



ANTERO RESOURCES CORPORATION



Location: Tyler County, WV
Field: Tyler
Facility: Pyles Pad

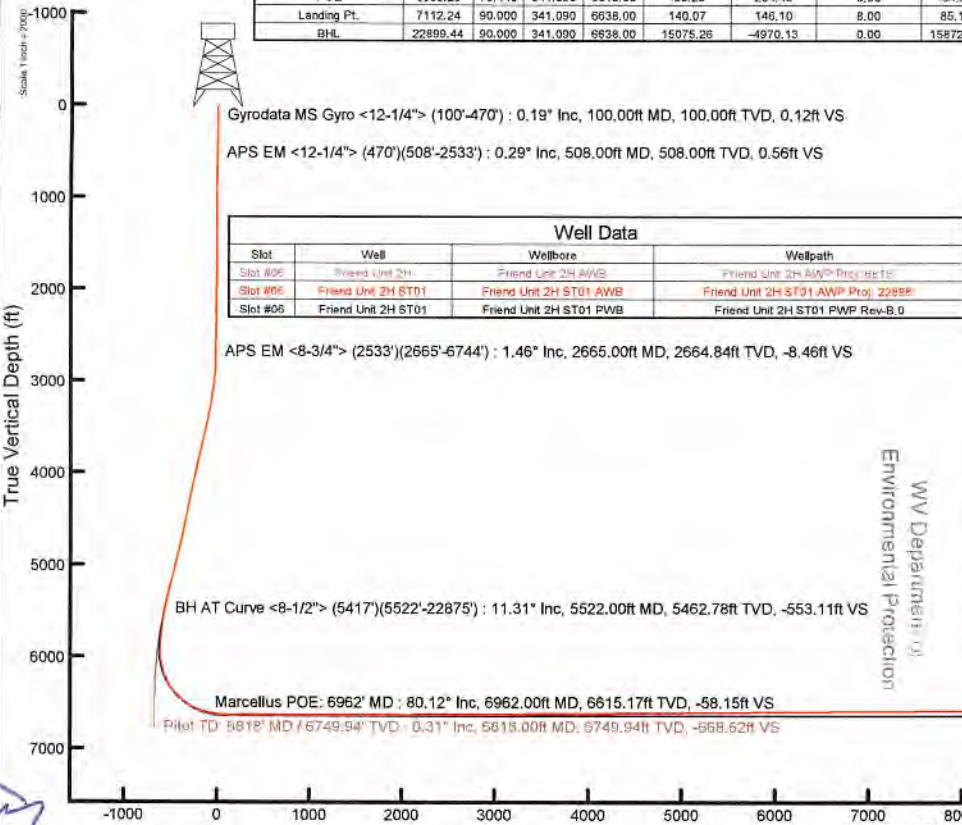
Slot: Slot #06
Well: Friend Unit 2H ST01
Wellbore: Friend Unit 2H ST01 PWB

Pkt reference wellpath is: Friend Unit 2H ST01 PWP Rev-B.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 317 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 317 (RKB)	Scale: True distance
H&P 317 (RKB) to Mean Sea Level: 1105.5 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot Slot #06): -1051 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: edjaryar on 2020-09-14; Database: WA_MPL_EASTERNUS_Data

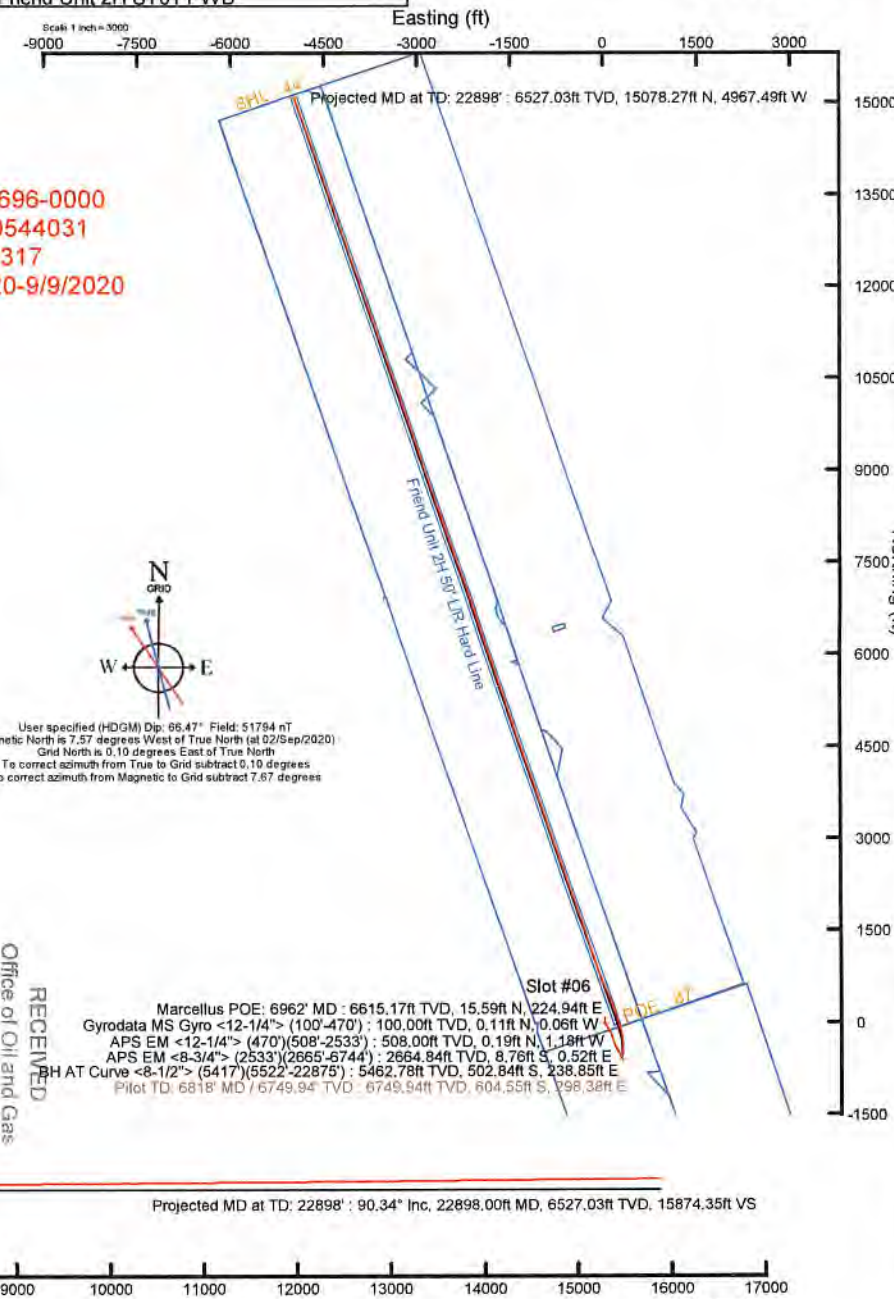
Location Information					
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Pyles Pad	1685308.101	14345436.083	39°30'13.9340"N	80°50'14.2940"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Longitude
Slot #06	-29.95	-1.44	1686307.666	14345406.143	39°30'13.6380"N 80°50'14.3130"W
Comment	Friend Unit 2H				
H&P 317 (RKB) to Ground level (At Slot Slot #06)	25.5ft				
Mean Sea Level to Ground level (At Slot Slot #06)	-1051ft				
H&P 317 (RKB) to Mean Sea Level	1105.5ft				

API: 47-095-02696-0000
BH Job # 110544031
Rig: H&P 317
Duration: 9/5/2020-9/9/2020

Well Profile Data								
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	5417.00	12.870	150.110	5360.11	-483.32	228.77	1.44	-531.38
Next Svy 1	5512.00	11.280	149.750	5453.01	-500.52	238.73	1.68	-550.88
Next Svy 2	5607.00	11.280	154.130	5546.17	-516.91	247.46	0.90	-569.21
Sidetrack Pt	5618.00	11.306	154.841	5556.96	-518.85	248.39	1.29	-571.35
Sidetrack / Low-Rt	5927.39	5.271	144.636	5862.99	-557.93	269.53	2.00	-615.17
Avoid No-Go	6445.45	37.050	0.000	6349.04	-414.98	283.93	8.00	-484.60
POE	6930.25	75.440	341.090	6615.00	-30.25	204.45	8.50	-94.88
Landing Pt.	7112.24	90.000	341.090	6638.00	140.07	146.10	8.00	85.17
BHL	22899.44	90.000	341.090	6638.00	15075.26	-4970.13	0.00	15872.36



Well Data			
Slot	Well	Wellbore	Wellpath
Slot #06	Friend Unit 2H	Friend Unit 2H AWG	Friend Unit 2H AWG Proj. 22899'
Slot #06	Friend Unit 2H ST01	Friend Unit 2H ST01 AWB	Friend Unit 2H ST01 AWB Proj. 22899'
Slot #06	Friend Unit 2H ST01	Friend Unit 2H ST01 PWB	Friend Unit 2H ST01 PWP Rev-B.0



User specified (HDGM) Dip: 65.47° Field: 51794 nT
Magnetic North is 7.57 degrees West of True North (at 02/Sep/2020)
Grid North is 0.10 degrees East of True North
To correct azimuth from True to Grid subtract 0.10 degrees
To correct azimuth from Magnetic to Grid subtract 7.67 degrees

