	112.00	0.02	-0.16	-0.38	1676181.78	14315855.28	39°25'21.618"N	80°52'24.075"W	0.41	247.370	0.62	0.62	-129.46	Gyrodatta MS Gyro <8-3/4"> (100'-5789')
212.00	0.390	221.700	212.00	0.21	-0.59	-1.04	1676181.12	14315854.85	39°25'21.614"N	80°52'24.083"W	1.20	240.296	0.25	-0.15	-25.67	
312.00	0.180	190.790	311.99	0.51	-1.00	-1.30	1676180.86	14315854.44	39°25'21.610"N	80°52'24.087"W	1.64	232.293	0.25	-0.21	-30.91	
412.00	0.180	187.120	411.99	0.79	-1.31	-1.34	1676180.81	14315854.13	39°25'21.607"N	80°52'24.087"W	1.88	225.705	0.01	0.00	-3.67	
512.00	0.080	178.980	511.99	0.99	-1.54	-1.36	1676180.80	14315853.90	39°25'21.605"N	80°52'24.087"W	2.05	221.552	0.10	-0.10	-8.14	
612.00	0.040	189.230	611.99	1.09	-1.64	-1.37	1676180.79	14315853.80	39°25'21.604"N	80°52'24.087"W	2.14	219.784	0.04	-0.04	10.25	
712.00	0.070	130.550	711.99	1.17	-1.72	-1.33	1676180.83	14315853.72	39°25'21.603"N	80°52'24.087"W	2.17	217.701	0.06	0.03	-58.68	
812.00	0.160	166.060	811.99	1.37	-1.69	-1.25	1676180.91	14315853.55	39°25'21.601"N	80°52'24.086"W	2.26	213.384	0.11	0.09	35.51	
912.00	0.210	185.220	911.99	1.67	-2.21	-1.23	1676180.93	14315853.23	39°25'21.598"N	80°52'24.086"W	2.53	209.093	0.08	0.05	19.16	
1012.00	0.490	204.300	1011.99	2.15	-2.78	-1.42	1676180.74	14315852.66	39°25'21.593"N	80°52'24.088"W	3.12	207.077	0.30	0.28	19.08	
1112.00	0.820	193.530	1111.98	3.05	-3.87	-1.77	1676180.39	14315851.57	39°25'21.582"N	80°52'24.093"W	4.25	204.537	0.35	0.33	-10.77	
1212.00	1.020	175.780	1211.97	4.51	-5.45	-1.87	1676180.29	14315849.99	39°25'21.566"N	80°52'24.094"W	5.76	198.911	0.35	0.20	-17.75	
1312.00	1.470	96.160	1311.95	5.93	-6.48	-0.53	1676181.63	14315848.97	39°25'21.556"N	80°52'24.077"W	6.50	184.646	1.63	0.45	-79.62	
1412.00	2.990	65.630	1411.88	6.26	-5.54	3.13	1676185.28	14315849.90	39°25'21.565"N	80°52'24.030"W	6.36	150.559	1.88	1.52	-30.53	
1512.00	5.150	64.720	1511.62	5.59	-2.54	9.56	1676191.71	14315852.90	39°25'21.595"N	80°52'23.948"W	9.89	104.900	2.16	2.16	-0.91	
1612.00	7.050	62.560	1611.05	4.30	2.20	19.07	1676201.22	14315857.64	39°25'21.641"N	80°52'23.827"W	19.19	83.414	1.91	1.90	-2.16	
1712.00	7.870	58.150	1710.20	1.99	8.64	30.33	1676212.47	14315864.08	39°25'21.705"N	80°52'23.683"W	31.53	74.094	1.00	0.82	-4.41	
1812.00	9.890	53.180	1809.00	-2.02	17.40	43.02	1676225.16	14315872.83	39°25'21.791"N	80°52'23.522"W	46.41	67.975	2.16	2.02	-4.97	
1912.00	11.870	48.170	1907.20	-8.48	29.41	57.56	1676239.69	14315884.84	39°25'21.910"N	80°52'23.336"W	64.64	62.935	2.19	1.98	-5.01	
2012.00	14.970	54.420	2004.46	-15.95	43.79	75.73	1676257.86	14315899.21	39°25'22.052"N	80°52'23.104"W	87.48	59.964	3.42	3.10	6.25	
2112.00	17.890	57.330	2100.37	-23.02	59.60	99.17	1676281.29	14315915.01	39°25'22.208"N	80°52'22.805"W	115.70	58.996	3.03	2.92	2.91	
2212.00	17.840	55.760	2195.55	-30.40	76.51	124.76	1676306.87	14315931.92	39°25'22.374"N	80°52'22.479"W	146.35	58.483	0.48	-0.05	-1.57	
2312.00	17.060	50.320	2290.95	-39.34	94.49	148.72	1676330.82	14315949.89	39°25'22.552"N	80°52'22.173"W	176.20	57.569	1.81	-0.78	-5.44	
2412.00	18.290	51.720	2386.23	-49.44	113.58	172.33	1676354.42	14315968.97	39°25'22.740"N	80°52'21.872"W	206.39	56.611	1.30	1.23	1.40	
2512.00	19.160	54.330	2480.94	-59.04	132.87	197.98	1676380.06	14315988.26	39°25'22.930"N	80°52'21.545"W	238.43	56.132	1.21	0.87	2.61	
2612.00	18.210	55.310	2575.67	-67.69	151.33	224.16	1676406.22	14316006.71	39°25'23.113"N	80°52'21.211"W	270.46	55.976	1.00	-0.95	0.98	
2712.00	18.020	55.760	2670.71	-75.71	168.93	249.79	1676431.85	14316024.30	39°25'23.286"N	80°52'20.884"W	301.55	55.930	0.24	-0.19	0.45	
2812.00	20.080	60.930	2765.24	-82.48	185.98	277.59	1676459.63	14316041.34	39°25'23.454"N	80°52'20.529"W	334.13	56.179	2.66	2.06	5.17	

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# Actual Wellpath Report

Deuley Unit 2H AWP Proj: 18096  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Edna Monroe Pad
Well	Deuley Unit 2H
Wellbore	Deuley Unit 2H AWB
Slot	Slot #05

