



ANTERO RESOURCES CORPORATION

Location: Doddridge Co., WV
 Field: Doddridge
 Facility: Strickling Pad

Slot: Slot #06
 Well: Smithers Unit 1H
 Wellbore: Smithers Unit 1H PWB



Plot reference wellbore is Smithers Unit 1H PWB Rev-A-0	Grid System: MAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to Frontier 22 (RKB)	North Reference: Grid north
Measured depths are referenced to Frontier 22 (RKB)	Scale: True distance
Frontier 22 (RKB) to Mean Seal Level: 1099.5 feet	Depths are in feet
Mean Seal Level to Ground level (At Slot: Slot #06): -1065 feet	Created by: mccrean on 2018-05-15
Coordinates are in feet referenced to Slot	Database: WA_MPL_EASTERNUS_Deth

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
Strickling Pad	1701583.170	14282860.060	80°47'01.270"W
Slot	Local E (ft)	Grid East (US ft)	Latitude
Slot #06	-8.17	1701543.914	39°19'55.530"N
Comment	Smithers Unit 1H		80°47'01.770"W
Frontier 22 (RKB) to Ground level (At Slot: Slot #06)		24.5ft	
Mean Sea Level to Ground level (At Slot: Slot #06)		-1065ft	
Frontier 22 (RKB) to Mean Sea Level		1099.5ft	

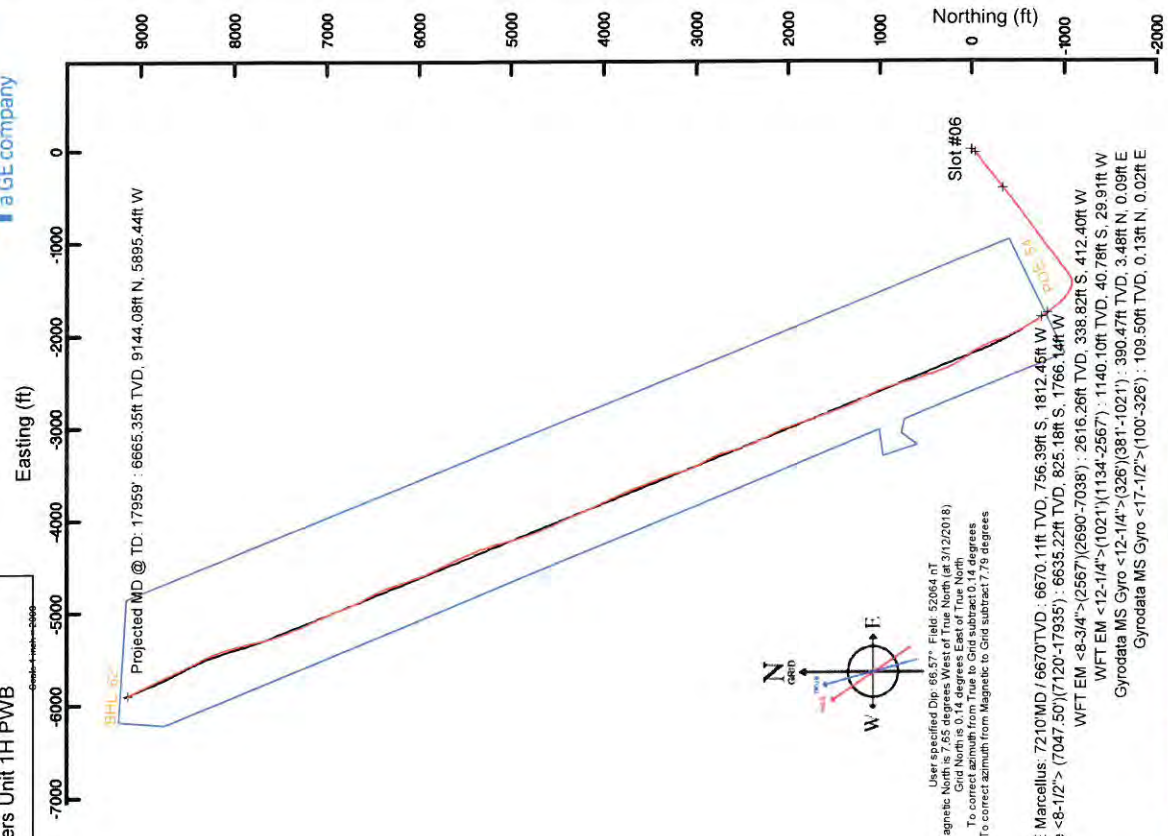
Gyrodatta MS Gyro <17-1/2'>(100-326) : 0.17° Inc. 109.50ft MD, 109.50ft TVD, 0.11ft VS
 Gyrodatta MS Gyro <12-1/4'>(326)(381-1021) : 0.96° Inc. 390.50ft MD, 390.47ft TVD, 3.20ft VS
 WFT EM <12-1/4'>(1021)(1134-2567) : 10.04° Inc. 1143.50ft MD, 1140.10ft TVD, -26.67ft VS

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #06	Smithers Unit 1H	Smithers Unit 1H PWB	Smithers Unit 1H AMP Proj. 17959
Slot #06	Smithers Unit 1H	Smithers Unit 1H PWB	Smithers Unit 1H PWB Rev-A-0

Well Profile Data						
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	VS (ft)
Tile On	7047.50	59.300	321.570	6600.97	-876.44	-1728.05
Proj. To Bottom	7140.50	66.230	324.330	6643.51	-910.46	-1777.78
POE	7214.52	68.500	327.470	6672.00	-753.89	-1616.07
Landing Pt	7435.63	90.000	327.471	6713.00	-571.81	-1932.19
On Azimuth	7966.59	90.000	338.093	6713.00	-100.33	-2174.70
Start Turn	15286.59	90.000	338.093	6713.00	7618.89	-5278.92
Avoid Parcel	16634.45	90.000	345.060	6713.00	7948.70	-5388.82
End of 3D Arc	17330.91	90.000	331.134	6713.00	8593.28	-5648.05
On Azimuth	17878.89	90.000	338.093	6713.00	8907.46	-5797.14
BHL	17968.89	90.000	338.093	6713.00	9176.52	-5905.34
						10427.29
						10717.29

API: 47-017-06845-0000
 BH Job #: 9067072
 Rig: Frontier 22
 Duration: 03/18/18 - 03/21/18

BH AT Curve <8-1/2'> (7047.50)/(120-17935) : 64.31° Inc. 7120.00ft MD, 6635.22ft TVD, -106.55ft VS
 POE Marcellus: 7210MD / 6670TVD : 69.55° Inc. 7210.00ft MD, 6670.11ft TVD, -25.44ft VS
 Projected MD @ TD: 17959 : 90.28° Inc. 17959.00ft MD, 6665.35ft TVD, 10683.49ft VS



User specified Dip: 66.57°, Field: 52064 DT
 Magnetic North is 7.65 degrees West of True North (at 3/12/2018)
 Grid North is 0.14 degrees East of True North
 To correct azimuth from True to Grid subtract 0.14 degrees
 To correct azimuth from Magnetic to Grid subtract 7.79 degrees

POE Marcellus: 7210MD / 6670TVD : 6670.11ft TVD, 756.39ft S, 1812.46ft W
 BH AT Curve <8-1/2'> (7047.50)/(120-17935) : 6635.22ft TVD, 825.18ft S, 1766.14ft W
 WFT EM <8-3/4'>(2567)(2690-7038) : 2616.26ft TVD, 338.82ft S, 412.40ft W
 WFT EM <12-1/4'>(1021)(1134-2567) : 1140.10ft TVD, 40.78ft S, 28.91ft W
 Gyrodatta MS Gyro <12-1/4'>(326)(381-1021) : 390.47ft TVD, 3.48ft N, 0.09ft E
 Gyrodatta MS Gyro <17-1/2'>(100-326) : 109.50ft TVD, 0.13ft N, 0.02ft E