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Marcellus POE: 6962' MD : 6615.17ft TVD, 15.59ft N, 224.94ft E
Gyrodatta MS Gyro <12-1/4"> (100°-470') : 100.00ft TVD, 0.11ft N, 0.06ft W
APS EM <12-1/4"> (470°)(508'-2533') : 508.00ft TVD, 0.19ft N, 1.18ft W
APS EM <8-3/4"> (2533°)(2665'-6744') : 2664.84ft TVD, 8.76ft S, 0.52ft E
BH AT Curve <8-1/2"> (5417°)(5522'-22875') : 5462.78ft TVD, 502.84ft S, 238.85ft E
Pilot TD: 6818' MD / 6749.94' TVD : 6749.94ft TVD, 604.55ft S, 298.38ft E



Actual Wellpath Report

Friend Unit 2H ST01 AWP Proj: 22898'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Friend Unit 2H ST01
Field	Tyler	API/Legal	
Facility	Pyles Pad	Wellbore	Friend Unit 2H ST01 AWB
Slot	Slot #06	Sidetrack from	Friend Unit 2H AWP Proj: 6818' at 5417.00 MD

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999602	Report Generated	14/Sep/2020 at 17:50
Convergence at slot	0.10° East	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-29.95	-1.44	1686307.67	14345406.14	39°30'13.6380"N	80°50'14.3130"W
Facility Reference Pt			1686309.10	14345436.08	39°30'13.9340"N	80°50'14.2940"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.3013"W

WELLPATH DATUM

Calculation method	Minimum curvature	H&P 317 (RKB) to Facility Vertical Datum	1106.50ft
Horizontal Reference Pt	Slot	H&P 317 (RKB) to Mean Sea Level	1106.50ft
Vertical Reference Pt	H&P 317 (RKB)	H&P 317 (RKB) to Ground Level at Slot (Slot #06)	25.50ft
MD Reference Pt	H&P 317 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	341.09°

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Actual Wellpath Report

Friend Unit 2H ST01 AWP Proj: 22898'
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Field	Tyler	API/Legal	
Facility	Pyles Pad	Wellbore	Friend Unit 2H ST01 AWB
Slot	Slot #06	Sidetrack from	Friend Unit 2H AWP Proj: 6818' at 5417.00 MD

WELLPATH DATA (263 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	331.100	0.00	0.00	0.00	1686307.67	14345406.14	39°30'13.6380"N	80°50'14.3130"W	0.00	0.000	0.00	0.00	0.00	
25.50	0.000	331.100	25.50	0.00	0.00	0.00	1686307.67	14345406.14	39°30'13.6380"N	80°50'14.3130"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.190	331.100	100.00	0.12	0.11	-0.06	1686307.61	14345406.25	39°30'13.6391"N	80°50'14.3138"W	0.12	331.100	0.26	0.26	0.00	Gyrodatta MS Gyro <12-1/4"> (100'-470')
200.00	0.180	312.360	200.00	0.42	0.36	-0.26	1686307.41	14345406.50	39°30'13.6416"N	80°50'14.3163"W	0.44	324.529	0.06	-0.01	-18.74	
300.00	0.150	287.700	300.00	0.64	0.50	-0.50	1686307.17	14345406.65	39°30'13.6430"N	80°50'14.3193"W	0.71	315.463	0.08	-0.03	-24.66	
400.00	0.210	231.180	400.00	0.65	0.43	-0.76	1686306.90	14345406.57	39°30'13.6423"N	80°50'14.3227"W	0.88	299.349	0.18	0.06	-56.52	
470.00	0.280	245.300	470.00	0.59	0.28	-1.02	1686306.65	14345406.42	39°30'13.6408"N	80°50'14.3260"W	1.06	285.242	0.13	0.10	20.17	
508.00	0.290	237.470	508.00	0.56	0.19	-1.18	1686306.48	14345406.33	39°30'13.6399"N	80°50'14.3281"W	1.20	278.982	0.11	0.03	-20.61	APS EM <12-1/4"> (470')(508'-2533')
598.00	0.450	283.510	598.00	0.70	0.15	-1.72	1686305.95	14345406.29	39°30'13.6395"N	80°50'14.3349"W	1.73	274.896	0.36	0.18	51.16	
690.00	0.450	248.580	689.99	0.87	0.10	-2.41	1686305.26	14345406.24	39°30'13.6390"N	80°50'14.3437"W	2.41	272.374	0.29	0.00	-37.97	
781.00	0.550	277.450	780.99	1.05	0.03	-3.17	1686304.49	14345406.17	39°30'13.6383"N	80°50'14.3535"W	3.17	270.469	0.29	0.11	31.73	
872.00	0.330	258.620	871.99	1.28	0.03	-3.86	1686303.80	14345406.17	39°30'13.6384"N	80°50'14.3623"W	3.86	270.458	0.29	-0.24	-20.69	
963.00	0.710	247.670	962.98	1.28	-0.24	-4.64	1686303.03	14345405.91	39°30'13.6358"N	80°50'14.3722"W	4.65	267.102	0.43	0.42	-12.03	
1055.00	0.570	282.020	1054.98	1.48	-0.36	-5.62	1686302.05	14345405.79	39°30'13.6346"N	80°50'14.3847"W	5.63	266.370	0.44	-0.15	37.34	
1150.00	0.670	273.210	1149.97	1.94	-0.23	-6.63	1686301.03	14345405.92	39°30'13.6359"N	80°50'14.3976"W	6.64	268.042	0.15	0.11	-9.27	
1244.00	0.410	262.220	1243.97	2.21	-0.24	-7.52	1686300.15	14345405.90	39°30'13.6357"N	80°50'14.4089"W	7.52	268.159	0.30	-0.28	-11.69	
1340.00	0.470	226.070	1339.97	2.11	-0.56	-8.14	1686299.53	14345405.58	39°30'13.6326"N	80°50'14.4169"W	8.16	266.056	0.29	0.06	-37.66	
1434.00	0.580	255.680	1433.96	1.98	-0.95	-8.88	1686298.79	14345405.20	39°30'13.6288"N	80°50'14.4263"W	8.93	263.916	0.31	0.12	31.50	
1529.00	0.540	223.780	1528.96	1.82	-1.39	-9.65	1686298.02	14345404.75	39°30'13.6244"N	80°50'14.4362"W	9.75	261.815	0.33	-0.04	-33.58	
1624.00	0.420	247.970	1623.95	1.59	-1.84	-10.29	1686297.38	14345404.30	39°30'13.6200"N	80°50'14.4443"W	10.45	259.846	0.25	-0.13	25.46	
1719.00	0.440	211.580	1718.95	1.34	-2.28	-10.80	1686296.87	14345403.86	39°30'13.6156"N	80°50'14.4508"W	11.04	258.061	0.28	0.02	-38.31	
1814.00	0.770	152.040	1813.95	0.48	-3.16	-10.69	1686296.98	14345402.99	39°30'13.6070"N	80°50'14.4495"W	11.15	253.544	0.70	0.35	-62.67	
1909.00	0.780	100.370	1908.94	-0.47	-3.84	-9.76	1686297.91	14345402.31	39°30'13.6002"N	80°50'14.4378"W	10.48	248.524	0.71	0.01	-54.39	
2004.00	0.920	116.850	2003.93	-1.33	-4.30	-8.44	1686299.23	14345401.84	39°30'13.5957"N	80°50'14.4208"W	9.47	243.006	0.30	0.15	17.35	
2099.00	0.580	145.970	2098.92	-2.34	-5.04	-7.49	1686300.18	14345401.10	39°30'13.5883"N	80°50'14.4087"W	9.03	236.054	0.53	-0.36	30.65	
2193.00	0.960	129.510	2192.91	-3.47	-5.94	-6.62	1686301.05	14345400.21	39°30'13.5794"N	80°50'14.3976"W	8.89	228.097	0.46	0.40	-17.51	
2288.00	1.020	123.420	2287.90	-4.82	-6.91	-5.30	1686302.37	14345399.24	39°30'13.5698"N	80°50'14.3807"W	8.71	217.475	0.13	0.06	-6.41	
2383.00	0.960	122.940	2382.88	-6.12	-7.81	-3.92	1686303.74	14345398.34	39°30'13.5609"N	80°50'14.3632"W	8.74	206.679	0.06	-0.06	-0.51	
2478.00	0.480	101.530	2477.88	-6.94	-8.32	-2.87	1686304.80	14345397.83	39°30'13.5558"N	80°50'14.3498"W	8.80	199.005	0.57	-0.51	-22.54	
2533.00	0.960	108.820	2532.87	-7.34	-8.52	-2.20	1686305.46	14345397.63	39°30'13.5539"N	80°50'14.3413"W	8.80	194.511	0.89	0.87	13.25	

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Actual Wellpath Report

Friend Unit 2H ST01 AWP Proj: 22898'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Friend Unit 2H ST01
Field	Tyler	API/Legal	
Facility	Pyles Pad	Wellbore	Friend Unit 2H ST01 AWB
Slot	Slot #06	Sidetrack from	Friend Unit 2H AWP Proj: 6818' at 5417.00 MD