## WELLPATH DATA (208 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
2912.00	20.470	62.200	2859.04	-87.84	202.47	308.06	1676490.09	14316057.83	39°25'23.61"N	80°52'20.14"W	368.64	56.685	0.59	1.27	1.27	
3012.00	18.870	57.820	2953.21	-93.90	219.24	337.22	1676519.24	14316074.59	39°25'23.78"N	80°52'19.76"W	402.22	56.970	2.17	-1.60	-4.38	
3112.00	18.160	53.600	3048.04	-101.96	237.10	363.45	1676545.46	14316092.45	39°25'23.95"N	80°52'19.43"W	433.95	56.881	1.52	-0.71	-4.22	
3212.00	16.930	55.690	3143.38	-110.20	254.56	388.02	1676570.02	14316109.90	39°25'24.13"N	80°52'19.12"W	464.07	56.733	1.38	-1.23	2.08	
3312.00	16.720	57.700	3239.10	-117.09	270.45	412.21	1676594.20	14316125.78	39°25'24.28"N	80°52'18.81"W	493.01	56.731	0.62	-0.21	2.01	
3412.00	16.600	56.240	3334.91	-123.78	286.08	436.24	1676618.22	14316141.40	39°25'24.44"N	80°52'18.506"W	521.68	56.744	0.44	-0.12	-1.46	
3512.00	16.990	56.080	3430.64	-130.93	302.17	460.24	1676642.21	14316157.49	39°25'24.60"N	80°52'18.200"W	550.57	56.713	0.39	-0.16	-0.97	
3612.00	18.470	57.050	3525.89	-138.23	318.94	485.66	1676667.62	14316174.25	39°25'24.76"N	80°52'17.876"W	581.02	56.706	1.51	1.48	0.97	
3712.00	18.450	52.440	3620.75	-146.81	337.20	511.50	1676693.45	14316192.50	39°25'24.94"N	80°52'17.546"W	612.64	56.605	1.46	-0.02	-4.61	
3812.00	18.810	50.510	3715.51	-157.21	357.10	536.48	1676718.42	14316212.40	39°25'25.14"N	80°52'17.227"W	644.46	56.351	0.71	0.36	-1.93	
3912.00	19.250	48.700	3810.04	-168.83	378.23	561.31	1676743.24	14316233.52	39°25'25.350"N	80°52'16.911"W	676.85	56.026	0.74	0.44	-1.81	
4012.00	19.650	48.620	3904.34	-181.20	400.23	586.31	1676768.23	14316255.51	39°25'25.567"N	80°52'16.592"W	709.89	55.682	0.40	0.40	-0.08	
4112.00	17.410	53.310	3999.15	-191.87	420.28	610.92	1676792.84	14316275.55	39°25'25.765"N	80°52'16.278"W	741.53	55.474	2.69	-2.24	4.69	
4212.00	17.140	54.980	4094.64	-200.22	437.68	634.99	1676816.89	14316292.94	39°25'25.937"N	80°52'15.971"W	771.22	55.423	0.56	-0.27	1.67	
4312.00	17.760	58.130	4190.04	-207.42	454.19	660.01	1676841.90	14316309.44	39°25'26.100"N	80°52'15.651"W	801.19	55.466	1.13	0.62	3.15	
4412.00	17.630	60.610	4285.31	-213.27	469.67	686.16	1676868.04	14316324.92	39°25'26.262"N	80°52'15.318"W	831.51	55.608	0.76	-0.13	2.48	
4512.00	17.040	60.840	4380.77	-218.31	484.24	712.15	1676894.02	14316339.49	39°25'26.396"N	80°52'14.987"W	861.19	55.785	0.59	-0.59	0.23	
4612.00	17.040	55.100	4476.39	-224.65	499.77	736.96	1676918.82	14316355.01	39°25'26.548"N	80°52'14.670"W	890.44	55.857	1.68	0.00	-5.74	
4712.00	17.380	54.570	4571.91	-232.62	516.81	761.15	1676943.00	14316372.04	39°25'26.717"N	80°52'14.362"W	920.02	55.824	0.37	0.34	-0.53	
4812.00	17.330	4667.36	-239.08	532.61	786.39	1676968.23	14316387.84	39°25'26.873"N	80°52'14.040"W	949.78	55.890	2.02	-0.05	6.76		
4912.00	17.660	62.000	4762.74	-243.68	812.85	1676994.68	14316402.10	39°25'27.014"N	80°52'13.702"W	979.69	56.067	0.39	0.33	0.67		
5012.00	59.070	4858.04	-248.91	561.78	839.22	1677021.04	14316416.99	39°25'27.161"N	80°52'13.366"W	1009.90	56.201	0.89	-0.04	-2.93		
5112.00	16.510	60.320	4953.64	-254.40	864.55	1677046.36	14316431.80	39°25'27.307"N	80°52'13.043"W	1039.19	56.299	1.17	-1.11	1.25		
5212.00	18.120	58.560	5049.10	-260.12	891.75	1677071.97	14316446.95	39°25'27.456"N	80°52'12.716"W	1068.91	56.386	1.69	-1.61	-1.76		
5312.00	18.880	57.300	5143.93	-267.01	917.05	1677098.84	14316463.79	39°25'27.622"N	80°52'12.373"W	1100.62	56.430	0.86	0.76	-1.26		
5412.00	18.350	59.610	5238.70	-273.66	944.24	1677126.02	14316480.49	39°25'27.787"N	80°52'12.026"W	1132.52	56.486	0.91	-0.53	2.31		
5512.00	18.520	54.790	5333.58	-280.92	970.80	1677152.57	14316497.60	39°25'27.966"N	80°52'11.688"W	1164.11	56.506	1.53	0.17	-4.82		
5612.00	18.550	56.830	5428.39	-288.97	997.09	1677178.85	14316515.46	39°25'28.132"N	80°52'11.352"W	1195.89	56.487	0.65	0.03	2.04		
5712.00	19.260	56.150	5523.00	-296.80	1024.10	1677205.85	14316533.34	39°25'28.308"N	80°52'11.008"W	1228.29	56.487	0.74	0.71	-0.68		
5801.00	18.940	52.660	5607.10	-304.85	1047.78	1677229.52	14316550.27	39°25'28.475"N	80°52'10.706"W	1257.38	56.439	1.33	-0.36	-3.92		

