



ANTERO RESOURCES CORPORATION

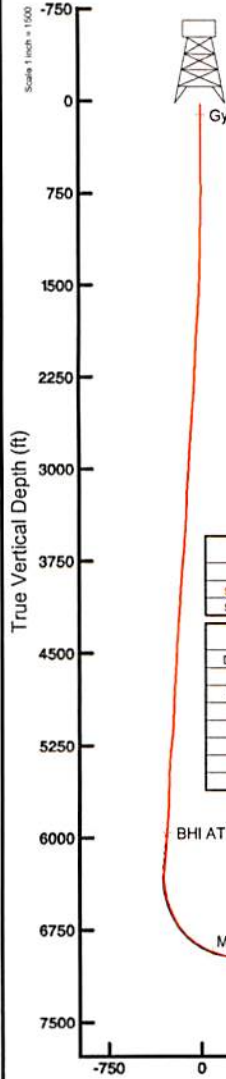
Location: Doddridge Co., WV
 Field: Doddridge
 Facility: Yvonne Pad

Slot: Slot #05
 Well: Yoho Unit 1H
 Wellbore: Yoho Unit 1H PWB



| | |
|--|--|
| Plot reference wellpath is Yoho Unit 1H PWP Rev-A.0 | Grid System: NAD27 / UTM Zone 17 North, US feet |
| True vertical depths are referenced to Patterson 343 (RKB) | * = Wellpath was transformed from a different geodetic datum |
| Measured depths are referenced to Patterson 343 (RKB) | North Reference: Grid north |
| Patterson 343 (RKB) to Mean Sea Level 1252 feet | Scale: True distance |
| Mean Sea Level to Mud line (At Slot Slot#05) -1227 feet | Depth are in feet |
| Coordinates are in feet referenced to Slot | Created by: edhysr on 2016-11-10 |
| | Database: WA_MPL_EASTERN_US_Coal |

| Location Information | | | | | |
|---|--------------|-------------------|--------------------|--------------------|----------------|
| Facility Name | | Grid East (US ft) | Grid North (US ft) | Latitude | Longitude |
| Yvonne Pad | | 1705568.195 | 14288991.632 | 39°20'55.430"N | 80°46'10.340"W |
| Slot | Local N (ft) | Local E (ft) | Grid East (US ft) | Grid North (US ft) | Latitude |
| Slot #05 | -0.00 | 0.00 | 1705568.200 | 14288991.630 | 39°20'55.430"N |
| Comment | Yoho Unit 1H | | | | |
| Patterson 343 (RKB) to Mud line (At Slot Slot#05) | | | | | 25ft |
| Mean Sea Level to Mud line (At Slot Slot#05) | | | | | -1227ft |
| Patterson 343 (RKB) to Mean Sea Level | | | | | 1252ft |



API: 47-017-06543-0000
 BHI Job #: 8242898
 Rig: Patterson 343
 Duration: 11/4/2016-11/7/2016

