



Actual Wellpath Report

Braden Unit 2H AWP Proj: 18812'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Braden Unit 2H
Field	Tyler	Wellbore	Braden Unit 2H AWB
Facility	Alta Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Delaset
Scale	0.999606	Report Generated	4/10/2019 at 11:14:15 AM
Convergence at slot	0.16° East	Database/Source file	WA_MPL_EasternUS_Defn/Braden_Unit_2H_AWP_Proj_18812_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-9.10	2.38	1711949.21	14305601.44	39°23'39.490"N	80°44'48.490"W
Facility Reference Pt			1711946.83	14305610.53	39°23'39.580"N	80°44'48.520"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 519 (RKB) to Facility Vertical Datum	30.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	857.00ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot #02)	30.00ft
MD Reference Pt	H&P 519 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	341.91°

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WELLPATH DATA (238 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
0.00†	0.000	289.750	0.00	0.00	0.00	0.00	1711949.21	14305601.44	39°23'39.490"N	80°44'48.490"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	289.750	30.00	0.00	0.00	0.00	1711949.21	14305601.44	39°23'39.490"N	80°44'48.490"W	0.00	0.000	0.00	0.00	0.00	
65.00	0.060	289.750	65.00	0.01	0.01	-0.02	1711949.19	14305601.44	39°23'39.490"N	80°44'48.490"W	0.02	289.750	0.17	0.17	-200.71	Gyrodata MS Gyro <17-1/2">(50'-480')
90.00	0.070	165.850	90.00	0.00	0.00	-0.03	1711949.18	14305601.43	39°23'39.490"N	80°44'48.490"W	0.03	260.783	0.46	0.04	-495.60	
115.00	0.050	292.040	115.00	0.00	-0.01	-0.03	1711949.17	14305601.42	39°23'39.490"N	80°44'48.490"W	0.04	245.166	0.43	-0.08	504.76	
140.00	0.040	306.630	140.00	0.01	-0.01	-0.05	1711949.16	14305601.43	39°23'39.490"N	80°44'48.491"W	0.05	263.515	0.06	-0.04	58.36	
165.00	0.060	192.100	165.00	0.01	-0.01	-0.06	1711949.15	14305601.42	39°23'39.490"N	80°44'48.491"W	0.06	257.405	0.34	0.08	-458.12	
190.00	0.090	191.290	190.00	-0.02	-0.05	-0.07	1711949.14	14305601.39	39°23'39.490"N	80°44'48.491"W	0.08	235.426	0.12	0.12	-3.24	
215.00	0.130	83.180	215.00	-0.05	-0.06	-0.04	1711949.16	14305601.38	39°23'39.489"N	80°44'48.491"W	0.07	214.068	0.72	0.16	-432.44	
240.00	0.110	92.170	240.00	-0.06	-0.06	0.01	1711949.22	14305601.38	39°23'39.489"N	80°44'48.490"W	0.06	169.574	0.11	-0.08	35.96	
265.00	0.100	154.430	265.00	-0.09	-0.08	0.04	1711949.25	14305601.36	39°23'39.489"N	80°44'48.489"W	0.09	150.860	0.44	-0.04	249.04	
290.00	0.070	142.180	290.00	-0.13	-0.11	0.06	1711949.27	14305601.33	39°23'39.489"N	80°44'48.489"W	0.13	150.435	0.14	-0.12	-49.00	
315.00	0.090	138.280	315.00	-0.16	-0.14	0.09	1711949.29	14305601.30	39°23'39.489"N	80°44'48.489"W	0.16	148.198	0.08	0.08	-15.60	
340.00	0.070	196.570	340.00	-0.19	-0.17	0.09	1711949.30	14305601.27	39°23'39.488"N	80°44'48.489"W	0.19	150.599	0.32	-0.08	233.16	
345.00	0.070	193.140	345.00	-0.19	-0.17	0.09	1711949.30	14305601.26	39°23'39.488"N	80°44'48.489"W	0.20	151.844	0.08	0.00	-68.60	
365.00	0.090	245.310	365.00	-0.21	-0.19	0.08	1711949.28	14305601.25	39°23'39.488"N	80°44'48.489"W	0.21	158.470	0.36	0.10	260.85	
390.00	0.100	214.330	390.00	-0.22	-0.22	0.05	1711949.25	14305601.22	39°23'39.488"N	80°44'48.489"W	0.22	168.225	0.21	0.04	-123.92	
415.00	0.150	172.600	415.00	-0.27	-0.27	0.04	1711949.24	14305601.17	39°23'39.487"N	80°44'48.490"W	0.27	172.085	0.40	0.20	-166.92	
440.00	0.260	190.950	440.00	-0.35	-0.36	0.03	1711949.24	14305601.08	39°23'39.486"N	80°44'48.490"W	0.36	175.072	0.51	0.44	73.40	
465.00	0.200	207.830	465.00	-0.43	-0.45	0.00	1711949.20	14305600.99	39°23'39.486"N	80°44'48.490"W	0.45	180.055	0.36	-0.24	67.52	
490.00	0.270	198.930	490.00	-0.51	-0.54	-0.04	1711949.17	14305600.89	39°23'39.485"N	80°44'48.491"W	0.55	184.190	0.31	0.28	-35.60	
495.00	0.280	196.700	495.00	-0.52	-0.57	-0.05	1711949.16	14305600.87	39°23'39.484"N	80°44'48.491"W	0.57	184.758	0.29	0.20	-44.60	
518.00	0.270	228.220	518.00	-0.59	-0.66	-0.10	1711949.10	14305600.78	39°23'39.484"N	80°44'48.491"W	0.67	188.971	0.65	-0.04	137.04	Panther EM <12-1/4">(480')(503'-2532')
608.00	0.380	261.260	608.00	-0.63	-0.84	-0.56	1711948.65	14305600.59	39°23'39.482"N	80°44'48.497"W	1.01	213.413	0.24	0.12	36.71	
698.00	0.600	279.350	697.99	-0.36	-0.81	-1.32	1711947.89	14305600.62	39°23'39.482"N	80°44'48.507"W	1.55	238.310	0.30	0.24	20.10	
788.00	0.970	252.460	787.99	-0.14	-0.97	-2.51	1711946.70	14305600.47	39°23'39.481"N	80°44'48.522"W	2.69	248.936	0.57	0.41	-29.88	
877.00	1.650	233.310	876.96	-0.54	-1.96	-4.25	1711944.95	14305599.48	39°23'39.471"N	80°44'48.544"W	4.68	245.278	0.90	0.76	-21.52	
971.00	2.630	232.540	970.90	-1.69	-4.08	-7.05	1711942.16	14305597.36	39°23'39.450"N	80°44'48.580"W	8.15	239.951	1.04	1.04	-0.82	
1065.00	2.250	235.260	1064.81	-2.93	-6.44	-10.28	1711938.93	14305595.00	39°23'39.427"N	80°44'48.621"W	12.13	237.924	0.42	-0.40	2.89	
1159.00	0.540	216.790	1158.78	-3.72	-7.85	-12.06	1711937.15	14305593.59	39°23'39.413"N	80°44'48.644"W	14.39	236.947	1.86	-1.82	-19.65	

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Area	Tyler County, WV	Well	Braden Unit 2H
Field	Tyler	Wellbore	Braden Unit 2H AWB
Facility	Alta Pad		