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Field	Tyler	Wellbore	Deulley Unit 2H AWP
Facility	Edna Monroe Pad		

WELLPATH DATA (208 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)	(US ft)	(US ft)			(ft)	(°)	("/100ft)	("/100ft)	("/100ft)	
5943.00	16.610	56.290	5742.31	-316.87	720.36	1082.99	1677264.71	14316575.51	39°25'28.724"N	80°52'10.257"W	1300.68	56.370	1.82	-1.64	2.56	BHI AT Curve <8-1/2"> (5801')(5943'-18071')
5978.00	15.620	53.540	5775.94	-319.47	725.93	1090.94	1677272.66	14316581.08	39°25'28.779"N	80°52'10.155"W	1310.39	56.359	3.57	-2.83	-7.86	
6021.00	15.200	58.530	5817.40	-322.32	732.32	1100.40	1677282.12	14316587.46	39°25'28.842"N	80°52'10.034"W	1321.81	56.356	3.23	-0.98	11.60	
6069.00	16.520	79.860	5863.61	-322.51	736.81	1112.50	1677294.21	14316591.95	39°25'28.887"N	80°52'09.880"W	1334.37	56.484	12.38	2.75	44.44	
6116.00	16.510	93.870	5908.69	-318.76	737.53	1125.75	1677307.45	14316592.68	39°25'28.894"N	80°52'09.711"W	1345.83	56.769	8.45	-0.02	29.81	
6163.00	15.450	98.110	5953.87	-313.21	736.20	1138.61	1677320.31	14316591.34	39°25'28.880"N	80°52'09.548"W	1355.88	57.114	3.35	-2.26	9.02	
6210.00	15.770	99.900	5999.14	-307.16	734.22	1151.10	1677332.79	14316589.36	39°25'28.860"N	80°52'09.388"W	1365.32	57.469	1.23	0.68	3.81	
6257.00	18.290	112.670	6044.09	-299.07	730.28	1164.20	1677345.89	14316585.42	39°25'28.821"N	80°52'09.222"W	1374.29	57.901	9.57	5.36	27.17	
6304.00	22.220	123.650	6088.19	-286.99	722.50	1178.41	1677360.10	14316577.65	39°25'28.744"N	80°52'09.041"W	1382.27	58.487	11.60	8.36	23.36	
6351.00	24.920	129.650	6131.27	-271.37	711.26	1193.44	1677375.12	14316566.41	39°25'28.633"N	80°52'08.849"W	1389.31	59.206	7.68	5.74	12.77	
6399.00	28.190	133.930	6174.20	-252.53	696.93	1209.40	1677391.07	14316552.09	39°25'28.491"N	80°52'08.646"W	1395.84	60.047	7.89	6.81	8.92	
6446.00	31.670	137.690	6214.93	-231.22	680.10	1225.70	1677407.37	14316535.27	39°25'28.324"N	80°52'08.439"W	1401.74	60.976	8.41	7.40	8.00	
6493.00	35.390	140.900	6254.11	-207.01	660.41	1242.60	1677424.26	14316515.58	39°25'28.130"N	80°52'08.224"W	1407.19	62.011	8.77	7.91	6.83	
6540.00	39.040	143.240	6291.53	-180.04	637.98	1260.05	1677441.70	14316493.16	39°25'27.908"N	80°52'08.002"W	1412.35	63.146	8.33	7.77	4.98	
6587.00	42.920	146.490	6327.01	-150.36	612.76	1277.75	1677459.40	14316487.95	39°25'27.658"N	80°52'07.777"W	1417.08	64.379	9.42	8.26	6.91	
6609.20†	44.958	147.752	6343.00	-135.37	599.82	1286.11	1677467.75	14316455.02	39°25'27.530"N	80°52'07.670"W	1419.11	64.996	9.99	9.18	5.69	Middlesex: 6609' MD / 6343' TVD
6634.00	47.250	149.060	6360.19	-117.89	584.60	1295.47	1677477.11	14316439.81	39°25'27.380"N	80°52'07.551"W	1421.27	65.712	9.99	9.24	5.27	
6682.00	51.220	151.950	6391.53	-82.10	552.96	1313.34	1677494.97	14316408.17	39°25'27.067"N	80°52'07.324"W	1425.00	67.167	9.44	8.27	6.02	
6729.00	55.040	154.180	6419.73	-44.82	519.44	1330.35	1677511.98	14316374.67	39°25'26.735"N	80°52'07.108"W	1428.17	68.672	8.96	8.13	4.70	
6776.00	57.590	155.540	6445.80	-5.90	484.04	1346.97	1677528.58	14316339.29	39°25'26.385"N	80°52'06.897"W	1431.30	70.234	5.95	5.43	2.94	
6776.38†	57.622	155.552	6446.00	-5.58	483.75	1347.10	1677528.72	14316338.99	39°25'26.382"N	80°52'06.895"W	1431.32	70.247	8.87	8.47	3.10	Burket: 6776' MD / 6446' TVD
6823.00	61.580	158.940	6469.59	34.51	446.95	1363.28	1677544.89	14316302.21	39°25'26.018"N	80°52'06.690"W	1434.68	71.848	8.87	8.49	2.98	
6845.60†	63.534	157.875	6480.00	54.53	428.44	1370.99	1677552.59	14316283.70	39°25'25.835"N	80°52'06.592"W	1436.37	72.646	9.39	8.65	4.14	fully: 6845' MD / 6480' TVD
6870.00	65.650	158.850	6490.47	76.56	407.95	1379.11	1677560.72	14316263.22	39°25'25.632"N	80°52'06.489"W	1438.18	73.522	9.39	8.67	3.99	
6917.00	71.110	160.100	6507.78	120.23	367.04	1394.42	1677576.02	14316222.33	39°25'25.228"N	80°52'06.295"W	1441.91	75.253	11.88	11.62	2.66	
6933.81†	72.728	160.388	6513.00	136.21	352.00	1399.82	1677581.42	14316207.29	39°25'25.079"N	80°52'06.226"W	1443.40	75.885	9.76	9.62	1.71	Marcellus POE: 6934' MD / 6513' TVD
6965.00	75.730	160.910	6521.48	166.22	323.68	1409.76	1677591.35	14316178.99	39°25'24.799"N	80°52'06.100"W	1446.44	77.069	9.76	9.63	1.67	
7012.00	81.290	161.760	6530.83	212.26	280.07	1424.49	1677606.08	14316135.39	39°25'24.368"N	80°52'05.913"W	1451.76	78.877	11.96	11.83	1.81	
7059.00	86.030	161.810	6536.02	258.94	235.71	1439.09	1677620.67	14316091.05	39°25'23.929"N	80°52'05.728"W	1458.26	80.698	10.09	10.09	0.11	
7106.00	90.090	162.570	6537.61	305.88	190.99	1453.45	1677635.03	14316046.36	39°25'23.487"N	80°52'05.546"W	1465.95	82.514	8.79	8.64	1.62	