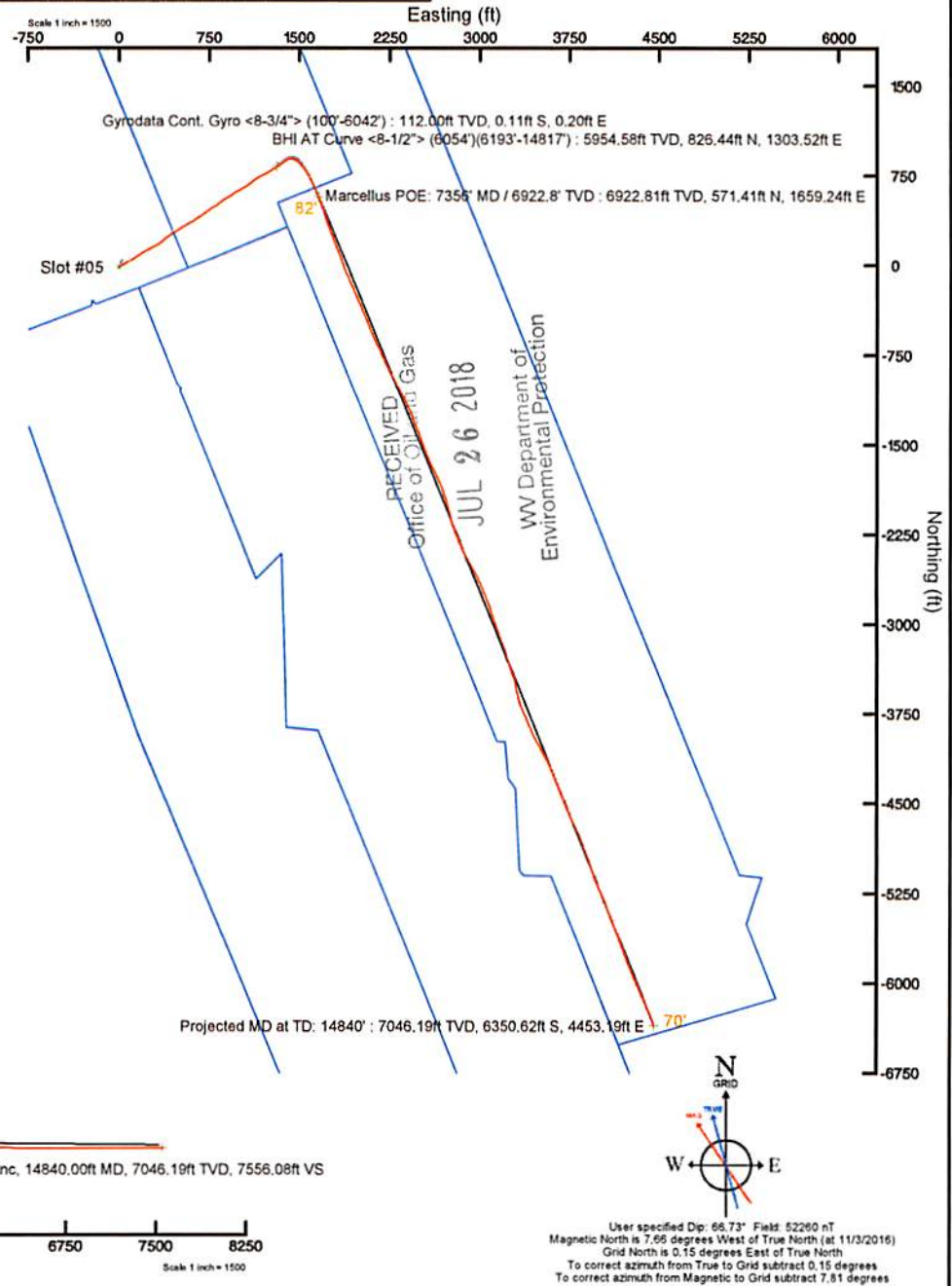
| Well Data | | | |
|-----------|--------------|------------------|------------------------------|
| Slot | Well | Wellbore | Wellpath |
| Slot #05 | Yoho Unit 1H | Yoho Unit 1H AWP | Yoho Unit 1H AWP Proj. 14840 |
| Slot #05 | Yoho Unit 1H | Yoho Unit 1H PWB | Yoho Unit 1H PWP Rev-A.0 |

| Well Profile Data | | | | | | | |
|-------------------|----------|---------|---------|----------|--------------|--------------|---------------|
| Design Comment | MD (ft) | Inc (") | Az (") | TVD (ft) | Local N (ft) | Local E (ft) | DLS ("/100ft) |
| Tie On | 6054.00 | 16.530 | 55.520 | 5822.13 | 802.69 | 1268.72 | 0.00 |
| Proj. to Bottom | 6206.00 | 18.970 | 54.290 | 5966.88 | 829.36 | 1306.61 | 1.62 |
| Curve KOP | 6526.75 | 18.970 | 54.290 | 6270.21 | 890.22 | 1391.27 | 0.00 |
| End of 3D Arc | 6945.64 | 29.249 | 141.146 | 6662.26 | 849.09 | 1514.28 | 8.00 |
| POE | 7334.81 | 66.376 | 158.006 | 6920.00 | 600.10 | 1645.78 | 10.00 |
| Landing Pt. | 7527.52 | 89.500 | 158.006 | 6960.00 | 426.54 | 1715.88 | 12.00 |
| BHL | 14808.23 | 89.500 | 158.006 | 7023.54 | -6324.04 | 4442.49 | 0.00 |

BHI AT Curve <8-1/2"> (6054')(6193'-14817') : 18.76" Inc, 6193.00ft MD, 5954.56ft TVD, -278.22ft VS

Marcellus POE: 7356' MD / 6922.8' TVD : 69.05" Inc, 7356.00ft MD, 6922.81ft TVD, 91.45ft VS

Projected MD at TD: 14840' : 90.12" Inc, 14840.00ft MD, 7046.19ft TVD, 7556.08ft VS



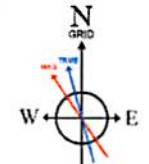
Gyrodata Cont. Gyro <8-3/4"> (100'-6042') : 112.00ft TVD, 0.11ft S, 0.20ft E
 BHI AT Curve <8-1/2"> (6054')(6193'-14817') : 5954.56ft TVD, 826.44ft N, 1303.52ft E

Marcellus POE: 7356' MD / 6922.8' TVD : 6922.81ft TVD, 571.41ft N, 1659.24ft E

Slot #05

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 Environmental Protection

Projected MD at TD: 14840' : 7046.19ft TVD, 6350.62ft S, 4453.19ft E



User specified Dp: 66.73" Field: 52260 nT
 Magnetic North is 7.66 degrees West of True North (at 11/3/2016)
 Grid North is 0.15 degrees East of True North
 To correct azimuth from True to Grid subtract 0.15 degrees
 To correct azimuth from Magnetic to Grid subtract 7.81 degrees