WELLPATH DATA (263 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]	
2665.00	1.460	86.270	2664.84	-8.46	-8.76	0.52	1686308.19	14345397.38	39°30'13.5514"N	80°50'14.3066"W	8.78	176.598	0.52	0.38	-17.08	APS EM <8-3/4"> (2633')(2665'-6744')
2760.00	0.550	113.600	2759.83	-9.08	-8.87	2.15	1686309.81	14345397.28	39°30'13.5503"N	80°50'14.2858"W	9.12	166.391	1.06	-0.96	28.77	
2854.00	3.390	141.480	2853.76	-12.01	-11.22	4.29	1686311.96	14345394.93	39°30'13.5270"N	80°50'14.2585"W	12.01	159.073	3.10	3.02	29.66	
2949.00	5.670	138.610	2948.46	-18.99	-16.94	9.14	1686316.81	14345389.21	39°30'13.4704"N	80°50'14.1967"W	19.25	151.642	2.41	2.40	-3.02	
3044.00	6.880	144.560	3042.89	-28.78	-25.10	15.55	1686323.21	14345381.05	39°30'13.3897"N	80°50'14.1152"W	29.52	148.224	1.44	1.27	6.26	
3139.00	8.730	152.060	3137.01	-41.36	-36.10	22.22	1686329.88	14345370.05	39°30'13.2808"N	80°50'14.0303"W	42.40	148.385	2.22	1.95	7.89	
3234.00	10.380	144.160	3230.69	-56.67	-49.41	30.61	1686338.27	14345356.75	39°30'13.1491"N	80°50'13.9236"W	58.13	148.219	2.21	1.74	-8.32	
3329.00	11.480	149.540	3323.97	-74.12	-64.50	40.42	1686348.07	14345341.87	39°30'12.9998"N	80°50'13.7988"W	76.12	147.927	1.58	1.16	5.66	
3423.00	11.950	148.880	3416.01	-92.79	-80.89	50.19	1686357.84	14345325.28	39°30'12.8376"N	80°50'13.6746"W	95.20	148.183	0.52	0.50	-0.70	
3518.00	13.570	145.540	3508.66	-113.15	-98.51	61.58	1686369.22	14345307.68	39°30'12.6633"N	80°50'13.5297"W	116.17	147.988	1.87	1.71	-3.52	
3613.00	13.880	150.070	3600.95	-135.07	-117.57	73.57	1686381.21	14345288.62	39°30'12.4747"N	80°50'13.3771"W	138.69	147.963	1.18	0.33	4.77	
3708.00	13.660	153.480	3693.22	-157.37	-137.48	84.27	1686391.90	14345268.71	39°30'12.2777"N	80°50'13.2411"W	161.25	148.495	0.89	-0.23	3.59	
3803.00	12.840	154.800	3785.69	-178.98	-157.07	93.77	1686401.40	14345249.13	39°30'12.0839"N	80°50'13.1204"W	182.93	149.163	0.92	-0.86	1.39	
3897.00	12.080	156.400	3877.48	-199.17	-175.54	102.16	1686409.78	14345230.68	39°30'11.9013"N	80°50'13.0138"W	203.10	149.802	0.89	-0.81	1.70	
3995.00	12.070	158.420	3973.31	-219.62	-194.46	110.03	1686417.65	14345211.76	39°30'11.7141"N	80°50'12.9138"W	223.43	150.498	0.43	-0.01	2.06	
4089.00	12.730	166.100	4065.13	-239.76	-213.66	116.13	1686423.75	14345192.57	39°30'11.5243"N	80°50'12.8364"W	243.18	151.474	1.89	0.70	8.17	
4184.00	12.720	163.700	4157.79	-260.64	-233.85	121.58	1686429.20	14345172.38	39°30'11.3246"N	80°50'12.7673"W	263.57	152.530	0.56	-0.01	-2.53	
4279.00	11.420	156.360	4250.70	-280.46	-252.51	128.29	1686435.91	14345153.73	39°30'11.1401"N	80°50'12.6822"W	283.23	153.067	2.11	-1.37	-7.73	
4374.00	11.590	158.480	4343.79	-299.37	-270.00	135.56	1686443.17	14345136.25	39°30'10.9670"N	80°50'12.5898"W	302.12	153.340	0.48	0.18	2.23	
4469.00	11.940	162.990	4436.79	-318.72	-288.28	141.94	1686449.55	14345117.98	39°30'10.7863"N	80°50'12.5089"W	321.33	153.786	1.04	0.37	4.75	
4564.00	10.940	157.530	4529.91	-337.54	-306.01	148.26	1686455.87	14345100.26	39°30'10.6110"N	80°50'12.4287"W	340.03	154.150	1.55	-1.05	-5.75	
4659.00	11.170	155.620	4623.15	-355.70	-322.72	155.50	1686463.11	14345083.55	39°30'10.4457"N	80°50'12.3367"W	358.23	154.273	0.46	0.24	-2.01	
4754.00	12.660	160.140	4716.10	-375.27	-340.89	162.84	1686470.44	14345065.39	39°30'10.2659"N	80°50'12.2435"W	377.79	154.467	1.85	1.57	4.76	
4848.00	14.860	161.460	4807.39	-397.62	-362.01	170.17	1686477.77	14345044.27	39°30'10.0571"N	80°50'12.1504"W	400.01	154.823	2.36	2.34	1.40	
4943.00	13.700	158.470	4899.46	-421.04	-384.03	178.17	1686485.77	14345022.27	39°30'9.8393"N	80°50'12.0489"W	423.35	155.111	1.45	-1.22	-3.15	
5038.00	12.690	155.920	4991.95	-442.68	-404.02	186.56	1686494.15	14345002.28	39°30'9.6416"N	80°50'11.9423"W	445.01	155.215	1.23	-1.06	-2.68	
5133.00	13.200	153.560	5084.54	-463.82	-423.26	195.65	1686503.23	14344983.05	39°30'9.4513"N	80°50'11.8269"W	466.29	155.192	0.77	0.54	-2.48	
5227.00	14.710	152.640	5175.76	-486.27	-443.47	205.91	1686513.49	14344962.85	39°30'9.2514"N	80°50'11.6964"W	488.94	155.094	1.62	1.61	-0.98	
5322.00	14.210	148.900	5267.75	-509.60	-464.17	217.48	1686525.06	14344942.16	39°30'9.0466"N	80°50'11.5493"W	512.59	154.895	1.11	-0.53	-3.94	
5417.00	12.870	150.110	5360.11	-531.38	-483.32	228.77	1686536.35	14344923.01	39°30'8.8570"N	80°50'11.4056"W	534.73	154.670	1.44	-1.41	1.27	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Friend Unit 2H ST01
Field	Tyler	API/Legal	
Facility	Pyles Pad	Wellbore	Friend Unit 2H ST01 AWB
Slot	Slot #06	Sidetrack from	Friend Unit 2H AWP Proj: 6818' at 5417.00 MD

WELLPATH DATA (263 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]	
5522.00	11.310	155.620	5462.78	-553.11	-502.84	238.85	1686546.42	14344903.50	39°30'8.6640"N	80°50'11.2775"W	556.69	154.592	1.85	-1.49	5.25	BH AT Curve <8-1/2"> (5417')(5522-22875')
5616.00	7.360	140.660	5555.53	-567.94	-515.90	246.48	1686554.04	14344890.45	39°30'8.5348"N	80°50'11.1805"W	571.76	154.463	4.90	-4.20	-15.91	
5711.00	9.500	144.840	5649.50	-581.17	-527.02	254.85	1686562.41	14344879.33	39°30'8.4247"N	80°50'11.0740"W	585.40	154.193	2.34	2.25	4.40	
5806.00	6.730	142.080	5743.54	-593.96	-537.82	262.79	1686570.35	14344868.54	39°30'8.3178"N	80°50'10.9730"W	598.59	153.959	2.94	-2.92	-2.91	
5901.00	4.910	146.900	5838.05	-603.18	-545.62	268.43	1686575.99	14344860.74	39°30'8.2407"N	80°50'10.9012"W	608.07	153.804	1.98	-1.92	5.07	
5996.00	4.990	77.350	5932.77	-607.56	-548.12	274.69	1686582.24	14344858.24	39°30'8.2158"N	80°50'10.8214"W	613.10	153.383	5.94	0.08	-73.21	
6091.00	11.550	25.580	6026.83	-601.21	-538.62	282.84	1686590.39	14344867.74	39°30'8.3096"N	80°50'10.7172"W	608.37	152.295	9.80	6.91	-54.49	
6185.00	16.240	17.390	6118.07	-583.89	-517.57	290.84	1686598.39	14344888.78	39°30'8.5174"N	80°50'10.6147"W	593.69	150.667	5.40	4.99	-8.71	
6280.00	22.790	4.110	6207.60	-556.21	-486.50	296.14	1686603.68	14344919.84	39°30'8.8245"N	80°50'10.5464"W	569.54	148.671	8.29	6.89	-13.98	
6375.00	29.940	358.810	6292.68	-516.64	-444.38	296.96	1686604.51	14344961.94	39°30'9.2407"N	80°50'10.5348"W	534.47	146.247	7.92	7.53	-5.58	
6416.00†	33.724	359.244	6327.51	-496.07	-422.76	296.60	1686604.15	14344983.55	39°30'9.4544"N	80°50'10.5390"W	516.43	144.947	9.25	9.23	1.06	Sycamore: 6416' MD
6470.00	38.710	359.700	6371.06	-465.80	-390.87	296.31	1686603.86	14345015.43	39°30'9.7696"N	80°50'10.5419"W	490.49	142.835	9.25	9.23	0.84	
6564.00†	46.131	356.391	6440.41	-405.17	-327.56	294.02	1686601.57	14345078.71	39°30'10.3953"N	80°50'10.5696"W	440.17	138.089	8.24	7.89	-3.52	Middlesex: 6564' MD
6565.00	46.210	356.360	6441.10	-404.48	-326.84	293.98	1686601.53	14345079.43	39°30'10.4024"N	80°50'10.5702"W	439.60	138.030	8.24	7.94	-3.06	
6660.00	55.000	353.040	6501.35	-333.18	-253.85	287.07	1686594.62	14345152.40	39°30'11.1240"N	80°50'10.6566"W	383.21	131.485	9.64	9.25	-3.49	
6729.00†	60.546	350.118	6538.14	-275.81	-196.14	278.48	1686586.04	14345210.08	39°30'11.6945"N	80°50'10.7648"W	340.62	125.158	8.80	8.04	-4.23	Burkett: 6729' MD
6754.00	62.570	349.140	6550.04	-254.07	-174.52	274.52	1686582.08	14345231.69	39°30'11.9082"N	80°50'10.8148"W	325.30	122.445	8.80	8.10	-3.91	
6783.00†	65.144	347.583	6562.82	-228.25	-149.03	269.27	1686576.83	14345257.17	39°30'12.1603"N	80°50'10.8813"W	307.76	118.963	10.10	8.88	-5.37	Tully: 6783' MD
6801.00	66.750	346.650	6570.16	-211.91	-133.01	265.60	1686573.16	14345273.19	39°30'12.3187"N	80°50'10.9277"W	297.05	116.600	10.10	8.92	-5.19	
6849.00	70.260	345.870	6587.74	-167.43	-89.63	254.99	1686562.56	14345316.55	39°30'12.7476"N	80°50'11.0620"W	270.29	109.367	7.47	7.31	-1.63	
6896.00	75.220	344.620	6601.68	-122.68	-46.24	243.56	1686551.13	14345359.92	39°30'13.1766"N	80°50'11.2069"W	247.91	100.751	10.85	10.55	-2.66	
6944.00	79.860	342.580	6612.04	-75.87	-1.30	230.32	1686537.90	14345404.84	39°30'13.6210"N	80°50'11.3747"W	230.33	90.323	10.52	9.67	-4.25	
6962.00†	80.118	342.044	6615.17	-58.15	15.59	224.94	1686532.52	14345421.73	39°30'13.7881"N	80°50'11.4430"W	225.48	86.035	3.26	1.43	-2.98	Marcellus POE: 6962' MD
7039.00	81.230	339.760	6627.65	17.82	87.38	200.08	1686507.66	14345493.49	39°30'14.4981"N	80°50'11.7585"W	218.33	66.407	3.26	1.44	-2.97	
7134.00	89.510	339.070	6635.31	112.39	175.95	166.81	1686474.41	14345582.02	39°30'15.3740"N	80°50'12.1808"W	242.45	43.473	8.75	8.72	-0.73	
7229.00	90.370	341.740	6635.41	207.38	265.44	134.95	1686442.57	14345671.47	39°30'16.2590"N	80°50'12.5852"W	297.77	26.950	2.95	0.91	2.81	
7323.00	91.020	342.690	6634.27	301.35	354.94	106.25	1686413.87	14345760.94	39°30'17.1441"N	80°50'12.9494"W	370.50	16.664	1.22	0.69	1.01	
7418.00	91.020	336.540	6632.57	396.26	443.93	73.18	1686380.81	14345849.90	39°30'18.0242"N	80°50'13.3692"W	449.92	9.360	6.47	0.00	-6.47	
7513.00	90.370	334.870	6631.42	490.83	530.51	34.09	1686341.75	14345936.44	39°30'18.8806"N	80°50'13.8658"W	531.60	3.677	1.89	-0.68	-1.76	
7608.00	90.400	337.000	6630.78	585.43	617.24	-4.64	1686303.03	14346023.14	39°30'19.7385"N	80°50'14.3580"W	617.26	359.569	2.24	0.03	2.24	

