



# ANTERO RESOURCES CORPORATION



Location: Tyler County, WV  
Field: Tyler  
Facility: Terry Snider Pad

Slot: Slot #12  
Well: Edwards Unit 1H  
Wellbore: Edwards Unit 1H PWB

Grid System: MAG27 / UTM Zone 17 North, US feet

•• Wellbore was transformed from a different geographic datum

North Reference: Grid north

Scale: True distance

Depths are in feet

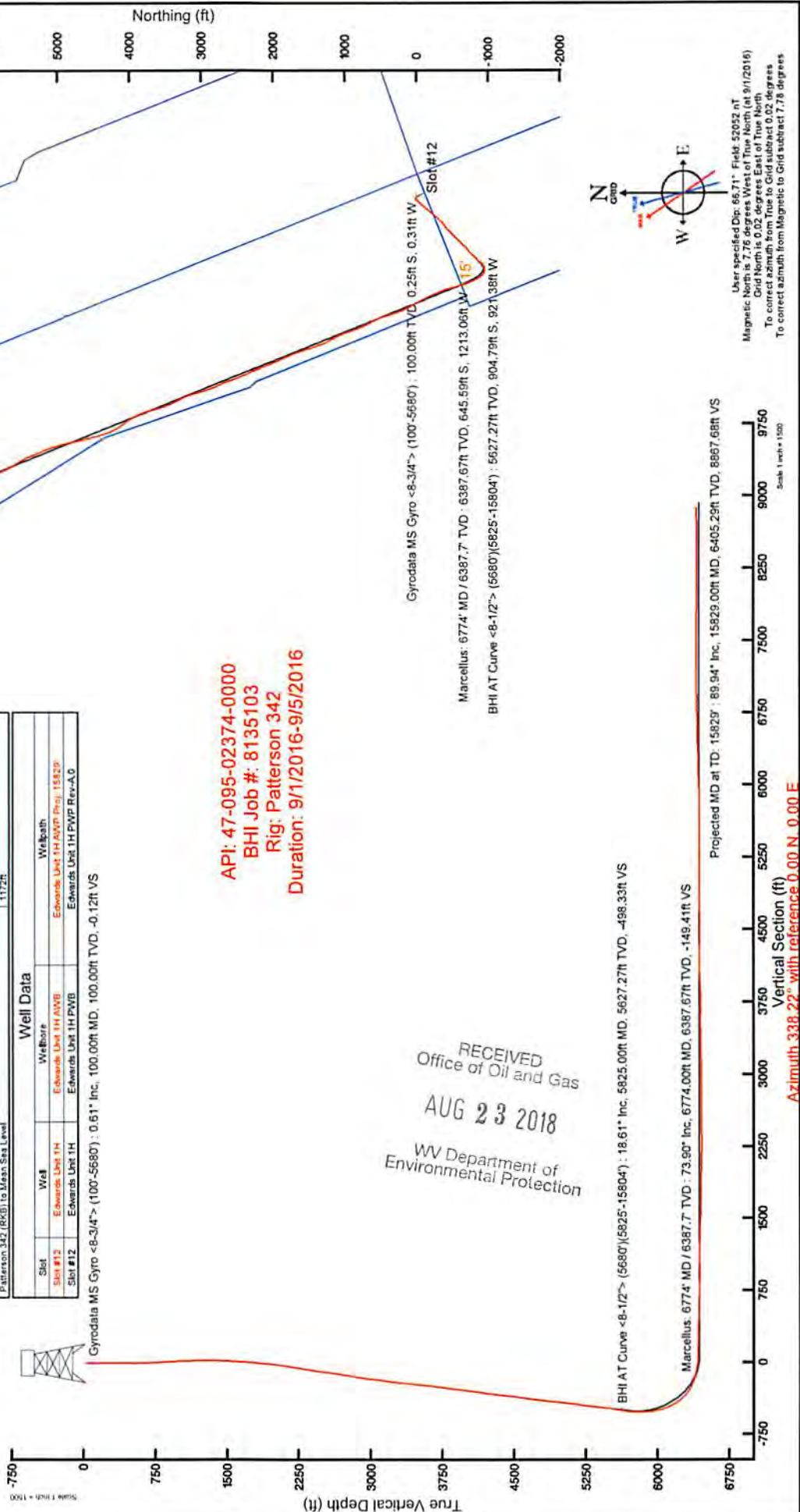
Created by: escholar on 2016-09-09

Database: WA\_MPL\_EASTERNUS\_Dept

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Terry Snider Pad	1650540.3448	14295934.525	39°27'04.860"N	80°57'51.040"W
Slot #12	Local E (ft)	Grid North (US ft)	Latitude	Longitude
Slot #12	54.32	14295934.525	39°27'05.417"N	80°57'51.269"W
Comment:	Edwards Unit 1H			
Patterson 342 (RNB) to Mud line (At Slot: Slot #12)	25ft			
Mean Sea Level to Mud line (At Slot: Slot #12)	-1147ft			
Patterson 342 (RNB) to Mean Sea Level	-1172ft			

Slot	Well	Wellbore	Wellpath
Slot #12	Edwards Unit 1H	Edwards Unit 1H AWB	Edwards Unit 1H AWB Proj: 1582ZP
Slot #12	Edwards Unit 1H	Edwards Unit 1H PWB	Edwards Unit 1H PWB Rev-A.0

Gyrodala MS Gyro <8-3/4"> (100'-5680') : 0.61° Inc, 100.00ft MD, 100.00ft TVD, -0.12ft VS



API: 47-095-02374-0000  
BHI Job #: 8135103  
Rig: Patterson 342  
Duration: 9/1/2016-9/5/2016