WELLPATH DATA (238 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	
1253.00	0.670	82.170	1252.78	-4.07	-8.13	-11.78	1711937.43	14305593.31	39°23'39.410"N	80°44'48.640"W	14.31	235.398	1.19	0.14	-143.21		
1347.00	0.850	91.070	1346.77	-4.39	-8.07	-10.54	1711938.67	14305593.37	39°23'39.411"N	80°44'48.625"W	13.27	232.573	0.23	0.19	9.47		
1442.00	0.830	104.650	1441.76	-5.00	-8.25	-9.17	1711940.04	14305593.19	39°23'39.409"N	80°44'48.607"W	12.34	228.011	0.21	-0.02	14.29		
1536.00	0.790	94.650	1535.75	-5.62	-8.48	-7.87	1711941.34	14305592.96	39°23'39.406"N	80°44'48.590"W	11.57	222.852	0.16	-0.04	-10.64		
1630.00	0.900	67.400	1629.74	-5.81	-8.25	-6.54	1711942.67	14305593.19	39°23'39.409"N	80°44'48.574"W	10.52	218.406	0.44	0.12	-28.99		
1724.00	0.790	59.930	1723.73	-5.62	-7.64	-5.30	1711943.91	14305593.80	39°23'39.415"N	80°44'48.558"W	9.30	214.732	0.17	-0.12	-7.95		
1818.00	0.620	51.040	1817.72	-5.30	-6.99	-4.34	1711944.87	14305594.44	39°23'39.421"N	80°44'48.546"W	8.23	211.816	0.21	-0.18	-9.46		
1912.00	0.680	55.080	1911.72	-4.96	-6.36	-3.49	1711945.72	14305595.08	39°23'39.427"N	80°44'48.535"W	7.25	208.750	0.08	0.06	4.30		
2006.00	0.640	43.300	2005.71	-4.55	-5.65	-2.67	1711946.54	14305595.78	39°23'39.434"N	80°44'48.524"W	6.25	205.272	0.15	-0.04	-12.53		
2100.00	0.750	3.610	2099.70	-3.72	-4.66	-2.27	1711946.94	14305596.78	39°23'39.444"N	80°44'48.519"W	5.18	205.986	0.51	0.12	-42.22		
2195.00	1.150	343.340	2194.69	-2.19	-3.12	-2.50	1711946.70	14305598.31	39°23'39.459"N	80°44'48.522"W	4.00	218.720	0.54	0.42	-21.34		
2289.00	1.370	329.100	2288.67	-0.15	-1.26	-3.35	1711945.85	14305600.18	39°23'39.478"N	80°44'48.533"W	3.58	249.458	0.41	0.23	-15.15		
2384.00	1.620	318.080	2383.64	2.18	0.72	-4.83	1711944.37	14305602.15	39°23'39.497"N	80°44'48.552"W	4.89	278.446	0.40	0.26	-11.60		
2478.00	1.050	343.660	2477.61	4.26	2.53	-5.96	1711943.25	14305603.97	39°23'39.515"N	80°44'48.566"W	6.48	293.014	0.86	-0.61	27.21		
2547.00	1.010	335.030	2546.60	5.49	3.69	-6.40	1711942.81	14305605.13	39°23'39.527"N	80°44'48.571"W	7.39	299.982	0.23	-0.06	-12.51		
2639.00	1.080	329.540	2638.58	7.15	5.17	-7.18	1711942.03	14305606.61	39°23'39.541"N	80°44'48.581"W	8.85	305.776	0.13	0.08	-5.97	Panther EM <8-3/4">(2532')(2624'-5802')	
2733.00	1.110	263.190	2732.57	8.19	5.83	-8.53	1711940.68	14305607.26	39°23'39.548"N	80°44'48.598"W	10.33	304.339	1.28	0.03	-70.59		
2828.00	5.450	190.720	2827.41	4.41	1.28	-10.29	1711938.92	14305602.72	39°23'39.503"N	80°44'48.621"W	10.37	277.114	5.50	4.57	-76.28		
2922.00	4.990	187.860	2921.02	-3.17	-7.15	-11.68	1711937.53	14305594.29	39°23'39.420"N	80°44'48.639"W	13.69	238.510	0.56	-0.49	-3.04		
3016.00	6.720	204.410	3014.54	-10.91	-16.21	-14.51	1711934.70	14305585.23	39°23'39.330"N	80°44'48.675"W	21.76	221.826	2.55	1.84	17.61		
3111.00	8.890	190.760	3108.66	-21.43	-28.49	-18.18	1711931.04	14305572.96	39°23'39.209"N	80°44'48.723"W	33.79	212.540	2.99	2.28	-14.37		
3210.00	10.890	185.580	3206.18	-36.70	-45.31	-20.51	1711928.70	14305556.14	39°23'39.043"N	80°44'48.753"W	49.74	204.358	2.21	2.02	-5.23		
3304.00	11.910	189.800	3298.33	-53.41	-63.71	-23.03	1711926.19	14305537.75	39°23'38.861"N	80°44'48.786"W	67.74	199.873	1.40	1.09	4.49		
3398.00	12.940	196.470	3390.13	-70.65	-83.36	-27.66	1711921.55	14305518.11	39°23'38.667"N	80°44'48.845"W	87.83	198.359	1.88	1.10	7.10		
3492.00	14.540	199.780	3481.44	-88.63	-104.56	-34.64	1711914.58	14305496.92	39°23'38.458"N	80°44'48.935"W	110.15	198.331	1.90	1.70	3.52		
3587.00	13.240	197.050	3573.66	-106.94	-126.18	-41.87	1711907.35	14305475.30	39°23'38.244"N	80°44'49.028"W	132.95	198.356	1.53	-1.37	-2.87		
3681.00	12.130	190.120	3665.37	-124.45	-146.20	-46.76	1711902.46	14305455.30	39°23'38.046"N	80°44'49.091"W	153.49	197.736	2.00	-1.18	-7.37		
3775.00	12.570	193.320	3757.20	-141.88	-165.87	-50.85	1711898.37	14305435.63	39°23'37.852"N	80°44'49.144"W	173.49	197.044	0.87	0.47	3.40		
3870.00	12.190	194.920	3849.99	-159.12	-185.62	-55.81	1711893.41	14305415.89	39°23'37.657"N	80°44'49.208"W	193.83	196.735	0.54	-0.40	1.68		
3964.00	12.210	198.060	3941.87	-175.47	-204.67	-61.45	1711887.78	14305396.85	39°23'37.469"N	80°44'49.280"W	213.69	196.713	0.71	0.02	3.34		

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Area	Tyler County, WV	Well	Braden Unit 2H
Field	Tyler	Wellbore	Braden Unit 2H AWB
Facility	Alta Pad		