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# Actual Wellpath Report

Deulley Unit 2H AWP Proj: 18096'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Tyler County, WV	Well	Deulley Unit 2H
Field	Tyler	Wellbore	Deulley Unit 2H AWB
Facility	Edna Monroe Pad		

WELLPATH DATA (208 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
7153.00	89.420	160.780	6537.81	352.87	146.38	1468.23	1677649.80	14316001.76	39°25'23.046"N	80°52'05.358"W	1475.51	84.307	4.07	-1.43	-3.81	
7247.00	89.410	156.720	6538.77	446.80	58.79	1502.29	1677683.85	14315914.21	39°25'22.180"N	80°52'04.926"W	1503.44	87.759	4.32	-0.01	-4.32	
7341.00	89.420	154.250	6539.73	540.44	-26.72	1541.29	1677722.83	14315828.73	39°25'21.334"N	80°52'04.430"W	1541.52	90.993	2.63	0.01	-2.63	
7435.00	89.290	158.100	6540.79	634.15	-112.69	1579.25	1677760.77	14315742.79	39°25'20.484"N	80°52'03.948"W	1583.26	94.081	4.10	-0.14	4.10	
7530.00	89.320	160.640	6541.95	729.12	-201.58	1612.72	1677794.23	14315653.94	39°25'19.605"N	80°52'03.524"W	1625.27	97.125	2.67	0.03	2.67	
7624.00	89.290	161.990	6543.09	823.10	-290.62	1642.83	1677824.33	14315564.93	39°25'18.724"N	80°52'03.142"W	1668.33	100.032	1.44	-0.03	1.44	
7718.00	89.600	161.530	6544.00	917.07	-379.89	1672.25	1677853.74	14315475.70	39°25'17.842"N	80°52'02.768"W	1714.86	102.799	0.59	0.33	-0.49	
7812.00	89.660	159.600	6544.60	1011.06	-468.53	1703.52	1677885.09	14315387.09	39°25'16.965"N	80°52'02.371"W	1766.78	105.378	2.05	0.06	-2.05	
7906.00	90.680	160.980	6544.32	1105.06	-557.02	1735.22	1677916.69	14315298.64	39°25'16.090"N	80°52'01.969"W	1822.44	107.797	1.83	1.09	1.47	
8000.00	90.000	163.360	6543.77	1199.01	-646.50	1764.00	1677945.45	14315209.20	39°25'15.205"N	80°52'01.604"W	1878.74	110.128	2.63	-0.72	2.53	
8095.00	90.120	165.550	6543.67	1293.77	-738.02	1789.46	1677970.90	14315117.72	39°25'14.300"N	80°52'01.281"W	1935.68	112.412	2.31	0.13	2.31	
8189.00	90.250	163.510	6543.36	1387.53	-828.60	1814.53	1677995.96	14315027.17	39°25'13.405"N	80°52'00.964"W	1994.77	114.544	2.17	0.14	-2.17	
8283.00	90.000	157.120	6543.16	1481.48	-917.07	1846.18	1678027.60	14314938.74	39°25'12.530"N	80°52'00.562"W	2061.40	115.415	6.80	-0.27	-6.80	
8377.00	89.780	154.290	6543.34	1575.15	-1002.73	1884.85	1678066.25	14314853.11	39°25'11.683"N	80°52'00.071"W	2134.98	118.013	3.02	-0.23	-3.01	
8472.00	88.980	156.310	6544.37	1669.75	-1089.03	1924.54	1678105.93	14314766.84	39°25'10.829"N	80°51'59.567"W	2211.30	119.504	2.29	-0.84	2.13	
8566.00	89.630	162.800	6545.51	1763.68	-1177.05	1957.36	1678138.73	14314678.85	39°25'09.959"N	80°51'59.150"W	2284.01	121.021	6.94	0.69	6.90	
8661.00	90.770	163.000	6545.18	1858.59	-1267.85	1985.29	1678166.65	14314588.09	39°25'09.061"N	80°51'58.796"W	2355.60	122.563	1.22	1.20	0.21	
8755.00	89.320	158.370	6545.10	1952.56	-1356.54	2016.37	1678197.72	14314499.45	39°25'08.184"N	80°51'58.402"W	2430.22	123.931	5.16	-1.54	-4.93	
8849.00	89.600	157.380	6545.99	2046.46	-1443.61	2051.77	1678233.11	14314412.41	39°25'07.323"N	80°51'57.952"W	2508.74	125.130	1.09	0.30	-1.05	
8944.00	89.050	157.040	6547.11	2141.30	-1531.19	2088.57	1678269.89	14314324.87	39°25'06.457"N	80°51'57.485"W	2589.72	126.246	0.68	-0.58	-0.36	
9038.00	89.110	160.600	6548.62	2235.23	-1618.81	2122.52	1678303.83	14314237.28	39°25'05.590"N	80°51'57.054"W	2669.39	127.332	3.79	0.06	3.79	
9132.00	89.420	165.320	6549.82	2329.11	-1708.65	2150.06	1678331.35	14314147.47	39°25'04.702"N	80°51'56.705"W	2746.31	128.474	5.03	0.33	5.02	
9227.00	90.430	164.130	6549.95	2423.85	-1800.29	2175.09	1678356.37	14314055.87	39°25'03.796"N	80°51'56.388"W	2823.48	129.614	1.64	1.06	-1.25	
9321.00	89.450	159.920	6550.05	2517.79	-1889.68	2204.09	1678385.36	14313966.51	39°25'02.912"N	80°51'56.020"W	2903.26	130.608	4.60	-1.04	-4.48	
9415.00	89.720	158.530	6550.73	2611.76	-1977.57	2237.43	1678418.69	14313878.66	39°25'02.043"N	80°51'55.597"W	2986.11	131.472	1.51	0.29	-1.48	
9510.00	89.320	157.500	6551.52	2706.67	-2065.65	2272.99	1678454.24	14313790.61	39°25'01.172"N	80°51'55.145"W	3071.39	132.264	1.16	-0.42	-1.08	
9604.00	89.290	159.670	6552.66	2800.61	-2153.15	2307.31	1678488.54	14313703.15	39°25'00.306"N	80°51'54.710"W	3155.90	133.021	2.31	-0.03	2.31	
9698.00	89.320	162.420	6553.80	2894.59	-2242.04	2337.84	1678519.06	14313614.30	39°24'59.427"N	80°51'54.323"W	3239.17	133.802	2.93	0.03	2.93	
9793.00	89.450	164.990	6554.82	2989.42	-2333.21	2364.49	1678545.70	14313523.16	39°24'58.526"N	80°51'53.985"W	3321.85	134.619	2.71	0.14	2.71	
9887.00	89.780	160.390	6555.46	3083.32	-2422.93	2392.45	1678573.65	14313433.48	39°24'57.639"N	80°51'53.630"W	3405.05	135.363	4.91	0.35	-4.89	