Vertical Section (ft)
 Azimuth 338.09° with reference 0.00 N, 0.00 E
 Scale 1 inch = 1500



Actual Wellpath Report

Smithers Unit 1H AWP Proj: 17959'

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REFERENCE WELLPATH IDENTIFICATION		
Operator	ANTERO RESOURCES CORPORATION	Slot #06
Area	Doddridge Co., WV	Well
Field	Doddridge	Smithers Unit 1H
Facility	Strickling Pad	Smithers Unit 1H AWB

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Mccrerib
Scale	0.999604	Report Generated	5/15/2018 at 9:46:03 AM
Convergence at slot	0.14° East	Database/Source file	WA_MPL_EASTERNUS_Defri/Smithers_Unit_1H_AWP_Proj_17959_.xml

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-6.17	-39.27	1701543.91	14282953.90	39°19'55.830"N	80°47'01.770"W
Facility Reference Pt			1701583.17	14282960.06	39°19'55.890"N	80°47'01.270"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	1089.50ft
Vertical Reference Pt	Frontier 22 (RKB)	Frontier 22 (RKB) to Ground Level at Slot (Slot #06)	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	338.09°

02/15/2019



Actual Wellpath Report

Smithers Unit 1H AWP Proj: 17959'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #06
Operator	ANTERO RESOURCES CORPORATION	Well	Smithers Unit 1H
Area	Doddridge Co., WV	Wellbore	Smithers Unit 1H AWB
Field	Doddridge		
Facility	Strickling Pad		

WELLPATH DATA (217 stations) † = interpolated/extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
0.00	0.00	6.960	0.00	0.00	0.00	0.00	1701543.91	14282953.90	39°19'55.830"N	80°47'01.770"W	0.00	0.000	0.00	0.00	0.00	
24.50	0.000	6.960	24.50	0.00	0.00	0.00	1701543.91	14282953.90	39°19'55.830"N	80°47'01.770"W	0.00	0.000	0.00	0.00	0.00	
109.50	0.170	6.960	109.50	0.11	0.13	0.02	1701543.93	14282954.02	39°19'55.831"N	80°47'01.770"W	0.13	6.960	0.20	0.20	8.19	Gyrodata MS Gyro <17-1/2">(100'-326')
209.50	0.830	326.140	209.50	0.95	0.87	-0.37	1701543.54	14282954.77	39°19'55.839"N	80°47'01.777"W	0.95	337.036	0.71	0.66	-40.82	
309.50	0.940	17.710	309.49	2.29	2.26	-0.52	1701543.39	14282956.15	39°19'55.852"N	80°47'01.777"W	2.32	346.920	0.78	0.11	51.57	
335.50	0.990	26.220	335.48	2.60	2.66	-0.36	1701543.55	14282956.56	39°19'55.856"N	80°47'01.775"W	2.69	352.292	0.58	0.19	32.73	
390.50	0.960	31.390	390.47	3.20	3.48	0.09	1701544.00	14282957.38	39°19'55.864"N	80°47'01.769"W	3.48	1.476	0.17	-0.05	9.40	Gyrodata MS Gyro <12-1/4">(326')(381'-1021')
480.50	0.750	36.150	480.46	3.96	4.60	0.83	1701544.74	14282958.50	39°19'55.875"N	80°47'01.759"W	4.67	10.226	0.25	-0.23	5.29	
570.50	1.250	162.370	570.46	3.29	4.14	1.47	1701545.39	14282958.04	39°19'55.871"N	80°47'01.751"W	4.40	19.605	2.00	0.56	140.24	
660.50	3.040	189.060	660.39	0.27	0.85	1.40	1701545.31	14282954.74	39°19'55.838"N	80°47'01.752"W	1.63	58.739	2.23	1.99	29.66	
750.50	4.660	194.470	750.19	-4.72	-5.05	0.11	1701544.02	14282948.85	39°19'55.780"N	80°47'01.769"W	5.05	178.788	1.84	1.80	6.01	
840.50	6.230	197.100	839.78	-11.46	-13.26	-2.24	1701541.67	14282940.64	39°19'55.699"N	80°47'01.799"W	13.45	189.602	1.77	1.74	2.92	
936.50	6.540	221.740	935.20	-17.94	-22.32	-7.42	1701536.50	14282931.59	39°19'55.610"N	80°47'01.865"W	23.52	198.379	2.85	0.32	25.67	
1030.50	7.760	233.550	1028.47	-21.91	-30.08	-16.08	1701527.84	14282923.83	39°19'55.533"N	80°47'01.976"W	34.11	208.132	2.03	1.30	12.56	
1143.50	10.400	231.300	1140.10	-26.67	-40.78	-29.91	1701514.02	14282913.14	39°19'55.428"N	80°47'02.152"W	50.57	216.261	2.04	2.02	-1.99	MFT EM <12-1/4">(1021')(1134'-2567')
1237.50	11.650	229.980	1232.42	-31.99	-52.00	-43.57	1701500.36	14282901.92	39°19'55.317"N	80°47'02.326"W	67.84	219.960	1.73	1.71	-1.40	
1331.50	13.540	232.170	1324.16	-37.96	-54.86	-59.53	1701484.40	14282899.07	39°19'55.190"N	80°47'02.530"W	88.04	222.551	2.07	2.01	2.33	
1426.50	15.350	235.690	1416.15	-43.71	-78.77	-78.71	1701465.24	14282875.16	39°19'55.053"N	80°47'02.774"W	111.35	224.979	2.12	1.91	3.71	
1521.50	16.820	235.800	1507.43	-49.33	-93.58	-100.46	1701443.49	14282860.35	39°19'54.907"N	80°47'03.051"W	137.29	227.031	1.55	1.55	0.12	
1615.50	19.310	233.660	1596.79	-56.13	-110.46	-124.22	1701419.75	14282843.48	39°19'54.741"N	80°47'03.354"W	166.23	228.356	2.75	2.65	-2.38	
1709.50	19.450	232.180	1685.46	-64.32	-129.29	-149.08	1701394.89	14282824.66	39°19'54.556"N	80°47'03.671"W	197.33	229.068	0.51	0.15	-1.47	
1804.50	20.660	230.610	1774.70	-73.69	-149.62	-174.53	1701369.45	14282804.34	39°19'54.355"N	80°47'03.996"W	229.89	229.394	1.39	1.27	-1.65	
1898.50	20.140	229.800	1862.81	-83.75	-170.59	-199.71	1701344.29	14282783.37	39°19'54.149"N	80°47'04.317"W	262.65	229.496	0.63	-0.55	-0.86	
1993.50	20.080	230.210	1952.02	-93.89	-191.58	-224.73	1701319.27	14282762.39	39°19'53.942"N	80°47'04.636"W	295.31	229.552	0.16	-0.06	0.43	
2088.50	21.110	233.520	2040.95	-103.20	-212.19	-251.02	1701293.00	14282741.79	39°19'53.739"N	80°47'04.971"W	328.69	229.791	1.64	1.08	3.48	
2183.50	21.520	234.540	2129.45	-111.58	-232.47	-278.97	1701265.06	14282721.52	39°19'53.539"N	80°47'05.327"W	363.13	230.194	0.58	0.43	1.07	
2277.50	19.800	230.200	2217.40	-120.52	-252.67	-305.25	1701238.79	14282701.33	39°19'53.340"N	80°47'05.662"W	396.25	230.384	2.45	-1.83	-4.62	
2372.50	19.260	227.330	2306.94	-131.01	-273.59	-329.13	1701214.92	14282680.42	39°19'53.134"N	80°47'05.967"W	427.99	230.265	1.16	-0.57	-3.02	
2467.50	20.540	231.060	2396.27	-141.45	-294.68	-353.61	1701190.44	14282659.33	39°19'52.926"N	80°47'06.279"W	460.30	230.194	1.90	1.35	3.93	
2576.50	18.600	234.790	2498.97	-151.05	-316.73	-382.69	1701161.37	14282637.30	39°19'52.709"N	80°47'06.650"W	496.76	230.388	2.12	-1.78	3.42	