WELLPATH DATA (238 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
4058.00	12.990	196.660	4033.60	-192.17	-224.24	-67.56	1711881.67	14305377.29	39°23'37.276"N	80°44'49.359"W	234.19	196.767	0.89	0.83	-1.49	
4152.00	13.630	196.120	4125.08	-210.01	-245.00	-73.67	1711875.57	14305356.53	39°23'37.071"N	80°44'49.437"W	255.83	196.735	0.69	0.68	-0.57	
4247.00	14.580	198.180	4217.21	-228.91	-267.11	-80.51	1711868.73	14305334.43	39°23'36.852"N	80°44'49.525"W	278.98	196.772	1.13	1.00	2.17	
4341.00	13.240	197.560	4308.45	-247.20	-288.62	-87.44	1711861.80	14305312.93	39°23'36.640"N	80°44'49.614"W	301.57	196.856	1.43	-1.43	-0.66	
4435.00	15.150	202.180	4399.58	-265.32	-310.26	-95.33	1711853.91	14305291.30	39°23'36.426"N	80°44'49.715"W	324.57	197.080	2.36	2.03	4.91	
4529.00	13.850	196.350	4490.59	-283.97	-332.43	-103.14	1711846.11	14305269.14	39°23'36.207"N	80°44'49.816"W	348.06	197.236	2.08	-1.38	-6.20	
4623.00	14.280	197.890	4581.77	-302.63	-354.26	-109.86	1711839.38	14305247.32	39°23'35.992"N	80°44'49.902"W	370.90	197.230	0.61	0.46	1.64	
4717.00	13.460	191.000	4673.04	-321.58	-376.03	-115.51	1711833.74	14305225.55	39°23'35.777"N	80°44'49.975"W	393.37	197.076	1.96	-0.87	-7.33	
4811.00	12.520	196.990	4764.63	-339.48	-396.52	-120.58	1711828.67	14305205.08	39°23'35.574"N	80°44'50.040"W	414.44	196.914	1.75	-1.00	6.37	
4905.00	12.910	199.490	4856.33	-356.14	-416.16	-127.06	1711822.20	14305185.44	39°23'35.380"N	80°44'50.123"W	435.12	196.978	0.72	0.41	2.66	
5000.00	15.670	204.910	4948.39	-373.93	-437.81	-136.01	1711813.25	14305163.80	39°23'35.167"N	80°44'50.238"W	458.44	197.258	3.23	2.91	5.71	
5094.00	16.710	203.360	5038.66	-393.35	-461.73	-146.71	1711802.55	14305139.89	39°23'34.931"N	80°44'50.375"W	484.47	197.627	1.20	1.11	-1.65	
5188.00	15.620	197.250	5128.95	-413.80	-486.22	-155.82	1711793.44	14305115.41	39°23'34.689"N	80°44'50.492"W	510.58	197.770	2.15	-1.16	-6.50	
5282.00	14.910	191.780	5219.63	-434.61	-510.15	-162.05	1711787.22	14305091.49	39°23'34.452"N	80°44'50.572"W	535.26	197.622	1.71	-0.76	-5.82	
5377.00	14.170	175.700	5311.63	-456.51	-533.72	-163.67	1711785.60	14305067.93	39°23'34.220"N	80°44'50.594"W	558.25	197.049	4.31	-0.78	-16.93	
5471.00	14.740	172.240	5402.65	-479.45	-557.04	-161.19	1711788.08	14305044.62	39°23'33.989"N	80°44'50.563"W	579.89	196.139	1.10	0.61	-3.68	
5565.00	13.250	184.660	5493.88	-501.16	-579.63	-160.45	1711788.82	14305022.04	39°23'33.766"N	80°44'50.554"W	601.43	195.473	3.56	-1.59	13.21	
5659.00	10.700	204.240	5585.87	-517.55	-598.34	-164.91	1711784.36	14305003.34	39°23'33.581"N	80°44'50.612"W	620.65	195.409	5.07	-2.71	20.83	
5755.00	11.920	223.740	5680.03	-528.83	-613.63	-175.43	1711773.84	14304988.05	39°23'33.430"N	80°44'50.746"W	638.21	195.955	4.16	1.27	20.31	
5817.00	13.320	234.190	5740.54	-534.02	-622.44	-185.65	1711763.63	14304979.25	39°23'33.343"N	80°44'50.877"W	649.53	196.608	4.31	2.26	16.85	
5860.00	11.850	239.540	5782.51	-536.48	-627.57	-193.47	1711755.81	14304974.11	39°23'33.293"N	80°44'50.977"W	656.72	197.134	4.36	-3.42	12.44	BH AT Curve <8-1/2">(5817')(5860'-18787')
5895.00	10.310	245.000	5816.86	-537.62	-630.72	-199.41	1711749.87	14304970.97	39°23'33.262"N	80°44'51.052"W	661.49	197.545	5.32	-4.40	15.60	
5942.00	6.660	249.760	5863.34	-538.23	-633.44	-205.78	1711743.50	14304968.25	39°23'33.235"N	80°44'51.134"W	666.03	197.997	7.90	-7.77	10.13	
5990.00	6.660	249.960	5911.01	-538.43	-635.36	-211.01	1711738.28	14304966.33	39°23'33.216"N	80°44'51.200"W	669.48	198.372	0.05	0.00	0.42	
6037.00	7.750	271.270	5957.65	-537.47	-638.22	-216.74	1711732.55	14304965.47	39°23'33.208"N	80°44'51.273"W	672.13	198.812	6.10	2.32	45.34	
6084.00	11.910	297.090	6003.97	-532.98	-633.94	-224.23	1711725.06	14304967.75	39°23'33.231"N	80°44'51.369"W	672.43	199.479	12.69	8.85	54.94	
6131.00	15.560	308.920	6049.63	-524.25	-627.77	-233.46	1711715.84	14304973.92	39°23'33.292"N	80°44'51.486"W	669.77	200.399	9.76	7.77	25.17	
6179.00	17.540	314.660	6095.64	-512.41	-618.64	-243.61	1711705.69	14304983.04	39°23'33.382"N	80°44'51.615"W	664.88	201.494	5.35	4.12	11.96	
6226.00	19.370	321.230	6140.23	-498.82	-607.58	-253.53	1711695.77	14304994.10	39°23'33.492"N	80°44'51.741"W	658.36	202.650	5.89	3.89	13.98	
6273.00	21.480	328.950	6184.28	-483.14	-594.13	-262.86	1711686.45	14305007.54	39°23'33.625"N	80°44'51.859"W	649.68	203.866	7.27	4.49	16.43	

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Actual Wellpath Report

Braden Unit 2H AWP Proj: 18812'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Braden Unit 2H
Field	Tyler	Wellbore	Braden Unit 2H AWB
Facility	Alta Pad		