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# Actual Wellpath Report

Edwards Unit 1H AWP Proj: 15829'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #12
Area	Tyler County, WV	Well	Edwards Unit 1H
Field	Tyler	Wellbore	Edwards Unit 1H AWB
Facility	Terry Snider Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Edsaryar
Scale	0.999600	Report Generated	9/9/2016 at 7:39:30 PM
Convergence at slot	0.03° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Edwards_Unit_1H_AWP_Proj_15829_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	54.32	-25.86	1650515.00	14295988.83	39°22'05.417"N	80°57'51.369"W
Facility Reference Pt			1650540.85	14295934.53	39°22'04.880"N	80°57'51.040"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Patterson 342 (RKB) to Facility Vertical Datum	25.00ft
Horizontal Reference Pt	Slot	Patterson 342 (RKB) to Mean Sea Level	1172.00ft
Vertical Reference Pt	Patterson 342 (RKB)	Patterson 342 (RKB) to Mud Line at Slot (Slot #12)	25.00ft
MD Reference Pt	Patterson 342 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	338.22°

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION		Slot #12
Area	Tyler County, WV		Well
Field	Tyler		Wellbore
Facility	Terry Snider Pad		Edwards Unit 1H AWB

WELLPATH DATA (185 stations) † = interpolated/extrapolated station																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)			(ft)	(°)	("/100ft)	("/100ft)	("/100ft)	
0.00	0.00	230.750	0.00	0.00	0.00	0.00	1650515.00	14295988.83	39°22'05.417"N	80°57'51.369"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.00	230.750	25.00	0.00	0.00	0.00	1650515.00	14295988.83	39°22'05.417"N	80°57'51.369"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.610	230.750	100.00	-0.12	-0.25	-0.31	1650514.69	14295988.57	39°22'05.415"N	80°57'51.373"W	0.40	230.750	0.81	0.81	-172.33	Gyrodatta MS Gyro <8-3/4"> (100'-5680')
200.00	0.460	206.420	199.99	-0.55	-0.95	-0.90	1650514.10	14295987.88	39°22'05.408"N	80°57'51.380"W	1.31	223.485	0.27	-0.15	-24.33	
300.00	0.330	197.390	299.99	-1.04	-1.58	-1.16	1650513.83	14295987.24	39°22'05.401"N	80°57'51.384"W	1.97	216.340	0.14	-0.13	-9.03	
400.00	0.170	173.010	399.99	-1.40	-2.01	-1.23	1650513.76	14295986.82	39°22'05.397"N	80°57'51.385"W	2.35	211.580	0.19	-0.16	-24.38	
500.00	0.160	173.600	499.99	-1.68	-2.29	-1.20	1650513.80	14295986.53	39°22'05.394"N	80°57'51.384"W	2.59	207.624	0.01	-0.01	0.59	
600.00	1.270	283.670	599.98	-1.17	-2.17	-2.26	1650512.74	14295986.66	39°22'05.396"N	80°57'51.398"W	3.13	226.193	1.33	1.11	110.07	
700.00	3.100	295.170	699.91	1.44	-0.76	-5.78	1650509.21	14295988.07	39°22'05.410"N	80°57'51.443"W	5.83	262.553	1.87	1.83	11.50	
800.00	4.310	298.630	799.70	6.32	2.19	-11.53	1650503.47	14295991.02	39°22'05.439"N	80°57'51.516"W	11.74	280.776	1.23	1.21	3.46	