Actual Wellpath Report

Smithers Unit 1H AWP Proj: 17959

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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Doddridge Co., WV
Field	Doddridge
Facility	Strickling Pad
Slot	Slot #06
Well	Smithers Unit 1H
Wellbore	Smithers Unit 1H AWB

WELLPATH DATA (217 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
2699.50	16.450	231.740	2616.26	-160.46	-338.82	-412.40	1701131.68	14282615.21	39°19'52.481"N	80°47'07.029"W	533.74	230.594	1.90	-1.75	-2.48	MFT EM <8-3/4">(2667)(2690'-7038')
2793.50	18.300	230.490	2705.97	-168.67	-356.46	-434.24	1701109.85	14282597.58	39°19'52.317"N	80°47'07.307"W	561.80	230.618	2.01	1.97	-1.33	
2888.50	20.050	230.860	2795.69	-178.01	-376.23	-458.38	1701085.72	14282577.82	39°19'52.122"N	80°47'07.615"W	593.01	230.622	1.85	1.84	0.39	
2987.50	21.600	232.480	2888.22	-187.94	-398.04	-485.99	1701058.11	14282556.02	39°19'51.907"N	80°47'07.967"W	628.19	230.682	1.67	1.57	1.64	
3081.50	21.530	230.890	2975.64	-197.70	-419.46	-513.10	1701031.02	14282534.61	39°19'51.696"N	80°47'08.312"W	662.73	230.734	0.63	-0.07	-1.69	
3175.50	21.210	228.780	3063.18	-208.42	-441.54	-539.28	1701004.85	14282512.53	39°19'51.479"N	80°47'08.646"W	696.98	230.690	0.89	-0.34	-2.24	
3269.50	20.520	232.860	3151.02	-218.37	-462.70	-565.20	1700978.94	14282491.39	39°19'51.270"N	80°47'08.977"W	730.44	230.695	1.71	-0.73	4.34	
3364.50	20.710	236.220	3233.94	-226.20	-482.09	-592.44	1700951.71	14282472.00	39°19'51.079"N	80°47'09.324"W	763.80	230.863	1.26	0.20	3.54	
3458.50	20.440	235.160	3327.95	-233.29	-500.71	-619.72	1700924.44	14282453.39	39°19'50.896"N	80°47'09.672"W	796.72	231.063	0.49	-0.29	-1.13	
3552.50	20.270	233.280	3416.08	-241.13	-519.82	-646.25	1700897.92	14282434.28	39°19'50.707"N	80°47'10.010"W	829.37	231.188	0.72	-0.18	-2.00	
3647.50	19.980	232.090	3505.28	-249.81	-539.63	-672.24	1700871.94	14282414.48	39°19'50.512"N	80°47'10.341"W	862.04	231.245	0.53	-0.31	-1.25	
3741.50	20.180	234.790	3593.57	-257.96	-558.85	-698.16	1700846.03	14282395.27	39°19'50.323"N	80°47'10.672"W	894.28	231.324	1.01	0.21	2.87	
3835.50	20.350	233.670	3681.75	-265.76	-577.88	-724.58	1700819.63	14282376.25	39°19'50.135"N	80°47'11.008"W	926.80	231.426	0.45	0.18	-1.19	
3929.50	20.210	232.170	3769.92	-274.29	-597.52	-750.57	1700793.64	14282356.61	39°19'49.942"N	80°47'11.340"W	959.37	231.477	0.57	-0.15	-1.60	
4023.50	20.670	234.970	3858.00	-282.51	-617.00	-776.98	1700767.25	14282337.14	39°19'49.750"N	80°47'11.676"W	992.16	231.547	1.15	0.49	2.98	
4118.50	20.660	233.620	3946.89	-290.50	-636.57	-804.20	1700740.03	14282317.58	39°19'49.557"N	80°47'12.024"W	1025.65	231.637	0.50	-0.01	-1.42	
4212.50	20.410	231.260	4034.92	-299.39	-655.66	-830.34	1700713.91	14282297.50	39°19'49.359"N	80°47'12.357"W	1058.61	231.662	0.92	-0.27	-2.51	
4307.50	20.770	232.690	4123.85	-308.66	-677.24	-856.65	1700687.60	14282276.93	39°19'49.157"N	80°47'12.692"W	1092.02	231.672	0.65	0.38	1.51	
4402.50	20.930	236.910	4212.64	-316.42	-696.71	-884.27	1700660.00	14282257.46	39°19'48.965"N	80°47'13.044"W	1125.76	231.766	1.59	0.17	4.44	
4497.50	20.560	235.600	4301.48	-323.32	-715.40	-912.25	1700632.03	14282238.78	39°19'48.781"N	80°47'13.401"W	1159.31	231.896	0.62	-0.39	-1.38	
4591.50	20.280	233.110	4389.57	-331.10	-734.50	-938.90	1700605.39	14282219.68	39°19'48.592"N	80°47'13.741"W	1192.07	231.964	0.97	-0.30	-2.65	
4686.50	20.210	231.420	4478.70	-340.06	-754.62	-964.89	1700579.40	14282199.58	39°19'48.394"N	80°47'14.072"W	1224.94	231.972	0.62	-0.07	-1.78	
4780.50	19.770	234.760	4567.04	-348.39	-773.92	-990.57	1700553.74	14282180.29	39°19'48.204"N	80°47'14.399"W	1257.05	232.000	1.30	-0.47	3.55	
4875.50	19.660	233.930	4656.48	-356.00	-792.60	-1016.61	1700527.71	14282161.61	39°19'48.020"N	80°47'14.731"W	1289.08	232.058	0.32	-0.12	-0.87	
4969.50	19.370	231.100	4745.08	-364.43	-811.70	-1041.53	1700502.80	14282142.52	39°19'47.832"N	80°47'15.049"W	1320.47	232.069	1.05	-0.31	-3.01	
5064.50	19.120	228.160	4834.77	-374.33	-831.97	-1065.58	1700478.96	14282122.26	39°19'47.632"N	80°47'15.363"W	1351.74	232.013	1.05	-0.26	-3.09	
5158.50	18.660	229.850	4923.71	-384.29	-851.94	-1088.34	1700456.00	14282102.30	39°19'47.435"N	80°47'15.646"W	1382.13	231.947	0.76	-0.49	1.80	
5253.50	19.380	231.850	5013.52	-393.45	-871.47	-1112.35	1700432.00	14282082.77	39°19'47.243"N	80°47'15.962"W	1413.08	231.923	1.02	0.76	2.11	
5347.50	20.200	235.140	5101.97	-401.45	-890.38	-1137.94	1700406.43	14282063.87	39°19'47.056"N	80°47'16.278"W	1444.88	231.958	1.47	0.87	3.50	
5442.50	20.470	233.430	5191.05	-409.33	-909.66	-1164.74	1700379.64	14282044.60	39°19'46.867"N	80°47'16.620"W	1477.87	232.010	0.69	0.28	-1.80	



Actual Wellpath Report

Smithers Unit 1H AWP Proj: 17959'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Doddridge Co., WV	Well	Smithers Unit 1H
Field	Doddridge	Wellbore	Smithers Unit 1H AWB
Facility	Strickling Pad		

