



Actual Wellpath Report

Telstar Unit 2H AWP Proj: 16872'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Doddridge Co., WV	Well	Telstar Unit 2H
Field	Doddridge	Wellbore	Telstar Unit 2H AWB
Facility	Deets Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Delaset
Scale	0.999607	Report Generated	8/14/2019 at 10:05:59 PM
Convergence at slot	0.17° East	Database/Source file	WA_MPL_EasternUS_Defn/Telstar_Unit_2H_AWP_Proj_16872_.xml

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-29.31	6.57	1718089.21	14276532.69	39°18'51.896"N	80°43'31.377"W
Facility Reference Pt			1718082.64	14276561.99	39°18'52.186"N	80°43'31.460"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM		
Calculation method	Minimum curvature	25.50ft
Horizontal Reference Pt	Slot	1401.50ft
Vertical Reference Pt	H&P 317 (RKB)	25.50ft
MD Reference Pt	H&P 317 (RKB) to Ground Level at Slot (Slot #08)	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	342.49°

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Teistar Unit 2H AWP Proj: 16872'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #08
Operator	ANTERO RESOURCES CORPORATION	Well	Teistar Unit 2H
Area	Doddridge Co., WV	Wellbore	Teistar Unit 2H AWB
Field	Doddridge		
Facility	Deets Pad		

WELLPATH DATA (203 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
0.00	0.000	218.050	0.00	0.00	0.00	0.00	1718089.21	14276532.69	39°18'51.896"N	80°43'31.377"W	0.00	0.000	0.00	0.00	0.00	
25.50	0.000	218.050	25.50	0.00	0.00	0.00	1718089.21	14276532.69	39°18'51.896"N	80°43'31.377"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.080	218.050	100.00	-0.03	-0.04	-0.03	1718089.18	14276532.65	39°18'51.896"N	80°43'31.377"W	0.05	218.050	0.11	0.11	-190.54	Gyrodata MS Gyro <17-1/2">(100'-398')
125.00	0.060	207.590	125.00	-0.05	-0.07	-0.05	1718089.16	14276532.62	39°18'51.895"N	80°43'31.378"W	0.08	216.397	0.09	-0.08	-41.84	
150.00	0.110	310.440	150.00	-0.04	-0.06	-0.07	1718089.14	14276532.63	39°18'51.895"N	80°43'31.378"W	0.10	229.584	0.55	0.20	411.40	
175.00	0.190	298.330	175.00	0.01	-0.03	-0.13	1718089.08	14276532.66	39°18'51.896"N	80°43'31.379"W	0.13	258.042	0.34	0.32	-48.44	
200.00	0.090	288.550	200.00	0.05	0.00	-0.18	1718089.03	14276532.69	39°18'51.896"N	80°43'31.379"W	0.18	269.630	0.41	-0.40	-39.12	
225.00	0.090	334.650	225.00	0.08	0.02	-0.21	1718089.00	14276532.71	39°18'51.896"N	80°43'31.380"W	0.21	276.196	0.28	0.00	184.40	
250.00	0.060	37.200	250.00	0.11	0.05	-0.20	1718089.00	14276532.74	39°18'51.897"N	80°43'31.380"W	0.22	283.609	0.33	-0.12	250.20	
275.00	0.040	23.510	275.00	0.13	0.07	-0.21	1718089.01	14276532.76	39°18'51.897"N	80°43'31.380"W	0.21	289.212	0.09	-0.08	-54.76	
300.00	0.100	74.690	300.00	0.13	0.08	-0.17	1718089.04	14276532.77	39°18'51.897"N	80°43'31.379"W	0.19	295.464	0.32	0.24	204.72	
325.00	0.100	47.970	325.00	0.14	0.10	-0.14	1718089.07	14276532.79	39°18'51.897"N	80°43'31.379"W	0.17	306.999	0.18	0.00	-106.88	
350.00	0.140	90.370	350.00	0.14	0.12	-0.09	1718089.12	14276532.81	39°18'51.897"N	80°43'31.378"W	0.15	322.453	0.38	0.16	169.60	
375.00	0.050	175.740	375.00	0.12	0.11	-0.06	1718089.15	14276532.80	39°18'51.897"N	80°43'31.378"W	0.12	330.974	0.58	-0.36	341.48	
398.00	0.130	212.140	398.00	0.09	0.07	-0.07	1718089.14	14276532.76	39°18'51.897"N	80°43'31.378"W	0.10	315.907	0.41	0.35	158.26	
517.00	1.760	236.540	516.98	-0.50	-1.05	-1.67	1718087.54	14276531.64	39°18'51.886"N	80°43'31.398"W	1.97	237.894	1.38	1.37	20.50	APS EM <12-1/4"> (398')(517'-2549')
609.00	3.600	228.050	608.88	-2.08	-3.76	-5.00	1718084.22	14276528.93	39°18'51.859"N	80°43'31.441"W	6.25	233.056	2.04	2.00	-9.23	
702.00	5.950	231.740	701.55	-5.00	-8.69	-10.95	1718078.26	14276524.00	39°18'51.810"N	80°43'31.517"W	13.98	231.558	2.55	2.53	3.97	
794.00	6.140	228.650	793.03	-8.67	-14.90	-18.39	1718070.83	14276517.80	39°18'51.749"N	80°43'31.612"W	23.67	230.990	0.41	0.21	-3.36	
889.00	6.680	246.760	887.45	-11.28	-20.44	-27.28	1718061.94	14276512.26	39°18'51.695"N	80°43'31.725"W	34.09	233.166	2.19	0.57	19.06	
984.00	5.370	238.170	981.93	-12.93	-24.96	-36.14	1718053.09	14276507.74	39°18'51.650"N	80°43'31.838"W	43.92	235.367	1.67	-1.38	-9.04	
1078.00	5.610	238.830	1075.49	-15.10	-29.66	-43.81	1718045.42	14276503.04	39°18'51.604"N	80°43'31.936"W	52.90	235.901	0.26	0.26	0.70	
1173.00	5.340	247.360	1170.06	-16.60	-33.76	-51.86	1718037.37	14276498.94	39°18'51.564"N	80°43'32.038"W	61.88	236.934	0.90	-0.28	8.98	
1268.00	4.540	241.910	1264.71	-17.68	-37.24	-59.26	1718029.98	14276495.47	39°18'51.530"N	80°43'32.132"W	69.98	237.856	0.98	-0.84	-5.74	
1363.00	2.330	224.690	1359.53	-19.27	-40.38	-63.93	1718025.30	14276492.33	39°18'51.499"N	80°43'32.192"W	75.62	237.724	2.54	-2.33	-18.13	
1458.00	0.970	129.820	1454.51	-20.85	-42.27	-64.67	1718024.56	14276490.44	39°18'51.480"N	80°43'32.201"W	77.26	236.833	2.74	-1.43	-99.86	
1553.00	1.440	52.050	1549.49	-21.11	-42.05	-63.11	1718026.12	14276490.66	39°18'51.482"N	80°43'32.182"W	75.84	236.327	1.64	0.49	-81.86	
1648.00	2.980	24.040	1644.42	-18.85	-39.06	-61.17	1718028.07	14276493.65	39°18'51.512"N	80°43'32.157"W	72.57	237.439	1.93	1.62	-29.48	
1742.00	3.270	7.560	1738.28	-14.59	-34.17	-59.82	1718029.42	14276498.53	39°18'51.560"N	80°43'32.139"W	68.89	240.264	1.00	0.31	-17.53	
1837.00	3.420	339.400	1833.12	-9.30	-28.83	-60.46	1718028.78	14276503.87	39°18'51.613"N	80°43'32.147"W	66.98	244.505	1.72	0.16	-29.64	