900.00	4.610	298.290	899.39	12.29	5.90	-18.37	1650496.64	14295994.72	39°22'05.475"N	80°57'51.603"W	19.29	287.807	0.30	0.30	-0.34	
1000.00	3.520	295.720	999.14	17.64	9.14	-24.67	1650490.33	14295997.96	39°22'05.507"N	80°57'51.683"W	26.31	290.321	1.10	-1.09	-2.57	
1100.00	1.300	307.910	1099.05	20.88	11.17	-28.33	1650486.67	14295999.99	39°22'05.527"N	80°57'51.730"W	30.45	291.509	2.27	-2.22	12.19	
1200.00	1.090	304.300	1199.02	22.65	12.40	-30.01	1650484.99	14296001.22	39°22'05.540"N	80°57'51.751"W	32.47	292.446	0.22	-0.21	-3.61	
1300.00	1.670	243.310	1299.00	23.31	12.28	-32.10	1650482.91	14296001.10	39°22'05.538"N	80°57'51.778"W	34.37	290.934	1.49	0.58	-60.99	
1400.00	2.980	225.650	1398.92	22.19	9.81	-35.26	1650479.75	14295998.63	39°22'05.514"N	80°57'51.818"W	36.60	285.545	1.48	1.31	-17.66	
1500.00	6.090	220.760	1498.59	18.75	3.97	-40.59	1650474.43	14295992.80	39°22'05.456"N	80°57'51.886"W	40.78	275.590	3.13	3.11	-4.89	
1600.00	7.960	219.970	1597.84	13.02	-5.35	-48.50	1650466.52	14295983.47	39°22'05.364"N	80°57'51.987"W	48.79	263.701	1.87	1.87	-0.79	
1700.00	8.300	219.600	1696.83	6.29	-16.22	-57.55	1650457.47	14295972.61	39°22'05.257"N	80°57'52.102"W	59.79	254.258	0.34	0.34	-0.37	
1800.00	9.300	221.370	1795.65	-0.82	-27.85	-67.49	1650447.53	14295960.99	39°22'05.142"N	80°57'52.228"W	73.01	247.578	1.04	1.00	1.77	
1900.00	10.640	221.740	1894.14	-8.58	-40.80	-78.97	1650436.05	14295948.04	39°22'05.014"N	80°57'52.375"W	88.89	242.678	1.34	1.34	0.37	
2000.00	14.250	222.690	1991.77	-18.01	-56.74	-93.47	1650421.56	14295932.11	39°22'04.857"N	80°57'52.559"W	109.34	238.741	3.62	3.61	0.95	
2100.00	18.530	222.040	2087.69	-30.33	-77.60	-112.47	1650402.58	14295911.26	39°22'04.650"N	80°57'52.801"W	136.64	235.396	4.28	4.28	-0.65	
2200.00	19.240	220.500	2182.30	-45.00	-101.93	-133.81	1650381.24	14295886.94	39°22'04.410"N	80°57'53.073"W	168.21	232.702	0.87	0.71	-1.54	
2300.00	18.790	218.200	2276.85	-60.73	-127.11	-154.47	1650360.59	14295861.76	39°22'04.161"N	80°57'53.336"W	200.04	230.549	0.87	-0.45	-2.30	
2400.00	16.680	215.830	2372.09	-76.47	-151.41	-172.83	1650342.23	14295837.48	39°22'03.921"N	80°57'53.570"W	229.77	228.780	2.23	-2.11	-2.37	
2500.00	16.670	222.470	2467.90	-90.39	-173.63	-190.92	1650324.15	14295815.27	39°22'03.702"N	80°57'53.801"W	258.06	227.716	1.90	-0.01	6.64	
2600.00	17.890	222.900	2563.38	-103.19	-195.46	-211.06	1650304.02	14295793.45	39°22'03.486"N	80°57'54.057"W	287.66	227.198	1.23	1.22	0.43	
2700.00	17.370	218.910	2658.69	-117.07	-218.32	-230.89	1650284.20	14295770.59	39°22'03.260"N	80°57'54.310"W	317.77	226.602	1.32	-0.52	-3.99	
2800.00	18.310	217.840	2753.88	-132.32	-242.35	-249.90	1650265.19	14295746.58	39°22'03.023"N	80°57'54.552"W	348.11	225.879	1.00	0.94	-1.07	

