



Actual Wellpath Report

Allender Unit 1H AWP Proji: 20994'
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06/14/2024

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|------------------------------|----------|----------------------|
| Operator | ANTERO RESOURCES CORPORATION | Well | Allender Unit 1H |
| Field | Ritchie | API | 47-085-10496-0000 |
| Facility | Cashew Pad | Wellbore | Allender Unit 1H AWB |
| Slot | Slot G | | |

| 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 | 12/13/2023 at 1:34:14 PM |
| Convergence at slot | 0.09° East | Database | WA_MPL_EASTERNS_Defn |

| WELLPATH LOCATION | | | | | | |
|-----------------------|-------------------|----------|------------------|-----------------|------------------------|-----------------|
| | Local coordinates | | Grid coordinates | | Geographic coordinates | |
| | North[ft] | East[ft] | Easting[US ft] | Northing[US ft] | Latitude | Longitude |
| Slot Location | 271.29 | 93.30 | 1680764.14 | 14224641.45 | 39°10'19.6600"N | 80°51'27.4900"W |
| Facility Reference Pt | | | 1680670.88 | 14224370.27 | 39°10'16.9800"N | 80°51'28.6800"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 519 (RKB) to Facility Vertical Datum | 1049.00ft |
| Horizontal Reference Pt | Slot | H&P 519 (RKB) to Mean Sea Level | 1049.00ft |
| Vertical Reference Pt | H&P 519 (RKB) | H&P 519 (RKB) to Ground Level at Slot (Slot G) | 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 | 337.34° |

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| REFERENCE WELLPATH IDENTIFICATION | | Well | Allender Unit 1H |
|-----------------------------------|------------------------------|----------|----------------------|
| Operator | ANTERO RESOURCES CORPORATION | API | 47-085-10496-0000 |
| Field | Ritche | Wellbore | Allender Unit 1H AWB |
| Facility | Cashew Pad | | |
| Slot | Slot G | | |

| WELLPATH DATA (231 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 | 292.240 | 0.00 | 0.00 | 0.00 | 0.00 | 1680764.14 | 14224641.45 | 39°10'19.6600"N | 80°51'27.4900"W | 0.00 | 0.000 | 0.00 | 0.00 | 0.00 | |
| 30.00 | 0.000 | 292.240 | 30.00 | 0.00 | 0.00 | 0.00 | 1680764.14 | 14224641.45 | 39°10'19.6600"N | 80°51'27.4900"W | 0.00 | 0.000 | 0.00 | 0.00 | 0.00 | |
| 100.00 | 0.060 | 292.240 | 100.00 | 0.03 | 0.01 | -0.03 | 1680764.11 | 14224641.46 | 39°10'19.6601"N | 80°51'27.4904"W | 0.04 | 292.240 | 0.09 | 0.09 | 0.09 | Gyrodata MS Gyro <17-112> (100-258') |
| 200.00 | 0.030 | 11.170 | 200.00 | 0.08 | 0.06 | -0.08 | 1680764.06 | 14224641.51 | 39°10'19.6606"N | 80°51'27.4910"W | 0.10 | 307.521 | 0.06 | -0.03 | 78.93 | |
| 258.00 | 0.120 | 230.150 | 258.00 | 0.08 | 0.04 | -0.12 | 1680764.02 | 14224641.49 | 39°10'19.6603"N | 80°51'27.4915"W | 0.13 | 286.285 | 0.25 | 0.16 | -243.14 | |
| 416.00 | 1.610 | 233.920 | 415.98 | -0.48 | -1.38 | -2.04 | 1680762.10 | 14224640.07 | 39°10'19.6464"N | 80°51'27.5159"W | 2.46 | 235.989 | 0.94 | 0.94 | 2.39 | APS EM <12-114> (258'(416'-2905')) |
| 506.00 | 3.770 | 236.590 | 505.87 | -1.33 | -3.75 | -5.53 | 1680758.61 | 14224637.70 | 39°10'19.6230"N | 80°51'27.5603"W | 6.89 | 235.954 | 2.40 | 2.40 | 2.97 | |
| 596.00 | 6.450 | 236.560 | 595.51 | -2.83 | -8.17 | -12.22 | 1680751.92 | 14224633.29 | 39°10'19.5795"N | 80°51'27.7793"W | 14.70 | 236.820 | 2.98 | 2.98 | -0.03 | |
| 685.00 | 9.700 | 238.110 | 683.61 | -4.97 | -14.89 | -22.76 | 1680741.39 | 14224626.57 | 39°10'19.5132"N | 80°51'27.9124"W | 27.20 | 236.820 | 3.66 | 3.66 | 1.74 | |
| 775.00 | 12.900 | 240.620 | 771.86 | -7.36 | -23.82 | -37.96 | 1680726.20 | 14224617.64 | 39°10'19.4251"N | 80°51'27.9724"W | 44.82 | 237.889 | 3.60 | 3.56 | 2.79 | |
| 865.00 | 15.680 | 242.130 | 859.06 | -9.64 | -34.44 | -57.47 | 1680706.69 | 14224567.03 | 39°10'19.3205"N | 80°51'28.2204"W | 67.00 | 239.068 | 3.12 | 3.09 | 1.68 | |
| 954.00 | 18.250 | 241.990 | 944.18 | -12.03 | -46.61 | -80.41 | 1680683.76 | 14224554.86 | 39°10'19.2006"N | 80°51'28.5119"W | 92.94 | 239.902 | 2.89 | 2.89 | -0.16 | |
| 1044.00 | 18.740 | 240.940 | 1029.54 | -14.96 | -60.25 | -105.49 | 1680658.69 | 14224551.23 | 39°10'19.0661"N | 80°51'28.8306"W | 121.48 | 240.268 | 0.66 | 0.54 | -1.17 | |
| 1139.00 | 18.410 | 238.860 | 1119.59 | -18.87 | -75.42 | -131.67 | 1680632.53 | 14224566.06 | 39°10'18.9166"N | 80°51'29.1633"W | 151.74 | 240.196 | 0.78 | -0.35 | -2.19 | |
| 1233.00 | 17.640 | 237.730 | 1208.97 | -23.44 | -90.70 | -156.41 | 1680607.79 | 14224550.79 | 39°10'18.7660"N | 80°51'29.4778"W | 180.81 | 239.892 | 0.90 | -0.82 | -1.20 | |
| 1327.00 | 19.380 | 237.600 | 1298.11 | -28.45 | -106.66 | -181.63 | 1680582.59 | 14224534.83 | 39°10'18.6086"N | 80°51'29.7983"W | 210.63 | 239.577 | 1.85 | 1.85 | -0.14 | |
| 1422.00 | 19.880 | 237.460 | 1387.59 | -33.89 | -123.79 | -208.55 | 1680555.67 | 14224517.71 | 39°10'18.4396"N | 80°51'30.1405"W | 242.53 | 239.307 | 0.53 | 0.53 | -0.15 | |
| 1516.00 | 20.800 | 232.090 | 1475.73 | -41.02 | -142.65 | -235.20 | 1680529.04 | 14224498.86 | 39°10'18.2537"N | 80°51'30.4792"W | 275.07 | 238.763 | 2.21 | 0.98 | -5.71 | |
| 1611.00 | 21.200 | 229.140 | 1564.42 | -50.83 | -164.25 | -261.50 | 1680502.75 | 14224477.27 | 39°10'18.0406"N | 80°51'30.8135"W | 308.80 | 237.867 | 1.19 | 0.42 | -3.11 | |
| 1705.00 | 21.060 | 228.270 | 1652.10 | -61.65 | -186.61 | -286.96 | 1680477.30 | 14224454.91 | 39°10'17.8200"N | 80°51'31.1372"W | 342.30 | 236.964 | 0.37 | -0.15 | -0.93 | |
| 1799.00 | 20.950 | 225.950 | 1739.86 | -73.30 | -209.54 | -311.64 | 1680452.63 | 14224432.00 | 39°10'17.5938"N | 80°51'31.4511"W | 375.53 | 236.084 | 0.89 | -0.12 | -2.47 | |
| 1894.00 | 20.770 | 224.610 | 1828.63 | -86.00 | -233.34 | -335.68 | 1680428.60 | 14224408.21 | 39°10'17.3589"N | 80°51'31.7568"W | 408.81 | 235.196 | 0.54 | -0.18 | -1.41 | |
| 1983.00 | 20.810 | 222.330 | 1916.51 | -99.50 | -257.55 | -358.62 | 1680405.66 | 14224384.01 | 39°10'17.1200"N | 80°51'32.0486"W | 441.52 | 234.316 | 0.86 | 0.04 | -2.43 | |
| 2083.00 | 20.670 | 220.970 | 2005.36 | -114.08 | -282.68 | -380.98 | 1680383.31 | 14224358.88 | 39°10'16.6219"N | 80°51'32.3330"W | 474.40 | 233.425 | 0.53 | -0.15 | -1.43 | |
| 2177.00 | 20.340 | 218.430 | 2093.40 | -129.35 | -308.01 | -402.01 | 1680362.29 | 14224333.57 | 39°10'16.6219"N | 80°51'32.6005"W | 506.44 | 232.542 | 1.01 | -0.35 | -2.70 | |
| 2272.00 | 20.030 | 222.240 | 2182.57 | -144.24 | -332.99 | -423.21 | 1680341.09 | 14224308.60 | 39°10'16.3753"N | 80°51'32.8702"W | 538.51 | 231.804 | 1.42 | -0.33 | -4.01 | |
| 2366.00 | 20.170 | 224.910 | 2270.85 | -157.25 | -356.38 | -445.48 | 1680318.84 | 14224285.21 | 39°10'16.1444"N | 80°51'33.1534"W | 570.49 | 231.340 | 0.99 | 0.15 | -2.84 | |
| 2461.00 | 18.900 | 228.590 | 2360.38 | -168.44 | -378.16 | -468.38 | 1680295.74 | 14224263.44 | 39°10'15.9296"N | 80°51'33.4471"W | 602.14 | 231.095 | 1.86 | -1.34 | -3.87 | |
| 2555.00 | 18.270 | 229.600 | 2449.48 | -177.83 | -397.78 | -491.22 | 1680273.11 | 14224243.83 | 39°10'15.7359"N | 80°51'33.7350"W | 632.08 | 231.000 | 0.75 | -0.67 | -1.07 | |
| 2649.00 | 17.890 | 228.290 | 2538.84 | -187.03 | -416.94 | -513.22 | 1680251.12 | 14224224.68 | 39°10'15.5469"N | 80°51'34.0147"W | 661.24 | 230.910 | 0.59 | -0.40 | -1.39 | |