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Operator	ANTERO RESOURCES CORPORATION	Well	Telstar Unit 2H
Area	Doddridge Co., WV	Wellbore	Telstar Unit 2H AWB
Field	Doddridge		
Facility	Deets Pad		

WELLPATH DATA (203 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
1932.00	4.040	319.950	1927.93	-3.38	-23.62	-63.61	1718025.63	14276509.08	39°18'51.664"N	80°43'32.187"W	67.85	249.632	1.47	0.65	-20.47	
2026.00	3.360	315.230	2021.73	2.12	-19.13	-67.88	1718021.56	14276513.57	39°18'51.709"N	80°43'32.239"W	70.33	254.220	0.79	-0.72	-5.02	
2121.00	1.140	295.250	2116.65	5.24	-16.75	-70.50	1718018.74	14276515.95	39°18'51.733"N	80°43'32.275"W	72.46	256.637	2.44	-2.34	-21.03	
2216.00	1.140	174.230	2211.64	4.96	-17.28	-71.26	1718017.98	14276515.41	39°18'51.727"N	80°43'32.284"W	73.32	256.366	2.09	0.00	-127.39	
2311.00	2.250	161.690	2306.60	2.17	-19.99	-70.57	1718018.66	14276512.70	39°18'51.701"N	80°43'32.276"W	73.35	254.183	1.23	1.17	-13.20	
2405.00	1.380	178.810	2400.55	-0.76	-22.88	-69.97	1718019.27	14276509.82	39°18'51.672"N	80°43'32.268"W	73.62	251.895	1.08	-0.93	18.21	
2500.00	0.440	268.950	2495.54	-1.76	-24.03	-70.31	1718018.93	14276508.67	39°18'51.661"N	80°43'32.273"W	74.30	251.133	1.53	-0.96	94.88	
2549.00	0.980	329.430	2544.54	-1.30	-23.67	-70.71	1718018.52	14276509.03	39°18'51.664"N	80°43'32.278"W	74.57	251.493	1.74	1.10	123.43	
2652.00	1.080	312.240	2647.52	0.40	-22.26	-71.88	1718017.36	14276510.44	39°18'51.678"N	80°43'32.292"W	75.25	252.794	0.31	0.10	-16.69	APS EM <8-3/4"> (2652-5881)
2746.00	1.360	192.680	2741.51	0.20	-22.75	-72.78	1718016.46	14276509.95	39°18'51.673"N	80°43'32.304"W	76.25	252.640	2.25	0.30	-127.19	
2840.00	1.540	187.010	2835.48	-1.91	-25.09	-73.18	1718016.06	14276507.61	39°18'51.650"N	80°43'32.309"W	77.36	251.073	0.24	0.19	-6.03	
2935.00	1.240	173.930	2930.45	-4.08	-27.38	-73.23	1718016.01	14276505.32	39°18'51.628"N	80°43'32.310"W	78.18	249.497	0.46	-0.32	-13.77	
3030.00	1.090	167.030	3025.43	-5.99	-29.29	-72.92	1718016.32	14276503.42	39°18'51.609"N	80°43'32.306"W	78.58	248.117	0.22	-0.16	-7.26	
3127.00	0.850	176.580	3122.42	-7.61	-30.90	-72.67	1718016.57	14276501.80	39°18'51.593"N	80°43'32.303"W	78.96	246.961	0.30	-0.25	9.85	
3222.00	0.600	206.620	3217.41	-8.65	-32.05	-72.85	1718016.39	14276500.65	39°18'51.581"N	80°43'32.305"W	79.59	246.251	0.47	-0.26	31.62	
3317.00	3.830	166.990	3312.33	-12.17	-35.59	-72.35	1718016.88	14276497.12	39°18'51.546"N	80°43'32.299"W	80.63	243.809	3.57	3.40	-41.72	
3413.00	6.320	152.050	3407.95	-20.56	-43.38	-69.16	1718020.08	14276489.33	39°18'51.469"N	80°43'32.259"W	81.64	237.900	2.92	2.59	-15.56	
3507.00	6.760	147.610	3501.34	-31.00	-52.62	-63.77	1718025.47	14276480.09	39°18'51.378"N	80°43'32.190"W	82.68	230.469	0.71	0.47	-4.72	
3602.00	7.030	133.680	3595.66	-41.50	-61.36	-56.57	1718032.67	14276471.35	39°18'51.291"N	80°43'32.096"W	83.46	222.672	1.78	0.28	-14.66	
3697.00	6.760	145.400	3689.98	-51.94	-69.98	-49.19	1718040.04	14276462.74	39°18'51.206"N	80°43'31.938"W	85.54	215.103	1.51	-0.28	12.34	
3792.00	8.270	161.550	3784.17	-64.11	-81.06	-43.85	1718045.38	14276451.66	39°18'51.096"N	80°43'31.938"W	92.16	208.410	2.72	1.58	17.00	
3887.00	9.090	161.070	3878.08	-78.45	-94.64	-39.25	1718049.97	14276438.08	39°18'50.962"N	80°43'31.880"W	102.46	202.526	0.87	0.86	-0.51	
3982.00	8.870	156.270	3971.92	-93.23	-108.45	-33.87	1718055.35	14276424.29	39°18'50.825"N	80°43'31.812"W	113.61	197.345	0.82	-0.23	-5.05	
4076.00	8.280	152.090	4064.87	-107.09	-121.06	-27.79	1718061.44	14276411.67	39°18'50.700"N	80°43'31.735"W	124.21	192.926	0.91	-0.63	-4.45	
4171.00	6.870	144.940	4159.04	-119.24	-131.76	-21.32	1718067.90	14276400.98	39°18'50.594"N	80°43'31.653"W	133.47	189.191	1.78	-1.48	-7.53	
4266.00	6.840	138.350	4253.36	-129.82	-140.64	-14.30	1718074.92	14276392.11	39°18'50.506"N	80°43'31.564"W	141.36	185.804	0.83	-0.03	-6.94	
4361.00	6.670	155.800	4347.50	-142.10	-151.40	-7.60	1718081.61	14276381.35	39°18'50.400"N	80°43'31.480"W	151.59	182.874	3.12	1.93	18.37	
4456.00	9.970	147.970	4441.25	-157.17	-164.90	-0.30	1718088.91	14276367.85	39°18'50.266"N	80°43'31.387"W	164.90	180.105	1.91	1.37	-8.24	
4551.00	9.210	140.650	4534.92	-172.19	-177.75	8.88	1718098.09	14276355.01	39°18'50.139"N	80°43'31.271"W	177.98	177.140	1.51	-0.80	-7.71	
4645.00	8.600	150.830	4627.80	-186.06	-189.71	17.08	1718106.28	14276343.06	39°18'50.020"N	80°43'31.167"W	190.48	174.857	1.79	-0.65	10.83	