WELLPATH DATA (238 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
6320.00	24.320	332.680	6227.57	-465.20	-578.15	-271.74	1711677.57	14305023.51	39°23'33.783"N	80°44'51.972"W	638.83	205.174	6.78	6.04	7.94	
6368.00	27.910	336.680	6270.67	-444.25	-559.05	-280.73	1711668.59	14305042.61	39°23'33.972"N	80°44'52.086"W	625.57	206.663	8.33	7.48	8.33	
6415.00	30.860	340.130	6311.62	-421.24	-537.60	-289.18	1711660.14	14305064.05	39°23'34.185"N	80°44'52.193"W	610.44	208.276	7.23	6.28	7.34	
6462.00	34.980	338.240	6351.06	-395.73	-513.74	-298.28	1711651.05	14305087.90	39°23'34.421"N	80°44'52.308"W	594.05	210.139	9.03	8.77	-4.02	
6509.00	38.560	334.670	6388.71	-367.74	-487.98	-309.54	1711639.79	14305113.65	39°23'34.676"N	80°44'52.450"W	577.88	212.388	8.87	7.62	-7.60	
6518.00†	39.333	334.373	6395.71	-362.13	-482.87	-311.98	1711637.35	14305118.75	39°23'34.726"N	80°44'52.481"W	574.89	212.866	8.83	8.59	-3.30	Middlesex: 6518' MD
6557.00	42.690	333.190	6425.13	-336.80	-459.92	-323.29	1711626.05	14305141.70	39°23'34.953"N	80°44'52.624"W	562.18	215.104	8.83	8.61	-3.03	
6604.00	46.600	333.990	6458.57	-304.13	-430.34	-337.97	1711611.37	14305171.26	39°23'35.246"N	80°44'52.810"W	547.19	218.144	8.40	8.32	1.70	
6651.00	50.460	335.450	6489.69	-269.20	-398.50	-352.99	1711596.35	14305203.09	39°23'35.561"N	80°44'53.000"W	532.36	221.534	8.54	8.21	3.11	
6698.00	54.360	337.700	6518.35	-232.12	-364.33	-367.78	1711581.58	14305237.25	39°23'35.899"N	80°44'53.187"W	517.68	225.270	9.12	8.30	4.79	
6713.00†	55.338	338.502	6526.99	-219.89	-352.95	-372.35	1711577.00	14305248.62	39°23'36.012"N	80°44'53.245"W	513.05	226.532	7.85	6.52	5.34	Burkett: 6713' MD
6745.00	57.440	340.150	6544.70	-193.27	-328.02	-381.75	1711567.60	14305273.55	39°23'36.259"N	80°44'53.364"W	503.32	229.329	7.85	6.57	5.15	
6767.00†	59.277	340.963	6556.25	-174.54	-310.36	-387.99	1711561.37	14305291.20	39°23'36.433"N	80°44'53.443"W	496.85	231.343	8.92	8.35	3.70	Tully: 6767' MD
6792.00	61.370	341.850	6568.62	-152.83	-289.77	-394.91	1711554.45	14305311.78	39°23'36.637"N	80°44'53.530"W	489.82	233.730	8.92	8.37	3.55	
6840.00	66.230	342.260	6589.81	-109.77	-248.81	-408.17	1711541.20	14305352.72	39°23'37.042"N	80°44'53.698"W	478.03	238.635	10.15	10.13	0.85	
6857.00†	67.944	342.127	6596.43	-94.11	-233.90	-412.96	1711536.41	14305367.63	39°23'37.190"N	80°44'53.758"W	474.60	240.473	10.11	10.08	-0.78	Hamilton: 6857' MD
6887.00	70.970	341.900	6606.95	-66.02	-207.19	-421.63	1711527.74	14305394.33	39°23'37.454"N	80°44'53.868"W	469.79	243.831	10.11	10.09	-0.76	
6898.00†	71.447	341.964	6610.50	-55.61	-197.29	-424.86	1711524.51	14305404.23	39°23'37.552"N	80°44'53.909"W	468.43	245.092	4.37	4.34	0.58	Marcellus POE: 6898' MD
6934.00	73.010	342.170	6621.48	-21.33	-164.67	-435.42	1711513.96	14305436.83	39°23'37.875"N	80°44'54.042"W	465.52	249.284	4.37	4.34	0.57	
6981.00	76.900	343.830	6633.68	24.04	-121.27	-448.68	1711500.70	14305480.21	39°23'38.304"N	80°44'54.209"W	464.78	254.875	8.95	8.28	3.53	
7029.00	81.290	344.930	6642.76	71.12	-75.89	-461.37	1711488.02	14305525.58	39°23'38.753"N	80°44'54.369"W	467.57	260.659	9.42	9.15	2.29	
7076.00	84.850	345.500	6648.43	117.69	-30.79	-473.27	1711476.12	14305570.66	39°23'39.199"N	80°44'54.519"W	474.27	266.278	7.67	7.57	1.21	
7123.00	88.830	344.960	6651.02	164.53	14.58	-485.23	1711464.17	14305616.01	39°23'39.648"N	80°44'54.670"W	485.45	271.721	8.55	8.47	-1.15	
7217.00	89.910	342.210	6652.05	258.47	104.73	-511.79	1711437.62	14305706.13	39°23'40.539"N	80°44'55.005"W	522.40	281.566	3.14	1.15	-2.93	
7312.00	90.520	336.800	6651.70	353.35	193.89	-545.04	1711404.38	14305795.05	39°23'41.419"N	80°44'55.426"W	578.43	289.563	5.73	0.64	-5.69	
7406.00	91.420	339.660	6650.11	447.14	280.96	-579.89	1711369.54	14305882.29	39°23'42.283"N	80°44'55.866"W	644.37	295.850	3.19	0.96	3.04	
7501.00	90.800	341.080	6648.27	542.08	370.42	-611.80	1711337.65	14305971.71	39°23'43.168"N	80°44'56.270"W	715.20	301.193	1.63	-0.65	1.49	
7595.00	91.850	342.420	6646.09	636.05	459.66	-641.23	1711308.23	14306060.92	39°23'44.051"N	80°44'56.641"W	788.97	305.635	1.81	1.12	1.43	
7690.00	91.510	342.810	6643.31	731.00	550.29	-669.60	1711279.87	14306151.50	39°23'44.947"N	80°44'57.000"W	866.71	309.414	0.54	-0.36	0.41	
7784.00	92.190	345.280	6640.27	824.88	640.81	-695.43	1711254.05	14306241.79	39°23'45.841"N	80°44'57.325"W	945.51	312.651	2.72	0.72	2.63	

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Braden Unit 2H AWP Proj: 18812'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Braden Unit 2H
Field	Tyler	Wellbore	Braden Unit 2H AWB
Facility	Alta Pad		