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|-----------------------------------|------------------------------|----------|----------------------|
| Operator | ANTERO RESOURCES CORPORATION | API | 47-085-10496-0000 |
| Field | Ritchie | Wellbore | Allender Unit 1H AWB |
| Facility | Cashew Pad | | |
| Slot | Slot G | | |

| WELLPATH DATA (231 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) | |
| 2744.00 | 17.440 | 226.200 | 2629.36 | -196.93 | -436.50 | -534.39 | 1680229.56 | 14224205.12 | 39°10'15.5539"N | 80°5'134.2838"W | 690.00 | 230.757 | 0.82 | -0.47 | -2.20 | |
| 2838.00 | 16.940 | 224.420 | 2719.16 | -207.34 | -456.03 | -554.14 | 1680210.22 | 14224185.60 | 39°10'15.1612"N | 80°5'134.5350"W | 717.66 | 230.547 | 0.77 | -0.53 | -1.89 | |
| 2905.00 | 16.690 | 222.600 | 2783.30 | -215.17 | -470.08 | -567.49 | 1680196.88 | 14224171.55 | 39°10'15.0225"N | 80°5'134.7047"W | 736.90 | 230.363 | 0.87 | -0.37 | -2.72 | |
| 3021.00 | 16.450 | 220.060 | 2894.48 | -229.67 | -494.92 | -589.33 | 1680175.04 | 14224146.73 | 39°10'14.7774"N | 80°5'134.9826"W | 769.58 | 229.977 | 0.66 | -0.21 | -2.19 | APS EM <8-3/4"> (2905)(3021*-7081) |
| 3115.00 | 19.320 | 221.490 | 2983.93 | -242.55 | -516.76 | -608.20 | 1680156.18 | 14224124.90 | 39°10'14.5618"N | 80°5'135.2226"W | 798.09 | 229.647 | 3.09 | 3.05 | 1.52 | |
| 3209.00 | 22.080 | 221.470 | 3071.65 | -257.27 | -542.05 | -630.56 | 1680133.83 | 14224099.62 | 39°10'14.3121"N | 80°5'135.5070"W | 831.52 | 229.317 | 3.68 | 3.68 | -0.02 | |
| 3304.00 | 24.080 | 225.260 | 3158.82 | -272.59 | -569.47 | -656.51 | 1680107.89 | 14224072.20 | 39°10'14.0415"N | 80°5'135.8370"W | 869.08 | 229.061 | 2.09 | 1.37 | 3.99 | |
| 3398.00 | 23.440 | 229.080 | 3244.85 | -285.65 | -595.22 | -684.26 | 1680080.15 | 14224052.40 | 39°10'13.7874"N | 80°5'136.1899"W | 906.92 | 228.981 | 1.77 | -0.68 | 4.06 | |
| 3492.00 | 21.970 | 230.830 | 3331.57 | -296.51 | -618.57 | -712.02 | 1680052.40 | 14224023.12 | 39°10'13.3313"N | 80°5'136.5428"W | 943.19 | 229.017 | 1.72 | -1.56 | 1.86 | |
| 3587.00 | 22.230 | 229.550 | 3419.59 | -307.05 | -641.46 | -739.47 | 1679998.19 | 14223977.76 | 39°10'13.1092"N | 80°5'137.2324"W | 978.92 | 229.060 | 0.58 | 0.27 | -1.35 | |
| 3681.00 | 21.470 | 230.390 | 3506.83 | -317.50 | -663.96 | -766.26 | 1679981.28 | 14223957.36 | 39°10'12.9080"N | 80°5'137.5745"W | 1013.90 | 229.091 | 0.87 | -0.81 | 0.89 | |
| 3776.00 | 20.220 | 235.440 | 3595.62 | -325.95 | -684.36 | -793.18 | 1679945.41 | 14223938.26 | 39°10'12.7195"N | 80°5'137.9035"W | 1047.61 | 229.212 | 2.30 | -1.32 | 5.32 | |
| 3870.00 | 19.830 | 231.630 | 3683.94 | -333.62 | -703.47 | -819.06 | 1679921.33 | 14223917.27 | 39°10'12.5124"N | 80°5'138.2098"W | 1079.69 | 229.341 | 1.45 | -0.41 | -4.05 | |
| 3964.00 | 19.960 | 226.250 | 3772.34 | -343.71 | -724.47 | -843.15 | 1679921.33 | 14223895.64 | 39°10'12.2989"N | 80°5'138.5157"W | 1111.64 | 229.329 | 1.95 | 0.14 | -5.72 | |
| 4059.00 | 19.890 | 229.830 | 3861.66 | -354.41 | -746.10 | -867.21 | 1679897.28 | 14223876.07 | 39°10'12.1057"N | 80°5'138.8293"W | 1144.00 | 229.293 | 1.29 | -0.07 | 3.77 | |
| 4154.00 | 18.850 | 233.350 | 3951.28 | -362.98 | -765.69 | -891.87 | 1679872.62 | 14223858.31 | 39°10'11.9304"N | 80°5'139.1293"W | 1175.47 | 229.353 | 1.65 | -1.09 | 3.71 | |
| 4248.00 | 17.790 | 232.700 | 4040.52 | -370.28 | -783.46 | -915.48 | 1679849.03 | 14223839.72 | 39°10'11.7470"N | 80°5'139.3981"W | 1204.95 | 229.443 | 1.15 | -1.13 | -0.69 | |
| 4342.00 | 17.150 | 224.500 | 4130.19 | -379.29 | -802.05 | -936.62 | 1679827.90 | 14223820.16 | 39°10'11.5637"N | 80°5'140.2206"W | 1233.10 | 229.426 | 2.70 | -0.68 | -8.72 | |
| 4436.00 | 17.600 | 227.030 | 4219.90 | -389.60 | -821.62 | -956.73 | 1679807.79 | 14223800.90 | 39°10'11.3837"N | 80°5'140.5776"W | 1261.11 | 229.345 | 0.94 | 0.48 | 2.69 | |
| 4531.00 | 17.640 | 228.820 | 4310.45 | -399.16 | -840.89 | -978.08 | 1679786.46 | 14223783.92 | 39°10'11.1962"N | 80°5'141.2206"W | 1289.85 | 229.313 | 0.57 | 0.04 | 1.88 | |
| 4626.00 | 17.770 | 228.810 | 4400.97 | -405.89 | -857.88 | -1001.32 | 1679765.22 | 14223768.39 | 39°10'11.0429"N | 80°5'141.5776"W | 1318.55 | 229.412 | 3.20 | 0.14 | -10.52 | |
| 4720.00 | 17.000 | 223.840 | 4490.68 | -411.22 | -873.41 | -1024.68 | 1679739.87 | 14223751.28 | 39°10'10.8741"N | 80°5'141.9207"W | 1346.41 | 229.557 | 1.78 | -1.44 | -8.42 | |
| 4815.00 | 15.630 | 225.840 | 4581.86 | -419.16 | -890.53 | -1045.08 | 1679719.48 | 14223733.54 | 39°10'10.6990"N | 80°5'141.0148"W | 1373.04 | 229.565 | 2.77 | -0.82 | 1.39 | |
| 4909.00 | 16.210 | 227.150 | 4672.26 | -428.32 | -908.27 | -1063.78 | 1679699.62 | 14223715.02 | 39°10'10.5162"N | 80°5'141.2707"W | 1398.78 | 229.509 | 0.73 | 0.62 | 1.39 | |
| 5003.00 | 17.630 | 228.530 | 4852.87 | -447.01 | -945.72 | -1104.97 | 1679680.66 | 14223696.11 | 39°10'10.3295"N | 80°5'141.5384"W | 1426.12 | 229.468 | 1.52 | -1.51 | 0.47 | |
| 5098.00 | 17.040 | 228.530 | 4852.87 | -447.01 | -945.72 | -1104.97 | 1679669.62 | 14223679.24 | 39°10'10.1630"N | 80°5'141.8056"W | 1454.42 | 229.440 | 0.69 | -0.62 | 0.99 | |
| 5192.00 | 16.330 | 234.070 | 4942.92 | -454.49 | -962.59 | -1125.99 | 1679638.60 | 14223662.74 | 39°10'10.0002"N | 80°5'142.0852"W | 1481.36 | 229.473 | 1.85 | -0.76 | 5.89 | |
| 5287.00 | 17.330 | 232.210 | 5033.85 | -461.25 | -979.10 | -1147.99 | 1679616.61 | 14223646.07 | 39°10'9.8159"N | 80°5'142.3666"W | 1508.81 | 229.540 | 1.20 | 1.05 | -1.96 | |
| 5381.00 | 18.590 | 227.630 | 5123.27 | -469.95 | -997.78 | -1170.12 | 1679594.49 | 14223630.30 | 39°10'9.6100"N | 80°5'142.6361"W | 1537.77 | 229.545 | 2.01 | 1.34 | -4.87 | |
| 5475.00 | 18.330 | 223.230 | 5212.44 | -481.05 | -1018.65 | -1191.32 | 1679573.30 | 14223613.21 | 39°10'9.4100"N | 80°5'142.9061"W | 1567.44 | 229.468 | 1.51 | -0.28 | -4.68 | |