WELLPATH DATA (217 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
5537.50	20.550	235.890	5280.03	-417.06	-928.90	-1191.88	1700352.50	14282025.36	39°19'46.67"N	80°47'16.966"W	1511.11	232.069	0.91	0.08	2.59	
5631.50	19.820	237.690	5368.26	-423.42	-946.67	-1219.01	1700325.39	14282007.60	39°19'46.502"N	80°47'17.312"W	1543.43	232.167	1.02	-0.78	1.91	
5726.50	18.400	234.280	5458.02	-429.91	-964.04	-1244.80	1700299.61	14281990.24	39°19'46.331"N	80°47'17.640"W	1574.45	232.244	1.90	-1.49	-3.59	
5820.50	18.110	231.080	5547.30	-437.72	-981.88	-1268.21	1700276.21	14281972.41	39°19'46.155"N	80°47'17.939"W	1603.88	232.252	1.11	-0.31	-3.40	
5914.50	19.460	230.120	5636.29	-446.83	-1001.10	-1291.60	1700252.83	14281953.20	39°19'45.966"N	80°47'18.237"W	1634.14	232.221	1.47	1.44	-1.02	
6009.50	18.290	230.780	5725.91	-456.38	-1021.16	-1315.90	1700228.54	14281933.14	39°19'45.768"N	80°47'18.547"W	1665.64	232.188	0.29	-0.18	0.69	
6103.50	18.830	233.080	5814.85	-464.70	-1039.80	-1339.94	1700204.51	14281914.51	39°19'45.584"N	80°47'19.188"W	1696.06	232.188	1.33	-0.85	3.14	
6293.50	17.580	241.180	5995.10	-477.06	-1073.18	-1389.80	1700154.66	14281881.14	39°19'45.256"N	80°47'19.489"W	1726.43	232.228	0.58	0.36	1.42	
6324.50	17.470	248.950	6024.67	-477.56	-1077.11	-1398.25	1700146.22	14281877.21	39°19'45.217"N	80°47'19.596"W	1755.93	232.325	2.40	-1.32	6.42	
6356.50	18.330	255.350	6055.12	-478.85	-1080.11	-1407.60	1700136.87	14281874.22	39°19'45.187"N	80°47'19.715"W	1774.25	232.500	6.70	2.69	20.00	
6388.50	19.500	259.450	6085.40	-475.16	-1082.36	-1417.72	1700126.76	14281871.97	39°19'45.165"N	80°47'19.844"W	1783.66	232.640	5.53	3.66	12.81	
6419.50	21.000	262.190	6114.48	-472.79	-1084.06	-1428.31	1700116.17	14281870.27	39°19'45.149"N	80°47'19.979"W	1793.12	232.802	5.72	4.84	8.84	
6450.50	22.840	266.650	6143.24	-469.52	-1085.17	-1439.82	1700104.66	14281869.16	39°19'45.138"N	80°47'20.126"W	1802.96	232.995	8.00	5.94	14.39	
6482.50	25.040	271.490	6172.49	-464.85	-1085.36	-1452.79	1700091.70	14281868.97	39°19'45.137"N	80°47'20.281"W	1813.45	233.237	9.21	6.88	15.13	
6513.50	26.720	276.530	6200.38	-458.93	-1084.39	-1466.28	1700078.22	14281869.94	39°19'45.147"N	80°47'20.462"W	1823.70	233.515	8.92	5.42	16.26	
6545.50	27.670	281.680	6228.85	-451.39	-1082.07	-1480.71	1700063.80	14281872.26	39°19'45.170"N	80°47'20.646"W	1833.95	233.841	7.93	2.97	16.09	
6576.50	28.530	286.720	6256.20	-442.78	-1078.48	-1494.85	1700049.66	14281875.84	39°19'45.206"N	80°47'20.826"W	1843.28	234.191	8.14	2.77	16.26	
6608.50	29.620	292.230	6284.17	-432.50	-1073.29	-1509.49	1700035.03	14281881.03	39°19'45.257"N	80°47'21.012"W	1852.16	234.586	9.03	3.41	17.22	
6639.50	30.970	297.630	6310.94	-421.10	-1066.69	-1523.85	1700020.87	14281887.63	39°19'45.323"N	80°47'21.192"W	1859.93	235.005	9.80	4.35	17.42	
6670.50	33.450	301.220	6337.17	-408.19	-1058.56	-1538.03	1700006.50	14281895.76	39°19'45.403"N	80°47'21.375"W	1867.10	235.462	10.10	8.00	11.58	
6702.50	35.310	303.920	6363.58	-393.48	-1048.83	-1553.25	1699991.29	14281905.48	39°19'45.500"N	80°47'21.568"W	1874.20	235.971	7.51	5.81	8.44	
6734.50	36.670	305.990	6389.47	-377.73	-1038.05	-1568.65	1699975.89	14281916.26	39°19'45.607"N	80°47'21.764"W	1881.02	236.505	5.70	4.25	6.47	
6765.50	38.010	308.380	6414.12	-361.60	-1026.69	-1583.63	1699960.92	14281927.62	39°19'45.720"N	80°47'21.954"W	1887.31	237.044	6.37	4.32	7.71	
6796.50	39.610	310.460	6438.27	-344.55	-1014.35	-1598.63	1699945.92	14281939.96	39°19'45.842"N	80°47'22.144"W	1893.28	237.604	6.66	5.16	6.71	
6827.50	41.820	312.240	6461.77	-326.49	-1000.98	-1613.80	1699930.31	14281953.31	39°19'45.974"N	80°47'22.337"W	1899.03	238.190	8.05	7.13	5.74	
6859.50	44.090	313.740	6485.19	-306.75	-986.11	-1629.75	1699914.82	14281968.18	39°19'46.122"N	80°47'22.540"W	1904.86	238.823	7.78	7.08	4.69	
6890.50	46.590	315.220	6506.98	-286.54	-970.66	-1645.47	1699899.10	14281983.62	39°19'46.275"N	80°47'22.739"W	1910.43	239.464	8.75	8.06	4.77	
6922.50	49.260	316.690	6528.42	-264.54	-953.58	-1661.98	1699882.60	14282000.69	39°19'46.444"N	80°47'22.949"W	1916.11	240.154	9.01	8.34	4.59	
6953.50	51.980	318.090	6548.09	-242.13	-935.95	-1678.19	1699866.39	14282018.32	39°19'46.619"N	80°47'23.155"W	1921.54	240.851	9.44	8.77	4.52	



Actual Wellpath Report

Smithers Unit 1H AWP Proj: 17959'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Doddrige Co., WV	Well	Smithers Unit 1H
Field	Doddrige	Wellbore	Smithers Unit 1H AWB
Facility	Strickling Pad		