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Operator	ANTERO RESOURCES CORPORATION	Well	Telstar Unit 2H
Area	Doddridge Co., WV	Wellbore	Telstar Unit 2H AWB
Field	Doddridge		
Facility	Deets Pad		

WELLPATH DATA (203 stations) † = interpolated/extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (IUS ft)	Grid North (IUS ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
4740.00	7.960	156.990	4721.81	-199.56	-201.97	23.11	1718112.31	14276330.80	39°18'49.899"N	80°43'31.091"W	203.28	173.472	1.15	-0.67	6.48	
4835.00	7.460	151.880	4815.95	-212.17	-213.46	28.59	1718117.79	14276319.31	39°18'49.785"N	80°43'31.022"W	215.37	172.372	0.89	-0.53	-5.38	
4930.00	6.710	148.150	4910.22	-223.61	-223.61	34.42	1718123.62	14276309.17	39°18'49.685"N	80°43'30.948"W	226.25	171.249	0.93	-0.79	-3.93	
5025.00	6.390	140.140	5004.61	-233.88	-232.39	40.74	1718129.93	14276300.40	39°18'49.598"N	80°43'30.868"W	235.93	170.056	1.02	-0.34	-8.43	
5120.00	6.310	127.970	5099.03	-243.07	-239.66	48.24	1718137.44	14276293.13	39°18'49.526"N	80°43'30.772"W	244.46	168.618	1.42	-0.08	-12.81	
5215.00	7.590	139.790	5193.33	-253.16	-247.66	56.41	1718145.60	14276285.13	39°18'49.447"N	80°43'30.669"W	254.00	167.168	2.01	1.35	12.44	
5309.00	11.090	150.370	5286.08	-267.73	-260.26	64.89	1718154.08	14276272.53	39°18'49.322"N	80°43'30.561"W	268.23	166.000	4.13	3.72	11.26	
5404.00	10.890	141.710	5379.34	-285.05	-275.25	74.97	1718164.15	14276257.55	39°18'49.173"N	80°43'30.434"W	285.28	164.764	1.75	-0.21	-9.12	
5499.00	8.920	137.740	5472.92	-300.13	-287.75	85.49	1718174.66	14276245.06	39°18'49.049"N	80°43'30.301"W	300.18	163.454	2.19	-2.07	-4.18	
5596.00	8.480	125.610	5568.81	-312.69	-297.48	96.36	1718185.53	14276235.33	39°18'48.953"N	80°43'30.163"W	312.69	162.052	1.94	-0.45	-12.51	
5691.00	7.350	114.470	5662.91	-322.35	-304.07	107.58	1718196.75	14276228.74	39°18'48.887"N	80°43'30.020"W	322.54	160.516	2.00	-1.19	-11.73	
5786.00	6.450	101.990	5757.23	-329.05	-307.70	118.34	1718207.50	14276225.11	39°18'48.851"N	80°43'29.883"W	329.67	158.964	1.84	-0.95	-13.14	
5881.00	5.900	95.130	5851.68	-333.55	-309.24	128.42	1718217.58	14276223.57	39°18'48.836"N	80°43'29.755"W	334.85	157.449	0.97	-0.58	-7.22	
5923.00	6.890	97.980	5893.42	-335.47	-309.79	133.06	1718222.22	14276223.03	39°18'48.830"N	80°43'29.696"W	337.16	156.755	2.47	2.36	6.79	BH AT Curve <-8-1/2"> (5881)(5923)-16847'
6009.00	5.000	147.660	5979.00	-341.32	-313.67	140.18	1718229.34	14276219.14	39°18'48.792"N	80°43'29.606"W	343.57	155.920	6.13	-2.20	57.77	
6104.00	5.620	248.500	6073.76	-345.65	-318.88	138.06	1718227.22	14276213.93	39°18'48.740"N	80°43'29.633"W	347.49	156.589	8.62	0.65	106.15	
6199.00	8.190	239.530	6168.06	-347.49	-324.02	127.90	1718217.06	14276208.80	39°18'48.690"N	80°43'29.762"W	348.35	158.459	2.93	2.71	-9.44	
6294.00	8.660	183.270	6262.19	-355.71	-334.61	121.65	1718210.81	14276198.21	39°18'48.585"N	80°43'29.842"W	356.04	160.020	8.35	0.49	-59.22	
6389.00	6.530	125.370	6356.47	-366.72	-344.89	125.66	1718214.82	14276187.93	39°18'48.483"N	80°43'29.792"W	367.07	159.982	7.97	-2.24	-60.95	
6483.00	5.070	51.900	6450.10	-369.52	-345.42	133.29	1718222.45	14276187.40	39°18'48.478"N	80°43'29.695"W	370.25	158.899	7.48	-1.55	-78.16	
6578.00	10.280	21.660	6544.25	-361.47	-334.94	139.73	1718228.89	14276197.88	39°18'48.581"N	80°43'29.612"W	362.92	157.355	6.76	5.48	-31.83	
6673.00	17.160	15.190	6636.49	-343.08	-313.51	146.54	1718235.69	14276219.30	39°18'48.793"N	80°43'29.525"W	346.07	154.948	7.41	7.24	-6.81	
6768.00	23.990	10.270	6725.39	-314.16	-280.95	153.66	1718242.81	14276251.86	39°18'49.115"N	80°43'29.433"W	320.22	151.323	7.41	7.19	-5.18	
6863.00	30.820	7.570	6809.68	-274.99	-237.77	160.32	1718249.47	14276295.02	39°18'49.541"N	80°43'29.346"W	286.77	146.009	7.31	7.19	-2.84	
6907.00†	34.833	4.308	6846.65	-253.10	-214.05	162.75	1718251.90	14276318.72	39°18'49.776"N	80°43'29.315"W	268.90	142.753	9.96	9.12	-7.41	Middlesex: 6907' MD
6910.00	35.110	4.110	6849.11	-251.50	-212.34	162.88	1718252.02	14276320.44	39°18'49.792"N	80°43'29.313"W	267.61	142.509	9.96	9.22	-6.61	
6957.00	38.060	358.010	6886.85	-224.96	-184.36	163.34	1718252.49	14276348.40	39°18'50.069"N	80°43'29.306"W	246.31	138.459	9.96	6.28	-12.98	
7004.00	42.220	352.180	6922.79	-195.41	-154.21	160.69	1718249.84	14276378.54	39°18'50.367"N	80°43'29.339"W	222.72	133.822	11.92	8.85	-12.40	
7052.00	46.690	347.840	6957.05	-162.10	-121.14	154.81	1718243.96	14276411.60	39°18'50.694"N	80°43'29.412"W	196.57	128.043	11.26	9.31	-9.04	
7099.00	51.070	346.380	6987.95	-126.82	-86.64	146.90	1718236.05	14276446.09	39°18'51.035"N	80°43'29.511"W	170.55	120.531	9.61	9.32	-3.11	