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|-----------------------------------|------------------------------|----------|----------------------|
| Operator | ANTERO RESOURCES CORPORATION | API | 47-085-10496-0000 |
| Field | Ritche | Wellbore | Allender Unit 1H AWB |
| Facility | Cashew Pad | | |
| Slot | Slot G | | |

| 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 (°) | D/S (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | Comments |
|----------|-----------------|-------------|----------|----------------|------------|----------|------------|-------------|-------------------|--------------------|----------|-----------|-------------------|-----------------|---------------|--|---------------------|----------|
| | | | | | (ft) | (ft) | (ft) | (ft) | | | | | | | | | | |
| 5570.00 | 17.190 | 223.930 | 5302.91 | -492.73 | -1039.64 | -1211.29 | 1679553.34 | 14223602.22 | 39°10'9.4026"N | 80°51'42.8901"W | 1596.27 | 229.361 | 1.22 | -1.20 | 0.74 | | | |
| 5564.00 | 16.260 | 229.340 | 5392.94 | -502.31 | -1058.22 | -1230.91 | 1679533.72 | 14223383.65 | 39°10'9.2194"N | 80°51'43.1396"W | 1623.26 | 229.314 | 1.93 | -0.99 | 5.76 | | | |
| 5759.00 | 16.560 | 227.610 | 5484.07 | -510.99 | -1076.02 | -1251.00 | 1679513.64 | 14223565.87 | 39°10'9.0439"N | 80°51'43.3950"W | 1650.09 | 229.300 | 0.60 | 0.32 | -1.82 | | | |
| 5853.00 | 17.700 | 221.730 | 5573.91 | -521.69 | -1095.71 | -1270.40 | 1679494.24 | 14223546.18 | 39°10'8.8495"N | 80°51'43.6418"W | 1677.65 | 229.223 | 2.20 | 1.21 | -6.26 | | | |
| 5948.00 | 17.600 | 226.620 | 5664.44 | -533.02 | -1116.36 | -1290.46 | 1679474.20 | 14223525.54 | 39°10'8.6457"N | 80°51'43.8968"W | 1706.32 | 229.137 | 1.56 | -0.11 | 5.15 | | | |
| 6042.00 | 22.870 | 238.590 | 5752.64 | -540.83 | -1135.66 | -1316.40 | 1679448.26 | 14223505.25 | 39°10'8.4553"N | 80°51'44.2266"W | 1738.57 | 229.216 | 7.10 | 5.61 | 12.73 | | | |
| 6137.00 | 27.710 | 256.570 | 5838.64 | -540.10 | -1150.44 | -1353.72 | 1679410.96 | 14223489.26 | 39°10'8.3098"N | 80°51'44.7007"W | 1776.53 | 229.641 | 9.50 | 5.09 | 18.93 | | | |
| 6231.00 | 31.090 | 276.790 | 5920.73 | -524.62 | -1152.65 | -1399.20 | 1679365.50 | 14223489.26 | 39°10'8.2886"N | 80°51'45.2782"W | 1812.84 | 230.519 | 11.10 | 3.60 | 21.51 | | | |
| 6325.00 | 33.080 | 297.940 | 6000.63 | -492.77 | -1137.72 | -1446.11 | 1679318.61 | 14223504.18 | 39°10'8.4369"N | 80°51'46.8735"W | 1840.01 | 231.806 | 12.08 | 2.10 | 22.50 | | | |
| 6383.00† | 34.938 | 309.701 | 6048.76 | -465.80 | -1119.68 | -1472.89 | 1679291.84 | 14223522.22 | 39°10'8.6156"N | 80°51'46.4131"W | 1850.16 | 232.758 | 11.77 | 3.24 | 20.28 | Scamnore: 6383' MD | | |
| 6420.00 | 36.680 | 316.530 | 6078.78 | -446.07 | -1104.88 | -1488.66 | 1679276.08 | 14223537.01 | 39°10'8.7621"N | 80°51'46.4131"W | 1853.88 | 233.417 | 11.77 | 4.71 | 18.46 | | | |
| 6514.00 | 41.740 | 332.250 | 6151.77 | -388.48 | -1056.67 | -1522.65 | 1679242.10 | 14223585.21 | 39°10'9.2392"N | 80°51'46.8437"W | 1853.37 | 235.241 | 11.83 | 5.38 | 16.72 | | | |
| 6609.00 | 50.960 | 337.320 | 6217.30 | -319.92 | -994.48 | -1551.67 | 1679213.09 | 14223647.36 | 39°10'9.8542"N | 80°51'47.2110"W | 1843.01 | 237.679 | 10.44 | 9.71 | 5.34 | | | |
| 6623.00† | 51.806 | 337.667 | 6226.03 | -308.98 | -984.38 | -1555.88 | 1679208.91 | 14223667.47 | 39°10'9.9542"N | 80°51'47.2640"W | 1841.11 | 237.679 | 6.34 | 6.04 | 2.48 | Middlesex: 6623' MD | | |
| 6668.00 | 54.530 | 338.730 | 6253.01 | -272.97 | -950.94 | -1569.23 | 1679195.54 | 14223690.89 | 39°10'10.2849"N | 80°51'47.4331"W | 1834.87 | 238.784 | 6.34 | 6.05 | 2.36 | | | |
| 6703.00 | 58.530 | 338.500 | 6272.31 | -243.79 | -923.76 | -1579.87 | 1679184.90 | 14223718.06 | 39°10'10.5637"N | 80°51'47.5677"W | 1830.11 | 239.685 | 11.44 | 11.43 | -0.66 | | | |
| 6796.00 | 66.930 | 339.270 | 6315.80 | -159.45 | -845.05 | -1610.24 | 1679154.54 | 14223796.74 | 39°10'11.8739"N | 80°51'48.1223"W | 1818.51 | 243.310 | 8.87 | 8.84 | 0.81 | | | |
| 6840.00 | 69.480 | 340.280 | 6331.39 | -120.49 | -808.46 | -1623.72 | 1679141.07 | 14223851.84 | 39°10'11.6392"N | 80°51'48.1223"W | 1813.86 | 243.531 | 6.47 | 6.07 | 2.40 | | | |
| 6861.00† | 69.795 | 340.256 | 6338.70 | -100.83 | -789.93 | -1630.37 | 1679134.43 | 14223881.84 | 39°10'11.8739"N | 80°51'48.3309"W | 1811.65 | 244.149 | 1.50 | 1.50 | -0.12 | Burkett: 6861' MD | | |
| 6882.00 | 70.260 | 340.220 | 6349.28 | -71.73 | -762.51 | -1640.22 | 1679124.58 | 14223879.25 | 39°10'12.1484"N | 80°51'48.3309"W | 1808.79 | 245.067 | 3.39 | 3.33 | 0.66 | | | |
| 6987.00 | 73.420 | 340.850 | 6378.89 | -18.38 | -677.41 | -1670.29 | 1679094.52 | 14223986.09 | 39°10'12.9889"N | 80°51'48.3309"W | 1802.43 | 247.924 | 3.39 | 2.85 | 1.26 | Tully: 7011' MD | | |
| 7011.00† | 74.104 | 341.152 | 6385.60 | 41.38 | -655.62 | -1678.72 | 1679087.02 | 14223996.09 | 39°10'13.2054"N | 80°51'48.8059"W | 1801.34 | 248.656 | 3.10 | 2.85 | 1.25 | | | |
| 7014.00 | 74.900 | 341.190 | 6386.42 | 44.26 | -652.89 | -1678.72 | 1679086.09 | 14223998.82 | 39°10'13.2324"N | 80°51'48.8177"W | 1801.21 | 248.748 | 3.10 | 2.85 | 1.25 | | | |
| 7081.00 | 77.920 | 341.010 | 6402.56 | 109.13 | -591.38 | -1699.78 | 1679065.04 | 14224050.30 | 39°10'13.8406"N | 80°51'49.1680"W | 1799.73 | 251.471 | 2.70 | 2.48 | -0.27 | 1.08 Marcellus POE: 7102' MD | | |
| 7102.00† | 78.441 | 341.236 | 6406.87 | 161.93 | -571.93 | -1706.43 | 1679058.39 | 14224069.75 | 39°10'14.0330"N | 80°51'49.2984"W | 1799.73 | 251.471 | 2.70 | 2.48 | -0.27 | BH AT Curve <-8-1/2"> (7081)(7135-20969) | | |
| 7135.00 | 79.260 | 341.590 | 6413.25 | 169.63 | -541.24 | -1716.75 | 1679048.07 | 14224100.42 | 39°10'15.0149"N | 80°51'49.5821"W | 1802.27 | 254.797 | 6.35 | 6.30 | 0.81 | | | |
| 7208.00 | 83.860 | 342.180 | 6423.96 | 233.90 | -472.63 | -1739.20 | 1679025.64 | 14224169.01 | 39°10'15.0149"N | 80°51'49.5821"W | 1802.27 | 254.797 | 6.35 | 6.66 | -1.24 | | | |
| 7302.00 | 89.200 | 341.010 | 6429.65 | 327.43 | -383.64 | -1768.81 | 1678996.04 | 14224257.96 | 39°10'15.8950"N | 80°51'49.5821"W | 1825.94 | 257.763 | 5.82 | -0.26 | -2.52 | | | |
| 7397.00 | 88.950 | 338.620 | 6431.18 | 422.32 | -294.49 | -1801.58 | 1678863.28 | 14224347.08 | 39°10'16.7766"N | 80°51'50.3708"W | 1825.49 | 260.716 | 2.53 | -0.26 | -2.52 | | | |
| 7492.00 | 89.080 | 336.170 | 6432.81 | 517.30 | -206.81 | -1838.09 | 1678826.78 | 14224434.72 | 39°10'17.6438"N | 80°51'50.8327"W | 1849.69 | 263.580 | 2.53 | 0.14 | -2.58 | | | |

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Actual Wellpath Report

Allender Unit 1H AWP Proj: 20994'

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REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|------------------------------|----------|----------------------|
| Operator | ANTERO RESOURCES CORPORATION | Well | Allender Unit 1H |
| Field | Ritchie | API | 47-085-10496-0000 |
| Facility | Cashew Pad | Wellbore | Allender Unit 1H AWB |
| Slot | Slot G | | |