WELLPATH DATA (238 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
7879.00	91.260	345.300	6637.41	919.67	732.45	-719.54	1711229.95	14306333.60	39°23'46.749"N	80°44'57.629"W	1026.75	315.510	0.98	-0.98	0.02	
7973.00	91.200	345.240	6635.39	1013.49	823.34	-743.43	1711206.07	14306424.45	39°23'47.648"N	80°44'57.930"W	1109.32	317.920	0.09	-0.06	-0.06	
8068.00	91.230	344.160	6633.38	1108.35	914.95	-768.50	1711181.01	14306516.03	39°23'48.554"N	80°44'58.246"W	1194.87	319.972	1.14	0.03	-1.14	
8162.00	91.170	342.160	6631.41	1202.31	1004.90	-795.72	1711153.80	14306605.94	39°23'49.444"N	80°44'58.590"W	1281.79	321.626	2.13	-0.06	-2.13	
8257.00	91.350	341.510	6629.32	1297.28	1095.14	-825.33	1711124.20	14306696.14	39°23'50.337"N	80°44'58.964"W	1371.31	322.997	0.71	0.19	-0.68	
8351.00	91.720	340.110	6626.80	1391.23	1183.88	-856.21	1711093.33	14306784.85	39°23'51.215"N	80°44'59.354"W	1461.06	324.125	1.54	0.39	-1.49	
8446.00	88.310	336.400	6626.78	1486.00	1272.10	-891.40	1711058.16	14306873.03	39°23'52.087"N	80°44'59.799"W	1553.33	324.980	5.30	-3.59	-3.91	
8540.00	88.610	337.580	6629.31	1579.62	1358.58	-928.13	1711021.44	14306959.48	39°23'52.943"N	80°45'00.264"W	1645.35	325.661	1.29	0.32	1.26	
8635.00	89.170	338.390	6631.15	1674.38	1446.64	-963.73	1710985.85	14307047.50	39°23'53.814"N	80°45'00.714"W	1738.26	326.329	1.04	0.59	0.85	
8730.00	88.430	338.070	6633.14	1769.16	1534.84	-998.96	1710950.64	14307135.67	39°23'54.687"N	80°45'01.160"W	1831.30	326.942	0.85	-0.78	-0.34	
8824.00	87.880	339.160	6636.16	1862.96	1622.33	-1033.22	1710916.40	14307223.12	39°23'55.553"N	80°45'01.593"W	1923.40	327.508	1.30	-0.59	1.16	
8918.00	88.490	341.210	6639.14	1956.86	1710.71	-1065.06	1710884.57	14307311.47	39°23'56.427"N	80°45'01.996"W	2015.16	328.094	2.27	0.65	2.18	
9013.00	88.370	343.200	6641.74	2051.82	1801.13	-1094.08	1710855.56	14307401.85	39°23'57.322"N	80°45'02.362"W	2107.39	328.724	2.10	-0.13	2.09	
9108.00	89.970	344.170	6643.12	2146.76	1892.29	-1120.77	1710828.88	14307492.97	39°23'58.223"N	80°45'02.699"W	2199.29	329.363	1.97	1.68	1.02	
9202.00	89.350	343.920	6643.68	2240.69	1982.66	-1146.60	1710803.06	14307583.32	39°23'59.117"N	80°45'03.025"W	2290.34	329.959	0.71	-0.66	-0.27	
9297.00	89.420	341.890	6644.70	2335.67	2073.46	-1174.53	1710775.14	14307674.07	39°24'00.015"N	80°45'03.378"W	2383.01	330.470	2.14	0.07	-2.14	
9391.00	89.880	342.760	6645.27	2429.66	2163.02	-1203.07	1710746.62	14307763.60	39°24'00.901"N	80°45'03.738"W	2475.08	330.917	1.05	0.49	0.93	
9485.00	89.940	344.300	6645.42	2523.62	2253.16	-1229.72	1710719.98	14307853.70	39°24'01.793"N	80°45'04.074"W	2566.89	331.375	1.64	0.06	1.64	
9580.00	89.910	345.650	6645.54	2618.48	2344.91	-1254.34	1710695.36	14307945.41	39°24'02.700"N	80°45'04.385"W	2659.32	331.857	1.42	-0.03	1.42	
9674.00	89.910	346.260	6645.69	2712.25	2436.10	-1277.15	1710672.56	14308036.57	39°24'03.602"N	80°45'04.672"W	2750.58	332.334	0.65	0.00	0.65	
9768.00	89.970	345.010	6645.79	2806.05	2527.16	-1300.48	1710649.25	14308127.59	39°24'04.503"N	80°45'04.966"W	2842.14	332.770	1.33	0.06	-1.33	
9862.00	90.000	343.410	6645.81	2899.97	2617.61	-1326.05	1710623.68	14308218.01	39°24'05.398"N	80°45'05.289"W	2934.33	333.134	1.70	0.03	-1.70	
9957.00	90.000	342.380	6645.81	2994.96	2708.40	-1353.99	1710595.75	14308308.77	39°24'06.296"N	80°45'05.641"W	3027.99	333.438	1.08	0.00	-1.08	
10051.00	89.850	342.350	6645.94	3088.95	2797.99	-1382.47	1710567.28	14308398.31	39°24'07.182"N	80°45'06.001"W	3120.89	333.706	0.16	-0.16	-0.03	
10146.00	89.940	343.230	6646.11	3183.94	2888.73	-1410.58	1710539.18	14308489.02	39°24'08.079"N	80°45'06.356"W	3214.73	333.974	0.93	0.09	0.93	
10240.00	89.450	343.020	6646.61	3277.92	2978.68	-1437.87	1710511.91	14308578.94	39°24'08.969"N	80°45'06.700"W	3307.57	334.233	0.57	-0.52	-0.22	
10335.00	90.250	342.810	6646.86	3372.90	3069.49	-1465.78	1710484.01	14308669.71	39°24'09.868"N	80°45'07.053"W	3401.51	334.474	0.87	0.84	-0.22	
10429.00	90.250	340.920	6646.45	3466.90	3158.81	-1495.03	1710454.77	14308759.00	39°24'10.751"N	80°45'07.422"W	3494.74	334.672	2.01	0.00	-2.01	
10524.00	90.430	338.400	6645.89	3561.81	3247.88	-1528.05	1710421.76	14308848.03	39°24'11.632"N	80°45'07.840"W	3589.38	334.804	2.66	0.19	-2.66	
10618.00	89.450	338.620	6645.98	3655.65	3335.35	-1562.49	1710387.34	14308935.46	39°24'12.498"N	80°45'08.275"W	3683.19	334.899	1.07	-1.04	0.23	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Braden Unit 2H
Field	Tyler	Wellbore	Braden Unit 2H AWB
Facility	Alta Pad		