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Actual Wellpath Report

Telstar Unit 2H AWP Proj: 16872

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #08
Area	Doddridge Co., WV	Telstar Unit 2H
Field	Doddridge	Telstar Unit 2H AWB
Facility	Deets Pad	

WELLPATH DATA (203 stations) † = interpolated/extrapolated station

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
7111.00H	51.820	346.385	6995.43	-117.46	144.69	1718233.85	14276455.20	39°18'51.125"N	80°43'29.539"W	164.15	118.180	6.25	6.25	0.04	Burkett: 7111' MD	
7147.00	54.070	346.400	7017.12	-88.80	137.93	1718227.09	14276483.11	39°18'51.402"N	80°43'29.624"W	146.58	109.777	6.25	6.25	0.04		
7161.00H	55.306	346.385	7025.22	-77.40	-38.49	1718224.40	14276494.21	39°18'51.511"N	80°43'29.658"W	140.62	105.887	8.83	8.83	-0.11	Tully: 7161' MD	
7194.00	58.220	346.350	7043.30	-49.86	-11.67	1718217.90	14276521.02	39°18'51.777"N	80°43'29.740"W	129.27	95.180	8.83	8.83	-0.10		
7242.00	62.610	344.890	7066.99	-8.20	28.75	1718207.53	14276561.43	39°18'52.177"N	80°43'29.870"W	121.81	76.348	9.52	9.15	-3.04		
7289.00	67.260	343.730	7086.89	34.35	69.73	1718196.01	14276602.39	39°18'52.582"N	80°43'30.015"W	127.58	56.873	10.18	9.94	-2.47		
7309.00H	68.642	343.418	7094.40	52.88	87.51	1718190.77	14276620.16	39°18'52.758"N	80°43'30.081"W	134.09	49.264	6.96	6.81	-1.56	Marcellus POE: 7309' MD	
7337.00	70.550	342.990	7104.16	79.12	112.63	1718183.19	14276645.27	39°18'53.006"N	80°43'30.176"W	146.71	39.855	6.96	6.81	-1.53		
7384.00	74.650	343.890	7118.21	123.95	155.61	1718170.42	14276688.24	39°18'53.432"N	80°43'30.337"W	175.54	27.569	8.91	8.72	1.91		
7431.00	77.340	343.530	7129.59	169.54	199.38	1718157.64	14276731.99	39°18'53.865"N	80°43'30.498"W	210.80	18.949	5.77	5.72	-0.77		
7478.00	81.170	342.660	7138.35	215.71	243.55	1718144.22	14276776.14	39°18'54.301"N	80°43'30.667"W	249.69	12.732	8.35	8.15	-1.85		
7526.00	85.500	341.370	7143.92	263.37	288.88	1718129.50	14276821.46	39°18'54.750"N	80°43'30.853"W	291.68	7.943	9.41	9.02	-2.68		
7573.00	87.780	342.230	7146.67	310.28	333.45	1718114.85	14276866.01	39°18'55.191"N	80°43'31.038"W	334.44	4.399	5.18	4.85	1.83		
7621.00	90.060	342.320	7147.58	358.27	379.16	1718100.25	14276911.70	39°18'55.643"N	80°43'31.222"W	379.32	1.669	4.75	4.75	0.19		
7716.00	90.090	339.840	7147.45	453.23	469.02	1718069.46	14277001.53	39°18'56.532"N	80°43'31.610"W	469.44	357.588	2.61	0.03	-2.61		
7811.00	89.750	334.470	7147.58	547.79	556.54	1718032.61	14277089.01	39°18'57.398"N	80°43'32.076"W	559.41	354.190	5.66	-0.36	-5.65		
7906.00	89.880	333.220	7147.89	641.70	641.81	1717990.75	14277174.24	39°18'58.242"N	80°43'32.605"W	649.32	351.275	1.32	0.14	-1.32		
8001.00	89.630	338.990	7148.30	736.07	728.63	1717952.30	14277261.03	39°18'59.102"N	80°43'33.092"W	741.39	349.354	6.08	-0.26	6.07		
8095.00	89.720	340.500	7148.83	829.96	816.81	1717919.77	14277349.18	39°18'59.974"N	80°43'33.502"W	834.21	348.276	1.61	0.10	1.61		
8190.00	89.200	338.930	7149.73	924.84	905.91	1717886.85	14277438.24	39°19'00.856"N	80°43'33.918"W	928.25	347.403	1.74	-0.55	-1.65		
8285.00	89.970	341.500	7149.41	1019.76	995.29	1717854.71	14277527.59	39°19'01.740"N	80°43'34.323"W	1022.57	346.737	2.82	0.81	2.71		
8380.00	90.400	342.990	7150.11	1114.75	1085.76	1717825.75	14277618.03	39°19'02.635"N	80°43'34.688"W	1117.30	346.356	1.63	0.45	1.57		
8475.00	90.090	342.840	7149.70	1209.75	1176.57	1717797.85	14277708.80	39°19'03.534"N	80°43'35.040"W	1212.14	346.086	0.36	-0.33	-0.16		
8570.00	89.480	343.410	7150.06	1304.74	1267.48	1717770.29	14277799.67	39°19'04.433"N	80°43'35.387"W	1307.02	345.871	0.88	-0.64	0.60		
8665.00	89.910	343.490	7150.56	1399.73	1358.54	1717743.24	14277890.70	39°19'05.334"N	80°43'35.728"W	1401.94	345.707	0.46	0.45	0.08		
8759.00	88.950	342.540	7151.50	1493.72	1448.44	1717715.79	14277980.55	39°19'06.223"N	80°43'36.074"W	1495.83	345.538	1.44	-1.02	-1.01		
8854.00	89.420	343.750	7152.85	1588.70	1539.34	1717688.26	14278071.43	39°19'07.122"N	80°43'36.421"W	1590.74	345.395	1.37	0.49	1.27		
8949.00	89.750	342.670	7153.54	1683.69	1630.29	1717660.83	14278162.34	39°19'08.022"N	80°43'36.767"W	1685.67	345.272	1.19	0.35	-1.14		
9044.00	90.430	344.100	7153.39	1778.67	1721.32	1717633.68	14278253.33	39°19'08.923"N	80°43'37.109"W	1780.62	345.171	1.67	0.72	1.51		
9139.00	89.350	343.460	7153.57	1873.65	1812.54	1717607.15	14278344.51	39°19'09.825"N	80°43'37.443"W	1875.59	345.101	1.32	-1.14	-0.67		