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Actual Wellpath Report

Friend Unit 2H ST01 AWP Proj: 22898'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Friend Unit 2H ST01
Field	Tyler	API/Legal	
Facility	Pyles Pad	Wellbore	Friend Unit 2H ST01 AWB
Slot	Slot #06	Sidetrack from	Friend Unit 2H AWP Proj: 6818' at 5417.00 MD

WELLPATH DATA (263 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
7701.00	89.410	338.480	6630.94	678.27	703.31	-39.87	1686267.81	14346109.17	39°30'20.5898"N	80°50'14.8054"W	704.44	356.755	1.91	-1.06	1.59	
7789.00	89.480	340.650	6631.79	766.23	785.76	-70.59	1686237.10	14346191.59	39°30'21.4052"N	80°50'15.1955"W	788.93	354.866	2.47	0.08	2.47	
7878.00	89.510	341.730	6632.57	855.23	870.00	-99.29	1686208.42	14346275.80	39°30'22.2383"N	80°50'15.5596"W	875.65	353.490	1.21	0.03	1.21	
7966.00	90.150	341.980	6632.84	943.22	953.63	-126.69	1686181.03	14346359.39	39°30'23.0653"N	80°50'15.9073"W	962.01	352.432	0.78	0.73	0.28	
8055.00	90.180	342.130	6632.58	1032.20	1038.30	-154.11	1686153.62	14346444.03	39°30'23.9026"N	80°50'16.2552"W	1049.67	351.557	0.17	0.03	0.17	
8143.00	89.970	341.880	6632.46	1120.19	1121.99	-181.30	1686126.44	14346527.69	39°30'24.7303"N	80°50'16.6001"W	1136.55	350.821	0.37	-0.24	-0.28	
8232.00	90.000	341.680	6632.49	1209.19	1206.53	-209.13	1686098.62	14346612.19	39°30'25.5663"N	80°50'16.9532"W	1224.52	350.167	0.23	0.03	-0.22	
8320.00	90.220	341.950	6632.32	1297.18	1290.13	-236.59	1686071.17	14346695.76	39°30'26.3930"N	80°50'17.3017"W	1311.65	349.608	0.40	0.25	0.31	
8409.00	90.430	342.120	6631.81	1386.17	1374.79	-264.04	1686043.73	14346780.39	39°30'27.2303"N	80°50'17.6500"W	1399.92	349.128	0.30	0.24	0.19	
8497.00	90.150	341.530	6631.37	1474.16	1458.40	-291.49	1686016.30	14346863.96	39°30'28.0571"N	80°50'17.9982"W	1487.25	348.697	0.74	-0.32	-0.67	
8586.00	90.060	342.590	6631.21	1563.14	1543.07	-318.90	1685988.89	14346948.60	39°30'28.8944"N	80°50'18.3460"W	1575.68	348.323	1.20	-0.10	1.19	
8674.00	90.340	341.950	6630.90	1651.12	1626.89	-345.70	1685962.10	14347032.39	39°30'29.7233"N	80°50'18.6860"W	1663.22	348.004	0.79	0.32	-0.73	
8763.00	90.370	341.730	6630.35	1740.11	1711.46	-373.44	1685934.38	14347116.92	39°30'30.5596"N	80°50'19.0380"W	1751.73	347.691	0.25	0.03	-0.25	
8852.00	90.120	341.310	6629.97	1829.11	1795.87	-401.65	1685906.18	14347201.29	39°30'31.3943"N	80°50'19.3960"W	1840.23	347.393	0.55	-0.28	-0.47	
8940.00	90.400	341.310	6629.57	1917.11	1879.23	-429.85	1685877.99	14347284.62	39°30'32.2187"N	80°50'19.7538"W	1927.76	347.116	0.32	0.32	0.00	
9029.00	90.280	340.460	6629.04	2006.11	1963.32	-458.99	1685848.86	14347368.67	39°30'33.0503"N	80°50'20.1237"W	2016.26	346.842	0.96	-0.13	-0.96	
9117.00	90.000	341.160	6628.82	2094.10	2046.43	-487.92	1685819.94	14347451.75	39°30'33.8722"N	80°50'20.4909"W	2103.79	346.590	0.86	-0.32	0.80	
9206.00	90.460	341.130	6628.47	2183.10	2130.65	-516.68	1685791.19	14347535.94	39°30'34.7051"N	80°50'20.8559"W	2192.40	346.369	0.52	0.52	-0.03	
9294.00	90.310	341.170	6627.88	2271.10	2213.93	-545.11	1685762.77	14347619.19	39°30'35.5287"N	80°50'21.2168"W	2280.05	346.168	0.18	-0.17	0.05	
9383.00	90.090	341.960	6627.56	2360.10	2298.36	-573.25	1685734.64	14347703.58	39°30'36.3636"N	80°50'21.5739"W	2368.77	345.995	0.92	-0.25	0.89	
9471.00	89.850	340.780	6627.61	2448.09	2381.75	-601.37	1685706.54	14347786.94	39°30'37.1883"N	80°50'21.9307"W	2456.49	345.830	1.37	-0.27	-1.34	
9560.00	90.000	340.480	6627.73	2537.09	2465.71	-630.88	1685677.03	14347870.87	39°30'38.0186"N	80°50'22.3054"W	2545.14	345.648	0.38	0.17	-0.34	
9648.00	89.850	340.350	6627.84	2625.08	2548.62	-660.38	1685647.55	14347953.74	39°30'38.8385"N	80°50'22.6799"W	2632.78	345.473	0.23	-0.17	-0.15	
9737.00	90.150	340.850	6627.84	2714.08	2632.56	-689.94	1685618.00	14348037.65	39°30'39.6687"N	80°50'23.0551"W	2721.47	345.314	0.66	0.34	0.56	
9825.00	90.460	341.070	6627.37	2802.08	2715.75	-718.65	1685589.30	14348120.81	39°30'40.4914"N	80°50'23.4195"W	2809.23	345.178	0.43	0.35	0.25	
9913.00	90.770	341.350	6626.43	2890.07	2799.05	-746.99	1685560.97	14348204.08	39°30'41.3152"N	80°50'23.7793"W	2897.02	345.057	0.47	0.35	0.32	
10002.00	90.770	341.140	6625.23	2979.06	2883.32	-775.61	1685532.37	14348288.31	39°30'42.1485"N	80°50'24.1424"W	2985.82	344.944	0.24	0.00	-0.24	
10090.00	90.310	340.820	6624.40	3067.06	2966.51	-804.29	1685503.70	14348371.47	39°30'42.9713"N	80°50'24.5064"W	3073.61	344.831	0.64	-0.52	-0.36	
10179.00	90.370	340.220	6623.88	3156.05	3050.42	-833.96	1685474.04	14348455.34	39°30'43.8010"N	80°50'24.8832"W	3162.36	344.709	0.68	0.07	-0.67	
10268.00	90.430	341.380	6623.25	3245.05	3134.46	-863.23	1685444.78	14348539.35	39°30'44.6322"N	80°50'25.2547"W	3251.16	344.602	1.31	0.07	1.30	