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# Actual Wellpath Report

Deuley Unit 2H AWP Proj: 18096  
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Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Edna Monroe Pad
Slot	Deuley Unit 2H AWP
Slot #05	Deuley Unit 2H

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Buidl Rate	Turn Rate	Comments
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft/100ft)	(ft/100ft)	(ft/100ft)
9981.00	98.140	156.530	6556.34	3177.24	-2510.34	2426.95	1678608.14	14313346.10	39°24'56.77"N	80°51'53.19"W	3491.69	135.968	4.16	-0.68	-4.11	
10075.00	89.380	160.660	6567.56	3271.16	-2597.83	2461.25	1678642.42	14313258.65	39°24'55.90"N	80°51'52.75"W	3578.61	136.546	4.40	0.26	4.39	
10170.00	89.630	163.710	6558.38	3366.11	-2688.26	2490.31	1678671.47	14313168.25	39°24'55.015"N	80°51'52.388"W	3664.48	137.189	3.22	0.26	3.21	
10264.00	89.570	162.450	6559.03	3460.01	-2778.19	2517.66	1678698.81	14313078.36	39°24'54.126"N	80°51'52.042"W	3749.26	137.816	1.34	-0.06	-1.34	
10359.00	89.570	161.960	6559.75	3554.96	-2868.64	2546.70	1678727.83	14312987.95	39°24'53.231"N	80°51'51.673"W	3835.98	138.402	0.52	0.00	-0.52	
10453.00	90.250	160.950	6559.89	3648.94	-2957.76	2576.59	1678757.72	14312898.66	39°24'52.350"N	80°51'51.294"W	3922.65	138.940	1.30	0.72	-1.07	
10547.00	89.820	158.150	6559.84	3742.92	-3045.82	2609.43	1678790.54	14312810.83	39°24'51.479"N	80°51'50.877"W	4010.76	139.413	3.01	-0.46	-2.98	
10641.00	89.380	156.340	6560.49	3836.77	-3132.50	2645.79	1678826.88	14312724.19	39°24'50.622"N	80°51'50.416"W	4100.34	139.815	1.98	-0.47	-1.93	
10736.00	89.600	157.950	6561.34	3931.60	-3220.04	2682.68	1678863.77	14312636.69	39°24'49.756"N	80°51'49.947"W	4191.11	140.202	1.71	0.23	1.69	
10830.00	89.350	162.140	6562.20	4025.57	-3308.37	2714.75	1678895.82	14312548.39	39°24'48.863"N	80°51'49.541"W	4279.63	140.629	4.47	-0.27	4.46	
10924.00	89.970	164.660	6562.76	4119.44	-3398.44	2741.61	1678922.67	14312458.36	39°24'47.992"N	80°51'49.200"W	4366.44	141.106	2.76	0.66	2.68	
11018.00	89.970	163.180	6562.81	4213.27	-3488.76	2767.64	1678944.69	14312368.07	39°24'47.099"N	80°51'48.870"W	4453.24	141.575	1.57	0.00	-1.57	
11113.00	89.720	163.660	6563.07	4308.13	-3578.66	2794.59	1678975.63	14312277.01	39°24'46.188"N	80°51'48.529"W	4541.49	142.023	0.76	-0.26	0.72	
11207.00	90.830	163.040	6562.61	4402.00	-3669.96	2821.37	1679002.39	14312186.95	39°24'45.307"N	80°51'48.189"W	4629.12	142.448	1.47	1.18	-0.87	
11302.00	90.580	158.490	6561.44	4496.97	-3759.63	2852.65	1679033.67	14312097.32	39°24'44.421"N	80°51'47.792"W	4719.37	142.810	4.80	-0.26	-4.79	
11396.00	90.800	155.250	6560.31	4590.76	-3848.05	2889.57	1679070.57	14312010.92	39°24'43.566"N	80°51'47.324"W	4810.59	143.082	3.45	0.23	-3.45	
11490.00	88.920	156.020	6560.54	4684.42	-3931.68	2928.35	1679109.33	14311925.33	39°24'42.719"N	80°51'46.831"W	4902.38	143.321	2.16	-2.00	0.82	
11584.00	90.000	162.860	6561.44	4779.35	-4020.57	2961.69	1679142.66	14311836.48	39°24'41.840"N	80°51'46.408"W	4993.65	143.623	7.29	1.14	7.20	
11679.00	90.310	161.830	6561.18	4873.29	-4110.14	2990.20	1679171.16	14311746.94	39°24'40.954"N	80°51'46.047"W	5082.77	143.963	1.14	0.33	-1.10	
11773.00	92.220	158.510	6559.11	4967.25	-4198.53	3022.07	1679203.02	14311658.59	39°24'40.080"N	80°51'45.642"W	5173.06	144.264	4.07	2.03	-3.53	
11867.00	89.660	159.420	6557.57	5061.20	-4286.24	3055.80	1679236.73	14311570.91	39°24'39.213"N	80°51'45.214"W	5264.01	144.514	2.89	-2.72	0.97	
11961.00	89.940	161.500	6557.89	5155.19	-4374.83	3087.24	1679268.16	14311482.37	39°24'38.337"N	80°51'44.815"W	5354.45	144.790	2.23	0.30	-1.75	
12056.00	89.880	159.840	6558.04	5250.19	-4464.47	3118.68	1679299.59	14311392.76	39°24'37.450"N	80°51'44.417"W	5445.88	145.064	1.75	-0.06	-1.75	
12150.00	89.940	157.710	6558.19	5344.14	-4552.09	3152.71	1679333.61	14311305.18	39°24'36.564"N	80°51'43.985"W	5537.24	145.294	2.27	0.06	-2.27	
12245.00	89.720	159.330	6558.47	5439.08	-4640.48	3187.60	1679368.38	14311216.81	39°24'35.710"N	80°51'43.543"W	5629.76	145.516	1.72	-0.23	1.71	
12339.00	89.910	162.100	6558.78	5533.07	-4729.20	3218.54	1679399.41	14311128.13	39°24'34.832"N	80°51'43.150"W	5720.52	145.762	2.95	0.20	2.95	
12433.00	89.910	166.210	6558.92	5628.66	-4819.61	3244.20	1679426.06	14311037.76	39°24'33.938"N	80°51'42.824"W	5809.77	146.055	4.37	0.00	4.37	
12527.00	90.060	166.670	6558.95	5720.35	-4910.99	3266.24	1679447.09	14310946.42	39°24'33.035"N	80°51'42.545"W	5897.98	146.373	0.51	0.16	0.49	
12621.00	90.060	166.250	6558.85	5813.83	-5002.38	3288.25	1679469.09	14310855.07	39°24'32.131"N	80°51'42.267"W	5986.34	146.682	0.45	0.00	-0.45	
12716.00	90.460	164.830	6558.42	5908.46	-5094.36	3311.87	1679492.80	14310763.12	39°24'31.222"N	80°51'41.966"W	6076.32	146.971	1.55	0.42	-1.49	