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Edwards Unit 1H AWP Proj: 15829'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #12
Area	Tyler County, WV	Well	Edwards Unit 1H
Field	Tyler	Wellbore	Edwards Unit 1H AWB
Facility	Terry Snider Pad		

WELLPATH DATA (185 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
2900.00	18.870	217.360	2848.66	-148.56	-267.60	-269.35	1650245.75	14295721.33	39°22'02.773"N	80°57'54.800"W	379.69	225.186	0.58	0.56	-0.48	
3000.00	17.690	224.560	2943.62	-162.95	-291.29	-289.83	1650225.28	14295697.65	39°22'02.539"N	80°57'55.061"W	410.91	224.856	2.55	-1.18	7.20	
3100.00	18.220	226.620	3038.76	-174.81	-312.85	-311.85	1650203.27	14295676.10	39°22'02.326"N	80°57'55.341"W	441.73	224.908	0.83	0.53	2.06	
3200.00	18.430	223.020	3133.69	-187.29	-335.15	-334.00	1650181.13	14295653.81	39°22'02.106"N	80°57'55.623"W	473.16	224.902	1.15	0.21	-3.60	
3300.00	18.770	225.660	3228.47	-200.20	-357.95	-356.29	1650158.85	14295631.02	39°22'01.881"N	80°57'55.907"W	505.04	224.867	0.91	0.34	2.64	
3400.00	19.000	232.950	3323.10	-210.66	-379.00	-380.79	1650134.36	14295609.97	39°22'01.673"N	80°57'56.219"W	537.26	225.135	2.37	0.23	7.29	
3500.00	19.330	232.820	3417.55	-219.34	-398.81	-406.97	1650108.19	14295590.17	39°22'01.477"N	80°57'56.553"W	569.80	225.580	0.33	0.33	-0.13	
3600.00	19.210	229.460	3511.95	-229.03	-419.51	-432.66	1650082.51	14295569.49	39°22'01.272"N	80°57'56.880"W	602.65	225.884	1.12	-0.12	-3.36	
3700.00	18.830	227.750	3606.49	-239.96	-441.05	-457.11	1650058.07	14295547.95	39°22'01.060"N	80°57'57.191"W	635.20	226.024	0.67	-0.38	-1.71	
3800.00	18.460	226.080	3701.25	-251.57	-462.89	-480.46	1650034.73	14295526.13	39°22'00.844"N	80°57'57.489"W	667.16	226.067	0.65	-0.37	-1.67	
3900.00	18.050	225.610	3796.21	-263.49	-484.71	-502.93	1650012.26	14295504.31	39°22'00.628"N	80°57'57.775"W	698.49	226.057	0.44	-0.41	-0.47	
4000.00	19.410	225.220	3890.92	-275.94	-507.25	-525.80	1649989.41	14295481.78	39°22'00.406"N	80°57'58.066"W	730.59	226.029	1.37	1.36	-0.39	
4100.00	18.690	225.940	3985.44	-288.51	-530.09	-549.11	1649966.11	14295458.94	39°22'00.180"N	80°57'58.363"W	763.23	226.009	0.76	-0.72	0.72	
4200.00	17.080	220.760	4080.61	-301.36	-552.36	-570.21	1649945.01	14295436.68	39°21'59.960"N	80°57'58.632"W	793.88	225.911	2.26	-1.61	-5.18	
4300.00	18.160	222.250	4175.92	-314.95	-575.02	-590.28	1649924.95	14295414.03	39°21'59.736"N	80°57'58.888"W	824.06	225.750	1.17	1.08	1.49	
4400.00	17.870	226.450	4271.02	-327.47	-597.13	-611.88	1649903.36	14295391.94	39°21'59.518"N	80°57'59.163"W	854.96	225.699	1.33	-0.29	4.20	
4500.00	17.150	225.670	4366.38	-338.81	-618.00	-633.55	1649881.70	14295371.07	39°21'59.311"N	80°57'59.439"W	885.05	225.712	0.76	-0.72	-0.78	
4600.00	16.420	225.380	4462.12	-349.95	-638.23	-654.15	1649861.10	14295350.85	39°21'59.111"N	80°57'59.701"W	913.93	225.706	0.73	-0.73	-0.29	
4700.00	18.620	222.370	4557.48	-362.40	-659.96	-674.98	1649840.29	14295329.13	39°21'58.897"N	80°57'59.966"W	944.00	225.644	2.38	2.20	-3.01	
4800.00	19.840	222.830	4651.90	-376.64	-684.20	-697.27	1649818.00	14295304.90	39°21'58.657"N	80°58'00.250"W	976.89	225.542	1.23	1.22	0.46	
4900.00	18.680	229.460	4746.31	-389.07	-707.06	-720.98	1649794.30	14295282.05	39°21'58.431"N	80°58'00.552"W	1009.83	225.559	2.47	-1.16	6.63	
5000.00	17.600	228.640	4841.34	-399.29	-727.46	-744.50	1649770.79	14295261.66	39°21'58.230"N	80°58'00.852"W	1040.90	225.663	1.11	-1.08	-0.82	
5100.00	16.650	226.880	4936.91	-409.57	-747.24	-766.31	1649749.00	14295241.88	39°21'58.034"N	80°58'01.130"W	1070.32	225.722	1.08	-0.95	-1.76	
5200.00	17.400	226.050	5032.52	-420.42	-767.41	-787.53	1649727.78	14295221.72	39°21'57.835"N	80°58'01.400"W	1099.60	225.741	0.79	0.75	-0.83	
5300.00	17.340	223.880	5127.96	-432.21	-788.53	-808.62	1649706.70	14295200.61	39°21'57.627"N	80°58'01.669"W	1129.45	225.721	0.65	-0.06	-2.17	
5400.00	17.690	222.330	5223.33	-444.98	-810.50	-829.18	1649686.15	14295178.65	39°21'57.409"N	80°58'01.931"W	1159.51	225.653	0.58	0.35	-1.55	
5500.00	17.420	225.550	5318.67	-457.39	-832.22	-850.10	1649665.24	14295156.94	39°21'57.195"N	80°58'02.197"W	1189.65	225.609	1.01	-0.27	3.22	
5600.00	17.780	228.410	5413.99	-468.33	-852.84	-872.20	1649643.14	14295136.33	39°21'56.991"N	80°58'02.478"W	1219.87	225.643	0.94	0.36	2.86	
5680.00	18.880	225.950	5489.94	-477.38	-869.94	-890.64	1649624.71	14295119.23	39°21'56.822"N	80°58'02.713"W	1245.01	225.674	1.68	1.37	-3.08	
5825.00	18.610	216.810	5627.27	-498.33	-904.78	-921.38	1649593.99	14295084.40	39°21'56.478"N	80°58'03.105"W	1291.35	225.520	2.03	-0.19	-6.30	BHI AT Curve <8-1/2"> (5680')(5825'-15804')

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Field	Tyler	Wellbore	Edwards Unit 1H AWB
Facility	Terry Snider Pad		