WELLPATH DATA (238 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
10713.00	89.380	338.510	6646.95	3750.48	3423.77	-1597.20	1710352.64	14309023.85	39°24'13.373"N	80°45'08.715"W	3778.00	334.991	0.14	-0.07	-0.12	
10807.00	89.480	340.300	6647.89	3844.38	3511.75	-1630.26	1710319.59	14309111.80	39°24'14.243"N	80°45'09.133"W	3871.72	335.098	1.91	0.11	1.90	
10902.00	89.420	338.830	6648.80	3939.30	3600.77	-1663.43	1710286.43	14309200.78	39°24'15.124"N	80°45'09.552"W	3966.43	335.205	1.55	-0.06	-1.55	
10996.00	89.320	339.080	6649.83	4033.16	3688.49	-1697.18	1710252.69	14309288.47	39°24'15.992"N	80°45'09.979"W	4060.22	335.291	0.29	-0.11	0.27	
11091.00	89.420	337.800	6650.88	4127.98	3776.84	-1732.09	1710217.80	14309376.78	39°24'16.866"N	80°45'10.421"W	4155.08	335.363	1.35	0.11	-1.35	
11185.00	89.380	338.000	6651.86	4221.75	3863.93	-1767.45	1710182.45	14309463.83	39°24'17.728"N	80°45'10.868"W	4248.98	335.420	0.22	-0.04	0.21	
11280.00	89.750	338.450	6652.58	4316.55	3952.15	-1802.69	1710147.23	14309552.02	39°24'18.600"N	80°45'11.314"W	4343.87	335.481	0.61	0.39	0.47	
11374.00	89.880	336.300	6652.89	4410.25	4038.91	-1838.85	1710111.08	14309638.74	39°24'19.459"N	80°45'11.772"W	4437.81	335.521	2.29	0.14	-2.29	
11469.00	89.750	337.590	6653.20	4504.89	4126.32	-1876.06	1710073.89	14309726.12	39°24'20.324"N	80°45'12.243"W	4532.78	335.551	1.36	-0.14	1.36	
11564.00	89.230	339.210	6654.04	4599.70	4214.64	-1911.02	1710038.94	14309814.41	39°24'21.198"N	80°45'12.685"W	4627.66	335.609	1.79	-0.55	1.71	
11658.00	89.720	342.260	6654.90	4693.67	4303.36	-1942.03	1710007.94	14309903.09	39°24'22.075"N	80°45'13.077"W	4721.27	335.711	3.29	0.52	3.24	
11753.00	89.690	344.890	6655.39	4788.62	4394.48	-1968.89	1709981.09	14309994.17	39°24'22.977"N	80°45'13.416"W	4815.39	335.866	2.77	-0.03	2.77	
11847.00	90.280	347.630	6655.42	4882.34	4485.78	-1991.22	1709958.78	14310085.44	39°24'23.880"N	80°45'13.697"W	4907.86	336.064	2.98	0.63	2.91	
11942.00	89.480	345.550	6655.62	4977.02	4578.18	-2013.25	1709936.75	14310177.80	39°24'24.793"N	80°45'13.975"W	5001.29	336.263	2.35	-0.84	-2.19	
12036.00	89.260	344.490	6656.65	5070.87	4668.98	-2037.54	1709912.47	14310268.57	39°24'25.692"N	80°45'14.281"W	5094.21	336.424	1.15	-0.23	-1.13	
12130.00	89.570	346.490	6657.61	5164.68	4759.97	-2061.09	1709888.93	14310359.52	39°24'26.591"N	80°45'14.578"W	5187.04	336.587	2.15	0.33	2.13	
12225.00	89.350	345.100	6658.50	5259.45	4852.06	-2084.40	1709865.63	14310451.57	39°24'27.502"N	80°45'14.872"W	5280.84	336.752	1.48	-0.23	-1.46	
12319.00	89.660	346.920	6659.32	5353.20	4943.26	-2107.13	1709842.91	14310542.74	39°24'28.404"N	80°45'15.158"W	5373.63	336.913	1.96	0.33	1.94	
12414.00	89.480	345.390	6660.03	5447.94	5035.50	-2129.86	1709820.19	14310634.94	39°24'29.317"N	80°45'15.444"W	5467.41	337.073	1.62	-0.19	-1.61	
12508.00	89.450	346.360	6660.91	5541.71	5126.65	-2152.80	1709797.26	14310726.06	39°24'30.218"N	80°45'15.733"W	5560.31	337.221	1.03	-0.03	1.03	
12603.00	88.620	347.630	6662.51	5636.32	5219.20	-2174.17	1709775.90	14310818.57	39°24'31.133"N	80°45'16.003"W	5653.94	337.385	1.60	-0.87	1.34	
12697.00	88.980	344.920	6664.48	5730.02	5310.49	-2196.47	1709753.61	14310909.82	39°24'32.036"N	80°45'16.283"W	5746.80	337.530	2.91	0.38	-2.88	
12792.00	89.420	342.670	6665.80	5824.95	5401.70	-2222.97	1709727.11	14311000.99	39°24'32.938"N	80°45'16.618"W	5841.23	337.631	2.41	0.46	-2.37	
12886.00	89.480	340.420	6666.70	5918.94	5490.85	-2252.73	1709697.37	14311090.11	39°24'33.820"N	80°45'16.994"W	5935.00	337.693	2.39	0.06	-2.39	
12981.00	90.120	338.780	6667.04	6013.85	5579.89	-2285.84	1709664.27	14311179.12	39°24'34.701"N	80°45'17.413"W	6029.95	337.723	1.85	0.67	-1.73	
13076.00	89.690	338.860	6667.19	6108.72	5668.47	-2320.16	1709629.96	14311267.66	39°24'35.578"N	80°45'17.847"W	6124.93	337.740	0.46	-0.45	0.08	
13170.00	89.720	337.590	6667.68	6202.52	5755.76	-2355.03	1709595.10	14311354.92	39°24'36.441"N	80°45'18.288"W	6218.92	337.748	1.35	0.03	-1.35	
13265.00	89.660	335.630	6668.19	6297.11	5842.95	-2392.75	1709557.41	14311442.07	39°24'37.304"N	80°45'18.766"W	6313.90	337.730	2.06	-0.06	-2.06	
13359.00	89.540	334.490	6668.85	6390.43	5928.18	-2432.38	1709517.79	14311527.27	39°24'38.147"N	80°45'19.268"W	6407.79	337.691	1.22	-0.13	-1.21	
13454.00	89.720	337.790	6669.46	6484.94	6015.05	-2470.80	1709479.38	14311614.10	39°24'39.007"N	80°45'19.754"W	6502.74	337.669	3.48	0.19	3.47	

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Actual Wellpath Report

Braden Unit 2H AWP Proj: 18812'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Braden Unit 2H
Field	Tyler	Wellbore	Braden Unit 2H AWB
Facility	Alta Pad		