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Actual Wellpath Report

Friend Unit 2H ST01 AWP Proj: 22898'
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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Friend Unit 2H ST01
Field	Tyler		API/Legal	
Facility	Pyles Pad		Wellbore	Friend Unit 2H ST01 AWB
Slot	Slot #06		Sidetrack from	Friend Unit 2H AWP Proj: 6818' at 5417.00 MD

WELLPATH DATA (263 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
10358.00	90.770	341.550	6622.33	3333.04	3217.89	-891.20	1685416.82	14348622.75	39°30'45.4572"N	80°50'25.6097"W	3339.02	344.520	0.43	0.39	0.19	
10445.00	89.940	340.260	6621.78	3422.04	3301.99	-920.32	1685387.72	14348706.81	39°30'46.2889"N	80°50'25.9793"W	3427.85	344.426	1.72	-0.93	-1.45	
10533.00	90.280	341.110	6621.61	3510.03	3385.04	-949.42	1685358.62	14348789.83	39°30'47.1102"N	80°50'26.3488"W	3515.66	344.332	1.04	0.39	0.97	
10622.00	90.800	341.390	6620.77	3599.03	3469.31	-978.03	1685330.03	14348874.07	39°30'47.9436"N	80°50'26.7119"W	3604.53	344.256	0.66	0.58	0.31	
10710.00	90.620	340.900	6619.68	3687.02	3552.58	-1006.47	1685301.60	14348957.30	39°30'48.7671"N	80°50'27.0728"W	3692.40	344.182	0.59	-0.20	-0.56	
10799.00	90.150	341.260	6619.09	3776.02	3636.77	-1035.33	1685272.75	14349041.46	39°30'49.5997"N	80°50'27.4391"W	3781.27	344.109	0.67	-0.53	0.40	
10887.00	90.680	341.180	6618.45	3864.02	3720.08	-1063.65	1685244.44	14349124.74	39°30'50.4236"N	80°50'27.7987"W	3869.16	344.044	0.61	0.60	-0.09	
10976.00	90.150	341.470	6617.80	3953.01	3804.39	-1092.15	1685215.95	14349209.02	39°30'51.2573"N	80°50'28.1604"W	3958.06	343.982	0.68	-0.60	0.33	
11064.00	90.520	340.690	6617.29	4041.01	3887.64	-1120.68	1685187.43	14349292.23	39°30'52.0806"N	80°50'28.5226"W	4045.94	343.919	0.98	0.42	-0.89	
11153.00	90.890	341.520	6616.19	4130.00	3971.83	-1149.50	1685158.62	14349376.39	39°30'52.9132"N	80°50'28.8884"W	4134.83	343.859	1.02	0.42	0.93	
11241.00	90.030	340.630	6615.49	4218.00	4055.07	-1178.04	1685130.09	14349459.59	39°30'53.7364"N	80°50'29.2507"W	4222.72	343.801	1.41	-0.98	-1.01	
11330.00	90.180	341.560	6615.32	4307.00	4139.27	-1206.88	1685101.27	14349543.76	39°30'54.5690"N	80°50'29.6168"W	4311.63	343.745	1.06	0.17	1.04	
11419.00	90.620	340.860	6614.70	4395.99	4223.52	-1235.54	1685072.61	14349627.98	39°30'55.4022"N	80°50'29.9806"W	4400.54	343.694	0.93	0.49	-0.79	
11507.00	90.370	340.320	6613.94	4483.99	4306.52	-1264.79	1685043.38	14349710.94	39°30'56.2230"N	80°50'30.3519"W	4488.41	343.633	0.68	-0.28	-0.61	
11596.00	90.680	341.080	6613.13	4572.98	4390.51	-1294.20	1685013.98	14349794.90	39°30'57.0537"N	80°50'30.7253"W	4577.29	343.576	0.92	0.35	0.85	
11684.00	90.400	341.640	6612.30	4660.98	4473.89	-1322.33	1684985.87	14349878.25	39°30'57.8782"N	80°50'31.0823"W	4665.22	343.534	0.71	-0.32	0.64	
11773.00	90.220	341.300	6611.82	4749.97	4558.28	-1350.61	1684957.59	14349962.60	39°30'58.7127"N	80°50'31.4413"W	4754.16	343.496	0.43	-0.20	-0.38	
11861.00	90.710	341.450	6611.10	4837.97	4641.67	-1378.72	1684929.50	14350045.95	39°30'59.5374"N	80°50'31.7981"W	4842.10	343.457	0.58	0.56	0.17	
11950.00	90.830	341.280	6609.91	4926.96	4725.99	-1407.15	1684901.08	14350130.25	39°31'0.3713"N	80°50'32.1590"W	4931.03	343.419	0.23	0.13	-0.19	
12038.00	90.550	341.140	6608.85	5014.95	4809.30	-1435.49	1684872.75	14350213.52	39°31'1.1951"N	80°50'32.5188"W	5018.96	343.381	0.36	-0.32	-0.16	
12126.00	90.580	341.330	6607.98	5102.95	4892.62	-1463.80	1684844.45	14350296.80	39°31'2.0190"N	80°50'32.8782"W	5106.90	343.344	0.22	0.03	0.22	
12215.00	90.710	341.700	6606.98	5191.94	4977.02	-1492.02	1684816.24	14350381.17	39°31'2.8537"N	80°50'33.2363"W	5195.85	343.312	0.44	0.15	0.42	
12303.00	90.520	341.170	6606.03	5279.93	5060.43	-1520.03	1684788.24	14350464.55	39°31'3.6786"N	80°50'33.5919"W	5283.80	343.281	0.64	-0.22	-0.60	
12392.00	90.310	341.620	6605.39	5368.93	5144.78	-1548.43	1684759.86	14350548.87	39°31'4.5127"N	80°50'33.9523"W	5372.75	343.250	0.56	-0.24	0.51	
12480.00	90.580	341.210	6604.70	5456.92	5228.19	-1576.47	1684731.82	14350632.24	39°31'5.3376"N	80°50'34.3084"W	5460.70	343.220	0.56	0.31	-0.47	
12569.00	90.710	341.310	6603.70	5545.92	5312.46	-1605.06	1684703.24	14350716.48	39°31'6.1710"N	80°50'34.6713"W	5549.64	343.189	0.18	0.15	0.11	
12657.00	90.340	341.400	6602.90	5633.91	5395.84	-1633.20	1684675.12	14350799.83	39°31'6.9955"N	80°50'35.0284"W	5637.59	343.160	0.43	-0.42	0.10	
12834.00	90.520	341.060	6601.57	5810.91	5563.42	-1690.15	1684618.19	14350967.34	39°31'8.6528"N	80°50'35.7514"W	5814.49	343.101	0.22	0.10	-0.19	
12923.00	90.310	341.320	6600.92	5899.90	5647.67	-1718.84	1684589.51	14351051.55	39°31'9.4859"N	80°50'36.1157"W	5903.44	343.073	0.38	-0.24	0.29	
13011.00	90.710	341.370	6600.14	5987.90	5731.04	-1746.99	1684561.37	14351134.89	39°31'10.3104"N	80°50'36.4730"W	5991.40	343.047	0.46	0.45	0.06	

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Actual Wellpath Report

Friend Unit 2H ST01 AWP Proj: 22898'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Friend Unit 2H ST01
Field	Tyler	API/Legal	
Facility	Pyles Pad	Wellbore	Friend Unit 2H ST01 AWB
Slot	Slot #06	Sidetrack from	Friend Unit 2H AWP Proj: 6818' at 5417.00 MD