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7105.00	87.780	336.250	6422.14	176.83	-332.05	-1307.59	1649207.93	14295656.91	39°22'02.140"N	80°58'08.020"W	1349.09	255.751	8.85	-2.60	-8.46	
7199.00	88.950	337.700	6424.83	270.76	-245.58	-1344.34	1649171.19	14295743.34	39°22'02.995"N	80°58'08.487"W	1366.59	259.648	1.98	1.24	1.54	
7294.00	89.480	334.550	6426.13	365.68	-158.73	-1382.78	1649132.77	14295830.16	39°22'03.853"N	80°58'08.976"W	1391.86	263.452	3.36	0.56	-3.32	
7388.00	88.830	331.400	6427.51	459.26	-75.01	-1425.48	1649090.08	14295913.84	39°22'04.681"N	80°58'09.520"W	1427.46	266.988	3.42	-0.69	-3.35	
7482.00	89.750	330.980	6428.68	552.54	7.35	-1470.78	1649044.81	14295996.17	39°22'05.495"N	80°58'10.096"W	1470.80	270.286	1.08	0.98	-0.45	
7576.00	88.250	331.280	6430.32	645.81	89.65	-1516.16	1648999.45	14296078.44	39°22'06.309"N	80°58'10.673"W	1518.80	273.384	1.63	-1.60	0.32	
7670.00	87.470	334.960	6433.83	739.35	173.42	-1558.62	1648957.00	14296162.17	39°22'07.137"N	80°58'11.214"W	1568.24	276.349	4.00	-0.83	3.91	
7765.00	89.110	340.190	6436.67	834.27	261.16	-1594.83	1648920.81	14296249.88	39°22'08.004"N	80°58'11.674"W	1616.07	279.300	5.77	1.73	5.51	
7859.00	89.660	343.890	6437.68	928.04	350.56	-1623.81	1648891.84	14296339.24	39°22'08.888"N	80°58'12.043"W	1661.22	282.183	3.98	0.59	3.94	
7953.00	91.350	343.220	6436.85	1021.62	440.71	-1650.42	1648865.24	14296429.36	39°22'09.779"N	80°58'12.381"W	1708.24	284.951	1.93	1.80	-0.71	
8048.00	91.110	338.330	6434.81	1116.48	530.36	-1681.68	1648833.99	14296518.97	39°22'10.665"N	80°58'12.779"W	1763.33	287.504	5.15	-0.25	-5.15	
8142.00	88.000	331.510	6435.54	1210.25	615.44	-1721.49	1648794.19	14296604.01	39°22'11.506"N	80°58'13.286"W	1828.20	289.672	7.97	-3.31	-7.26	
8236.00	88.890	334.140	6438.09	1303.79	699.02	-1764.40	1648751.30	14296687.57	39°22'12.332"N	80°58'13.832"W	1897.83	291.612	2.95	0.95	2.80	
8331.00	87.380	336.210	6441.18	1398.60	785.19	-1804.27	1648711.45	14296773.70	39°22'13.184"N	80°58'14.339"W	1967.71	293.518	2.70	-1.59	2.18	
8425.00	86.980	339.060	6445.81	1492.47	872.00	-1839.99	1648675.75	14296860.48	39°22'14.042"N	80°58'14.793"W	2036.16	295.357	3.06	-0.43	3.03	
8519.00	89.200	341.840	6448.94	1586.33	960.52	-1871.42	1648644.33	14296948.96	39°22'14.917"N	80°58'15.193"W	2103.52	297.170	3.78	2.36	2.96	
8614.00	90.830	338.250	6448.92	1681.27	1049.80	-1903.83	1648611.93	14297038.20	39°22'15.800"N	80°58'15.606"W	2174.09	298.873	4.15	1.72	-3.78	
8708.00	89.970	332.600	6448.26	1775.11	1135.25	-1942.91	1648572.87	14297123.62	39°22'16.644"N	80°58'16.103"W	2250.26	300.298	6.08	-0.91	-6.01	
8802.00	89.320	331.630	6448.84	1868.58	1218.33	-1986.87	1648528.92	14297206.67	39°22'17.465"N	80°58'16.662"W	2330.66	301.516	1.24	-0.69	-1.03	
8897.00	87.750	336.630	6451.27	1963.27	1303.75	-2028.30	1648487.51	14297292.05	39°22'18.310"N	80°58'17.190"W	2411.17	302.732	5.51	-1.65	5.26	
8991.00	88.150	341.290	6454.64	2057.18	1391.41	-2062.01	1648453.81	14297379.67	39°22'19.176"N	80°58'17.618"W	2487.55	304.011	4.97	0.43	4.96	
9086.00	89.630	345.020	6456.48	2151.79	1482.29	-2089.53	1648426.30	14297470.52	39°22'20.075"N	80°58'17.969"W	2561.90	305.352	4.22	1.56	3.93	
9180.00	89.140	342.110	6457.49	2245.36	1572.44	-2116.12	1648399.72	14297560.63	39°22'20.966"N	80°58'18.307"W	2636.39	306.615	3.14	-0.52	-3.10	
9275.00	90.980	340.350	6457.39	2340.22	1662.38	-2146.69	1648369.17	14297650.53	39°22'21.855"N	80°58'18.696"W	2715.10	307.754	2.68	1.94	-1.85	
9369.00	90.220	336.510	6456.40	2434.20	1749.77	-2181.24	1648334.64	14297737.90	39°22'22.719"N	80°58'19.135"W	2796.34	308.736	4.16	-0.81	-4.09	
9463.00	90.740	335.020	6455.61	2528.11	1835.48	-2219.82	1648296.07	14297823.57	39°22'23.566"N	80°58'19.626"W	2880.38	309.586	1.68	0.55	-1.59	
9558.00	89.910	335.000	6455.08	2622.96	1921.59	-2259.95	1648255.95	14297909.64	39°22'24.417"N	80°58'20.137"W	2966.46	310.374	0.87	-0.87	-0.02	
9652.00	90.150	339.090	6455.03	2716.92	2008.13	-2296.61	1648219.31	14297996.14	39°22'25.272"N	80°58'20.603"W	3050.73	311.166	4.36	0.26	4.35	
9746.00	90.340	338.940	6454.62	2810.91	2095.89	-2330.27	1648185.66	14298083.87	39°22'26.140"N	80°58'21.032"W	3134.15	311.969	0.26	0.20	-0.16	
9841.00	89.970	336.620	6454.37	2905.90	2183.83	-2366.19	1648149.76	14298171.78	39°22'27.009"N	80°58'21.489"W	3219.93	312.705	2.47	-0.39	-2.44	

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# Actual Wellpath Report

Edwards Unit 1H AWP Proj: 15829'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #12
Area	Tyler County, WV	Well	Edwards Unit 1H
Field	Tyler	Wellbore	Edwards Unit 1H AWB
Facility	Terry Snider Pad		