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Actual Wellpath Report

Telstar Unit 2H AWP Proj: 16872'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #08
Area	Doddridge Co., WY	Telstar Unit 2H
Field	Doddridge	Telstar Unit 2H AWB
Facility	Deets Pad	

WELLPATH DATA (203 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (IUS ft)	Grid North (IUS ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
9234.00	90.150	344.940	7153.99	1968.60	1903.94	-508.11	1717581.30	14278435.88	39°19'10.729"N	80°43'37.769"W	1970.58	345.058	1.77	0.84	1.56	
9329.00	89.910	344.470	7153.94	2063.53	1995.58	-533.17	1717556.25	14278527.48	39°19'11.636"N	80°43'38.084"W	2065.58	345.041	0.56	-0.25	-0.49	
9424.00	89.970	344.700	7154.04	2158.46	2087.16	-558.42	1717531.01	14278619.03	39°19'12.541"N	80°43'38.402"W	2160.57	345.021	0.25	0.06	0.24	
9518.00	89.540	343.490	7154.44	2252.43	2177.56	-584.18	1717505.26	14278709.39	39°19'13.436"N	80°43'38.726"W	2254.56	344.983	1.37	-0.46	-1.29	
9613.00	89.750	342.760	7155.03	2347.42	2268.47	-611.76	1717477.69	14278800.26	39°19'14.335"N	80°43'39.073"W	2349.51	344.908	0.80	0.22	-0.77	
9708.00	90.030	342.950	7155.21	2442.41	2359.24	-639.76	1717449.70	14278891.00	39°19'15.233"N	80°43'39.426"W	2444.45	344.828	0.36	0.29	0.20	
9803.00	89.350	342.640	7155.72	2537.41	2449.99	-667.86	1717421.61	14278981.71	39°19'16.131"N	80°43'39.780"W	2539.39	344.752	0.79	-0.72	-0.33	
9898.00	90.090	342.370	7156.19	2632.41	2540.59	-696.42	1717393.06	14279072.28	39°19'17.027"N	80°43'40.140"W	2634.32	344.671	0.83	0.78	-0.28	
9993.00	89.940	345.080	7156.16	2727.38	2631.78	-723.04	1717366.45	14279163.43	39°19'17.929"N	80°43'40.475"W	2729.30	344.638	2.86	-0.16	2.85	
10087.00	89.570	343.050	7156.56	2821.34	2722.16	-748.85	1717340.66	14279253.78	39°19'18.823"N	80°43'40.800"W	2823.29	344.619	2.20	-0.39	-2.16	
10182.00	89.260	342.160	7157.53	2916.33	2812.81	-777.25	1717312.27	14279344.39	39°19'19.720"N	80°43'41.158"W	2918.22	344.553	0.99	-0.33	-0.94	
10277.00	89.910	342.540	7158.22	3011.33	2903.34	-806.05	1717283.48	14279434.88	39°19'20.616"N	80°43'41.521"W	3013.15	344.484	0.79	0.68	0.40	
10372.00	90.120	343.630	7158.20	3106.32	2994.22	-833.69	1717255.85	14279525.73	39°19'21.515"N	80°43'41.870"W	3108.12	344.441	1.17	0.22	1.15	
10467.00	89.630	342.870	7158.40	3201.31	3085.19	-861.07	1717228.48	14279616.66	39°19'22.415"N	80°43'42.214"W	3203.10	344.406	0.95	-0.52	-0.80	
10562.00	89.540	342.640	7159.09	3296.31	3175.92	-889.23	1717200.33	14279707.36	39°19'23.312"N	80°43'42.569"W	3298.06	344.358	0.26	-0.09	-0.24	
10657.00	89.750	341.780	7159.68	3391.30	3266.37	-918.26	1717171.32	14279797.77	39°19'24.207"N	80°43'42.935"W	3392.99	344.298	0.93	0.22	-0.91	
10751.00	89.230	344.100	7160.52	3485.29	3356.23	-945.83	1717143.75	14279887.59	39°19'25.096"N	80°43'43.283"W	3486.96	344.261	2.53	-0.55	2.47	
10846.00	89.380	344.350	7161.67	3580.24	3447.64	-971.66	1717117.94	14279978.97	39°19'26.000"N	80°43'43.608"W	3581.95	344.260	0.31	0.16	0.26	
10941.00	89.480	344.140	7162.61	3675.19	3539.07	-997.45	1717092.15	14280070.36	39°19'26.905"N	80°43'43.932"W	3676.94	344.260	0.24	0.11	-0.22	
11036.00	88.580	342.800	7164.22	3770.16	3630.13	-1024.47	1717065.14	14280161.38	39°19'27.805"N	80°43'44.273"W	3771.92	344.240	1.70	-0.95	-1.41	
11131.00	90.800	344.480	7164.74	3865.13	3721.27	-1051.23	1717038.40	14280252.49	39°19'28.707"N	80°43'44.610"W	3866.90	344.225	2.93	2.34	1.77	
11226.00	89.970	339.650	7164.10	3960.10	3811.62	-1080.47	1717009.16	14280342.81	39°19'29.601"N	80°43'44.979"W	3961.81	344.174	5.16	-0.87	-5.08	
11321.00	89.720	339.550	7164.36	4054.97	3900.67	-1113.59	1716976.06	14280431.82	39°19'30.482"N	80°43'45.397"W	4056.51	344.067	0.28	-0.26	-0.11	
11415.00	90.370	338.930	7164.28	4148.82	3988.56	-1146.91	1716942.76	14280519.68	39°19'31.352"N	80°43'45.817"W	4150.18	343.957	0.96	0.69	-0.66	
11510.00	89.940	340.980	7164.02	4243.72	4077.80	-1179.47	1716910.21	14280608.88	39°19'32.235"N	80°43'46.228"W	4244.95	343.868	2.20	-0.45	2.16	
11605.00	90.030	342.580	7164.05	4338.71	4168.04	-1209.17	1716880.52	14280699.08	39°19'33.127"N	80°43'46.603"W	4339.89	343.822	1.69	0.09	1.68	
11700.00	90.430	341.300	7163.67	4433.71	4258.35	-1238.62	1716851.08	14280789.36	39°19'34.021"N	80°43'46.974"W	4434.83	343.782	1.41	0.42	-1.35	
11795.00	90.180	342.010	7163.16	4528.69	4348.52	-1268.52	1716821.19	14280879.50	39°19'34.913"N	80°43'47.351"W	4529.77	343.737	0.79	-0.26	0.75	
11889.00	89.910	342.080	7163.09	4622.69	4437.95	-1297.50	1716792.23	14280968.88	39°19'35.798"N	80°43'47.716"W	4623.73	343.703	0.30	-0.29	0.07	
11984.00	90.920	343.460	7162.40	4717.68	4528.68	-1325.63	1716764.10	14281059.58	39°19'36.695"N	80°43'48.071"W	4718.71	343.684	1.80	1.06	1.45	