WELLPATH DATA (238 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
13548.00	89.850	339.470	6669.81	6578.78	6102.58	-2505.05	1709445.14	14311701.60	39°24'39.873"N	80°45'20.187"W	6596.73	337.682	1.79	0.14	1.79	
13643.00	89.690	342.550	6670.20	6673.75	6192.40	-2535.96	1709414.25	14311791.38	39°24'40.762"N	80°45'20.578"W	6691.56	337.730	3.25	-0.17	3.24	
13737.00	89.780	345.830	6670.63	6767.66	6282.83	-2561.57	1709388.65	14311881.78	39°24'41.656"N	80°45'20.901"W	6784.95	337.819	3.49	0.10	3.49	
13832.00	89.780	346.430	6671.00	6862.41	6375.06	-2584.34	1709365.89	14311973.97	39°24'42.568"N	80°45'21.188"W	6878.97	337.933	0.63	0.00	0.63	
13926.00	89.850	346.060	6671.30	6956.14	6466.36	-2606.69	1709343.55	14312065.24	39°24'43.471"N	80°45'21.470"W	6971.09	338.045	0.40	0.07	-0.39	
14021.00	89.780	345.080	6671.61	7050.94	6558.37	-2630.37	1709319.88	14312157.20	39°24'44.381"N	80°45'21.768"W	7066.19	338.146	1.03	-0.07	-1.03	
14115.00	89.880	342.500	6671.88	7144.88	6648.62	-2656.60	1709293.65	14312247.42	39°24'45.274"N	80°45'22.100"W	7159.73	338.220	2.75	0.11	-2.74	
14210.00	89.850	343.010	6672.11	7239.87	6739.35	-2684.77	1709265.50	14312338.12	39°24'46.171"N	80°45'22.455"W	7254.43	338.279	0.54	-0.03	0.54	
14304.00	89.690	342.350	6672.49	7333.86	6829.09	-2712.75	1709237.53	14312427.82	39°24'47.059"N	80°45'22.809"W	7348.16	338.335	0.72	-0.17	-0.70	
14399.00	89.780	342.750	6672.93	7428.85	6919.74	-2741.24	1709209.05	14312518.41	39°24'47.955"N	80°45'23.169"W	7442.90	338.389	0.43	0.09	0.42	
14494.00	90.180	342.560	6672.96	7523.85	7010.39	-2769.56	1709180.74	14312609.05	39°24'48.852"N	80°45'23.526"W	7537.64	338.443	0.47	0.42	-0.20	
14588.00	90.550	342.760	6672.36	7617.84	7100.12	-2797.58	1709152.74	14312698.74	39°24'49.740"N	80°45'23.880"W	7631.39	338.495	0.45	0.39	0.21	
14683.00	90.400	342.730	6671.57	7712.82	7190.84	-2825.75	1709124.57	14312789.43	39°24'50.637"N	80°45'24.236"W	7726.13	338.547	0.16	-0.16	-0.03	
14777.00	90.550	342.690	6670.79	7806.81	7280.59	-2853.69	1709096.64	14312879.14	39°24'51.525"N	80°45'24.589"W	7819.88	338.597	0.17	0.16	-0.04	
14872.00	90.680	344.150	6669.77	7901.77	7371.83	-2880.80	1709069.55	14312970.15	39°24'52.426"N	80°45'24.931"W	7914.54	338.655	1.54	0.14	1.54	
14966.00	90.550	340.170	6668.76	7995.74	7461.09	-2909.59	1709040.77	14313059.57	39°24'53.311"N	80°45'25.295"W	8008.34	338.696	4.24	-0.14	-4.23	
15061.00	90.890	337.330	6667.57	8090.58	7549.61	-2944.01	1709006.36	14313148.06	39°24'54.186"N	80°45'25.730"W	8103.32	338.696	3.01	0.36	-2.99	
15155.00	91.170	339.700	6665.88	8184.40	7637.06	-2978.43	1708971.95	14313235.47	39°24'55.052"N	80°45'26.166"W	8197.30	338.694	2.54	0.30	2.52	
15250.00	91.320	345.930	6663.81	8279.31	7727.75	-3006.48	1708943.91	14313326.13	39°24'55.949"N	80°45'26.520"W	8291.99	338.741	6.56	0.16	6.56	
15344.00	91.660	345.580	6661.37	8373.07	7818.83	-3029.60	1708920.80	14313417.17	39°24'56.850"N	80°45'26.812"W	8385.26	338.820	0.52	0.36	-0.37	
15438.00	91.790	343.430	6658.54	8466.93	7909.37	-3054.70	1708895.71	14313507.67	39°24'57.745"N	80°45'27.128"W	8478.76	338.883	2.29	0.14	-2.29	
15533.00	91.690	342.800	6655.65	8561.86	8000.23	-3082.28	1708868.14	14313598.50	39°24'58.644"N	80°45'27.477"W	8573.46	338.930	0.67	-0.11	-0.66	
15627.00	91.690	340.670	6652.88	8655.81	8089.45	-3111.73	1708838.71	14313687.68	39°24'59.526"N	80°45'27.849"W	8667.30	338.960	2.26	0.00	-2.27	
15722.00	91.630	337.870	6650.13	8750.66	8178.25	-3145.34	1708805.11	14313776.45	39°25'00.405"N	80°45'28.274"W	8762.25	338.963	2.95	-0.06	-2.95	
15816.00	91.660	336.530	6647.43	8844.31	8264.87	-3181.75	1708768.72	14313863.03	39°25'01.262"N	80°45'28.735"W	8856.16	338.945	1.43	0.03	-1.43	
15911.00	91.660	335.340	6644.68	8938.75	8351.58	-3220.47	1708730.01	14313949.70	39°25'02.120"N	80°45'29.225"W	8950.99	338.913	1.25	0.00	-1.25	
16005.00	91.230	336.590	6642.31	9032.21	8437.40	-3258.74	1708691.75	14314035.49	39°25'02.969"N	80°45'29.710"W	9044.84	338.882	1.41	-0.46	1.33	
16099.00	91.290	340.150	6640.24	9125.99	8524.74	-3293.38	1708657.13	14314122.80	39°25'03.833"N	80°45'30.149"W	9138.80	338.877	3.79	0.06	3.79	
16194.00	91.390	340.500	6638.02	9220.93	8614.17	-3325.36	1708625.17	14314212.20	39°25'04.718"N	80°45'30.553"W	9233.74	338.892	0.38	0.11	0.37	
16288.00	91.420	341.980	6635.71	9314.89	8703.15	-3355.58	1708594.96	14314301.14	39°25'05.598"N	80°45'30.935"W	9327.63	338.915	1.57	0.03	1.57	

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Actual Wellpath Report

Braden Unit 2H AWP Proj: 18812'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Braden Unit 2H
Field	Tyler	Wellbore	Braden Unit 2H AWB
Facility	Alta Pad		