WELLPATH DATA (217 stations) † = interpolated/extrapolated station

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
6984.50	54.600	319.550	6566.62	-218.67	-917.24	-1694.55	1699850.04	14282057.02	39°19'46.804"N	80°47'23.362"W	1926.87	241.574	9.26	8.45	4.71	
7016.50	56.990	320.650	6584.61	-193.50	-896.94	-1711.52	1699833.07	14282057.31	39°19'47.005"N	80°47'23.578"W	1932.31	242.343	7.99	7.47	3.44	
7038.00†	58.591	321.293	6596.07	-176.11	-882.81	-1722.98	1699821.62	14282071.44	39°19'47.145"N	80°47'23.723"W	1935.97	242.871	7.87	7.45	2.99	Burket: 7038MD / 6596TVD
7047.50	59.300	321.570	6600.97	-168.32	-876.44	-1728.69	1699816.55	14282077.80	39°19'47.208"N	80°47'23.787"W	1937.60	243.106	7.87	7.46	2.92	
7096.00†	62.642	323.981	6624.50	-127.42	-842.68	-1753.69	1699810.93	14282111.56	39°19'47.542"N	80°47'24.113"W	1945.64	244.335	8.15	6.89	4.97	Tully: 7096MD / 6625TVD
7120.00	64.310	325.120	6635.22	-106.55	-825.18	-1766.14	1699778.48	14282129.04	39°19'47.715"N	80°47'24.271"W	1949.40	244.957	8.15	6.95	4.79	BH AT Curve <8-1/2"> (7047.50)(7120-17935)
7153.00	66.750	326.160	6648.89	-77.22	-800.39	-1783.09	1699761.54	14282153.83	39°19'48.196"N	80°47'24.486"W	1954.49	245.826	7.93	7.39	3.15	
7184.00†	68.260	326.306	6660.75	-49.19	-776.58	-1799.01	1699745.62	14282177.83	39°19'48.196"N	80°47'24.687"W	1959.46	246.652	4.89	4.87	0.47	Hamilton: 7184MD / 6661TVD
7200.00	69.040	326.380	6666.57	-34.60	-764.18	-1807.26	1699737.37	14282190.02	39°19'48.319"N	80°47'24.792"W	1962.18	247.080	4.89	4.87	0.46	
7210.00†	69.546	326.335	6670.11	-25.44	-756.39	-1812.45	1699732.19	14282197.81	39°19'48.396"N	80°47'24.858"W	1963.95	247.348	5.08	5.06	-0.45	POE Marcellus: 7210MD / 6670TVD
7249.00	71.520	326.160	6683.10	10.54	-725.82	-1832.88	1699711.77	14282228.37	39°19'48.699"N	80°47'25.117"W	1971.36	248.396	5.08	5.06	-0.45	
7296.00	75.980	326.770	6696.25	54.73	-688.21	-1857.79	1699686.86	14282265.96	39°19'49.071"N	80°47'25.433"W	1981.17	249.673	9.57	9.49	1.30	
7345.00	80.790	327.700	6706.12	101.85	-647.86	-1883.76	1699660.90	14282306.29	39°19'49.471"N	80°47'25.762"W	1992.05	251.021	9.99	9.82	1.90	
7392.00	84.820	329.380	6712.00	147.83	-608.10	-1908.09	1699636.59	14282346.04	39°19'49.864"N	80°47'26.071"W	2002.64	252.323	9.28	8.57	3.57	
7439.00	89.970	330.930	6714.14	194.31	-567.41	-1931.48	1699613.20	14282386.72	39°19'50.267"N	80°47'26.367"W	2013.10	253.629	11.38	10.96	3.08	
7534.00	90.280	330.360	6713.93	288.49	-484.65	-1978.12	1699566.58	14282469.44	39°19'51.086"N	80°47'26.958"W	2036.63	256.234	0.59	0.33	-0.49	
7629.00	90.950	335.520	6712.91	383.07	-400.08	-2021.32	1699523.40	14282553.98	39°19'51.923"N	80°47'27.505"W	2060.54	258.804	5.48	0.71	5.43	
7724.00	90.830	341.390	6711.43	478.02	-311.77	-2056.19	1699488.54	14282642.25	39°19'52.796"N	80°47'27.947"W	2079.69	261.378	6.18	-0.13	6.18	
7819.00	90.920	339.100	6709.98	572.93	-222.37	-2088.29	1699456.45	14282731.61	39°19'53.681"N	80°47'28.353"W	2100.10	263.922	2.41	0.09	-2.41	
7913.00	90.710	333.510	6708.64	666.84	-136.34	-2126.05	1699418.71	14282817.61	39°19'54.532"N	80°47'28.830"W	2130.42	266.331	5.95	-0.22	-5.95	
8007.00	90.710	329.710	6707.48	760.22	-53.67	-2170.73	1699374.04	14282900.25	39°19'55.350"N	80°47'29.397"W	2171.40	268.584	4.04	0.00	-4.04	
8102.00	90.740	323.610	6706.28	853.28	25.65	-2222.92	1699321.88	14282979.54	39°19'56.135"N	80°47'30.058"W	2223.06	270.661	6.42	0.03	-6.42	
8197.00	90.370	324.330	6705.35	945.41	102.48	-2278.79	1699286.03	14283056.33	39°19'56.896"N	80°47'30.767"W	2281.10	272.575	0.85	-0.39	0.76	
8292.00	90.310	332.510	6704.79	1038.97	183.34	-2328.50	1699216.34	14283137.16	39°19'57.696"N	80°47'31.398"W	2335.71	274.502	8.61	-0.06	8.61	
8388.00	90.340	338.520	6704.25	1134.83	270.66	-2388.27	1699176.59	14283224.45	39°19'58.560"N	80°47'31.901"W	2383.69	276.520	6.26	0.03	6.26	
8483.00	90.650	341.340	6703.42	1229.77	359.88	-2400.87	1699144.00	14283313.63	39°19'59.443"N	80°47'32.813"W	2427.69	278.525	2.99	0.33	2.97	
8576.00	90.430	342.260	6702.55	1322.57	448.22	-2429.91	1699114.97	14283401.94	39°20'00.316"N	80°47'32.680"W	2470.91	280.451	1.02	-0.24	0.99	
8671.00	89.970	342.100	6702.22	1417.33	538.66	-2458.98	1699085.91	14283492.35	39°20'01.211"N	80°47'33.048"W	2517.29	282.356	0.51	-0.48	-0.17	
8766.00	90.250	342.700	6702.03	1512.06	629.22	-2487.71	1699057.19	14283582.86	39°20'02.107"N	80°47'33.411"W	2566.05	284.194	0.70	0.29	0.63	
8860.00	90.000	343.730	6701.83	1605.68	719.21	-2514.85	1699030.06	14283672.82	39°20'02.997"N	80°47'33.753"W	2615.67	285.960	1.13	-0.27	1.10	



Actual Wellpath Report

Smithers Unit 1H AWP Proj: 17959'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #06
Operator	ANTERO RESOURCES CORPORATION	Well	Smithers Unit 1H
Area	Doddrige Co., WV	Wellbore	Smithers Unit 1H AWP
Field	Doddrige		
Facility	Strickling Pad		