WELLPATH DATA (231 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 (ft/100ft) | Build Rate (ft/100ft) | Turn Rate (ft/100ft) | Comments |
|----------|-----------------|-------------|----------|----------------|------------|-----------|-------------------|--------------------|-----------------|-----------------|-------------------|-----------------|----------------|-----------------------|----------------------|----------|
| 7586.00 | 88.950 | 335.850 | 6434.43 | 611.26 | -120.94 | -1876.30 | 1678888.59 | 14224520.56 | 39°10'18.4930"N | 80°51'51.3163"W | 1880.20 | 266.312 | 0.37 | -0.14 | -0.34 | |
| 7680.00 | 88.920 | 335.540 | 6436.18 | 705.21 | -35.29 | -1914.99 | 1678849.92 | 14224606.18 | 39°10'19.3402"N | 80°51'51.8058"W | 1915.31 | 268.944 | 0.33 | -0.03 | -0.33 | |
| 7775.00 | 88.710 | 336.010 | 6438.14 | 800.15 | 51.33 | -1953.96 | 1678810.96 | 14224692.76 | 39°10'20.1969"N | 80°51'52.2990"W | 1954.83 | 271.505 | 0.54 | -0.22 | 0.49 | |
| 7869.00 | 88.520 | 335.200 | 6440.41 | 894.08 | 136.91 | -1992.77 | 1678772.17 | 14224778.30 | 39°10'21.0433"N | 80°51'52.7902"W | 1997.47 | 273.930 | 0.88 | -0.20 | -0.86 | |
| 7964.00 | 89.880 | 336.310 | 6441.76 | 989.03 | 223.52 | -2031.78 | 1678733.18 | 14224864.88 | 39°10'21.8999"N | 80°51'53.2838"W | 2044.04 | 276.278 | 1.82 | 1.40 | 1.17 | |
| 8058.00 | 89.200 | 336.370 | 6442.54 | 1083.01 | 309.61 | -2069.50 | 1678695.47 | 14224950.94 | 39°10'22.7515"N | 80°51'53.7611"W | 2092.53 | 278.509 | 0.69 | -0.65 | 0.06 | |
| 8152.00 | 88.980 | 335.830 | 6444.04 | 1176.98 | 395.54 | -2107.58 | 1678657.41 | 14225036.83 | 39°10'23.6013"N | 80°51'54.2430"W | 2144.37 | 280.629 | 0.62 | -0.23 | -0.57 | |
| 8247.00 | 88.710 | 335.880 | 6445.95 | 1271.93 | 482.21 | -2146.43 | 1678618.57 | 14225123.47 | 39°10'24.4586"N | 80°51'54.7347"W | 2199.93 | 282.662 | 0.29 | -0.28 | 0.05 | |
| 8342.00 | 88.680 | 335.520 | 6448.12 | 1366.96 | 568.77 | -2185.51 | 1678579.50 | 14225210.00 | 39°10'25.3147"N | 80°51'55.2293"W | 2258.31 | 284.587 | 0.38 | -0.03 | -0.38 | |
| 8436.00 | 89.020 | 335.430 | 6450.00 | 1460.79 | 654.28 | -2224.52 | 1678540.51 | 14225296.46 | 39°10'26.1604"N | 80°51'55.7231"W | 2318.75 | 286.390 | 0.37 | 0.36 | -0.10 | |
| 8526.00 | 89.420 | 336.020 | 6452.59 | 1550.70 | 827.46 | -2302.63 | 1678462.43 | 14225382.58 | 39°10'27.0127"N | 80°51'56.1716"W | 2446.79 | 289.766 | 0.38 | 0.37 | 0.31 | |
| 8626.00 | 90.830 | 336.740 | 6452.38 | 1745.68 | 914.50 | -2340.69 | 1678424.39 | 14225468.58 | 39°10'27.8732"N | 80°51'56.7108"W | 2512.99 | 291.340 | 1.67 | 1.48 | 0.76 | |
| 8721.00 | 89.110 | 335.920 | 6452.43 | 1839.66 | 1000.59 | -2378.43 | 1678386.67 | 14225555.58 | 39°10'29.5855"N | 80°51'57.1932"W | 2580.33 | 292.816 | 2.03 | -1.83 | -0.87 | |
| 8815.00 | 89.080 | 335.040 | 6453.91 | 1933.60 | 1086.10 | -2417.43 | 1678347.68 | 14225641.63 | 39°10'30.4313"N | 80°51'57.6708"W | 2650.20 | 294.193 | 0.94 | -0.03 | -0.94 | |
| 8909.00 | 89.540 | 336.130 | 6455.05 | 2027.55 | 1171.68 | -2456.28 | 1678308.84 | 14225727.11 | 39°10'31.2778"N | 80°51'58.1645"W | 2721.43 | 295.502 | 1.26 | -0.23 | -0.76 | |
| 9003.00 | 89.320 | 335.410 | 6455.99 | 2122.51 | 1256.31 | -2495.27 | 1678269.87 | 14225812.66 | 39°10'32.1345"N | 80°51'58.6562"W | 2794.58 | 296.761 | 0.79 | 0.24 | -0.08 | |
| 9098.00 | 89.110 | 335.330 | 6457.29 | 2217.44 | 1344.66 | -2534.86 | 1678230.30 | 14225898.57 | 39°10'32.9866"N | 80°51'59.1496"W | 2869.43 | 297.944 | 0.24 | -0.09 | 0.17 | |
| 9193.00 | 89.020 | 335.490 | 6458.84 | 2312.38 | 1431.03 | -2574.38 | 1678190.79 | 14226071.91 | 39°10'33.8428"N | 80°51'59.6507"W | 2945.39 | 299.069 | 0.19 | -0.09 | 0.18 | |
| 9288.00 | 89.110 | 335.500 | 6460.21 | 2406.35 | 1517.10 | -2614.95 | 1678152.25 | 14226157.94 | 39°10'34.6941"N | 80°52'0.1510"W | 3020.74 | 300.147 | 1.77 | 0.32 | 1.74 | |
| 9382.00 | 89.320 | 335.970 | 6461.51 | 2501.33 | 1604.24 | -2654.95 | 1678077.39 | 14226245.05 | 39°10'35.5559"N | 80°52'1.1072"W | 3097.71 | 301.190 | 1.24 | -0.22 | -1.22 | |
| 9477.00 | 89.480 | 336.500 | 6462.66 | 2595.30 | 1690.26 | -2694.95 | 1678030.66 | 14226331.04 | 39°10'36.4067"N | 80°52'1.5866"W | 3175.12 | 302.164 | 0.69 | 0.39 | 0.56 | |
| 9571.00 | 89.630 | 336.670 | 6463.40 | 2690.29 | 1777.44 | -2734.45 | 1678001.79 | 14226418.18 | 39°10'37.2689"N | 80°52'2.0644"W | 3253.93 | 303.110 | 0.24 | 0.16 | -0.36 | |
| 9666.00 | 89.320 | 336.860 | 6465.39 | 2785.28 | 1864.55 | -2774.45 | 1677964.47 | 14226505.26 | 39°10'38.1305"N | 80°52'3.4859"W | 3333.65 | 304.008 | 0.48 | 0.00 | 0.56 | |
| 9855.00 | 89.320 | 336.860 | 6465.39 | 2879.26 | 1950.81 | -2814.45 | 1677927.37 | 14226591.48 | 39°10'38.9836"N | 80°52'3.9162"W | 3413.22 | 304.858 | 0.56 | 0.00 | 0.29 | |
| 9950.00 | 89.380 | 337.140 | 6466.47 | 2974.26 | 2038.26 | -2853.91 | 1677891.24 | 14226678.69 | 39°10'39.8484"N | 80°52'3.9433"W | 3494.02 | 305.687 | 0.30 | 0.06 | 0.29 | |
| 10045.00 | 89.420 | 338.130 | 6467.46 | 3069.25 | 2126.10 | -2893.90 | 1677856.10 | 14226766.70 | 39°10'40.7172"N | 80°52'3.9433"W | 3574.98 | 306.492 | 1.04 | 0.04 | 1.04 | |
| 10139.00 | 89.380 | 337.950 | 6468.44 | 3163.24 | 2213.28 | -2933.90 | 1677820.29 | 14226853.84 | 39°10'41.5794"N | 80°52'4.3880"W | 3655.42 | 307.263 | 0.20 | -0.04 | -0.19 | |
| 10234.00 | 89.570 | 337.740 | 6469.31 | 3258.23 | 2301.26 | -2974.03 | 1677784.83 | 14226941.79 | 39°10'42.4495"N | 80°52'4.8413"W | 3737.51 | 308.004 | 0.30 | 0.20 | -0.22 | |
| 10328.00 | 89.510 | 337.920 | 6470.07 | 3352.22 | 2388.31 | -2980.50 | 1677749.20 | 14227028.80 | 39°10'43.3104"N | 80°52'5.2901"W | 3819.34 | 308.706 | 0.20 | -0.06 | 0.19 | |
| 10423.00 | 89.600 | 338.000 | 6470.81 | 3447.21 | 2476.36 | -3016.15 | 1677714.82 | 14227116.82 | 39°10'44.1812"N | 80°52'5.7412"W | 3902.50 | 309.387 | 0.13 | 0.09 | 0.08 | |

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Actual Wellpath Report
Allender Unit 1H AWP Proj: 20994'

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REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|------------------------------|----------|----------------------|
| Operator | ANTERO RESOURCES CORPORATION | Well | Allender Unit 1H |
| Field | Ritche | API | 47-085-10496-0000 |
| Facility | Cashew Pad | Wellbore | Allender Unit 1H AWB |
| Slot | Slot G | | |