WELLPATH DATA (185 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
9935.00	91.020	337.280	6453.56	2999.87	2270.32	-2402.99	1648112.97	14298258.23	39°22'27.864"N	80°58'21.957"W	3305.86	313.374	1.32	1.12	0.70	
10030.00	90.520	334.850	6452.28	3094.79	2357.13	-2441.53	1648074.45	14298345.01	39°22'28.722"N	80°58'22.447"W	3393.69	313.992	2.61	-0.53	-2.56	
10124.00	90.060	337.110	6451.80	3188.71	2442.99	-2479.79	1648036.20	14298430.83	39°22'29.571"N	80°58'22.934"W	3481.03	314.572	2.45	-0.49	2.40	
10218.00	90.650	340.920	6451.22	3282.68	2530.73	-2513.45	1648002.56	14298518.54	39°22'30.438"N	80°58'23.362"W	3566.79	315.196	4.10	0.63	4.05	
10312.00	91.480	338.570	6449.47	3376.62	2618.90	-2545.98	1647970.04	14298606.67	39°22'31.310"N	80°58'23.776"W	3652.49	315.809	2.65	0.88	-2.50	
10406.00	91.720	337.340	6446.85	3470.58	2705.99	-2581.25	1647934.79	14298693.73	39°22'32.171"N	80°58'24.225"W	3739.68	316.352	1.33	0.26	-1.31	
10501.00	89.570	335.740	6445.78	3565.53	2793.13	-2619.06	1647896.99	14298780.83	39°22'33.032"N	80°58'24.706"W	3828.97	316.842	2.82	-2.26	-1.68	
10595.00	87.600	338.750	6448.10	3659.47	2879.77	-2655.40	1647860.66	14298867.44	39°22'33.888"N	80°58'25.169"W	3917.17	317.321	3.83	-2.10	3.20	
10689.00	90.800	345.420	6449.41	3753.18	2969.14	-2684.29	1647831.78	14298956.77	39°22'34.772"N	80°58'25.536"W	4002.65	317.884	7.87	3.40	7.10	
10783.00	91.790	345.370	6447.29	3846.42	3060.08	-2707.99	1647808.09	14299047.67	39°22'35.671"N	80°58'25.838"W	4086.23	318.493	1.05	1.05	-0.05	
10878.00	93.820	341.620	6442.64	3940.88	3151.03	-2734.94	1647781.16	14299138.59	39°22'36.570"N	80°58'26.181"W	4172.40	319.044	4.48	2.14	-3.95	
10972.00	92.680	335.690	6437.31	4034.68	3238.40	-2769.08	1647747.02	14299225.93	39°22'37.433"N	80°58'26.615"W	4260.88	319.467	6.41	-1.21	-6.31	
11066.00	90.340	332.090	6434.83	4128.36	3322.76	-2810.43	1647705.69	14299310.25	39°22'38.267"N	80°58'27.141"W	4351.93	319.775	4.57	-2.49	-3.83	
11161.00	89.290	335.310	6435.13	4223.05	3407.91	-2852.52	1647663.63	14299395.37	39°22'39.109"N	80°58'27.677"W	4444.18	320.070	3.57	-1.11	3.39	
11255.00	88.950	339.980	6436.58	4317.01	3494.82	-2888.25	1647627.90	14299482.24	39°22'39.968"N	80°58'28.132"W	4533.84	320.428	4.98	-0.36	4.97	
11349.00	89.320	343.860	6438.00	4410.78	3584.15	-2917.42	1647598.75	14299571.53	39°22'40.851"N	80°58'28.503"W	4621.41	320.855	4.15	0.39	4.13	
11443.00	90.220	346.900	6438.38	4504.04	3675.09	-2941.14	1647575.04	14299662.44	39°22'41.750"N	80°58'28.805"W	4707.08	321.330	3.37	0.96	3.23	
11537.00	90.400	343.140	6437.87	4597.36	3765.88	-2965.43	1647550.75	14299753.19	39°22'42.647"N	80°58'29.114"W	4793.29	321.781	4.00	0.19	-4.00	
11632.00	91.050	336.410	6436.66	4692.26	3854.96	-2998.25	1647517.95	14299842.24	39°22'43.528"N	80°58'29.531"W	4883.67	322.125	7.12	0.68	-7.08	
11726.00	90.890	330.360	6435.07	4785.87	3938.95	-3040.34	1647475.88	14299926.19	39°22'44.358"N	80°58'30.067"W	4975.84	322.337	6.44	-0.17	-6.44	
11820.00	90.800	325.580	6433.68	4878.33	4018.61	-3090.17	1647426.06	14300005.82	39°22'45.145"N	80°58'30.701"W	5069.36	322.441	5.09	-0.10	-5.09	
11914.00	89.260	322.330	6433.63	4969.42	4094.60	-3145.48	1647370.78	14300081.78	39°22'45.897"N	80°58'31.405"W	5163.31	322.469	3.83	-1.64	-3.46	
12008.00	89.880	330.010	6434.34	5061.28	4172.63	-3197.77	1647318.51	14300159.77	39°22'46.668"N	80°58'32.071"W	5257.04	322.535	8.20	0.66	8.17	
12103.00	89.910	337.780	6434.52	5155.93	4257.87	-3239.54	1647276.76	14300244.98	39°22'47.511"N	80°58'32.603"W	5350.14	322.735	8.18	0.03	8.18	
12197.00	90.030	342.790	6434.56	5249.84	4346.33	-3271.24	1647245.07	14300333.41	39°22'48.385"N	80°58'33.006"W	5439.81	323.033	5.33	0.13	5.33	
12291.00	90.030	344.760	6434.52	5343.40	4436.58	-3297.50	1647218.82	14300423.62	39°22'49.277"N	80°58'33.340"W	5527.82	323.378	2.10	0.00	2.10	
12385.00	90.120	344.350	6434.39	5436.82	4527.19	-3322.53	1647193.80	14300514.19	39°22'50.173"N	80°58'33.659"W	5615.57	323.725	0.45	0.10	-0.44	
12480.00	90.000	345.220	6434.29	5531.20	4618.86	-3347.47	1647168.88	14300605.83	39°22'51.079"N	80°58'33.976"W	5704.33	324.068	0.92	-0.13	0.92	
12574.00	90.030	349.550	6434.27	5623.98	4710.57	-3367.99	1647148.36	14300697.50	39°22'51.985"N	80°58'34.237"W	5790.75	324.436	4.61	0.03	4.61	
12669.00	90.000	349.210	6434.24	5717.18	4803.94	-3385.50	1647130.86	14300790.83	39°22'52.908"N	80°58'34.460"W	5877.02	324.826	0.36	-0.03	-0.36	