WELLPATH DATA (238 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	
16382.00	91.800	341.770	6633.24	9408.86	8792.45	-3384.81	1708565.74	14314390.41	39°25'06.482"N	80°45'31.304"W	9421.47	338.945	0.29	0.19	-0.22		
16477.00	91.570	341.750	6630.61	9503.82	8882.65	-3414.53	1708536.03	14314480.56	39°25'07.374"N	80°45'31.680"W	9516.32	338.973	0.04	-0.03	-0.02		
16571.00	91.630	341.540	6627.99	9597.79	8971.83	-3444.12	1708506.45	14314569.71	39°25'08.256"N	80°45'32.054"W	9610.19	338.999	0.23	0.06	-0.22		
16665.00	91.480	341.900	6625.43	9691.75	9061.05	-3473.60	1708476.99	14314658.90	39°25'09.139"N	80°45'32.427"W	9704.05	339.025	0.41	-0.16	0.38		
16760.00	91.420	342.020	6623.03	9786.72	9151.35	-3503.01	1708447.59	14314749.16	39°25'10.032"N	80°45'32.798"W	9798.89	339.054	0.14	-0.06	0.13		
16854.00	91.600	344.010	6620.55	9880.67	9241.22	-3530.45	1708420.15	14314838.99	39°25'10.921"N	80°45'33.145"W	9892.63	339.091	2.12	0.19	2.12		
16948.00	91.630	346.100	6617.90	9974.48	9332.00	-3554.68	1708395.93	14314929.74	39°25'11.819"N	80°45'33.451"W	9986.09	339.147	2.22	0.03	2.22		
17042.00	91.600	344.240	6615.25	10068.29	9422.82	-3578.73	1708371.89	14315020.53	39°25'12.717"N	80°45'33.754"W	10079.53	339.204	1.98	-0.03	-1.98		
17137.00	91.630	341.690	6612.58	10163.23	9513.61	-3606.55	1708344.08	14315111.28	39°25'13.615"N	80°45'34.105"W	10174.28	339.239	2.68	0.03	-2.68		
17231.00	91.570	341.820	6609.95	10257.19	9602.85	-3635.97	1708314.68	14315200.48	39°25'14.498"N	80°45'34.477"W	10268.16	339.262	0.15	-0.06	0.14		
17326.00	91.600	342.660	6607.32	10352.15	9693.29	-3664.94	1708285.72	14315290.89	39°25'15.393"N	80°45'34.843"W	10362.99	339.289	0.88	0.03	0.88		
17420.00	90.860	339.610	6605.31	10446.11	9782.21	-3695.32	1708255.35	14315379.77	39°25'16.272"N	80°45'35.227"W	10456.91	339.305	3.34	-0.79	-3.24		
17515.00	91.020	338.720	6603.75	10540.99	9870.98	-3729.10	1708221.58	14315468.51	39°25'17.150"N	80°45'35.655"W	10551.90	339.304	0.95	0.17	-0.94		
17609.00	91.020	339.260	6602.07	10634.85	9958.72	-3762.80	1708187.90	14315556.21	39°25'18.018"N	80°45'36.081"W	10645.88	339.301	0.57	0.00	0.57		
17704.00	90.980	340.190	6600.42	10729.76	10047.82	-3795.71	1708154.99	14315645.28	39°25'18.900"N	80°45'36.498"W	10740.86	339.305	0.98	-0.04	0.98		
17798.00	90.990	341.620	6598.80	10823.73	10136.63	-3826.46	1708124.26	14315734.05	39°25'19.779"N	80°45'36.886"W	10834.81	339.319	1.52	0.01	1.52		
17893.00	90.980	342.810	6597.17	10918.72	10227.08	-3855.47	1708095.26	14315824.46	39°25'20.673"N	80°45'37.253"W	10929.67	339.344	1.25	-0.01	1.25		
17987.00	90.980	343.320	6595.56	11012.68	10316.99	-3882.85	1708067.89	14315914.34	39°25'21.563"N	80°45'37.599"W	11023.46	339.376	0.54	0.00	0.54		
18081.00	90.890	343.180	6594.02	11106.65	10406.99	-3909.94	1708040.82	14316004.30	39°25'22.453"N	80°45'37.941"W	11117.24	339.409	0.18	-0.10	-0.15		
18176.00	90.860	342.960	6592.57	11201.61	10497.86	-3937.60	1708013.17	14316095.14	39°25'23.352"N	80°45'38.290"W	11212.03	339.440	0.23	-0.03	-0.23		
18270.00	90.950	341.960	6591.09	11295.60	10587.48	-3965.92	1707984.85	14316184.72	39°25'24.238"N	80°45'38.648"W	11305.89	339.465	1.07	0.10	-1.06		
18365.00	90.740	343.330	6589.69	11390.58	10678.14	-3994.26	1707956.53	14316275.35	39°25'25.135"N	80°45'39.006"W	11400.73	339.491	1.46	-0.22	1.44		
18459.00	90.710	344.220	6588.50	11484.52	10768.39	-4020.52	1707930.28	14316365.56	39°25'26.028"N	80°45'39.338"W	11494.47	339.526	0.95	-0.03	0.96		
18554.00	90.710	346.660	6587.32	11579.32	10860.32	-4044.40	1707906.41	14316457.46	39°25'26.937"N	80°45'39.639"W	11588.95	339.575	2.57	0.00	2.57		
18649.00	90.680	346.480	6586.17	11674.00	10952.72	-4066.46	1707884.36	14316549.82	39°25'27.851"N	80°45'39.917"W	11683.24	339.631	0.19	-0.03	-0.19		
18743.00	90.060	345.620	6585.56	11767.75	11043.94	-4089.12	1707861.70	14316641.00	39°25'28.753"N	80°45'40.203"W	11776.65	339.682	1.13	-0.66	-0.91		
18787.00	89.880	345.460	6585.59	11811.67	11086.55	-4100.11	1707850.72	14316683.59	39°25'29.174"N	80°45'40.341"W	11820.42	339.704	0.55	-0.41	-0.36		
18812.00	89.880	345.460	6585.64	11836.62	11110.75	-4106.38	1707844.45	14316707.78	39°25'29.414"N	80°45'40.420"W	11845.30	339.716	0.00	0.00	0.00	Projected MD at TD: 18812'	

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Actual Wellpath Report

Braden Unit 2H AWP Proj: 18812'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Braden Unit 2H
Field	Tyler	Wellbore	Braden Unit 2H AWB
Facility	Alta Pad		

HOLE & CASING SECTIONS - Ref Wellbore: Braden Unit 2H AWB Ref Wellpath: Braden Unit 2H AWP Proj: 18812'									
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	30.00	98.00	68.00	30.00	98.00	0.00	0.00	-0.01	-0.02
17.5in Open Hole	98.00	506.00	408.00	98.00	506.00	-0.01	-0.02	-0.62	-0.07
13.375in Casing Surface	30.00	506.00	476.00	30.00	506.00	0.00	0.00	-0.62	-0.07
12.25in Open Hole	506.00	2615.00	2109.00	506.00	2614.59	-0.62	-0.07	4.78	-6.96
9.625in Casing Intermediate	30.00	2615.00	2585.00	30.00	2614.59	0.00	0.00	4.78	-6.96
8.75in Open Hole	2615.00	5879.00	3264.00	2614.59	5801.13	4.78	-6.96	-629.41	-196.76
8.5in Open Hole	5879.00	18812.00	12933.00	5801.13	6585.64	-629.41	-196.76	11110.75	-4106.38
5.5in Casing Production	30.00	18812.00	18782.00	30.00	6585.64	0.00	0.00	11110.75	-4106.38

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Braden Unit 2H - POE - Rev-1	6622.00	-192.51	-427.37	1711522.00	14305409.00	39°23'37.599"N	80°44'53.940"W	point
Braden Unit 2H - LP - Rev-1	6662.00	31.82	-500.66	1711448.74	14305633.25	39°23'39.818"N	80°44'54.866"W	point
Braden Unit 2H - BHL - Rev-1	6662.00	11087.54	-4112.55	1707838.28	14316684.58	39°25'29.184"N	80°45'40.500"W	point

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Actual Wellpath Report

Braden Unit 2H AWP Proj: 18812'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Braden Unit 2H
Field	Tyler	Wellbore	Braden Unit 2H AWB
Facility	Alta Pad		

WELLPATH COMPOSITION - Ref Wellbore: Braden Unit 2H AWB Ref Wellpath: Braden Unit 2H AWP Proj: 18812'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	495.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(50'-480')	Braden Unit 2H AWB
495.00	2547.00	ISCWSA MWD, Rev. 4 (Standard)	02 Panther EM <12-1/4">(480')(503'-2532')	Braden Unit 2H AWB
2547.00	5817.00	ISCWSA MWD, Rev. 4 (Standard)	03 Panther EM <8-3/4">(2532')(2624'-5802')	Braden Unit 2H AWB
5817.00	18787.00	BHI AutoTrak Curve (Short)	04 BH AT Curve <8-1/2">(5817')(5860'-18787')	Braden Unit 2H AWB
18787.00	18812.00	Blind Drilling (std)	Projection to bit	Braden Unit 2H AWB

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Actual Wellpath Report

Braden Unit 2H AWP Proj: 18812'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Braden Unit 2H
Field	Tyler	Wellbore	Braden Unit 2H AWB
Facility	Alta Pad		

COMMENTS
<p>Wellpath general comments API: 47-095-02546-0000 BHI Job #: 109734003 Rig: H&P 519 Duration: 04/04/2019-04/08/2019 Gyrodatta MS Gyro <17-1/2">(50'-480') Panther EM <12-1/4">(480')(503'-2532') Panther EM <8-3/4">(2532')(2624'-5802') BH AT Curve <8-1/2">(5817')(5860'-18787') Middlesex: 6518' MD Burkett: 6713' MD Tully: 6767' MD Hamilton: 6857' MD Marcellus POE: 6898' MD Projected MD at TD: 18812'</p>

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