WELLPATH DATA (231 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 |
|----------|-----------------|-------------|----------|----------------|------------|-----------|-------------------|--------------------|-----------------|-----------------|-------------------|-----------------|---------------|----------------------|---------------------|----------|
| 10518.00 | 89.540 | 338.530 | 6471.52 | 3642.20 | 2564.61 | -3051.32 | 1677714.04 | 14227205.03 | 39°10'45.0639"N | 80°52'6.1883"W | 3985.95 | 310.047 | 0.56 | -0.06 | 0.56 | |
| 10612.00 | 89.450 | 337.790 | 6472.35 | 3636.18 | 2651.86 | -3086.29 | 1677679.08 | 14227292.25 | 39°10'45.9168"N | 80°52'6.6287"W | 4069.10 | 310.670 | 0.79 | -0.10 | -0.79 | |
| 10707.00 | 89.720 | 338.360 | 6473.04 | 3731.17 | 2739.98 | -3121.76 | 1677643.63 | 14227380.34 | 39°10'46.7883"N | 80°52'7.075"W | 4153.66 | 311.274 | 0.66 | 0.28 | 0.60 | |
| 10801.00 | 89.630 | 337.930 | 6473.57 | 3825.16 | 2827.23 | -3156.76 | 1677608.65 | 14227467.54 | 39°10'47.6511"N | 80°52'7.5203"W | 4237.72 | 311.848 | 0.47 | -0.10 | -0.46 | |
| 10896.00 | 89.510 | 337.920 | 6474.28 | 3920.15 | 2915.26 | -3192.46 | 1677572.96 | 14227555.54 | 39°10'48.5217"N | 80°52'7.9720"W | 4323.25 | 312.401 | 0.13 | -0.13 | -0.01 | |
| 10990.00 | 89.450 | 338.090 | 6475.14 | 4014.14 | 3002.41 | -3227.66 | 1677537.17 | 14227642.66 | 39°10'49.3836"N | 80°52'8.4175"W | 4408.21 | 312.929 | 0.19 | -0.06 | 0.18 | |
| 11088.00 | 89.570 | 336.700 | 6475.95 | 4109.14 | 3090.11 | -3264.18 | 1677501.27 | 14227730.32 | 39°10'50.2509"N | 80°52'8.8795"W | 4494.84 | 313.431 | 1.47 | 0.13 | -1.46 | |
| 11180.00 | 89.260 | 337.840 | 6476.92 | 4204.13 | 3177.73 | -3300.88 | 1677464.58 | 14227817.90 | 39°10'51.1175"N | 80°52'9.3440"W | 4581.89 | 313.911 | 1.24 | -0.33 | 1.20 | |
| 11274.00 | 89.450 | 338.150 | 6477.98 | 4298.12 | 3264.87 | -3336.10 | 1677429.38 | 14227905.02 | 39°10'51.9793"N | 80°52'9.7897"W | 4667.86 | 314.382 | 0.39 | 0.20 | 0.33 | |
| 11368.00 | 89.780 | 338.070 | 6478.61 | 4392.11 | 3352.09 | -3371.14 | 1677394.35 | 14227992.20 | 39°10'52.8419"N | 80°52'10.2331"W | 4754.06 | 314.838 | 0.36 | 0.35 | -0.09 | |
| 11463.00 | 88.120 | 338.010 | 6480.35 | 4487.08 | 3440.18 | -3406.66 | 1677358.84 | 14228080.26 | 39°10'53.7131"N | 80°52'10.6826"W | 4841.51 | 315.281 | 1.75 | -1.75 | -0.06 | |
| 11557.00 | 89.630 | 337.870 | 6482.19 | 4581.06 | 3527.28 | -3441.96 | 1677323.66 | 14228167.32 | 39°10'54.5744"N | 80°52'11.1292"W | 4928.37 | 315.701 | 1.61 | 0.36 | -0.15 | |
| 11652.00 | 89.290 | 338.180 | 6483.09 | 4676.04 | 3615.37 | -3477.51 | 1677288.03 | 14228255.38 | 39°10'55.4457"N | 80°52'11.5790"W | 5016.37 | 316.114 | 0.48 | -0.36 | 0.33 | |
| 11746.00 | 89.690 | 338.150 | 6483.93 | 4770.03 | 3702.63 | -3512.47 | 1677253.08 | 14228342.60 | 39°10'56.3085"N | 80°52'12.0214"W | 5103.61 | 316.510 | 0.43 | 0.43 | -0.03 | |
| 11841.00 | 89.320 | 338.140 | 6484.75 | 4865.02 | 3790.80 | -3547.83 | 1677217.73 | 14228430.73 | 39°10'57.1805"N | 80°52'12.4689"W | 5192.03 | 316.896 | 0.39 | -0.39 | -0.01 | |
| 11936.00 | 89.760 | 338.330 | 6485.52 | 4960.00 | 3879.02 | -3583.05 | 1677182.52 | 14228518.92 | 39°10'58.0530"N | 80°52'12.9146"W | 5280.63 | 317.271 | 0.49 | 0.45 | 0.20 | |
| 12030.00 | 87.480 | 336.610 | 6487.79 | 5053.97 | 3965.81 | -3619.06 | 1677146.53 | 14228606.68 | 39°10'58.9113"N | 80°52'13.3702"W | 5368.91 | 317.618 | 3.03 | -2.41 | -1.83 | |
| 12125.00 | 89.690 | 338.320 | 6490.14 | 5148.93 | 4053.52 | -3655.45 | 1677110.15 | 14228693.35 | 39°10'59.7788"N | 80°52'13.8308"W | 5458.33 | 317.956 | 2.94 | 2.33 | 1.80 | |
| 12220.00 | 89.380 | 337.850 | 6490.91 | 5243.92 | 4141.66 | -3690.91 | 1677074.71 | 14228781.45 | 39°11'0.6504"N | 80°52'14.2795"W | 5547.62 | 318.294 | 0.59 | -0.33 | -0.49 | |
| 12314.00 | 89.570 | 338.230 | 6491.77 | 5337.90 | 4228.83 | -3726.06 | 1677039.57 | 14228868.59 | 39°11'0.5650"N | 80°52'14.7243"W | 5636.18 | 318.616 | 0.45 | 0.20 | 0.40 | |
| 12408.00 | 89.290 | 339.080 | 6492.70 | 5431.87 | 4316.38 | -3760.27 | 1677005.38 | 14228956.10 | 39°11'1.5125"N | 80°52'15.1572"W | 5724.57 | 318.939 | 0.95 | -0.30 | 0.90 | |
| 12503.00 | 89.850 | 338.770 | 6493.42 | 5526.83 | 4405.02 | -3794.43 | 1676971.23 | 14229044.71 | 39°11'3.2549"N | 80°52'15.5894"W | 5813.94 | 319.259 | 0.67 | 0.59 | -0.33 | |
| 12598.00 | 89.690 | 337.750 | 6493.80 | 5621.82 | 4493.26 | -3829.62 | 1676936.06 | 14229132.91 | 39°11'4.9890"N | 80°52'16.0346"W | 5903.84 | 319.559 | 1.09 | -0.17 | -1.07 | |
| 12692.00 | 89.630 | 338.080 | 6494.36 | 5715.81 | 4580.36 | -3864.96 | 1676900.73 | 14229219.98 | 39°11'5.8579"N | 80°52'16.4819"W | 5993.13 | 319.842 | 0.36 | -0.06 | 0.35 | |
| 12787.00 | 89.480 | 337.220 | 6495.09 | 5810.81 | 4668.22 | -3901.08 | 1676864.62 | 14229307.81 | 39°11'6.7188"N | 80°52'16.9391"W | 6083.65 | 320.116 | 0.92 | -0.16 | -0.91 | |
| 12881.00 | 88.280 | 338.510 | 6496.93 | 5904.78 | 4755.28 | -3936.49 | 1676829.22 | 14229394.82 | 39°11'6.7188"N | 80°52'17.3872"W | 6173.22 | 320.382 | 1.87 | -1.28 | 1.37 | |
| 12976.00 | 89.910 | 338.190 | 6498.43 | 5999.75 | 4843.56 | -3971.55 | 1676794.20 | 14229481.07 | 39°11'7.5919"N | 80°52'17.8308"W | 6263.64 | 320.650 | 1.75 | -1.72 | -0.34 | |
| 13070.00 | 89.420 | 337.940 | 6498.98 | 6093.74 | 4930.75 | -4006.65 | 1676759.10 | 14229567.23 | 39°11'8.4542"N | 80°52'18.2750"W | 6353.39 | 320.903 | 0.59 | -0.52 | -0.27 | |
| 13164.00 | 89.230 | 337.730 | 6500.09 | 6187.73 | 5017.80 | -4042.11 | 1676723.65 | 14229653.24 | 39°11'9.3150"N | 80°52'18.7238"W | 6443.37 | 321.147 | 0.30 | -0.20 | -0.22 | |
| 13258.00 | 92.000 | 338.750 | 6499.07 | 6282.71 | 5106.02 | -4077.32 | 1676688.45 | 14229745.42 | 39°11'10.1874"N | 80°52'19.1694"W | 6534.21 | 321.391 | 3.11 | 2.92 | 1.07 | |

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Actual Wellpath Report

Allender Unit 1H AWP Proj: 20994'
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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|------------------------------|----------|----------------------|
| Operator | ANTERO RESOURCES CORPORATION | Well | Allender Unit 1H |
| Field | Ritchie | API | 47-085-10496-0000 |
| Facility | Cashew Pad | Wellbore | Allender Unit 1H AWB |
| Slot | Slot G | | |