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# Actual Wellpath Report

Deulley Unit 2H AWP Proj: 18096  
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Operator	Area	Field	Facility
ANTERO RESOURCES CORPORATION	Tyler County, WV	Tyler	Edna Monroe Pad
Slot #05	Well	Deulley Unit 2H AWP	Deulley Unit 2H AWP

## WELLPATH DATA (208 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)	(ft/100ft)	(ft/100ft)	(ft/100ft)
12810.00	161.870	6557.57	6002.33	-5184.41	3338.90	1679519.72	14310673.11	39°24'30.33"N	80°51'41.625"W	6166.55	147.217	3.15	0.13	-3.15		
12904.00	89.880	161.370	6057.19	-6056.30	3368.54	1679549.34	14310583.94	39°24'29.449"N	80°51'41.249"W	6257.64	147.431	0.92	-0.74	-0.53		
12999.00	90.050	161.930	6557.24	-6191.28	3398.44	1679579.24	14310493.81	39°24'28.558"N	80°51'40.870"W	6349.77	147.642	0.62	0.19	0.59		
13093.00	90.180	159.420	6557.04	-6285.28	3429.55	1679610.33	14310405.15	39°24'27.681"N	80°51'40.475"W	6441.37	147.831	2.67	0.13	-2.67		
13188.00	89.880	156.970	6556.99	-6380.19	3464.83	1679645.60	14310316.98	39°24'26.808"N	80°51'40.028"W	6534.84	147.980	2.60	-0.32	-2.58		
13281.00	89.690	156.920	6557.34	-6526.24	3501.25	1679682.01	14310231.45	39°24'25.962"N	80°51'39.665"W	6626.72	148.106	0.21	-0.20	-0.05		
13369.00	90.250	160.800	6557.64	-6660.84	-6800.88	3570.75	1679751.48	39°24'24.235"N	80°51'38.683"W	6811.79	148.386	3.28	0.43	3.26		
13464.00	90.860	159.780	6556.72	-6755.84	-6890.31	3602.79	1679783.50	39°24'23.351"N	80°51'38.277"W	6904.77	148.548	1.25	0.64	-1.07		
13568.00	90.740	157.650	6555.40	-6849.78	-6977.89	3636.91	1679817.61	39°24'22.486"N	80°51'37.844"W	6997.30	148.684	2.27	-0.13	-2.27		
13752.00	89.970	156.120	6554.82	-6943.59	-6064.33	3673.81	1679854.49	39°24'21.630"N	80°51'37.376"W	7090.35	148.792	1.82	-0.82	-1.77		
13847.00	90.000	154.440	6554.85	-7038.19	-6150.63	3713.53	1679894.20	39°24'20.776"N	80°51'36.871"W	7184.74	148.878	1.77	0.03	-1.77		
13941.00	89.420	154.420	6555.32	-7131.67	-6235.42	3754.10	1679934.76	39°24'19.937"N	80°51'36.356"W	7278.31	148.949	0.62	-0.62	-0.02		
14035.00	88.920	160.510	6556.68	-7225.49	-6322.19	3790.11	1679970.75	39°24'19.079"N	80°51'35.899"W	7371.23	149.058	6.50	-0.53	6.48		
14129.00	90.030	162.440	6557.55	-7319.46	-6411.31	3819.97	1680000.60	39°24'18.198"N	80°51'35.520"W	7463.05	149.213	2.37	1.18	2.05		
14224.00	91.320	159.710	6556.43	-7414.44	-6501.16	3850.78	1680031.39	39°24'17.310"N	80°51'35.130"W	7556.03	149.361	3.18	1.36	-2.87		
14318.00	89.780	155.770	6555.52	-7508.31	-6588.13	3886.37	1680066.98	39°24'16.449"N	80°51'34.678"W	7649.01	149.463	4.50	-1.64	-4.19		
14412.00	88.860	163.970	6556.64	-7602.15	-6674.87	3922.54	1680103.13	39°24'15.592"N	80°51'34.219"W	7742.11	149.559	3.53	-0.98	3.39		
14506.00	88.520	163.960	6558.79	-7696.08	-6763.94	3952.41	1680132.98	39°24'14.711"N	80°51'33.840"W	7834.06	149.701	5.34	-0.36	5.33		
14600.00	89.940	167.150	6560.05	-7789.69	-6854.95	3975.84	1680156.41	39°24'13.811"N	80°51'33.544"W	7924.50	149.886	3.70	1.51	3.38		
14694.00	90.050	166.930	6560.05	-7883.07	-6945.56	3996.92	1680177.48	39°24'12.905"N	80°51'33.277"W	8014.37	150.085	0.27	0.13	-0.23		
14788.00	90.400	161.540	6559.68	-7976.83	-7036.99	4022.45	1680203.00	39°24'12.011"N	80°51'32.953"W	8105.51	150.247	5.75	0.36	-5.73		
14882.00	89.510	161.080	6559.75	-8070.82	-7126.03	4052.57	1680233.11	39°24'11.131"N	80°51'32.571"W	8197.78	150.373	1.07	-0.95	-0.48		
14977.00	89.480	165.300	6560.59	-8165.69	-7216.94	4080.04	1680250.56	39°24'10.232"N	80°51'32.223"W	8290.42	150.519	4.44	-0.03	4.44		
15071.00	89.880	162.360	6561.11	-8259.52	-7307.21	4106.22	1680285.73	39°24'09.339"N	80°51'31.892"W	8381.91	150.667	3.16	0.43	-3.13		
15165.00	89.880	161.310	6561.31	-8353.49	-7396.53	4135.52	1680316.02	39°24'08.456"N	80°51'31.520"W	8474.15	150.790	1.12	0.00	-1.12		
15260.00	89.910	159.940	6561.48	-8448.48	-7486.15	4167.04	1680347.52	39°24'07.570"N	80°51'31.120"W	8567.76	150.898	1.44	0.03	-1.44		
15353.00	89.600	159.370	6561.88	-8541.47	-7573.34	4199.37	1680379.84	39°24'06.707"N	80°51'30.710"W	8659.69	150.992	0.70	-0.33	-0.61		
15448.00	89.600	161.330	6562.54	-8636.47	-7662.80	4231.31	1680411.78	39°24'05.823"N	80°51'30.305"W	8753.43	151.093	2.06	0.00	2.06		
15542.00	89.690	160.010	6563.13	-8730.46	-7751.50	4262.43	1680442.88	39°24'04.945"N	80°51'29.911"W	8846.13	151.194	1.41	0.10	-1.40		