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# Actual Wellpath Report

Edwards Unit 1H AWP Proj: 15829'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #12
Area	Tyler County, WV	Well	Edwards Unit 1H
Field	Tyler	Wellbore	Edwards Unit 1H AWB
Facility	Terry Snider Pad		

WELLPATH DATA (185 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]	[°]	["/100ft]	["/100ft]	["/100ft]	
12763.00	90.220	346.740	6434.06	5809.81	4895.87	-3405.08	1647111.28	14300882.73	39°22'53.817"N	80°58'34.709"W	5963.56	325.181	2.64	0.23	-2.63	
12858.00	90.890	342.750	6433.14	5904.17	4987.50	-3430.07	1647086.30	14300974.32	39°22'54.722"N	80°58'35.027"W	6053.14	325.482	4.26	0.71	-4.20	
12952.00	92.740	342.470	6430.17	5997.85	5077.15	-3458.15	1647058.24	14301063.94	39°22'55.609"N	80°58'35.384"W	6142.98	325.740	1.99	1.97	-0.30	
13047.00	91.390	338.030	6426.74	6092.70	5166.48	-3490.22	1647026.18	14301153.23	39°22'56.492"N	80°58'35.792"W	6234.92	325.959	4.88	-1.42	-4.67	
13141.00	90.770	336.200	6424.97	6186.66	5253.06	-3526.77	1646989.64	14301239.78	39°22'57.347"N	80°58'36.257"W	6327.14	326.124	2.06	-0.66	-1.95	
13236.00	91.690	339.650	6422.93	6281.62	5341.06	-3562.46	1646953.97	14301327.74	39°22'58.217"N	80°58'36.711"W	6420.13	326.297	3.76	0.97	3.63	
13330.00	92.930	335.230	6419.14	6375.51	5427.78	-3598.48	1646917.96	14301414.42	39°22'59.074"N	80°58'37.170"W	6512.28	326.457	4.88	1.32	-4.70	
13424.00	91.760	328.740	6415.29	6468.83	5510.65	-3642.57	1646873.89	14301497.26	39°22'59.894"N	80°58'37.731"W	6605.72	326.535	7.01	-1.24	-6.90	
13518.00	90.950	328.290	6413.06	6561.45	5590.78	-3691.65	1646824.83	14301577.36	39°23'00.686"N	80°58'38.356"W	6699.64	326.563	0.99	-0.86	-0.48	
13613.00	89.750	331.720	6412.48	6655.46	5673.05	-3739.14	1646777.36	14301659.59	39°23'01.499"N	80°58'38.960"W	6794.45	326.611	3.82	-1.26	3.61	
13707.00	91.080	336.970	6411.80	6749.21	5757.74	-3779.82	1646736.70	14301744.26	39°23'02.336"N	80°58'39.478"W	6887.57	326.716	5.76	1.41	5.59	
13802.00	91.260	343.190	6409.86	6844.09	5847.00	-3812.16	1646704.36	14301833.47	39°23'03.218"N	80°58'39.890"W	6979.97	326.896	6.55	0.19	6.55	
13896.00	92.550	344.800	6406.74	6937.56	5937.30	-3838.07	1646678.47	14301923.74	39°23'04.111"N	80°58'40.220"W	7069.81	327.120	2.19	1.37	1.71	
13991.00	91.170	338.200	6403.65	7032.30	6027.29	-3868.18	1646648.37	14302013.69	39°23'05.000"N	80°58'40.603"W	7161.78	327.309	7.09	-1.45	-6.95	
14085.00	90.310	335.810	6402.44	7126.26	6113.81	-3904.89	1646611.67	14302100.17	39°23'05.856"N	80°58'41.070"W	7254.43	327.434	2.70	-0.91	-2.54	
14180.00	89.970	335.380	6402.20	7221.16	6200.32	-3944.15	1646572.43	14302186.65	39°23'06.711"N	80°58'41.570"W	7348.48	327.539	0.58	-0.36	-0.45	
14274.00	89.940	336.170	6402.28	7315.07	6286.04	-3982.72	1646533.88	14302272.34	39°23'07.558"N	80°58'42.061"W	7441.53	327.642	0.84	-0.03	0.84	
14369.00	89.940	336.120	6402.38	7410.01	6372.92	-4021.14	1646495.48	14302359.19	39°23'08.417"N	80°58'42.550"W	7535.50	327.749	0.05	0.00	-0.05	
14463.00	90.310	335.840	6402.17	7503.94	6458.78	-4059.40	1646457.23	14302445.01	39°23'09.266"N	80°58'43.037"W	7628.54	327.850	0.49	0.39	-0.30	
14557.00	88.890	334.720	6402.83	7597.81	6544.16	-4098.71	1646417.94	14302530.36	39°23'10.109"N	80°58'43.537"W	7721.75	327.940	1.92	-1.51	-1.19	
14651.00	88.680	340.090	6404.82	7691.74	6630.90	-4134.80	1646381.86	14302617.06	39°23'10.967"N	80°58'43.997"W	7814.43	328.054	5.72	-0.22	5.71	
14745.00	88.950	341.600	6406.77	7785.62	6719.67	-4165.64	1646351.03	14302705.80	39°23'11.844"N	80°58'44.389"W	7906.11	328.205	1.63	0.29	1.61	
14840.00	89.480	340.430	6408.07	7880.50	6809.49	-4196.54	1646320.14	14302795.58	39°23'12.732"N	80°58'44.782"W	7998.76	328.355	1.35	0.56	-1.23	
14934.00	89.420	340.750	6408.97	7974.41	6898.15	-4227.78	1646288.92	14302884.20	39°23'13.608"N	80°58'45.180"W	8090.64	328.496	0.35	-0.06	0.34	
15028.00	89.420	341.570	6409.92	8068.29	6987.10	-4258.13	1646258.58	14302973.12	39°23'14.488"N	80°58'45.566"W	8182.38	328.641	0.87	0.00	0.87	
15123.00	89.600	341.530	6410.73	8163.12	7077.22	-4288.19	1646228.53	14303063.20	39°23'15.378"N	80°58'45.949"W	8275.00	328.788	0.19	0.19	-0.04	
15217.00	90.030	338.840	6411.04	8257.06	7165.64	-4320.05	1646196.68	14303151.59	39°23'16.252"N	80°58'46.354"W	8367.16	328.915	2.90	0.46	-2.86	
15312.00	90.090	337.740	6410.94	8352.05	7253.90	-4355.20	1646161.55	14303239.81	39°23'17.125"N	80°58'46.802"W	8460.90	329.020	1.16	0.06	-1.16	
15406.00	90.800	333.150	6410.21	8445.92	7339.38	-4394.25	1646122.51	14303325.25	39°23'17.970"N	80°58'47.299"W	8554.29	329.090	4.94	0.76	-4.88	
15500.00	90.460	332.670	6409.17	8539.51	7423.06	-4437.05	1646079.73	14303408.90	39°23'18.797"N	80°58'47.844"W	8648.08	329.132	0.63	-0.36	-0.51	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #12
Area	Tyler County, WV	Well	Edwards Unit 1H
Field	Tyler	Wellbore	Edwards Unit 1H AWB
Facility	Terry Snider Pad		