WELLPATH DATA (263 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
13100.00	90.490	341.390	6599.21	6076.89	5815.38	-1775.41	1684532.97	14351219.20	39°31'11.1444"N	80°50'36.8337"W	6080.35	343.023	0.25	-0.25	0.02	
13188.00	90.430	341.160	6598.50	6164.89	5898.72	-1803.66	1684504.73	14351302.50	39°31'11.9685"N	80°50'37.1924"W	6168.31	342.998	0.27	-0.07	-0.26	
13277.00	90.460	341.470	6597.81	6253.89	5983.02	-1832.17	1684476.23	14351386.78	39°31'12.8022"N	80°50'37.5543"W	6257.27	342.974	0.35	0.03	0.35	
13365.00	90.680	341.490	6596.93	6341.88	6066.46	-1860.12	1684448.29	14351470.18	39°31'13.6274"N	80°50'37.9091"W	6345.24	342.953	0.25	0.25	0.02	
13454.00	90.220	340.760	6596.24	6430.88	6150.67	-1888.91	1684419.51	14351554.36	39°31'14.4601"N	80°50'38.2747"W	6434.19	342.928	0.97	-0.52	-0.82	
13542.00	90.340	341.240	6595.81	6518.88	6233.88	-1917.56	1684390.87	14351637.53	39°31'15.2830"N	80°50'38.6384"W	6522.14	342.902	0.56	0.14	0.55	
13631.00	90.430	340.970	6595.21	6607.87	6318.08	-1946.38	1684362.06	14351721.70	39°31'16.1157"N	80°50'39.0043"W	6611.09	342.878	0.32	0.10	-0.30	
13719.00	90.180	340.920	6594.74	6695.87	6401.26	-1975.11	1684333.35	14351804.84	39°31'16.9382"N	80°50'39.3691"W	6699.04	342.852	0.29	-0.28	-0.06	
13808.00	90.550	341.090	6594.17	6784.87	6485.41	-2004.08	1684304.39	14351888.96	39°31'17.7704"N	80°50'39.7369"W	6787.99	342.828	0.46	0.42	0.19	
13896.00	90.150	340.660	6593.63	6872.87	6568.55	-2032.91	1684275.57	14351972.07	39°31'18.5926"N	80°50'40.1029"W	6875.94	342.803	0.67	-0.45	-0.49	
13984.00	90.150	340.270	6593.40	6960.86	6651.48	-2062.33	1684246.16	14352054.97	39°31'19.4128"N	80°50'40.4766"W	6963.87	342.774	0.44	0.00	-0.44	
14073.00	90.740	341.320	6592.71	7049.86	6735.53	-2091.61	1684216.89	14352138.98	39°31'20.2439"N	80°50'40.8483"W	7052.81	342.749	1.35	0.66	1.18	
14161.00	90.370	341.180	6591.86	7137.85	6818.85	-2119.89	1684188.62	14352222.27	39°31'21.0679"N	80°50'41.2074"W	7140.78	342.730	0.45	-0.42	-0.16	
14250.00	90.550	340.850	6591.15	7226.85	6903.01	-2148.85	1684159.68	14352306.39	39°31'21.9001"N	80°50'41.5750"W	7229.73	342.709	0.42	0.20	-0.37	
14338.00	90.680	341.250	6590.20	7314.84	6986.23	-2177.42	1684131.11	14352389.59	39°31'22.7232"N	80°50'41.9379"W	7317.69	342.689	0.48	0.15	0.45	
14427.00	90.340	341.030	6589.41	7403.84	7070.45	-2206.19	1684102.36	14352473.77	39°31'23.5560"N	80°50'42.3031"W	7406.66	342.671	0.46	-0.38	-0.25	
14515.00	90.370	340.980	6588.86	7491.84	7153.66	-2234.83	1684073.73	14352556.94	39°31'24.3789"N	80°50'42.6668"W	7494.62	342.651	0.07	0.03	-0.06	
14604.00	90.310	340.810	6588.34	7580.84	7237.76	-2263.96	1684044.61	14352641.01	39°31'25.2105"N	80°50'43.0367"W	7583.58	342.630	0.20	-0.07	-0.19	
14692.00	90.620	341.400	6587.62	7668.83	7321.01	-2292.46	1684016.12	14352724.23	39°31'26.0338"N	80°50'43.3985"W	7671.54	342.613	0.76	0.35	0.67	
14780.00	90.250	341.060	6586.95	7756.83	7404.33	-2320.77	1683987.82	14352807.51	39°31'26.8578"N	80°50'43.7580"W	7759.51	342.597	0.57	-0.42	-0.39	
14869.00	90.520	341.310	6586.36	7845.83	7488.57	-2349.48	1683959.13	14352891.72	39°31'27.6908"N	80°50'44.1224"W	7848.48	342.581	0.41	0.30	0.28	
14957.00	90.620	341.170	6585.48	7933.82	7571.89	-2377.78	1683930.84	14352975.01	39°31'28.5148"N	80°50'44.4818"W	7936.46	342.566	0.20	0.11	-0.16	
15046.00	90.340	341.010	6584.73	8022.82	7656.08	-2406.62	1683902.01	14353059.17	39°31'29.3474"N	80°50'44.8480"W	8025.42	342.550	0.36	-0.31	-0.18	
15134.00	90.220	340.770	6584.30	8110.82	7739.23	-2435.43	1683873.21	14353142.28	39°31'30.1697"N	80°50'45.2138"W	8113.39	342.532	0.30	-0.14	-0.27	
15223.00	89.940	340.650	6584.18	8199.81	7823.24	-2464.83	1683843.82	14353226.25	39°31'31.0004"N	80°50'45.5872"W	8202.34	342.512	0.34	-0.31	-0.13	
15311.00	90.650	341.090	6583.73	8287.81	7906.38	-2493.67	1683815.00	14353309.36	39°31'31.8226"N	80°50'45.9534"W	8290.30	342.495	0.95	0.81	0.50	
15399.00	90.250	340.880	6583.04	8375.81	7989.57	-2522.34	1683786.34	14353392.52	39°31'32.6453"N	80°50'46.3174"W	8378.27	342.479	0.51	-0.45	-0.24	
15488.00	90.460	341.060	6582.48	8464.81	8073.70	-2551.36	1683757.33	14353476.62	39°31'33.4773"N	80°50'46.6859"W	8467.24	342.463	0.31	0.24	0.20	
15576.00	90.460	341.340	6581.78	8552.80	8157.01	-2579.71	1683728.98	14353559.89	39°31'34.3011"N	80°50'47.0460"W	8555.21	342.450	0.32	0.00	0.32	
15665.00	90.580	341.370	6580.97	8641.80	8241.33	-2608.17	1683700.54	14353644.18	39°31'35.1350"N	80°50'47.4073"W	8644.19	342.439	0.14	0.13	0.03	

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Friend Unit 2H ST01
Field	Tyler		API/Legal	
Facility	Pyles Pad		Wellbore	Friend Unit 2H ST01 AWB
Slot	Slot #06		Sidetrack from	Friend Unit 2H AWP Proj: 6818' at 5417.00 MD

WELLPATH DATA (263 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
15753.00	90.400	341.020	6580.22	8729.80	8324.63	-2636.53	1683672.19	14353727.45	39°31'35.9587"N	80°50'47.7674"W	8732.17	342.426	0.45	-0.20	-0.40	
15842.00	90.310	341.000	6579.67	8818.79	8408.79	-2665.49	1683643.24	14353811.57	39°31'36.7910"N	80°50'48.1352"W	8821.14	342.412	0.10	-0.10	-0.02	
15930.00	90.150	341.120	6579.31	8906.79	8492.02	-2694.06	1683614.69	14353894.77	39°31'37.6141"N	80°50'48.4979"W	8909.12	342.399	0.23	-0.18	0.14	
16019.00	90.710	341.160	6578.64	8995.79	8576.24	-2722.82	1683585.93	14353978.96	39°31'38.4469"N	80°50'48.8632"W	8998.09	342.386	0.63	0.63	0.04	
16107.00	90.370	340.960	6577.82	9083.79	8659.47	-2751.39	1683557.38	14354062.15	39°31'39.2700"N	80°50'49.2259"W	9086.07	342.373	0.45	-0.39	-0.23	
16196.00	90.770	341.850	6576.93	9172.78	8743.82	-2779.76	1683529.01	14354146.47	39°31'40.1041"N	80°50'49.5862"W	9175.05	342.364	1.10	0.45	1.00	
16284.00	90.890	341.650	6575.66	9260.76	8827.39	-2807.32	1683501.47	14354230.00	39°31'40.9305"N	80°50'49.9361"W	9263.03	342.358	0.27	0.14	-0.23	
16372.00	90.460	341.060	6574.62	9348.76	8910.76	-2835.45	1683473.35	14354313.34	39°31'41.7550"N	80°50'50.2933"W	9351.01	342.349	0.83	-0.49	-0.67	
16461.00	90.340	341.310	6574.00	9437.75	8995.00	-2864.15	1683444.66	14354397.55	39°31'42.5880"N	80°50'50.6678"W	9439.99	342.338	0.31	-0.13	0.28	
16549.00	90.430	340.970	6573.41	9525.75	9078.28	-2892.60	1683416.22	14354480.79	39°31'43.4115"N	80°50'51.0190"W	9527.97	342.327	0.40	0.10	-0.39	
16638.00	90.430	341.520	6572.74	9614.75	9162.55	-2921.21	1683387.62	14354565.03	39°31'44.2449"N	80°50'51.3824"W	9616.95	342.317	0.62	0.00	0.62	
16726.00	90.580	341.440	6571.96	9702.74	9245.99	-2949.17	1683359.68	14354648.44	39°31'45.0700"N	80°50'51.7373"W	9704.94	342.309	0.19	0.17	-0.09	
16815.00	90.340	341.080	6571.25	9791.74	9330.27	-2977.76	1683331.10	14354732.68	39°31'45.9035"N	80°50'52.1003"W	9793.92	342.299	0.49	-0.27	-0.40	
16903.00	90.490	341.070	6570.61	9879.74	9413.51	-3006.30	1683302.57	14354815.89	39°31'46.7266"N	80°50'52.4628"W	9881.90	342.289	0.17	0.17	-0.01	
16992.00	90.460	341.060	6569.87	9968.73	9497.69	-3035.18	1683273.70	14354900.04	39°31'47.5591"N	80°50'52.8295"W	9970.88	342.278	0.04	-0.03	-0.01	
17080.00	90.520	341.190	6569.12	10056.73	9580.95	-3063.64	1683245.25	14354983.27	39°31'48.3825"N	80°50'53.1910"W	10058.86	342.268	0.16	0.07	0.15	
17169.00	90.090	340.800	6568.65	10145.73	9665.10	-3092.63	1683216.27	14355067.38	39°31'49.2146"N	80°50'53.5591"W	10147.83	342.256	0.65	-0.48	-0.44	
17257.00	89.660	340.670	6568.84	10233.73	9748.17	-3121.66	1683187.25	14355150.42	39°31'50.0361"N	80°50'53.9279"W	10235.80	342.243	0.51	-0.49	-0.16	
17346.00	90.890	341.330	6568.41	10322.72	9832.32	-3150.64	1683158.29	14355234.53	39°31'50.8683"N	80°50'54.2958"W	10324.78	342.233	1.57	1.38	0.74	
17434.00	90.490	340.850	6567.35	10410.72	9915.56	-3179.15	1683129.78	14355317.74	39°31'51.6915"N	80°50'54.6580"W	10412.75	342.223	0.71	-0.45	-0.55	
17523.00	90.460	340.960	6566.61	10499.71	9999.66	-3208.27	1683100.68	14355401.81	39°31'52.5232"N	80°50'55.0278"W	10501.73	342.212	0.13	-0.03	0.12	
17611.00	90.370	340.940	6565.98	10587.71	10082.84	-3236.99	1683071.97	14355484.96	39°31'53.3457"N	80°50'55.3925"W	10589.70	342.201	0.10	-0.10	-0.02	
17700.00	90.400	341.010	6565.38	10676.71	10166.98	-3266.00	1683042.97	14355569.06	39°31'54.1777"N	80°50'55.7610"W	10678.68	342.191	0.09	0.03	0.08	
17788.00	90.310	340.960	6564.83	10764.71	10250.18	-3294.67	1683014.31	14355652.22	39°31'55.0005"N	80°50'56.1251"W	10766.66	342.181	0.12	-0.10	-0.06	
17877.00	90.490	340.820	6564.21	10853.70	10334.27	-3323.81	1682985.19	14355736.28	39°31'55.8321"N	80°50'56.4952"W	10855.64	342.171	0.26	0.20	-0.16	
17965.00	90.490	341.070	6563.46	10941.70	10417.44	-3352.54	1682956.47	14355819.42	39°31'56.6546"N	80°50'56.8601"W	10943.61	342.161	0.28	0.00	0.28	
18054.00	90.430	341.160	6562.74	11030.70	10501.65	-3381.34	1682927.67	14355903.60	39°31'57.4873"N	80°50'57.2259"W	11032.59	342.152	0.12	-0.07	0.10	
18142.00	90.400	341.110	6562.11	11118.70	10584.92	-3409.80	1682899.23	14355986.83	39°31'58.3108"N	80°50'57.5873"W	11120.58	342.144	0.07	-0.03	-0.06	
18231.00	90.370	341.120	6561.51	11207.69	10669.13	-3438.60	1682870.44	14356071.01	39°31'59.1435"N	80°50'57.9531"W	11209.56	342.136	0.04	-0.03	0.01	
18319.00	90.370	341.060	6560.94	11295.69	10752.38	-3467.12	1682841.93	14356154.22	39°31'59.9667"N	80°50'58.3153"W	11297.55	342.128	0.07	0.00	-0.07	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Friend Unit 2H ST01
Field	Tyler	API/Legal	
Facility	Pyles Pad	Wellbore	Friend Unit 2H ST01 AWB
Slot	Slot #06	Sidetrack from	Friend Unit 2H AWP Proj: 6818' at 5417.00 MD