WELLPATH DATA (217 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
8953.00	90.280	344.580	6701.60	1698.16	808.68	-2540.25	1699004.68	14283762.25	39°20'03.881"N	80°47'34.074"W	2665.86	287.659	0.96	0.30	0.91	
9048.00	90.090	342.350	6701.29	1792.73	899.74	-2567.28	1698977.65	14283893.28	39°20'04.782"N	80°47'34.415"W	2720.38	289.314	2.36	-0.20	-2.35	
9143.00	90.120	336.250	6701.12	1887.67	988.57	-2600.85	1698944.10	14283942.07	39°20'05.661"N	80°47'34.840"W	2782.38	290.812	6.42	0.03	-6.42	
9236.00	90.180	335.840	6700.88	1980.61	1073.56	-2638.60	1698906.36	14284027.02	39°20'06.502"N	80°47'35.318"W	2848.64	292.140	0.45	0.06	-0.44	
9331.00	90.000	330.840	6700.73	2075.25	1158.43	-2681.22	1698863.76	14284111.86	39°20'07.341"N	80°47'35.858"W	2920.77	293.367	5.27	-0.19	-5.28	
9426.00	90.060	333.170	6700.68	2169.71	1242.31	-2725.81	1698819.19	14284195.71	39°20'08.171"N	80°47'36.423"W	2995.55	294.501	2.45	0.06	2.45	
9520.00	90.150	337.580	6700.51	2263.58	1327.74	-2764.96	1698780.05	14284281.10	39°20'09.017"N	80°47'37.354"W	3067.23	295.650	4.69	0.10	4.69	
9615.00	90.030	340.010	6700.36	2358.57	1416.30	-2799.32	1698745.70	14284369.63	39°20'09.893"N	80°47'37.761"W	3137.21	296.837	2.56	-0.13	2.56	
9711.00	89.910	340.790	6700.41	2454.49	1506.73	-2831.53	1698713.51	14284460.03	39°20'10.787"N	80°47'37.761"W	3207.46	298.019	0.82	-0.12	0.81	
9806.00	89.820	340.380	6700.63	2549.40	1596.33	-2863.11	1698681.95	14284549.59	39°20'11.674"N	80°47'38.160"W	3278.06	299.142	0.44	-0.09	-0.43	
9901.00	90.400	341.640	6700.45	2644.27	1686.16	-2894.02	1698651.05	14284639.38	39°20'12.562"N	80°47'38.551"W	3349.40	300.227	1.46	0.61	1.33	
9995.00	90.220	341.790	6699.94	2738.08	1775.41	-2923.51	1698621.57	14284728.60	39°20'13.445"N	80°47'38.924"W	3420.38	301.270	0.25	-0.19	0.16	
10090.00	90.250	340.950	6699.55	2832.92	1865.43	-2953.86	1698591.23	14284818.59	39°20'14.335"N	80°47'39.307"W	3493.58	302.273	0.88	0.03	-0.88	
10186.00	89.820	339.380	6699.49	2928.86	1955.73	-2986.43	1698568.67	14284908.85	39°20'15.229"N	80°47'39.719"W	3569.83	303.220	1.70	-0.45	-1.64	
10281.00	90.430	339.270	6699.28	3023.84	2044.61	-3019.97	1698525.14	14284997.70	39°20'16.108"N	80°47'40.144"W	3647.01	304.099	0.65	0.64	-0.12	
10375.00	90.060	334.150	6698.88	3117.78	2130.93	-3057.12	1698488.01	14285083.97	39°20'16.962"N	80°47'40.614"W	3726.51	304.878	5.46	-0.39	-5.45	
10468.00	90.090	332.870	6698.76	3210.48	2214.16	-3098.61	1698446.54	14285167.18	39°20'17.785"N	80°47'41.139"W	3808.39	305.548	1.38	0.03	-1.38	
10563.00	90.000	334.070	6698.69	3305.17	2299.15	-3141.04	1698404.13	14285252.14	39°20'18.626"N	80°47'41.677"W	3892.59	306.203	1.27	-0.08	1.26	
10658.00	89.010	337.740	6699.51	3400.08	2385.86	-3179.81	1698365.37	14285338.81	39°20'19.484"N	80°47'42.168"W	3975.37	306.881	4.00	-1.04	3.86	
10753.00	90.060	340.850	6700.28	3495.04	2474.71	-3213.40	1698331.80	14285427.62	39°20'20.363"N	80°47'42.593"W	4055.87	307.601	3.46	1.11	3.27	
10848.00	90.150	344.270	6700.10	3589.74	2565.33	-3241.86	1698303.34	14285518.20	39°20'21.259"N	80°47'42.953"W	4134.08	308.355	3.60	0.09	3.60	
10942.00	90.340	345.370	6699.70	3683.09	2656.04	-3266.48	1698278.74	14285608.88	39°20'22.156"N	80°47'43.263"W	4210.04	309.115	1.19	0.20	1.17	
11037.00	90.180	340.920	6699.27	3777.69	2746.94	-3294.02	1698251.21	14285699.74	39°20'23.055"N	80°47'43.611"W	4289.08	309.825	4.69	-0.17	-4.68	
11131.00	89.940	331.740	6699.17	3871.55	2832.84	-3331.71	1698213.53	14285785.71	39°20'23.906"N	80°47'44.088"W	4373.31	310.374	9.77	-0.26	-9.77	
11226.00	90.060	330.900	6699.17	3965.88	2916.28	-3377.30	1698167.95	14285869.02	39°20'24.731"N	80°47'44.666"W	4462.16	310.810	0.89	0.13	-0.88	
11321.00	89.540	334.250	6699.50	4060.43	3000.59	-3421.05	1698124.22	14285953.30	39°20'25.565"N	80°47'45.221"W	4550.51	311.254	3.57	-0.56	3.53	
11416.00	90.090	340.080	6699.81	4155.38	3088.11	-3457.91	1698087.38	14286040.78	39°20'26.431"N	80°47'45.687"W	4636.11	311.767	6.16	0.58	6.14	
11511.00	90.000	343.450	6699.74	4250.17	3178.33	-3487.63	1698057.67	14286130.96	39°20'27.323"N	80°47'46.063"W	4718.61	312.343	3.55	-0.09	3.55	
11606.00	90.250	342.630	6699.53	4344.81	3269.19	-3515.34	1698029.97	14286221.79	39°20'28.222"N	80°47'46.473"W	4800.55	312.922	0.90	0.26	-0.86	
11700.00	90.280	339.780	6699.09	4438.66	3358.17	-3545.62	1697999.70	14286310.73	39°20'29.102"N	80°47'46.796"W	4883.52	313.445	3.03	0.03	-3.03	



Actual Wellpath Report

Smithers Unit 1H AWP Proj: 17959'
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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #06
ANTERO RESOURCES CORPORATION	Well	Smithers Unit 1H
Doddridge Co., WV	Wellbore	Smithers Unit 1H AWP
Doddridge		
Strickling Pad		

WELLPATH DATA (217 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
11796.00	90.090	338.560	6698.78	4534.64	3447.89	-3579.76	1697965.58	14286400.42	39°20'29.990"N	80°47'47.228"W	4970.17	313.925	1.29	-0.20	-1.27	
11891.00	90.000	339.450	6698.71	4629.63	3536.59	-3613.79	1697931.56	14286489.08	39°20'30.867"N	80°47'47.658"W	5056.38	314.381	0.94	-0.06	0.94	
11985.00	90.220	338.610	6698.53	4723.62	3624.36	-3647.43	1697897.93	14286576.81	39°20'31.735"N	80°47'48.084"W	5141.96	314.818	0.92	0.23	-0.89	
12080.00	90.280	335.910	6698.11	4818.60	3711.97	-3684.15	1697861.23	14286664.39	39°20'32.602"N	80°47'48.549"W	5229.88	315.215	2.84	0.06	-2.84	
12175.00	90.220	335.700	6697.70	4913.52	3798.62	-3723.09	1697822.31	14286751.01	39°20'33.459"N	80°47'49.042"W	5318.92	315.575	0.23	-0.06	-0.22	
12267.00	90.180	336.550	6697.38	5005.46	3882.75	-3760.32	1697785.09	14286835.10	39°20'34.292"N	80°47'49.514"W	5405.16	315.918	0.92	-0.04	0.92	
12362.00	90.250	335.530	6697.02	5100.40	3969.56	-3798.90	1697746.52	14286921.88	39°20'35.151"N	80°47'50.002"W	5494.46	316.258	1.08	0.07	-1.07	
12457.00	90.250	335.460	6696.61	5195.30	4056.00	-3838.31	1697707.14	14287008.28	39°20'36.006"N	80°47'50.501"W	5584.24	316.580	0.07	0.00	-0.07	
12552.00	90.280	335.150	6696.17	5290.19	4142.31	-3877.99	1697667.46	14287094.56	39°20'36.860"N	80°47'51.004"W	5674.29	316.888	0.33	0.03	-0.33	
12647.00	90.220	336.390	6695.75	5385.11	4228.94	-3916.98	1697628.49	14287181.15	39°20'37.717"N	80°47'51.498"W	5764.26	317.193	1.31	-0.06	1.31	
12741.00	90.620	337.810	6695.06	5479.09	4315.53	-3953.56	1697591.93	14287267.71	39°20'38.573"N	80°47'51.961"W	5852.72	317.506	1.57	0.43	1.51	
12835.00	90.060	335.330	6694.51	5573.05	4401.77	-3990.93	1697554.57	14287353.91	39°20'39.427"N	80°47'52.434"W	5941.64	317.802	2.70	-0.60	-2.64	
12930.00	90.370	333.310	6694.15	5667.84	4487.38	-4032.10	1697513.42	14287439.49	39°20'40.274"N	80°47'52.956"W	6032.77	318.059	2.15	0.33	-2.13	
13025.00	90.490	336.090	6693.44	5762.66	4573.26	-4072.69	1697472.84	14287525.33	39°20'41.123"N	80°47'53.470"W	6123.84	318.313	2.93	0.13	2.93	
13120.00	90.460	339.210	6692.65	5857.64	4661.10	-4108.81	1697436.74	14287613.15	39°20'41.992"N	80°47'53.927"W	6213.55	318.604	3.28	-0.03	3.28	
13214.00	90.520	339.980	6691.84	5951.60	4749.20	-4141.58	1697403.98	14287701.21	39°20'42.864"N	80°47'54.342"W	6301.40	318.910	0.82	0.06	0.82	
13309.00	90.030	340.540	6691.39	6046.53	4838.62	-4173.67	1697371.91	14287790.59	39°20'43.748"N	80°47'54.748"W	6389.97	319.220	0.78	-0.52	0.59	
13403.00	89.940	343.100	6691.41	6140.33	4927.92	-4202.99	1697342.59	14287879.86	39°20'44.632"N	80°47'55.118"W	6476.85	319.539	2.73	-0.10	2.72	
13497.00	90.340	345.490	6691.18	6233.77	5018.40	-4228.44	1697317.16	14287970.30	39°20'45.526"N	80°47'55.440"W	6562.32	319.883	2.58	0.43	2.54	
13592.00	90.120	343.560	6690.80	6328.16	5109.95	-4253.78	1697291.82	14288061.82	39°20'46.432"N	80°47'55.760"W	6648.78	320.224	2.04	-0.23	-2.03	
13687.00	90.150	343.190	6690.58	6422.76	5200.98	-4280.96	1697264.66	14288152.81	39°20'47.332"N	80°47'56.103"W	6736.23	320.542	0.39	0.03	-0.39	
13782.00	90.520	342.010	6690.02	6517.46	5291.63	-4309.37	1697236.26	14288243.42	39°20'48.229"N	80°47'56.462"W	6824.37	320.842	1.30	0.39	-1.24	
13878.00	90.220	339.010	6689.40	6613.36	5382.12	-4341.39	1697204.25	14288333.87	39°20'49.124"N	80°47'56.867"W	6914.83	321.109	3.14	-0.31	-3.12	
13972.00	90.150	336.440	6688.10	6707.35	5469.10	-4377.02	1697188.63	14288420.82	39°20'49.984"N	80°47'57.318"W	7004.95	321.329	2.74	-0.07	-2.73	
14068.00	90.060	336.040	6688.92	6803.30	5556.96	-4415.70	1697129.97	14288508.64	39°20'50.853"N	80°47'57.808"W	7097.76	321.528	0.43	-0.06	-0.42	
14162.00	90.310	335.010	6688.62	6897.21	5642.51	-4454.64	1697091.04	14288594.16	39°20'51.700"N	80°47'58.301"W	7189.00	321.710	1.13	0.27	-1.10	
14257.00	90.370	332.620	6687.44	7086.81	5813.93	-4536.54	1697009.17	14288680.27	39°20'52.552"N	80°47'58.809"W	7281.47	321.882	0.12	0.06	0.11	
14352.00	90.180	334.290	6686.99	7181.49	5898.91	-4579.53	1696966.74	14288765.51	39°20'53.396"N	80°47'59.339"W	7374.41	322.035	2.62	0.00	-2.62	
14447.00	90.490	342.570	6686.44	7275.40	5986.25	-4613.53	1696932.22	14288850.46	39°20'54.237"N	80°47'59.877"W	7467.55	322.180	1.77	-0.20	1.76	
14541.00	90.490	342.570	6686.44	7275.40	5986.25	-4613.53	1696932.22	14288937.76	39°20'55.101"N	80°48'00.314"W	7557.76	322.379	8.81	0.33	8.81	