| WELLPATH DATA (231 stations) | | | | | | | | | | | | | | | | |
|------------------------------|-----------------|-------------|----------|----------------|------------|-----------|-------------------|--------------------|------------------|-----------------|-------------------|-----------------|----------------|-----------------------|----------------------|----------|
| MD (ft) | Inclination (°) | Azimuth (°) | TYD (ft) | Vert Sect (ft) | North (ft) | East (ft) | Grid East (US ft) | Grid North (US ft) | Latitude | Longitude | Closure Dist (ft) | Closure Dir (°) | DLS (ft/100ft) | Build Rate (ft/100ft) | Turn Rate (ft/100ft) | Comments |
| 13353.00 | 89.570 | 337.810 | 6497.78 | 6376.68 | 5193.33 | -4112.10 | 1676653.68 | 14229832.70 | 39°11'11.10509"N | 80°52'19.6096"W | 6624.20 | 321.628 | 2.77 | -2.59 | -1.00 | |
| 13448.00 | 89.820 | 338.290 | 6498.29 | 6471.67 | 5281.44 | -4147.61 | 1676618.19 | 14229920.78 | 39°11'11.9223"N | 80°52'20.0590"W | 6715.38 | 321.857 | 0.57 | 0.26 | 0.51 | |
| 13542.00 | 89.570 | 338.460 | 6498.79 | 6665.65 | 5368.82 | -4182.25 | 1676583.56 | 14230008.12 | 39°11'12.7864"N | 80°52'20.4973"W | 6805.55 | 322.082 | 0.32 | -0.27 | 0.18 | |
| 13637.00 | 89.660 | 338.390 | 6499.43 | 6660.63 | 5457.16 | -4217.19 | 1676548.64 | 14230096.43 | 39°11'13.6601"N | 80°52'20.9394"W | 6896.76 | 322.304 | 0.12 | 0.09 | -0.07 | |
| 13731.00 | 89.690 | 337.890 | 6499.96 | 6754.62 | 5544.40 | -4252.19 | 1676513.66 | 14230183.63 | 39°11'14.5228"N | 80°52'21.3823"W | 6987.24 | 322.514 | 0.53 | 0.03 | -0.53 | |
| 13825.00 | 89.750 | 338.220 | 6500.42 | 6848.61 | 5631.59 | -4287.31 | 1676478.54 | 14230270.79 | 39°11'15.3851"N | 80°52'21.8269"W | 7077.84 | 322.718 | 0.36 | 0.06 | 0.35 | |
| 13920.00 | 89.880 | 338.970 | 6500.73 | 6943.59 | 5720.04 | -4321.98 | 1676443.88 | 14230359.29 | 39°11'16.2598"N | 80°52'22.2667"W | 7169.27 | 322.926 | 0.80 | 0.14 | 0.79 | |
| 14014.00 | 89.200 | 337.400 | 6501.48 | 7037.57 | 5807.30 | -4356.91 | 1676408.97 | 14230446.43 | 39°11'17.1227"N | 80°52'22.7077"W | 7259.99 | 323.121 | 1.82 | -0.72 | -1.67 | |
| 14109.00 | 91.010 | 338.880 | 6501.31 | 7132.55 | 5895.46 | -4392.28 | 1676373.61 | 14230534.55 | 39°11'17.9946"N | 80°52'23.1553"W | 7351.78 | 323.313 | 2.46 | 1.91 | 1.56 | |
| 14203.00 | 89.480 | 338.050 | 6500.90 | 7226.53 | 5982.90 | -4426.79 | 1676339.12 | 14230621.95 | 39°11'18.8593"N | 80°52'23.5920"W | 7442.55 | 323.502 | 1.85 | -1.63 | -0.88 | |
| 14297.00 | 89.820 | 337.120 | 6501.48 | 7320.53 | 6069.79 | -4462.63 | 1676303.30 | 14230708.81 | 39°11'19.7186"N | 80°52'24.0456"W | 7533.75 | 323.676 | 1.05 | 0.36 | -0.36 | |
| 14392.00 | 89.420 | 336.400 | 6502.11 | 7415.52 | 6157.08 | -4498.11 | 1676268.83 | 14230796.07 | 39°11'20.5819"N | 80°52'24.5202"W | 7626.31 | 323.838 | 0.87 | -0.42 | -0.99 | |
| 14487.00 | 89.450 | 337.170 | 6503.05 | 7510.51 | 6244.38 | -4537.56 | 1676228.40 | 14230883.33 | 39°11'21.4453"N | 80°52'25.9942"W | 7718.92 | 323.986 | 0.81 | 0.03 | 0.81 | |
| 14581.00 | 89.600 | 337.430 | 6503.82 | 7604.51 | 6331.10 | -4573.83 | 1676192.14 | 14230970.02 | 39°11'22.3029"N | 80°52'25.4533"W | 7810.43 | 324.154 | 0.32 | 0.16 | 0.28 | |
| 14675.00 | 89.420 | 336.640 | 6504.63 | 7698.50 | 6417.64 | -4610.51 | 1676155.48 | 14231056.53 | 39°11'23.1588"N | 80°52'25.9176"W | 7902.08 | 324.306 | 0.86 | -0.19 | -0.84 | |
| 14770.00 | 89.570 | 336.810 | 6505.47 | 7793.49 | 6504.91 | -4648.04 | 1676117.96 | 14231143.76 | 39°11'24.0219"N | 80°52'26.3928"W | 7994.88 | 324.453 | 0.24 | 0.16 | 0.18 | |
| 14864.00 | 90.280 | 337.940 | 6505.59 | 7887.49 | 6591.67 | -4684.20 | 1676081.81 | 14231230.49 | 39°11'24.8799"N | 80°52'26.8505"W | 8086.53 | 324.601 | 1.42 | 0.76 | 1.20 | |
| 14958.00 | 90.660 | 336.340 | 6504.80 | 7981.48 | 6678.28 | -4720.72 | 1676045.31 | 14231317.06 | 39°11'25.7365"N | 80°52'27.3128"W | 8178.31 | 324.744 | 1.75 | 0.43 | -1.70 | |
| 15052.00 | 90.120 | 336.730 | 6504.14 | 8075.47 | 6764.51 | -4758.15 | 1676007.90 | 14231403.25 | 39°11'26.5892"N | 80°52'28.2614"W | 8270.34 | 324.877 | 0.73 | -0.60 | 0.41 | |
| 15146.00 | 89.600 | 336.240 | 6504.37 | 8169.46 | 6850.70 | -4795.65 | 1675968.41 | 14231489.41 | 39°11'27.4416"N | 80°52'28.716"W | 8362.44 | 325.007 | 0.76 | -0.55 | -0.52 | |
| 15241.00 | 89.820 | 336.700 | 6504.86 | 8264.45 | 6937.80 | -4833.58 | 1675932.50 | 14231576.48 | 39°11'28.3030"N | 80°52'29.1655"W | 8455.56 | 325.135 | 0.54 | 0.23 | 0.48 | |
| 15439.00 | 89.570 | 337.230 | 6505.86 | 8453.44 | 7111.73 | -4907.53 | 1675888.57 | 14231663.03 | 39°11'30.0231"N | 80°52'29.6778"W | 8540.63 | 325.392 | 0.31 | -0.13 | 0.32 | |
| 15496.00 | 90.120 | 337.530 | 6506.32 | 8647.44 | 7198.50 | -4943.69 | 1675842.43 | 14231750.33 | 39°11'31.8112"N | 80°52'30.1355"W | 8624.69 | 325.520 | 0.67 | 0.59 | 0.32 | |
| 15521.00 | 89.630 | 336.780 | 6506.12 | 8841.44 | 7285.12 | -4980.18 | 1675795.95 | 14231837.07 | 39°11'31.7319"N | 80°52'30.5974"W | 8717.87 | 325.643 | 0.95 | -0.52 | -0.80 | |
| 15713.00 | 89.910 | 337.090 | 6506.70 | 8736.43 | 7372.53 | -5017.40 | 1675748.75 | 14231923.66 | 39°11'32.6023"N | 80°52'31.0686"W | 8817.87 | 325.763 | 0.44 | 0.29 | 0.33 | |
| 15807.00 | 89.820 | 337.410 | 6506.92 | 8830.43 | 7459.21 | -5053.75 | 1675712.41 | 14232009.68 | 39°11'33.4566"N | 80°52'31.5288"W | 8910.01 | 325.882 | 0.35 | -0.10 | 0.34 | |
| 15901.00 | 90.430 | 337.480 | 6506.77 | 8924.43 | 7546.02 | -5089.80 | 1675676.37 | 14232184.45 | 39°11'34.3181"N | 80°52'31.9852"W | 9010.12 | 326.000 | 0.65 | 0.65 | 0.07 | |
| 15995.00 | 90.120 | 336.930 | 6506.27 | 9018.43 | 7632.68 | -5126.22 | 1675639.97 | 14232271.08 | 39°11'35.1751"N | 80°52'32.4463"W | 9194.34 | 326.114 | 0.67 | -0.33 | -0.59 | |
| 16090.00 | 90.340 | 337.360 | 6505.89 | 9113.43 | 7720.22 | -5163.12 | 1675603.09 | 14232358.58 | 39°11'36.0409"N | 80°52'32.9134"W | 9287.61 | 326.226 | 0.51 | 0.23 | 0.45 | |
| 16184.00 | 90.370 | 338.230 | 6505.30 | 9207.42 | 7807.25 | -5198.64 | 1675567.58 | 14232445.57 | 39°11'36.9015"N | 80°52'33.3631"W | 9379.71 | 326.341 | 0.93 | 0.03 | 0.93 | |

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Actual Wellpath Report

Allender Unit 1H AWP Proj: 20994'

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06/14/2024

| REFERENCE WELLPATH IDENTIFICATION | | Well | Allender Unit 1H |
|-----------------------------------|------------------------------|----------|----------------------|
| Operator | ANTERO RESOURCES CORPORATION | API | 47-085-10496-0000 |
| Field | Ritche | Wellbore | Allender Unit 1H AWB |
| Facility | Cashew Pad | | |
| Slot | Slot G | | |

| WELLPATH DATA (231 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) | Built Rate (°/100ft) | Turn Rate (°/100ft) | Comments |
| 16279.00 | 90.430 | 337.090 | 6504.64 | 9302.42 | 7895.11 | -5234.75 | 1675531.48 | 14232533.40 | 39°11'37.7705"N | 80°52'33.8201"W | 9472.88 | 326.454 | 1.20 | 0.06 | -1.20 | |
| 16373.00 | 90.370 | 337.270 | 6503.98 | 9396.42 | 7981.75 | -5271.21 | 1675456.04 | 14232620.01 | 39°11'38.6273"N | 80°52'34.2817"W | 9565.25 | 326.559 | 0.20 | -0.06 | 0.19 | |
| 16467.00 | 90.340 | 337.320 | 6503.40 | 9490.41 | 8068.47 | -5307.49 | 1675458.77 | 14232706.69 | 39°11'39.4848"N | 80°52'34.7410"W | 9657.62 | 326.663 | 0.06 | -0.03 | 0.05 | |
| 16561.00 | 90.180 | 337.380 | 6502.98 | 9584.41 | 8155.22 | -5343.69 | 1675422.59 | 14232879.97 | 39°11'40.3428"N | 80°52'35.1993"W | 9750.00 | 326.765 | 0.18 | -0.17 | 0.06 | |
| 16655.00 | 89.820 | 336.880 | 6502.98 | 9678.41 | 8241.82 | -5380.24 | 1675386.05 | 14232967.49 | 39°11'41.1992"N | 80°52'35.6621"W | 9842.49 | 326.864 | 0.68 | -0.38 | -0.56 | |
| 16750.00 | 90.710 | 337.500 | 6502.54 | 9773.41 | 8329.38 | -5417.09 | 1675349.21 | 14232967.49 | 39°11'42.0651"N | 80°52'36.1288"W | 9935.97 | 326.962 | 1.16 | 0.94 | 0.68 | |
| 16939.00 | 90.280 | 337.180 | 6500.90 | 9824.40 | 8503.78 | -5489.91 | 1675276.43 | 14233141.83 | 39°11'43.7899"N | 80°52'37.0504"W | 10121.92 | 327.154 | 0.28 | -0.23 | -0.17 | |
| 17033.00 | 90.430 | 337.010 | 6500.32 | 10056.40 | 8590.37 | -5526.49 | 1675239.86 | 14233228.38 | 39°11'44.6462"N | 80°52'37.5136"W | 10214.52 | 327.245 | 0.24 | 0.16 | -0.18 | |
| 17128.00 | 90.310 | 336.800 | 6499.71 | 10151.39 | 8677.75 | -5563.75 | 1675202.61 | 14233315.73 | 39°11'45.5104"N | 80°52'37.9854"W | 10308.19 | 327.334 | 0.25 | -0.13 | -0.22 | |
| 17222.00 | 90.400 | 337.060 | 6499.12 | 10245.39 | 8764.23 | -5600.59 | 1675166.79 | 14233402.17 | 39°11'46.3656"N | 80°52'38.4518"W | 10400.88 | 327.420 | 0.29 | 0.10 | 0.28 | |
| 17316.00 | 90.340 | 337.150 | 6498.52 | 10339.39 | 8850.82 | -5637.16 | 1675129.24 | 14233488.73 | 39°11'47.2220"N | 80°52'38.9148"W | 10493.55 | 327.507 | 0.12 | -0.06 | 0.10 | |
| 17410.00 | 90.400 | 337.300 | 6497.91 | 10433.38 | 8937.49 | -5673.54 | 1675092.87 | 14233575.37 | 39°11'48.0791"N | 80°52'39.3755"W | 10586.21 | 327.593 | 0.17 | 0.06 | 0.16 | |
| 17504.00 | 90.400 | 337.470 | 6497.25 | 10527.38 | 9024.26 | -5709.69 | 1675056.73 | 14233662.10 | 39°11'48.9372"N | 80°52'39.8331"W | 10678.85 | 327.678 | 0.18 | 0.00 | 0.18 | |
| 17599.00 | 90.460 | 337.000 | 6496.54 | 10622.38 | 9111.86 | -5746.45 | 1675019.99 | 14233749.66 | 39°11'49.8035"N | 80°52'40.2985"W | 10772.54 | 327.762 | 0.50 | 0.06 | -0.49 | |
| 17693.00 | 90.340 | 337.160 | 6495.89 | 10716.37 | 9198.44 | -5783.06 | 1674983.40 | 14233836.21 | 39°11'50.6697"N | 80°52'40.7620"W | 10865.31 | 327.842 | 0.21 | -0.13 | 0.17 | |
| 17788.00 | 90.400 | 337.180 | 6495.27 | 10811.37 | 9285.99 | -5819.92 | 1674946.55 | 14233923.73 | 39°11'51.5256"N | 80°52'41.2287"W | 10959.06 | 327.923 | 0.07 | 0.06 | 0.02 | |
| 17882.00 | 90.280 | 336.720 | 6494.71 | 10905.37 | 9372.49 | -5856.72 | 1674909.76 | 14234010.19 | 39°11'52.3810"N | 80°52'41.6947"W | 11051.91 | 327.999 | 0.51 | -0.13 | -0.49 | |
| 17977.00 | 90.400 | 336.930 | 6494.15 | 11000.36 | 9459.82 | -5894.10 | 1674872.39 | 14234097.48 | 39°11'53.2446"N | 80°52'42.1681"W | 11145.79 | 328.074 | 0.25 | 0.13 | 0.22 | |
| 18071.00 | 90.280 | 337.130 | 6493.59 | 11094.36 | 9546.36 | -5930.79 | 1674835.73 | 14234183.99 | 39°11'54.1005"N | 80°52'42.6325"W | 11238.65 | 328.149 | 0.25 | -0.13 | 0.21 | |
| 18165.00 | 90.180 | 337.120 | 6493.21 | 11188.36 | 9632.97 | -5967.33 | 1674792.96 | 14234270.57 | 39°11'54.9670"N | 80°52'43.0952"W | 11331.51 | 328.223 | 0.11 | -0.11 | -0.01 | |
| 18259.00 | 90.220 | 337.500 | 6492.89 | 11282.36 | 9719.69 | -6003.59 | 1674759.69 | 14234357.25 | 39°11'55.8147"N | 80°52'43.5543"W | 11424.34 | 328.298 | 0.41 | 0.04 | 0.40 | |
| 18354.00 | 90.000 | 337.060 | 6492.70 | 11377.36 | 9807.32 | -6040.28 | 1674726.28 | 14234444.85 | 39°11'56.6813"N | 80°52'44.0189"W | 11518.18 | 328.371 | 0.52 | -0.23 | -0.46 | |
| 18448.00 | 90.060 | 337.510 | 6492.66 | 11471.36 | 9894.03 | -6076.58 | 1674690.00 | 14234531.52 | 39°11'57.5388"N | 80°52'44.4785"W | 11611.06 | 328.443 | 0.48 | 0.06 | 0.48 | |
| 18542.00 | 89.940 | 336.950 | 6492.66 | 11565.36 | 9980.70 | -6112.96 | 1674653.63 | 14234618.16 | 39°11'58.3959"N | 80°52'44.9391"W | 11703.96 | 328.513 | 0.61 | -0.13 | -0.60 | |
| 18637.00 | 89.970 | 337.160 | 6492.73 | 11660.35 | 10068.19 | -6149.99 | 1674616.61 | 14234705.61 | 39°11'59.2611"N | 80°52'45.4088"W | 11797.92 | 328.582 | 0.22 | 0.03 | 0.22 | |
| 18732.00 | 89.910 | 337.080 | 6492.93 | 11756.35 | 10155.71 | -6186.93 | 1674579.69 | 14234793.10 | 39°12'0.2862"N | 80°52'45.8758"W | 11891.87 | 328.650 | 0.11 | -0.06 | -0.08 | |
| 18826.00 | 89.970 | 337.510 | 6492.93 | 11849.35 | 10242.43 | -6223.21 | 1674543.42 | 14234879.78 | 39°12'0.9842"N | 80°52'46.3352"W | 11984.81 | 328.717 | 0.46 | 0.06 | 0.46 | |
| 18921.00 | 89.660 | 336.940 | 6493.23 | 11944.35 | 10330.02 | -6259.99 | 1674506.66 | 14234967.34 | 39°12'1.8504"N | 80°52'46.8008"W | 12078.77 | 328.784 | 0.68 | -0.33 | -0.60 | |
| 19015.00 | 90.220 | 337.210 | 6493.33 | 12038.35 | 10416.60 | -6296.60 | 1674470.06 | 14235055.88 | 39°12'2.7066"N | 80°52'47.2645"W | 12171.80 | 328.848 | 0.66 | 0.60 | 0.29 | |
| 19109.00 | 90.560 | 337.100 | 6492.68 | 12132.35 | 10503.22 | -6333.10 | 1674433.58 | 14235140.47 | 39°12'3.5633"N | 80°52'47.7266"W | 12264.82 | 328.911 | 0.40 | 0.38 | -0.12 | |