WELLPATH DATA (185 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]	[°]	["/100ft]	["/100ft]	["/100ft]	
15594.00	90.400	332.800	6408.47	8633.07	7506.61	-4480.11	1646036.68	14303492.42	39°23'19.623"N	80°58'48.392"W	8741.89	329.170	0.15	-0.06	0.14	
15689.00	91.020	334.820	6407.29	8727.78	7591.85	-4522.03	1645994.78	14303577.62	39°23'20.465"N	80°58'48.926"W	8836.57	329.220	2.22	0.65	2.13	
15783.00	91.200	337.570	6405.47	8821.69	7677.83	-4559.96	1645956.86	14303663.57	39°23'21.315"N	80°58'49.409"W	8929.85	329.293	2.93	0.19	2.93	
15804.00	89.940	336.990	6405.26	8842.69	7697.20	-4568.07	1645948.76	14303682.93	39°23'21.507"N	80°58'49.512"W	8950.65	329.312	6.61	-6.00	-2.76	
15829.00	89.940	336.990	6405.29	8867.68	7720.21	-4577.85	1645938.99	14303705.93	39°23'21.734"N	80°58'49.636"W	8975.43	329.333	0.00	0.00	0.00	Projected MD at TD: 15829'

TARGETS								
Name	TVD	North	East	Grid East	Grid North	Latitude	Longitude	Shape
	[ft]	[ft]	[ft]	[US ft]	[US ft]			
Edwards Unit POE Rev-1	6412.00	-584.06	-1234.02	1649281.47	14295405.00	39°21'59.649"N	80°58'07.084"W	point
Edwards Unit 1H BHL Rev-1	6436.00	7779.49	-4575.80	1645941.03	14303765.19	39°23'22.320"N	80°58'49.610"W	point
Edwards Unit 1H LP Rev-1	6436.00	-445.26	-1289.48	1649226.03	14295543.74	39°22'01.021"N	80°58'07.790"W	point

WELLPATH COMPOSITION - Ref Wellbore: Edwards Unit 1H AWB				Ref Wellpath: Edwards Unit 1H AWP Proj: 15829'		
Start MD	End MD	Positional Uncertainty Model	Log Name/Comment	Wellbore		
[ft]	[ft]					
25.00	5680.00	Gyrodatta standard - Drop gyro or Multi-shot	01 Gyrodatta MS Gyro <8-3/4">(100'-5680')	Edwards Unit 1H AWB		
5680.00	15804.00	BHI AutoTrak Curve (Short)	02 BHI AT Curve <8-1/2">(5680')(5825'-15804')	Edwards Unit 1H AWB		
15804.00	15829.00	Blind Drilling (std)	Projection to bit	Edwards Unit 1H AWB		

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# Actual Wellpath Report

Edwards Unit 1H AWP Proj: 15829'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #12
Area	Tyler County, WV	Well	Edwards Unit 1H
Field	Tyler	Wellbore	Edwards Unit 1H AWB
Facility	Terry Snider Pad		

COMMENTS
<p><b>Wellpath general comments</b>                      API: 47-095-02374-0000                      BHI Job #: 8135103                      Rig: Patterson 342                      Duration: 9/1/2016-9/5/2016                      Gyrodata MS Gyro &lt;8-3/4"&gt; (100'-5680')                      BHI AT Curve &lt;8-1/2"&gt; (5680')(5825'-15804')                      Sycamore: 6412' MD                      Middlesex: 6532' MD                      Burkett: 6688' MD                      Tully: 6745' MD                      Marcellus: 6774' MD                      Projected MD at TD: 15829'</p>

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