Actual Wellpath Report

Smithers Unit 1H AWP Proj: 17959

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Doddridge Co., WV	Well	Smithers Unit 1H
Field	Doddridge	Wellbore	Smithers Unit 1H AWB
Facility	Strickling Pad		

WELLPATH DATA (217 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
14636.00	90.340	341.990	6685.75	7370.15	6076.74	-4642.44	1696903.32	14289028.22	39°20'55.996"N	80°48'00.680"W	7647.16	322.621	0.63	-0.16	-0.61	
14731.00	90.280	339.870	6685.23	7465.02	6166.52	-4673.48	1696872.30	14289117.96	39°20'56.884"N	80°48'01.072"W	7737.40	322.842	2.23	-0.06	-2.23	
14825.00	90.710	342.150	6684.42	7558.89	6255.39	-4704.06	1696841.73	14289206.80	39°20'57.763"N	80°48'01.459"W	7826.76	323.057	2.47	0.48	2.43	
14920.00	90.710	339.360	6683.24	7653.77	6345.07	-4735.37	1696810.43	14289296.44	39°20'58.652"N	80°48'01.855"W	7917.30	323.266	2.94	0.00	-2.94	
15015.00	90.460	333.920	6682.27	7748.70	6432.24	-4773.02	1696772.79	14289383.58	39°20'59.512"N	80°48'02.332"W	8009.71	323.423	5.73	-0.26	-5.73	
15109.00	90.310	332.420	6681.64	7842.35	6516.12	-4815.44	1696730.39	14289467.43	39°21'00.342"N	80°48'02.869"W	8102.37	323.535	1.60	-0.16	-1.60	
15204.00	90.280	331.940	6681.15	7936.84	6600.14	-4859.78	1696688.07	14289551.41	39°21'01.174"N	80°48'03.431"W	8196.30	323.635	0.51	-0.03	-0.51	
15298.00	90.220	334.180	6680.74	8030.48	6683.93	-4902.36	1696643.50	14289635.17	39°21'02.003"N	80°48'03.971"W	8289.04	323.742	2.38	-0.06	2.38	
15392.00	90.460	338.940	6680.18	8124.41	6770.15	-4939.74	1696606.13	14289721.35	39°21'02.856"N	80°48'04.445"W	8380.69	323.884	5.07	0.26	5.06	
15487.00	90.430	338.870	6679.45	8219.40	6858.78	-4973.94	1696571.96	14289809.95	39°21'03.732"N	80°48'04.877"W	8472.48	324.051	0.08	-0.03	-0.07	
15581.00	90.520	337.380	6678.74	8313.40	6946.01	-5008.96	1696536.95	14289897.14	39°21'04.595"N	80°48'05.321"W	8563.68	324.204	1.59	0.00	-1.59	
15676.00	90.520	336.460	6677.95	8408.37	7033.40	-5046.20	1696499.73	14289984.50	39°21'05.460"N	80°48'05.792"W	8656.37	324.342	0.97	0.09	-0.97	
15771.00	90.400	336.290	6677.19	8503.33	7120.43	-5084.27	1696461.67	14290071.50	39°21'06.321"N	80°48'06.274"W	8749.31	324.472	0.22	-0.13	-0.18	
15865.00	90.460	333.430	6676.49	8597.16	7205.52	-5124.19	1696421.76	14290156.55	39°21'07.163"N	80°48'06.780"W	8841.77	324.582	3.04	0.06	-3.04	
15961.00	90.400	337.020	6675.76	8693.03	7292.67	-5164.42	1696381.55	14290243.66	39°21'08.025"N	80°48'07.290"W	8936.12	324.695	3.74	-0.06	3.74	
16054.00	90.400	340.160	6675.12	8786.01	7379.24	-5198.36	1696347.62	14290330.20	39°21'08.881"N	80°48'07.720"W	9026.41	324.837	3.38	0.00	3.38	
16149.00	90.460	339.750	6674.40	8880.95	7468.48	-5230.92	1696315.07	14290419.40	39°21'09.764"N	80°48'08.132"W	9118.15	324.993	0.44	0.06	-0.43	
16243.00	90.400	340.350	6673.70	8974.90	7556.83	-5262.99	1696283.02	14290507.73	39°21'10.638"N	80°48'08.537"W	9208.95	325.145	0.64	-0.06	0.64	
16338.00	90.370	344.540	6673.06	9069.60	7647.39	-5291.64	1696254.38	14290598.24	39°21'11.533"N	80°48'08.900"W	9299.68	325.319	4.41	-0.03	4.41	
16433.00	90.430	348.480	6672.39	9163.55	7739.75	-5313.80	1696232.23	14290690.56	39°21'12.447"N	80°48'09.179"W	9388.30	325.528	4.15	0.06	4.15	
16528.00	90.460	348.070	6671.66	9257.05	7832.76	-5333.10	1696212.93	14290783.54	39°21'13.367"N	80°48'09.422"W	9475.98	325.750	0.43	0.03	-0.43	
16623.00	90.340	343.780	6670.99	9351.14	7924.88	-5356.20	1696189.85	14290875.63	39°21'14.278"N	80°48'09.714"W	9565.18	325.946	4.52	-0.13	-4.52	
16718.00	90.370	344.370	6670.40	9445.62	8016.24	-5382.26	1696163.79	14290966.95	39°21'15.181"N	80°48'10.043"W	9655.51	326.122	0.62	0.03	0.62	
16812.00	90.280	342.640	6669.87	9539.20	8106.36	-5408.95	1696137.11	14291057.04	39°21'16.072"N	80°48'10.380"W	9745.25	326.287	1.84	-0.10	-1.84	
16907.00	90.460	339.230	6669.26	9634.07	8196.14	-5439.98	1696106.10	14291146.77	39°21'16.960"N	80°48'10.773"W	9837.18	326.427	3.59	0.18	-3.59	
17001.00	90.310	334.820	6668.63	9728.02	8282.66	-5476.66	1696069.43	14291233.26	39°21'17.816"N	80°48'11.237"W	9929.56	326.527	4.69	-0.16	-4.69	
17096.00	90.220	331.670	6668.19	9822.67	8367.48	-5519.42	1696026.69	14291318.04	39°21'18.655"N	80°48'11.779"W	10023.90	326.590	3.32	-0.08	-3.32	
17191.00	90.150	333.350	6667.88	9917.22	8451.75	-5563.27	1695982.86	14291402.28	39°21'19.489"N	80°48'12.335"W	10118.40	326.646	1.77	-0.07	1.77	
17286.00	90.120	334.640	6667.66	10011.97	8537.13	-5604.92	1695941.22	14291487.63	39°21'20.334"N	80°48'12.863"W	10212.62	326.714	1.36	-0.03	-1.36	
17382.00	90.250	335.930	6667.35	10107.86	8624.33	-5645.06	1695901.10	14291574.80	39°21'21.197"N	80°48'13.372"W	10307.56	326.793	1.35	0.14	1.34	