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Actual Wellpath Report

Allender Unit 1H AWP Proj: 20994'
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06/14/2024

REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|------------------------------|----------|----------------------|
| Operator | ANTERO RESOURCES CORPORATION | Well | Allender Unit 1H |
| Field | Ritche | API | 47-085-10496-0000 |
| Facility | Cashew Pad | Wellbore | Allender Unit 1H AWB |
| Slot | Slot G | | |

WELLPATH DATA (231 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 |
|-----------|-----------------|-------------|----------|----------------|------------|-----------|-------------------|--------------------|-----------------|-----------------|-------------------|-----------------|---------------|----------------------|---------------------|----------------------------|
| 19203.00 | 90.520 | 337.530 | 6491.77 | 12226.34 | 10589.94 | -6369.35 | 1674397.34 | 14235227.16 | 39°12'4.4209"N | 80°52'48.1856"W | 12357.81 | 328.975 | 0.46 | -0.06 | 0.46 | |
| 19297.00 | 90.280 | 337.100 | 6491.12 | 12320.34 | 10676.67 | -6405.60 | 1674361.11 | 14235313.85 | 39°12'5.2786"N | 80°52'48.6446"W | 12450.82 | 329.038 | 0.52 | -0.26 | -0.46 | |
| 19391.00 | 90.180 | 336.920 | 6490.74 | 12414.34 | 10763.20 | -6442.31 | 1674324.41 | 14235400.35 | 39°12'6.1343"N | 80°52'49.1095"W | 12543.92 | 329.097 | 0.22 | -0.11 | -0.19 | |
| 19485.00 | 90.180 | 336.910 | 6490.45 | 12508.34 | 10849.68 | -6479.17 | 1674287.56 | 14235486.78 | 39°12'6.9895"N | 80°52'49.5762"W | 12637.05 | 329.155 | 0.01 | 0.00 | -0.01 | |
| 19579.00 | 90.370 | 337.450 | 6489.99 | 12602.33 | 10936.32 | -6515.62 | 1674251.12 | 14235573.39 | 39°12'7.8463"N | 80°52'50.0379"W | 12730.14 | 329.214 | 0.61 | 0.20 | 0.57 | |
| 19674.00 | 90.460 | 337.440 | 6489.31 | 12697.33 | 11024.05 | -6552.06 | 1674214.70 | 14235661.09 | 39°12'8.7139"N | 80°52'50.4993"W | 12824.16 | 329.275 | 0.10 | 0.09 | -0.01 | |
| 19768.00 | 90.180 | 337.050 | 6488.78 | 12791.33 | 11110.73 | -6588.42 | 1674178.36 | 14235747.73 | 39°12'9.5712"N | 80°52'50.9697"W | 12917.26 | 329.333 | 0.51 | -0.30 | -0.41 | |
| 19863.00 | 90.280 | 337.260 | 6488.40 | 12886.33 | 11198.28 | -6625.30 | 1674141.49 | 14235835.25 | 39°12'10.4369"N | 80°52'51.4267"W | 13011.38 | 329.390 | 0.24 | 0.11 | 0.22 | |
| 19957.00 | 90.250 | 336.820 | 6487.97 | 12980.33 | 11284.83 | -6661.97 | 1674104.84 | 14235921.76 | 39°12'11.2929"N | 80°52'51.8911"W | 13104.55 | 329.445 | 0.47 | -0.03 | -0.47 | |
| 20052.00 | 90.220 | 336.960 | 6487.58 | 13075.32 | 11372.20 | -6699.26 | 1674067.56 | 14236009.10 | 39°12'12.1570"N | 80°52'52.3633"W | 13198.75 | 329.498 | 0.15 | -0.03 | 0.15 | |
| 20146.00 | 90.150 | 337.200 | 6487.27 | 13169.32 | 11458.78 | -6735.86 | 1674030.97 | 14236095.65 | 39°12'13.0132"N | 80°52'52.8268"W | 13291.94 | 329.552 | 0.27 | -0.07 | 0.26 | |
| 20240.00 | 90.090 | 337.040 | 6487.10 | 13263.32 | 11545.39 | -6772.41 | 1673994.44 | 14236182.22 | 39°12'13.8696"N | 80°52'53.2897"W | 13385.12 | 329.605 | 0.20 | -0.10 | -0.17 | |
| 20335.00 | 90.090 | 337.340 | 6486.98 | 13358.32 | 11632.96 | -6809.24 | 1673957.62 | 14236269.75 | 39°12'14.7356"N | 80°52'53.7661"W | 13479.30 | 329.658 | 0.32 | 0.03 | 0.32 | |
| 20429.00 | 89.780 | 337.200 | 6487.08 | 13452.32 | 11719.66 | -6845.56 | 1673921.32 | 14236356.42 | 39°12'15.5930"N | 80°52'54.2160"W | 13572.47 | 329.710 | 0.36 | -0.33 | -0.15 | |
| 20523.00 | 89.940 | 336.980 | 6487.31 | 13546.32 | 11806.24 | -6882.15 | 1673884.74 | 14236442.97 | 39°12'16.4493"N | 80°52'54.6794"W | 13665.70 | 329.761 | 0.29 | 0.17 | -0.23 | |
| 20617.00 | 89.880 | 337.300 | 6487.46 | 13640.32 | 11892.86 | -6918.67 | 1673848.24 | 14236529.55 | 39°12'17.3059"N | 80°52'55.1419"W | 13758.93 | 329.811 | 0.35 | -0.06 | 0.34 | |
| 20711.00 | 89.940 | 337.090 | 6487.61 | 13734.32 | 11979.51 | -6955.11 | 1673811.82 | 14236616.17 | 39°12'18.1628"N | 80°52'55.6033"W | 13852.15 | 329.861 | 0.23 | 0.06 | -0.22 | |
| 20806.00 | 89.850 | 337.080 | 6487.78 | 13829.31 | 12067.01 | -6992.10 | 1673774.84 | 14236703.63 | 39°12'19.0281"N | 80°52'56.0717"W | 13946.40 | 329.910 | 0.10 | -0.09 | -0.01 | |
| 20901.00 | 89.850 | 337.060 | 6488.03 | 13924.31 | 12154.51 | -7029.11 | 1673737.85 | 14236791.09 | 39°12'19.8934"N | 80°52'56.5404"W | 14040.67 | 329.959 | 0.02 | 0.00 | -0.02 | |
| 20996.00 | 90.060 | 337.130 | 6488.08 | 13992.31 | 12240.18 | -7065.57 | 1673701.39 | 14236876.71 | 39°12'20.5128"N | 80°52'56.8756"W | 14108.14 | 329.993 | 0.33 | 0.31 | 0.10 | |
| 20994.00† | 90.060 | 337.130 | 6488.06 | 14017.31 | 12240.18 | -7065.29 | 1673701.68 | 14236876.73 | 39°12'20.7406"N | 80°52'56.9967"W | 14132.95 | 330.006 | 0.00 | 0.00 | 0.00 | Projected MD at TD: 20994' |