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Telstar Unit 2H AWP Proj: 16872'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Doddridge Co., WV	Well	Telstar Unit 2H
Field	Doddridge	Wellbore	Telstar Unit 2H AWB
Facility	Deets Pad		

WELLPATH DATA (203 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
12079.00	90.550	341.600	7161.18	4812.67	4619.28	-1354.15	1716735.59	14281150.15	39°19'37.592"N	80°43'48.430"W	4813.68	343.661	2.00	-0.39	-1.96	
12174.00	90.710	342.720	7160.14	4907.66	4709.71	-1383.25	1716706.50	14281240.54	39°19'38.486"N	80°43'48.797"W	4908.64	343.632	1.19	0.17	1.18	
12269.00	90.150	344.440	7159.42	5002.64	4800.83	-1410.10	1716679.66	14281331.62	39°19'39.388"N	80°43'49.135"W	5003.63	343.631	1.90	-0.55	1.81	
12363.00	89.910	341.610	7159.37	5096.63	4890.72	-1437.55	1716652.23	14281421.48	39°19'40.277"N	80°43'49.481"W	5097.62	343.620	3.02	-0.26	-3.01	
12458.00	90.340	342.100	7159.17	5191.62	4981.00	-1467.13	1716622.66	14281511.72	39°19'41.170"N	80°43'49.854"W	5192.57	343.588	0.69	0.45	0.52	
12553.00	90.150	341.650	7158.76	5286.61	5071.28	-1496.68	1716593.12	14281601.92	39°19'42.063"N	80°43'50.227"W	5287.53	343.557	0.51	-0.20	-0.47	
12648.00	90.740	342.300	7158.02	5381.60	5161.62	-1526.08	1716563.73	14281692.27	39°19'42.957"N	80°43'50.598"W	5382.49	343.529	0.92	0.62	0.68	
12743.00	88.860	341.290	7158.36	5476.59	5251.86	-1555.76	1716534.07	14281782.47	39°19'43.850"N	80°43'50.972"W	5477.44	343.499	2.25	-1.98	-1.06	
12838.00	90.000	341.000	7159.30	5571.56	5341.75	-1586.46	1716503.38	14281872.33	39°19'44.739"N	80°43'51.359"W	5572.36	343.459	1.24	1.20	-0.31	
12932.00	90.220	341.590	7159.12	5665.54	5430.79	-1616.60	1716473.25	14281961.33	39°19'45.620"N	80°43'51.739"W	5666.29	343.423	0.67	0.23	0.63	
13027.00	90.430	343.180	7158.58	5760.53	5521.33	-1645.35	1716444.51	14282051.84	39°19'46.516"N	80°43'52.102"W	5761.27	343.406	1.69	0.22	1.67	
13122.00	90.460	342.430	7157.84	5855.53	5612.08	-1673.43	1716416.44	14282142.55	39°19'47.413"N	80°43'52.456"W	5856.26	343.396	0.79	0.03	-0.79	
13217.00	90.650	342.640	7156.92	5950.52	5702.69	-1701.94	1716387.94	14282233.13	39°19'48.310"N	80°43'52.815"W	5951.25	343.383	0.30	0.20	0.22	
13312.00	89.380	341.230	7156.90	6045.51	5793.01	-1731.40	1716358.49	14282323.41	39°19'49.203"N	80°43'53.187"W	6046.21	343.360	2.00	-1.34	-1.48	
13406.00	89.630	342.100	7157.71	6139.50	5882.23	-1760.97	1716328.94	14282412.60	39°19'50.086"N	80°43'53.559"W	6140.17	343.334	0.96	0.27	0.93	
13501.00	89.420	342.680	7158.50	6234.50	5972.77	-1789.71	1716300.21	14282503.11	39°19'50.982"N	80°43'53.922"W	6235.15	343.319	0.65	-0.22	0.61	
13596.00	90.340	341.990	7158.70	6329.49	6063.29	-1818.54	1716271.39	14282593.59	39°19'51.877"N	80°43'54.285"W	6330.13	343.305	1.21	0.97	-0.73	
13691.00	89.890	341.990	7158.51	6424.49	6153.64	-1847.91	1716242.03	14282683.90	39°19'52.771"N	80°43'54.656"W	6425.11	343.285	0.48	-0.48	0.00	
13786.00	88.430	342.900	7159.92	6519.48	6244.20	-1876.56	1716213.39	14282774.42	39°19'53.667"N	80°43'55.017"W	6520.09	343.273	1.80	-1.53	0.96	
13881.00	89.570	342.090	7161.57	6614.46	6334.79	-1905.13	1716184.84	14282864.97	39°19'54.563"N	80°43'55.377"W	6615.06	343.262	1.47	1.20	-0.85	
13976.00	89.540	341.830	7162.31	6709.45	6425.11	-1934.55	1716155.43	14282955.26	39°19'55.457"N	80°43'55.748"W	6710.03	343.243	0.28	-0.03	-0.27	
14070.00	89.720	342.170	7162.92	6803.45	6514.51	-1963.59	1716126.39	14283044.63	39°19'56.341"N	80°43'56.114"W	6804.01	343.226	0.41	0.19	0.36	
14165.00	89.260	342.340	7163.76	6898.44	6604.99	-1992.55	1716097.45	14283135.07	39°19'57.236"N	80°43'56.479"W	6898.99	343.213	0.52	-0.48	0.18	
14260.00	89.170	341.530	7165.07	6993.43	6695.29	-2022.00	1716068.01	14283225.34	39°19'58.130"N	80°43'56.851"W	6993.96	343.195	0.86	-0.09	-0.85	
14355.00	89.350	341.800	7166.29	7088.41	6785.46	-2051.88	1716038.14	14283315.47	39°19'59.022"N	80°43'57.228"W	7088.92	343.175	0.34	0.19	0.28	
14450.00	89.380	342.080	7167.34	7183.40	6875.78	-2081.33	1716008.70	14283405.75	39°19'59.915"N	80°43'57.599"W	7183.89	343.159	0.30	0.03	0.29	
14544.00	89.690	342.060	7168.11	7277.39	6965.21	-2110.27	1715979.77	14283495.15	39°20'00.800"N	80°43'57.964"W	7277.87	343.145	0.33	0.33	-0.02	
14639.00	89.880	342.220	7168.46	7372.39	7055.63	-2139.41	1715950.65	14283585.53	39°20'01.695"N	80°43'58.331"W	7372.85	343.132	0.26	0.20	0.17	
14734.00	89.910	343.320	7168.64	7467.39	7146.37	-2167.55	1715922.52	14283676.23	39°20'02.592"N	80°43'58.686"W	7467.85	343.127	1.16	0.03	1.16	
14829.00	90.030	345.240	7168.69	7562.34	7237.81	-2193.28	1715896.79	14283767.64	39°20'03.497"N	80°43'59.010"W	7562.83	343.142	2.02	0.13	2.02	

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Actual Wellpath Report

Telstar Unit 2H AWP Proj: 16872'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Doddrige Co., WV	Well	Telstar Unit 2H
Field	Doddrige	Wellbore	Telstar Unit 2H AWB
Facility	Deets Pad		