WELLPATH DATA (263 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
18408.00	90.430	341.030	6560.32	11384.69	10836.55	-3496.03	1682813.03	14356238.36	39°32'0.7991"N	80°50'58.6825"W	11386.53	342.120	0.08	0.07	-0.03	
18496.00	90.370	341.190	6559.70	11472.69	10919.81	-3524.52	1682784.56	14356321.59	39°32'1.6224"N	80°50'59.0443"W	11474.51	342.112	0.19	-0.07	0.18	
18585.00	90.800	340.370	6558.80	11561.68	11003.84	-3553.82	1682755.27	14356405.59	39°32'2.4535"N	80°50'59.4164"W	11563.48	342.102	1.04	0.48	-0.92	
18673.00	90.460	341.040	6557.83	11649.67	11086.89	-3582.89	1682726.21	14356488.61	39°32'3.2748"N	80°50'59.7857"W	11651.45	342.091	0.85	-0.39	0.76	
18762.00	90.370	340.930	6557.18	11738.67	11171.03	-3611.89	1682697.22	14356572.71	39°32'4.1068"N	80°51'0.1540"W	11740.43	342.083	0.16	-0.10	-0.12	
18850.00	90.580	341.360	6556.45	11826.67	11254.31	-3640.33	1682668.79	14356655.95	39°32'4.9303"N	80°51'0.5152"W	11828.42	342.076	0.54	0.24	0.49	
18939.00	90.250	340.970	6555.81	11915.66	11338.54	-3669.06	1682640.07	14356740.15	39°32'5.7633"N	80°51'0.8802"W	11917.40	342.069	0.57	-0.37	-0.44	
19027.00	89.910	340.200	6555.69	12003.66	11421.54	-3698.31	1682610.83	14356823.11	39°32'6.5840"N	80°51'1.2517"W	12005.37	342.058	0.96	-0.39	-0.88	
19116.00	90.430	340.940	6555.42	12092.65	11505.47	-3727.92	1682581.24	14356907.01	39°32'7.4140"N	80°51'1.6278"W	12094.34	342.047	1.02	0.58	0.83	
19204.00	90.000	340.220	6555.09	12180.65	11588.46	-3757.18	1682551.99	14356989.97	39°32'8.2347"N	80°51'1.9995"W	12182.31	342.036	0.95	-0.49	-0.82	
19293.00	90.650	341.960	6554.59	12269.64	11672.65	-3786.02	1682523.16	14357074.13	39°32'9.0673"N	80°51'2.3658"W	12271.29	342.030	2.09	0.73	1.96	
19381.00	90.620	340.880	6553.61	12357.64	11758.06	-3814.05	1682495.14	14357157.50	39°32'9.8921"N	80°51'2.7219"W	12359.28	342.025	1.23	-0.03	-1.23	
19470.00	90.370	340.870	6552.84	12446.63	11840.14	-3843.21	1682465.99	14357241.55	39°32'10.7236"N	80°51'3.0923"W	12448.26	342.017	0.28	-0.28	-0.01	
19559.00	90.310	340.610	6552.32	12535.63	11924.16	-3872.57	1682436.65	14357325.54	39°32'11.5544"N	80°51'3.4652"W	12537.24	342.008	0.30	-0.07	-0.29	
19647.00	90.620	341.350	6551.60	12623.63	12007.35	-3901.25	1682407.98	14357408.70	39°32'12.3771"N	80°51'3.8295"W	12625.22	342.001	0.91	0.35	0.84	
19735.00	90.620	341.560	6550.65	12711.62	12090.78	-3929.23	1682380.00	14357492.09	39°32'13.2021"N	80°51'4.1849"W	12713.21	341.997	0.24	0.00	0.24	
19824.00	90.400	340.760	6549.86	12800.61	12175.00	-3957.97	1682351.28	14357576.28	39°32'14.0350"N	80°51'4.5500"W	12802.20	341.991	0.93	-0.25	-0.90	
19913.00	90.180	339.930	6549.41	12889.60	12258.82	-3987.91	1682321.35	14357660.06	39°32'14.8639"N	80°51'4.9303"W	12891.16	341.980	0.96	-0.25	-0.93	
20001.00	90.000	338.850	6549.27	12977.56	12341.18	-4018.88	1682290.39	14357742.39	39°32'15.6784"N	80°51'5.3239"W	12979.07	341.962	1.24	-0.20	-1.23	
20089.00	90.460	340.580	6548.91	13065.53	12423.72	-4049.39	1682259.89	14357824.90	39°32'16.4947"N	80°51'5.7115"W	13067.00	341.947	2.03	0.52	1.97	
20178.00	91.080	341.770	6547.72	13154.52	12507.95	-4078.11	1682231.19	14357909.10	39°32'17.3276"N	80°51'6.0763"W	13155.98	341.942	1.51	0.70	1.34	
20267.00	90.310	340.660	6546.64	13243.52	12592.20	-4106.76	1682202.54	14357993.31	39°32'18.1607"N	80°51'6.4403"W	13244.96	341.937	1.52	-0.87	-1.25	
20355.00	90.400	341.070	6546.09	13331.51	12675.34	-4135.61	1682173.71	14358076.42	39°32'18.9829"N	80°51'6.8067"W	13332.95	341.930	0.48	0.10	0.47	
20444.00	90.580	341.060	6545.33	13420.51	12759.52	-4164.49	1682144.84	14358160.56	39°32'19.8153"N	80°51'7.1735"W	13421.93	341.924	0.20	0.20	-0.01	
20532.00	90.550	341.210	6544.46	13508.51	12842.79	-4192.94	1682116.40	14358243.80	39°32'20.6387"N	80°51'7.5350"W	13509.92	341.919	0.17	-0.03	0.17	
20621.00	90.620	341.620	6543.56	13597.50	12927.14	-4221.30	1682088.05	14358328.12	39°32'21.4729"N	80°51'7.8952"W	13598.91	341.916	0.47	0.08	0.46	
20709.00	90.680	341.370	6542.56	13685.49	13010.59	-4249.23	1682060.13	14358411.53	39°32'22.2981"N	80°51'8.2500"W	13686.90	341.913	0.29	0.07	-0.28	
20798.00	90.340	341.060	6541.77	13774.49	13094.84	-4277.89	1682031.49	14358495.75	39°32'23.1313"N	80°51'8.6140"W	13775.89	341.909	0.52	-0.38	-0.35	
20886.00	90.680	341.540	6540.98	13862.48	13178.19	-4306.10	1682003.28	14358579.07	39°32'23.9555"N	80°51'8.9723"W	13863.88	341.905	0.67	0.39	0.55	
20974.00	90.550	342.040	6540.04	13950.47	13261.78	-4333.80	1681975.80	14358662.62	39°32'24.7821"N	80°51'9.3216"W	13951.88	341.904	0.59	-0.15	0.57	

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Friend Unit 2H ST01 AWP Proj: 22898'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Friend Unit 2H ST01
Field	Tyler	API/Legal	
Facility	Pyles Pad	Wellbore	Friend Unit 2H ST01 AWB
Slot	Slot #06	Sidetrack from	Friend Unit 2H AWP Proj: 6818' at 5417.00 MD