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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Doddridge Co., WV	Well	Smithers Unit 1H
Field	Doddridge	Wellbore	Smithers Unit 1H AWB
Facility	Strickling Pad		

WELLPATH DATA (217 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
17476.00	90.180	334.890	6666.99	10201.75	8709.80	-5684.17	1695862.00	14291660.24	39°21'22.042"N	80°48'13.867"W	10400.50	326.871	1.11	-0.07	-1.11	
17571.00	90.180	334.210	6666.69	10296.57	8795.58	-5725.00	1695821.20	14291745.98	39°21'22.891"N	80°48'14.385"W	10494.66	326.940	0.72	0.00	-0.72	
17666.00	90.220	332.110	6666.36	10391.21	8880.34	-5767.89	1695778.32	14291830.71	39°21'23.730"N	80°48'14.928"W	10589.10	326.996	2.21	0.04	-2.21	
17761.00	90.150	336.020	6666.06	10485.96	8965.76	-5809.43	1695736.80	14291916.09	39°21'24.575"N	80°48'15.455"W	10683.36	327.059	4.12	-0.07	4.12	
17856.00	90.180	333.770	6665.78	10580.80	9051.78	-5849.73	1695696.51	14292002.08	39°21'25.426"N	80°48'15.965"W	10777.48	327.127	2.37	0.03	-2.37	
17935.00	90.280	333.580	6665.47	10659.57	9122.58	-5884.76	1695661.49	14292072.85	39°21'26.126"N	80°48'16.409"W	10855.97	327.175	0.27	0.13	-0.24	
17959.00	90.280	333.580	6665.35	10683.49	9144.08	-5895.44	1695650.82	14292094.34	39°21'26.339"N	80°48'16.545"W	10879.82	327.189	0.00	0.00	0.00	Projected MD @ TD: 17959'

HOLE & CASING SECTIONS - Ref Wellbore: Smithers Unit 1H AWB Ref Wellpath: Smithers Unit 1H AWP Proj: 17959'

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]
18.625in Conductor	24.50	104.50	80.00	24.50	104.50	0.00	0.00	0.00	0.00
17.5in Open Hole	104.50	372.70	268.20	104.50	372.68	0.11	0.01	0.00	0.00
13.375in Casing Surface	24.50	372.70	348.20	24.50	372.68	0.00	0.00	0.00	0.00
12.25in Open Hole	372.70	2658.90	2286.20	372.68	2577.39	3.22	-0.06	-0.06	-0.06
9.625in Casing Intermediate	24.50	2658.90	2634.40	24.50	2577.39	0.00	0.00	0.00	0.00
8.75in Open Hole	2658.90	7140.50	4481.60	2577.39	6643.86	-331.65	-331.65	-403.11	-403.11
8.5in Open Hole	7140.50	17959.00	10818.50	6643.86	6665.35	-809.87	-809.87	-1776.68	-1776.68
5.5in Casing Production	24.50	17959.00	17934.50	24.50	6665.35	0.00	0.00	0.00	0.00

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #06
Area	Doddridge Co., WV		Well	Smithers Unit 1H
Field	Doddridge		Wellbore	Smithers Unit 1H AWB
Facility	Strickling Pad			

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Smithers 1H POE Rev-2	6672.00	-753.89	-1816.07	1699728.57	14282200.31	39°19'48.421"N	80°47'24.904"W	point
Smithers 1H BHL Rev-2	6713.00	9176.52	-5905.34	1695640.92	14292126.77	39°21'26.660"N	80°48'16.670"W	point
Smithers 1H LP Rev-1	6713.00	-571.81	-1932.19	1699612.49	14282382.31	39°19'50.223"N	80°47'26.376"W	point

WELLPATH COMPOSITION - Ref Wellbore: Smithers Unit 1H AWB Ref Wellpath: Smithers Unit 1H AWP Proj: 17959

Start MID [ft]	End MID [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
24.50	335.50	Gyrodata standard - Drop gyro or Multi-shot		Smithers Unit 1H AWB
335.50	1030.50	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(100'-326')	Smithers Unit 1H AWB
1030.50	2576.50	ISCWSA MWD, Rev. 4 (Standard)	02 Gyrodata MS Gyro <12-1/4">(326')(381'-1021')	Smithers Unit 1H AWB
2576.50	7047.50	ISCWSA MWD, Rev. 4 (Standard)	03 WFT EM <12-1/4">(1021')(1134'-2567')	Smithers Unit 1H AWB
7047.50	17935.00	BHL AutoTrak Curve (Short)	04 WFT EM <8-3/4">(2567')(2690'-7038')	Smithers Unit 1H AWB
17935.00	17959.00	Blind Drilling (std)	05 BH AT Curve <8-1/2">(7047.50')(7120'-17935')	Smithers Unit 1H AWB
			Projection to bit	Smithers Unit 1H AWB

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Actual Wellpath Report

Smithers Unit 1H AWP Proj: 17959
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #06
Area	Doddridge Co., WV	Well	Smithers Unit 1H
Field	Doddridge	Wellbore	Smithers Unit 1H AWB
Facility	Strickling Pad		

COMMENTS
<p>Wellpath general comments</p> <p>API: 47-017-06845-0000 BH Job #: 9067072 Rig: Frontier 22 Duration: 03/18/18 - 03/21/18 Comment</p> <p>Gyrodatta MS Gyro <17-1/2">(100'-326') Gyrodatta MS Gyro <12-1/4">(326')(381'-1021') WFT EM <12-1/4">(1021')(1134'-2567') WFT EM <8-3/4">(2567')(2690'-7038') Burket: 7038'MD / 6596'TVD Tully: 7096'MD / 6625'TVD BH AT Curve <8-1/2"> (7047.50')(7120'-17935') Hamilton: 7184'MD / 6661'TVD POE Marcellus: 7210'MD / 6670'TVD Projected MD @ TD: 17959'</p>

02/15/2019