WELLPATH DATA (203 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	US ft	US ft	°	°	ft	°	ft/100ft	ft/100ft	ft/100ft	
14924.00	89.630	342.820	7168.97	7657.30	7329.13	-2219.42	1715870.67	14283858.93	39°20'04.400"N	80°43'59.339"W	7657.81	343.153	2.58	-0.42	-2.55	
15019.00	89.850	343.240	7169.40	7752.29	7420.00	-2247.15	1715842.95	14283949.75	39°20'05.299"N	80°43'59.689"W	7752.81	343.151	0.50	0.23	0.44	
15114.00	89.690	344.220	7169.78	7847.27	7511.19	-2273.76	1715816.35	14284040.91	39°20'06.201"N	80°44'00.024"W	7847.80	343.158	1.05	-0.17	1.03	
15209.00	89.970	345.090	7170.06	7942.20	7602.80	-2298.90	1715791.22	14284132.49	39°20'07.107"N	80°44'00.341"W	7942.77	343.176	0.96	0.29	0.92	
15304.00	89.510	345.040	7170.50	8037.10	7694.59	-2323.38	1715766.74	14284224.24	39°20'08.015"N	80°44'00.649"W	8037.71	343.198	0.49	-0.48	-0.05	
15398.00	89.630	343.600	7171.20	8131.05	7785.09	-2348.79	1715741.35	14284314.70	39°20'08.910"N	80°44'00.969"W	8131.69	343.211	1.54	0.13	-1.53	
15493.00	89.630	343.250	7171.81	8226.03	7876.14	-2375.89	1715714.26	14284405.72	39°20'09.811"N	80°44'01.310"W	8226.69	343.214	0.37	0.00	-0.37	
15588.00	89.780	343.480	7172.30	8321.02	7967.16	-2403.08	1715687.08	14284496.70	39°20'10.711"N	80°44'01.653"W	8321.69	343.215	0.29	0.16	0.24	
15683.00	89.600	340.860	7172.82	8416.01	8057.59	-2432.17	1715668.00	14284587.10	39°20'11.606"N	80°44'02.020"W	8416.66	343.204	2.76	-0.19	-2.76	
15778.00	89.970	344.290	7173.17	8510.99	8148.22	-2460.61	1715629.57	14284677.69	39°20'12.503"N	80°44'02.378"W	8511.64	343.197	3.63	0.39	3.61	
15873.00	89.750	343.680	7173.41	8605.96	8239.53	-2486.82	1715603.37	14284768.96	39°20'13.406"N	80°44'02.708"W	8606.63	343.205	0.68	-0.23	-0.64	
15968.00	89.480	342.930	7174.04	8700.95	8330.52	-2514.11	1715576.09	14284859.92	39°20'14.306"N	80°44'03.052"W	8701.63	343.206	0.84	-0.28	-0.79	
16062.00	89.750	342.880	7174.68	8794.94	8420.37	-2541.74	1715548.47	14284949.73	39°20'15.195"N	80°44'03.401"W	8795.62	343.203	0.29	0.29	-0.05	
16157.00	89.970	343.790	7174.91	8889.93	8511.37	-2568.99	1715521.24	14285040.70	39°20'16.095"N	80°44'03.744"W	8890.62	343.205	0.99	0.23	0.96	
16252.00	89.940	343.430	7174.98	8984.91	8602.51	-2595.79	1715494.44	14285131.80	39°20'16.997"N	80°44'04.082"W	8985.62	343.209	0.38	-0.03	-0.38	
16347.00	89.600	343.270	7175.36	9079.90	8693.53	-2623.01	1715467.23	14285222.78	39°20'17.897"N	80°44'04.425"W	9080.62	343.210	0.40	-0.36	-0.17	
16442.00	89.260	344.450	7176.31	9174.87	8784.78	-2649.42	1715440.84	14285314.00	39°20'18.800"N	80°44'04.757"W	9175.61	343.217	1.29	-0.36	1.24	
16537.00	90.980	342.440	7176.11	9269.85	8875.83	-2676.49	1715413.78	14285405.02	39°20'19.700"N	80°44'05.098"W	9270.60	343.219	2.78	1.81	-2.12	
16632.00	90.310	340.980	7175.04	9364.83	8966.02	-2706.30	1715383.98	14285495.17	39°20'20.593"N	80°44'05.474"W	9365.56	343.204	1.69	-0.71	-1.54	
16727.00	89.570	341.030	7175.14	9459.80	9055.85	-2737.22	1715353.07	14285584.96	39°20'21.481"N	80°44'05.865"W	9460.49	343.182	0.78	-0.78	0.05	