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# Actual Wellpath Report

Deuley Unit 2H AWP Proj: 18096



## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Edna Monroe Pad
Slot	Deuley Unit 2H
Slot #05	Deuley Unit 2H AWB

## WELLPATH DATA (208 stations)

MD	Inclination	Azimuth	TVD	Vent Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Built Rate	Turn Rate	Comments
15637.00	89.510	158.410	6563.79	8825.43	-7840.31	4296.14	1680476.58	14308018.27	39°24'04.06"N	80°51'29.483"W	8940.21	151.279	1.69	-0.19	-1.68	
15731.00	90.490	157.860	6663.79	8919.35	-7927.55	4331.15	1680511.57	14307931.07	39°24'03.204"N	80°51'29.039"W	9033.54	151.350	1.20	1.04	-0.59	
15825.00	89.260	153.020	6564.00	9012.96	-8013.02	4370.21	1680550.62	14307845.63	39°24'02.359"N	80°51'28.543"W	9127.27	151.392	5.31	-1.31	-5.15	
15920.00	89.320	159.020	6565.17	9107.63	-8099.77	4408.80	1680589.19	14307758.91	39°24'01.501"N	80°51'28.053"W	9221.92	151.440	6.32	0.06	6.32	
16014.00	89.720	161.850	6565.96	9201.61	-8188.33	4440.27	1680620.65	14307670.39	39°24'00.625"N	80°51'27.654"W	9314.76	151.530	3.04	0.43	3.01	
16108.00	89.480	162.900	6566.62	9295.56	-8277.91	4468.73	1680649.10	14307580.84	39°23'59.739"N	80°51'27.293"W	9407.09	151.638	1.15	-0.26	1.12	
16203.00	89.510	162.890	6567.46	9390.47	-8368.71	4496.67	1680677.03	14307490.08	39°23'58.842"N	80°51'26.939"W	9500.28	151.750	0.03	0.03	-0.01	
16297.00	89.510	163.150	6568.26	9484.37	-8458.61	4524.12	1680704.47	14307400.22	39°23'57.953"N	80°51'26.591"W	9592.48	151.860	0.28	0.00	0.28	
16392.00	89.690	163.630	6568.92	9579.25	-8549.64	4551.28	1680731.61	14307309.22	39°23'57.052"N	80°51'26.247"W	9685.58	151.972	0.54	0.19	0.51	
16486.00	89.570	162.700	6569.53	9673.14	-8639.61	4578.50	1680758.83	14307219.29	39°23'56.163"N	80°51'25.902"W	9777.81	152.079	1.00	-0.13	-0.99	
16580.00	89.750	157.240	6570.09	9767.10	-8727.89	4610.69	1680791.00	14307131.05	39°23'55.290"N	80°51'25.494"W	9870.89	152.154	5.81	0.19	-5.81	
16675.00	89.780	156.480	6570.48	9861.91	-8815.24	4648.02	1680828.31	14307043.72	39°23'54.426"N	80°51'25.020"W	9965.57	152.199	0.80	0.03	-0.80	
16770.00	89.850	160.950	6570.78	9956.84	-8903.74	4682.50	1680862.78	14306955.26	39°23'53.551"N	80°51'24.583"W	10059.94	152.260	4.71	0.07	4.71	
16864.00	89.850	162.530	6571.03	10050.81	-8993.00	4711.95	1680892.22	14306866.04	39°23'52.668"N	80°51'24.209"W	10152.66	152.347	1.68	0.00	1.68	
16958.00	89.720	164.980	6571.38	10144.65	-9083.24	4738.24	1680918.50	14306775.83	39°23'51.776"N	80°51'23.876"W	10244.82	152.451	2.61	-0.14	2.61	
17052.00	89.780	164.090	6571.79	10238.41	-9173.84	4763.31	1680943.56	14306685.27	39°23'50.880"N	80°51'23.559"W	10336.75	152.560	0.95	0.06	-0.95	
17146.00	90.180	163.570	6571.83	10332.25	-9264.12	4789.48	1680969.72	14306595.03	39°23'49.987"N	80°51'23.227"W	10428.95	152.661	0.70	0.43	-0.56	
17241.00	90.090	159.570	6571.60	10427.21	-9354.23	4819.51	1680999.74	14306504.96	39°23'49.096"N	80°51'22.847"W	10522.80	152.741	4.21	-0.09	-4.21	
17335.00	90.220	157.200	6571.35	10521.14	-9441.61	4854.13	1681034.35	14306417.61	39°23'48.232"N	80°51'22.407"W	10616.34	152.791	2.53	0.14	-2.52	
17430.00	89.850	156.640	6571.29	10616.96	-9529.01	4891.38	1681071.57	14306330.25	39°23'47.368"N	80°51'21.935"W	10711.09	152.828	0.71	-0.39	-0.59	
17525.00	90.310	154.960	6571.16	10710.64	-9615.66	4930.32	1681110.50	14306243.63	39°23'46.511"N	80°51'21.440"W	10805.96	152.854	1.83	0.48	-1.77	