WELLPATH DATA (263 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
21063.00	90.800	341.580	6538.99	14039.46	13346.33	-4361.38	1681948.03	14358747.14	39°32'25.6181"N	80°51'9.6744"W	14040.87	341.903	0.59	0.28	-0.52	
21151.00	90.460	340.900	6538.02	14127.45	13429.65	-4389.68	1681919.74	14358830.42	39°32'26.4420"N	80°51'10.0339"W	14128.86	341.899	0.86	-0.39	-0.77	
21240.00	90.340	340.730	6537.40	14216.45	13513.70	-4418.93	1681890.50	14358914.44	39°32'27.2732"N	80°51'10.4055"W	14217.84	341.892	0.23	-0.13	-0.19	
21328.00	90.520	340.960	6536.74	14304.44	13596.83	-4447.80	1681861.64	14358997.54	39°32'28.0953"N	80°51'10.7723"W	14305.83	341.886	0.33	0.20	0.26	
21416.00	90.250	340.530	6536.15	14392.44	13679.90	-4476.82	1681832.63	14359080.58	39°32'28.9168"N	80°51'11.1410"W	14393.81	341.879	0.58	-0.31	-0.49	
21505.00	90.280	340.630	6535.74	14481.44	13763.84	-4506.41	1681803.05	14359164.48	39°32'29.7468"N	80°51'11.5169"W	14482.78	341.871	0.12	0.03	0.11	
21593.00	90.580	340.990	6535.08	14569.43	13846.94	-4535.34	1681774.14	14359247.55	39°32'30.5687"N	80°51'11.8844"W	14570.76	341.865	0.53	0.34	0.41	
21682.00	90.310	341.140	6534.39	14658.43	13931.13	-4564.22	1681745.27	14359331.70	39°32'31.4011"N	80°51'12.2513"W	14659.75	341.860	0.35	-0.30	0.17	
21770.00	90.460	340.950	6533.79	14746.43	14014.35	-4592.80	1681716.70	14359414.90	39°32'32.2241"N	80°51'12.6144"W	14747.74	341.855	0.28	0.17	-0.22	
21859.00	90.370	340.560	6533.15	14835.42	14098.38	-4622.13	1681687.38	14359498.89	39°32'33.0550"N	80°51'12.9871"W	14836.72	341.848	0.45	-0.10	-0.44	
21947.00	90.400	340.280	6532.56	14923.42	14181.29	-4651.62	1681657.90	14359581.76	39°32'33.8749"N	80°51'13.3618"W	14924.69	341.840	0.32	0.03	-0.32	
22036.00	90.340	340.240	6531.98	15012.40	14265.05	-4681.68	1681627.85	14359665.50	39°32'34.7033"N	80°51'13.7438"W	15013.66	341.831	0.08	-0.07	-0.04	
22124.00	90.120	340.720	6531.63	15100.40	14348.00	-4711.09	1681598.46	14359748.40	39°32'35.5235"N	80°51'14.1174"W	15101.63	341.823	0.60	-0.25	0.55	
22213.00	90.370	340.850	6531.25	15189.40	14432.04	-4740.38	1681569.18	14359832.41	39°32'36.3546"N	80°51'14.4895"W	15190.62	341.817	0.32	0.28	0.15	
22301.00	90.030	340.050	6530.94	15277.39	14514.96	-4769.83	1681539.75	14359915.30	39°32'37.1746"N	80°51'14.8637"W	15278.59	341.809	0.99	-0.39	-0.91	
22390.00	90.430	340.680	6530.59	15366.38	14598.79	-4799.73	1681509.85	14359999.09	39°32'38.0035"N	80°51'15.2437"W	15367.56	341.800	0.84	0.45	0.71	
22478.00	90.400	340.580	6529.95	15454.38	14681.80	-4828.92	1681480.68	14360082.08	39°32'38.8245"N	80°51'15.6145"W	15455.54	341.794	0.12	-0.03	-0.11	
22567.00	90.370	340.660	6529.35	15543.37	14765.76	-4858.45	1681451.16	14360166.00	39°32'39.6547"N	80°51'15.9898"W	15544.52	341.787	0.10	-0.03	0.09	
22655.00	90.400	341.050	6528.76	15631.37	14848.89	-4887.31	1681422.31	14360249.10	39°32'40.4768"N	80°51'16.3564"W	15632.51	341.782	0.44	0.03	0.44	
22743.00	90.430	340.820	6528.12	15719.36	14932.06	-4916.05	1681393.58	14360332.23	39°32'41.2992"N	80°51'16.7216"W	15720.50	341.777	0.26	0.03	-0.26	
22832.00	90.430	340.790	6527.45	15808.36	15016.11	-4945.31	1681364.33	14360416.25	39°32'42.1304"N	80°51'17.0934"W	15809.48	341.772	0.03	0.00	-0.03	
22875.00	90.340	340.160	6527.16	15851.36	15056.63	-4959.68	1681349.96	14360456.76	39°32'42.5312"N	80°51'17.2760"W	15852.47	341.768	1.48	-0.21	-1.47	
22898.00‡	90.340	340.160	6527.03	15874.35	15078.27	-4967.49	1681342.16	14360478.39	39°32'42.7451"N	80°51'17.3752"W	15875.46	341.766	0.00	0.00	0.00	Projected MD at TD: 22898'

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Actual Wellpath Report

Friend Unit 2H ST01 AWP Proj: 22898'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Friend Unit 2H ST01
Field	Tyler	API/Legal	
Facility	Pyles Pad	Wellbore	Friend Unit 2H ST01 AWB
Slot	Slot #06	Sidetrack from	Friend Unit 2H AWP Proj: 6818' at 5417.00 MD

HOLE & CASING SECTIONS - Ref Wellbore: Friend Unit 2H ST01 AWB Ref Wellpath: Friend Unit 2H ST01 AWP Proj: 22898'

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	0.12	-0.07
17.5in Open Hole	25.50	392.00	366.50	25.50	392.00	0.00	0.00	0.45	-0.74
13.375in Casing Surface	25.50	371.50	346.00	25.50	371.50	0.00	0.00	0.48	-0.68
12.25in Open Hole	392.00	2611.00	2219.00	392.00	2610.86	0.45	-0.74	-8.77	-0.75
9.625in Casing Intermediate	25.50	2591.60	2566.10	25.50	2591.46	0.00	0.00	-8.74	-1.15
8.75in Open Hole	2611.00	5417.00	2806.00	2610.86	5360.11	-8.77	-0.75	-483.32	228.77
8.5in Open Hole	5417.00	22898.00	17481.00	5360.11	6527.03	-483.32	228.77	15078.27	-4967.49
5.5in Casing Production	25.50	22898.00	22872.50	25.50	6527.03	0.00	0.00	15078.27	-4967.49

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Friend Unit 2H POE Rev-2	6615.00	-30.25	204.45	1686512.03	14345375.90	39°30'13.3353"N	80°50'11.7055"W	point
Friend Unit 2H BHL Rev-2	6638.00	15075.26	-4970.13	1681339.52	14360475.38	39°32'42.7154"N	80°51'17.4090"W	point
Friend Unit 2H LP Rev-2	6638.00	140.07	146.10	1686453.71	14345546.16	39°30'15.0198"N	80°50'12.4459"W	point
Friend Unit 2H 50' L/R Hard Line	7000.00	7522.50	-2382.84	1683925.78	14352925.64	39°31'28.0268"N	80°50'44.5475"W	rectangle

2D Rectangle 15967.2 x 100.

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Friend Unit 2H ST01 AWP Proj: 22898'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Friend Unit 2H ST01
Field	Tyler	API/Legal	
Facility	Pyles Pad	Wellbore	Friend Unit 2H ST01 AWB
Slot	Slot #06	Sidetrack from	Friend Unit 2H AWP Proj: 6818' at 5417.00 MD

WELLPATH COMPOSITION - Ref Wellbore: Friend Unit 2H ST01 AWB Ref Wellpath: Friend Unit 2H ST01 AWP Proj: 22898'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
25.50	470.00	Gyrodatta 2015 - GC+WIR+DPIPE	01 Gyrodatta MS Gyro <12-1/4"> (100'-470')	Friend Unit 2H AWB	18/Aug/2020
470.00	2533.00	BH NaviTrak (2019) (Axial)	02 APS EM <12-1/4"> (470')(508'-2533')	Friend Unit 2H AWB	18/Aug/2020
2533.00	5417.00	BH NaviTrak (2019) (Axial)	03 APS EM <8-3/4"> (2533')(2665'-6744')	Friend Unit 2H AWB	18/Aug/2020
5417.00	22898.00	BH AutoTrak Curve (2019) (Short spacing)	04 BH AT Curve <8-1/2"> (5417')(5522'-22875')	Friend Unit 2H ST01 AWB	02/Sep/2020

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 Friend Unit 2H ST01 AWP Proj: 22898'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Friend Unit 2H ST01
Field	Tyler	API/Legal	
Facility	Pyles Pad	Wellbore	Friend Unit 2H ST01 AWB
Slot	Slot #06	Sidetrack from	Friend Unit 2H AWP Proj: 6818' at 5417.00 MD

COMMENTS
<p>Wellpath general comments API: 47-095-02696-0000 BH Job #: 110544031 Rig: H&P 317 Duration: 9/5/2020-9/9/2020 Gyrodata MS Gyro <12-1/4"> (100'-470') APS EM <12-1/4"> (470')(508'-2533') APS EM <8-3/4"> (2533')(2665'-5417') Sycamore: 6416' MD Middlesex: 6564' MD Burkett: 6729' MD Tully: 6783' MD Marcellus POE: 6962' MD BH AT Curve <8-1/2"> (5417')(5522'-22875') Projected MD at TD: 22898'</p>

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