16822.00	89.230	340.420	7176.14	9554.74	9145.52	-2768.58	1715321.73	14285674.60	39°20'22.368"N	80°44'06.260"W	9555.39	343.158	0.74	-0.36	-0.64	
16847.00	89.050	340.670	7176.51	9579.73	9169.09	-2776.90	1715313.41	14285698.16	39°20'22.602"N	80°44'06.366"W	9580.36	343.151	1.23	-0.72	1.00	
16872.00	89.050	340.670	7176.93	9604.71	9192.68	-2785.18	1715305.13	14285721.73	39°20'22.835"N	80°44'06.470"W	9605.34	343.144	0.00	0.00	0.00	Projected MD at ID: 16872'

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Telstar Unit 2H AWP Proj: 16872'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Doddiridge Co., WV
Field	Doddiridge
Facility	Deets Pad
Slot	Slot #08
Well	Telstar Unit 2H
Wellbore	Telstar Unit 2H AWB

HOLE & CASING SECTIONS - Ref Wellbore: Telstar Unit 2H AWB Ref Wellpath: Telstar Unit 2H AWP Proj: 16872'										
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]	
20in Conductor	25.50	105.50	80.00	25.50	105.50	0.00	0.00	-0.05	-0.04	
17.5in Open Hole	105.50	410.00	304.50	105.50	410.00	-0.05	-0.04	0.04	-0.10	
13.375in Casing Surface	25.50	395.50	370.00	25.50	395.50	0.00	0.00	0.08	-0.07	
12.25in Open Hole	410.00	2615.00	2205.00	410.00	2610.53	0.04	-0.10	-22.74	-71.40	
9.625in Casing Intermediate	25.50	2594.30	2568.80	25.50	2589.83	0.00	0.00	-23.02	-71.16	
8.75in Open Hole	2615.00	5947.00	3332.00	2610.53	5917.27	-22.74	-71.40	-310.38	135.67	
8.5in Open Hole	5947.00	16872.00	10925.00	5917.27	7176.93	-310.38	135.67	9192.68	-2785.18	

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Telstar Unit 2H - POE - Rev-2	7107.00	140.67	60.95	1718150.14	14276673.31	39°18'53.285"N	80°43'30.596"W	point
Telstar Unit 2H - BHL - Rev-2	7151.00	9201.95	-2788.32	1715292.00	14285731.00	39°20'22.927"N	80°44'06.637"W	point
Telstar Unit 2H - LP - Rev-2	7151.00	393.15	-18.72	1718070.50	14276925.68	39°18'55.782"N	80°43'31.600"W	point

WELLPATH COMPOSITION - Ref Wellbore: Telstar Unit 2H AWB Ref Wellpath: Telstar Unit 2H AWP Proj: 16872'			
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment
25.50	398.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2"> (100-398)
398.00	2549.00	BHI NavitTrak (Axial)	02 APS EM <12-1/4"> (398)(517-2549)
2549.00	5881.00	BHI NavitTrak (Axial)	03 APS EM <8-3/4"> (2549)(2652-5881)
5881.00	16847.00	BHI AutoTrak Curve (Short)	04 BH AT Curve <8-1/2"> (5881)(5923-16847)
16847.00	16872.00	Blind Drilling (std)	Projection to bit

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Doddridge Co., WV	Well	Telstar Unit 2H
Field	Doddridge	Wellbore	Telstar Unit 2H AWB
Facility	Deets Pad		

COMMENTS
<p>Wellpath general comments API: 47-017-06881-0000 BHI Job #: 109894768A Rig: H&P 317 Duration: 07/07/2019-08/06/2019 Gyrodatta MS Gyro <17-1/2">(100'-398') APS EM <12-1/4"> (398')(517'-2549') APS EM <8-3/4"> (2549')(2652'-5881') BH AT Curve <8-1/2"> (5881')(5923'-16847') Middlesex: 6907' MD Burkett: 7111' MD Tully: 7161' MD Marcellus POE: 7309' MD Projected MD at ID: 16872'</p>

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