17620.00	90.460	158.130	6570.52	10805.40	-9702.79	4968.12	1681148.29	14306156.53	39°23'45.649"N	80°51'20.961"W	10900.75	152.886	3.34	0.16	3.34	
17714.00	90.430	162.770	6569.79	10899.38	-9791.35	4999.57	1681179.73	14306068.01	39°23'44.773"N	80°51'20.562"W	10993.92	152.951	4.94	-0.03	4.94	
17809.00	90.460	163.030	6569.05	10994.29	-9882.14	5027.50	1681207.65	14305977.25	39°23'43.875"N	80°51'20.208"W	11087.50	153.035	0.28	0.03	0.27	
17904.00	89.880	160.360	6568.77	11089.26	-9972.33	5057.34	1681237.47	14305887.10	39°23'42.983"N	80°51'19.830"W	11181.41	153.109	2.88	-0.61	-2.81	
17999.00	89.820	160.030	6569.02	11184.25	-10061.71	5089.52	1681269.64	14305797.76	39°23'42.099"N	80°51'19.422"W	11275.69	153.168	0.35	-0.06	-0.35	
18071.00	89.820	158.920	6569.24	11256.24	-10129.14	5114.77	1681294.88	14305730.36	39°23'41.433"N	80°51'19.101"W	11347.26	153.208	1.54	0.00	-1.54	
18096.00	89.820	158.920	6569.32	11281.23	-10152.46	5123.76	1681303.87	14305707.04	39°23'41.202"N	80°51'18.987"W	11372.13	153.221	0.00	0.00	0.00	Projected MD at TD: 18096'

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# Actual Wellpath Report

Deulley Unit 2H AWP Proj: 18096'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Tyler County, WV	Well	Deulley Unit 2H
Field	Tyler	Wellbore	Deulley Unit 2H AWB
Facility	Edna Monroe Pad		

HOLE & CASING SECTIONS - Ref Wellbore: Deulley Unit 2H AWB Ref Wellpath: Deulley Unit 2H AWP Proj: 18096'									
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	25.00	100.00	75.00	25.00	100.00	0.00	0.00	-0.12	-0.28
17.5in Open Hole	100.00	550.00	450.00	100.00	549.99	-0.12	-0.28	-1.59	-1.36
13.375in Casing Surface	25.00	550.00	525.00	25.00	549.99	0.00	0.00	-1.59	-1.36
12.25in Open Hole	550.00	2617.00	2067.00	549.99	2580.42	-1.59	-1.36	152.22	225.44
9.625in Casing Intermediate	25.00	2617.00	2592.00	25.00	2580.42	0.00	0.00	152.22	225.44

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Deulley Unit 2H POE Rev-2	6512.00	372.95	1384.25	1677565.85	14316228.24	39°25'25.286"N	80°52'06.424"W	point
Deulley Unit 2H BHL Rev-2	6538.00	-10138.49	5113.60	1681293.71	14305721.01	39°23'41.340"N	80°51'19.116"W	point
Deulley Unit 2H LP Rev-1	6538.00	226.49	1436.21	1677617.79	14316081.83	39°25'23.838"N	80°52'05.765"W	point

WELLPATH COMPOSITION - Ref Wellbore: Deulley Unit 2H AWB Ref Wellpath: Deulley Unit 2H AWP Proj: 18096'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	5801.00	Gyrodata standard - Drop gyro or Multi-shot	03_Gyrodata MS Gyro <8-3/4"> (100'-5789')	Deulley Unit 2H AWB
5801.00	18071.00	BHI AutoTrak Curve (Short)	04_BHI AT Curve <8-1/2"> (5801')(5943'-18071')	Deulley Unit 2H AWB
18071.00	18096.00	Blind Drilling (std)	Projection to bit	Deulley Unit 2H AWB

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# Actual Wellpath Report

Deulley Unit 2H AWP Proj: 18096'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Tyler County, WV	Well	Deulley Unit 2H
Field	Tyler	Wellbore	Deulley Unit 2H AWB
Facility	Edna Monroe Pad		

COMMENTS
<p>Wellpath general comments API: 47-095-02360-0000 BHI Job #: 8325012 Rig: Patterson 343 Duration: 01/06/2017-01/11/2017 Gyrodata MS Gyro &lt;8-3/4"&gt; (100'-5789') BHI AT Curve &lt;8-1/2"&gt; (5801')(5943'-18071') Middlesex: 6609' MD / 6343' TVD Burket: 6776' MD / 6446' TVD Tully: 6845' MD / 6480' TVD Marcellus POE: 6934' MD / 6513' TVD Projected MD at TD: 18096'</p>

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