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Actual Wellpath Report

Allender Unit 1H AWP Proj: 20994'

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|------------------------------|----------|----------------------|
| Operator | ANTERO RESOURCES CORPORATION | Well | Allender Unit 1H |
| Field | Ritche | API | 47-085-10496-0000 |
| Facility | Cashew Pad | Wellbore | Allender Unit 1H AWB |
| Slot | Slot G | | |

| HOLE & CASING SECTIONS - Ref Wellbore: Allender Unit 1H AWB Ref Wellpath: Allender Unit 1H AWP Proj: 20994' | | | | | | | | | |
|---|---------------|--------------|---------------|----------------|--------------|----------------|---------------|--------------|-------------|
| String/Diameter | Start MD [ft] | End MID [ft] | Interval [ft] | Start TVD [ft] | End TVD [ft] | Start N/S [ft] | Start EW [ft] | End N/S [ft] | End EW [ft] |
| 20in Conductor | 30.00 | 130.00 | 100.00 | 30.00 | 130.00 | 0.00 | 0.00 | 0.03 | -0.06 |
| 17.5in Open Hole | 130.00 | 377.00 | 247.00 | 130.00 | 376.99 | 0.03 | -0.06 | -0.81 | -1.26 |
| 13.375in Casing Surface | 30.00 | 355.00 | 325.00 | 30.00 | 354.99 | 0.00 | 0.00 | -0.55 | -0.91 |
| 12.25in Open Hole | 377.00 | 2977.00 | 2600.00 | 376.99 | 2852.29 | -0.81 | -1.26 | -485.42 | -581.21 |
| 9.625in Casing Intermediate | 30.00 | 2947.00 | 2917.00 | 30.00 | 2823.54 | 0.00 | 0.00 | -479.00 | -575.56 |
| 8.75in Open Hole | 2977.00 | 7161.00 | 4184.00 | 2882.29 | 6417.73 | -485.42 | -581.21 | -516.93 | -1724.80 |
| 8.5in Open Hole | 7161.00 | 20994.00 | 13833.00 | 6417.73 | 6488.06 | -516.93 | -1724.80 | 12240.18 | -7065.29 |
| 5.5in Casing Production | 30.00 | 20974.00 | 20944.00 | 30.00 | 6488.06 | 0.00 | 0.00 | 12221.75 | -7057.52 |

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Actual Wellpath Report

Allender Unit 1H AWP Proj: 20994'

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|------------------------------|----------|----------------------|
| Operator | ANTERO RESOURCES CORPORATION | Well | Allender Unit 1H |
| Field | Ritchie | API | 47-085-10496-0000 |
| Facility | Cashew Pad | Wellbore | Allender Unit 1H AWB |
| Slot | Slot G | | |

| TARGETS | | | | | | | | | |
|--|----------|------------|-----------|-------------------|--------------------|-----------------|-----------------|-----------|---------------------------|
| Name | TVD [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | Shape | |
| Allender Unit 1H POE Rev-3 | 6400.00 | -696.92 | -1665.45 | 1679099.36 | 14223944.81 | 39°10'12.7970"N | 80°51'48.6499"W | point | |
| Allender Unit 1H LP Rev-3 | 6422.00 | -540.04 | -1730.95 | 1679033.88 | 14224101.63 | 39°10'14.3486"N | 80°51'49.4787"W | point | |
| Allender Unit 1H BHL Rev-4 | 6542.99 | 12253.44 | -7073.07 | 1673693.90 | 14236689.99 | 39°12'20.8718"N | 80°52'57.0973"W | point | |
| Allender Unit 1H BHL Rev-3 | 6544.02 | 12362.81 | -7118.74 | 1673648.25 | 14236999.31 | 39°12'21.9634"N | 80°52'57.6756"W | point | |
| Allender Unit 1H 50' L/R Hard Line R-2 | 7000.00 | 5778.26 | -4369.26 | 1676396.63 | 14230417.40 | 39°11'16.8359"N | 80°52'22.8650"W | rectangle | 2D Rectangle 14034 x 100. |

| WELLPATH COMPOSITION - Ref Wellbore: Allender Unit 1H AWB Ref Wellpath: Allender Unit 1H AWP Proj: 20994' | | | | | | | | | |
|---|-------------|--|--|----------------------|-------------|--|--|--|--|
| Start MD [ft] | End MD [ft] | Positional Uncertainty Model | Log Name/Comment | Wellbore | Survey Date | | | | |
| 30.00 | 258.00 | Gyrodatta 2015 - GC+WIR+DPIPE | 01 Gyrodatta MS Gyro <17-1/2"> (100'-258') | Allender Unit 1H AWB | 9/1/2023 | | | | |
| 258.00 | 2905.00 | BH NavTrak (2019) (Axial Cor+HRGM) | 02 APS EM <12-1/4"> (258')(416'-2905') | Allender Unit 1H AWB | 9/1/2023 | | | | |
| 2905.00 | 7081.00 | BH NavTrak (2019) (Axial Cor+HRGM) | 03 APS EM <8-3/4"> (2905')(3021'-7081') | Allender Unit 1H AWB | 11/9/2023 | | | | |
| 7081.00 | 20994.00 | BH AutoTrak Curve/Express (2019) (HRGM, Short spacing) | 04 BH AT Curve <8-1/2"> (7081')(17135'-20969') | Allender Unit 1H AWB | 11/9/2023 | | | | |

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 Department of Environment and Protection



Actual Wellpath Report

Allender Unit 1H AWP Proj: 20994'
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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|------------------------------|----------|----------------------|
| Operator | ANTERO RESOURCES CORPORATION | Well | Allender Unit 1H |
| Field | Ritche | API | 47-085-10496-0000 |
| Facility | Cashew Pad | Wellbore | Allender Unit 1H AWB |
| Slot | Slot G | | |

| COMMENTS | |
|--|--|
| Wellpath general comments | |
| API: 47-085-10496-0000 | |
| BH Job #: 111948695 | |
| Rig: H&P 519 | |
| Duration: 11/1/2023-11/15/2023 | |
| Gyrodatta MS Gyro <17-1/2"> (100'-258') | |
| APS EM <12-1/4"> (258')(416'-2905') | |
| APS EM <8-3/4"> (2905')(3021'-7081') | |
| BH AT Curve <8-1/2"> (7081')(7135'-20969') | |
| Sycamore: 6383' MD | |
| Middlesex: 6623' MD | |
| Burkett: 6861' MD | |
| Tully: 7011' MD | |
| Marcellus POE: 7102' MD | |
| Projected MD at TD: 20994' | |

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ANTERO RESOURCES CORPORATION

Location: Ritchie County, WV
Field: Ritchie
Facility: Cashew Pad

Slot: Slot G
Well: Allender Unit 1H
Wellbore: Allender Unit 1H PWB



06/14/2024

| | |
|---|---|
| True vertical depth is Allender Unit 1H PWB Proj-B-0 | Grid System: NAD83 UTM Zone 17 North, US Feet |
| Reference weights are referenced to H&P 519 (RNG) | North Reference: Grid north |
| H&P 519 (RNG) to Mean Sea Level: 104.91 feet | Scale: True distance |
| Mean Sea Level to Ground level (At Slot: Slot G): -101.01 feet | Coordinates are in feet referenced to Slot |
| Created by: updated on 2023-12-13; Database: WA_VRT_EASTERNUS.DAT | Depth in feet |

| Location Information | | | |
|--|-------------------|--------------------|-----------------|
| Facility Name | Grid East (US ft) | Grid North (US ft) | Latitude |
| Cashew Pad | 1880870.880 | 14224970.270 | 39°1'01.6800"N |
| Slot | Local E (ft) | Grid East (US ft) | Longitude |
| Slot G | 271.29 | 1880764.140 | 80°51'28.6800"W |
| Comment | Allender Unit 1H | | 39°1'01.6800"N |
| H&P 519 (RNG) to Ground level (At Slot: Slot G) | | | 80°51'27.4900"W |
| Mean Sea Level to Ground level (At Slot: Slot G) | | | |
| H&P 519 (RNG) to Mean Sea Level | | | |

| Well Profile Data | | | | | | | | |
|-------------------|----------|----------|---------|----------|--------------|--------------|----------------|----------|
| Design Comment | MD (ft) | Incl (°) | As (°) | TVD (ft) | Local N (ft) | Local E (ft) | DLS (ft/100ft) | VS (ft) |
| The On | 2905.00 | 16.690 | 222.600 | 2783.30 | -470.08 | -567.49 | 0.87 | -215.17 |
| Prof. to Bottom | 2977.00 | 16.690 | 222.600 | 2862.27 | -485.31 | -691.48 | 0.00 | -233.82 |
| Drill Out | 3067.00 | 16.690 | 222.600 | 2958.90 | -502.22 | -807.03 | 0.00 | -243.44 |
| Adj. Inc./Rad | 3144.41 | 18.786 | 227.784 | 3072.15 | -520.92 | -915.95 | 3.00 | -243.40 |
| Curve KCP | 5929.92 | 18.786 | 227.784 | 5649.28 | -1123.64 | -1280.30 | 0.00 | -542.65 |
| POE | 6982.61 | 75.753 | 337.336 | 6400.00 | -1685.45 | -1730.95 | 8.00 | -1.49 |
| Landing Pt. | 7134.44 | 89.500 | 337.336 | 6422.00 | -1540.04 | -1730.95 | 8.00 | 168.52 |
| BHL | 20999.00 | 89.500 | 337.336 | 6542.99 | -12253.44 | -7073.07 | 0.00 | 14032.55 |

| Well Data | | |
|-----------|------------------|-------------------------------|
| Slot | Well | Wellbore |
| Slot G | Allender Unit 1H | Allender Unit 1H PWB |
| Slot G | Allender Unit 1H | Allender Unit 1H PWB |
| | | Allender Unit 1H PWB Proj-B-0 |

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