Vertical Section (ft)
 Azimuth 158.01° with reference 0.00 N, 0.00 E



Actual Wellpath Report

Yoho Unit 1H AWP Proj: 14840'

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REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|------------------------------|----------|------------------|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #05 |
| Area | Doddridge Co., WV | Well | Yoho Unit 1H |
| Field | Doddridge | Wellbore | Yoho Unit 1H AWB |
| Facility | Yvonne Pad | | |

REPORT SETUP INFORMATION

| | | | |
|---------------------|------------------------------------|----------------------|---|
| Projection System | NAD27 / UTM Zone 17 North, US feet | Software System | WellArchitect® 5.0 |
| North Reference | Grid | User | Edsaryar |
| Scale | 0.999605 | Report Generated | 11/10/2016 at 7:51:57 PM |
| Convergence at slot | 0.15° East | Database/Source file | WA_MPL_EASTERNUS_Defn/Yoho_Unit_1H_AWP_Proj__14840_.xml |

WELLPATH LOCATION

| | Local coordinates | | Grid coordinates | | Geographic coordinates | |
|-----------------------|-------------------|----------|------------------|-----------------|------------------------|----------------|
| | North[ft] | East[ft] | Easting[US ft] | Northing[US ft] | Latitude | Longitude |
| Slot Location | -0.00 | 0.00 | 1705568.20 | 14288991.63 | 39°20'55.430"N | 80°46'10.340"W |
| Facility Reference Pt | | | 1705568.20 | 14288991.63 | 39°20'55.430"N | 80°46'10.340"W |
| Field Reference Pt | | | 0.00 | 0.00 | 0°00'00.000" | 85°29'19.301"W |

WELLPATH DATUM

| | | | |
|--------------------------|---------------------|--|-------------------|
| Calculation method | Minimum curvature | Patterson 343 (RKB) to Facility Vertical Datum | 25.00ft |
| Horizontal Reference Pt | Slot | Patterson 343 (RKB) to Mean Sea Level | 1252.00ft |
| Vertical Reference Pt | Patterson 343 (RKB) | Patterson 343 (RKB) to Mud Line at Slot (Slot #05) | 25.00ft |
| MD Reference Pt | Patterson 343 (RKB) | Section Origin | N 0.00, E 0.00 ft |
| Field Vertical Reference | Mean Sea Level | Section Azimuth | 158.01° |



Actual Wellpath Report

Yoho Unit 1H AWP Proj: 14840'
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| | |
|----------|------------------------------|
| Operator | ANTERO RESOURCES CORPORATION |
| Area | Doddridge Co., WV |
| Field | Doddridge |
| Facility | Yvonne Pad |
| Slot | Slot #05 |
| Well | Yoho Unit 1H |
| Wellbore | Yoho Unit 1H AWB |

REFERENCE WELLPATH IDENTIFICATION

† = interpolated/extrapolated station

| MD | Inclination | Azimuth | TVD | Vert | North | East | East | Grid East | Grid East | Latitude | Longitude | Closure | Dir | DLS | Build | Turn | Comments |
|------|-------------|---------|------|------|-------|------|------|-----------|-----------|----------|-----------|---------|------|------|-------|----------|----------|
| [ft] | [°] | [°] | [ft] | [ft] | [ft] | [ft] | [ft] | [us ft] | [us ft] | [ft] | [ft] | [ft] | [ft] | [ft] | [ft] | [/100ft] | [/100ft] |

| | | | | | | | | | | | | | | | | | |
|---------|--------|---------|---------|--------|--------|--------|--------|------------|-------------|----------------|----------------|--------|---------|------|-------|--------|--------------------------------------|
| 0.00† | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1705568.20 | 14288991.63 | 39°20'55.430"N | 80°46'10.340"W | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 25.00 | 0.000 | 119.580 | 25.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1705568.20 | 14288991.63 | 39°20'55.430"N | 80°46'10.340"W | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 112.00 | 0.300 | 119.580 | 112.00 | 0.18 | -0.11 | 0.20 | 0.18 | 1705568.40 | 14288991.52 | 39°20'55.429"N | 80°46'10.337"W | 0.23 | 119.580 | 0.34 | 0.34 | 137.45 | Gyrodata Cont. Gyro <8-3/4"> (100'-6 |
| 212.00 | 0.440 | 150.870 | 212.00 | 0.76 | -0.58 | 0.61 | 0.61 | 1705568.81 | 14288991.05 | 39°20'55.424"N | 80°46'10.332"W | 0.84 | 133.286 | 0.24 | 0.14 | 31.29 | |
| 312.00 | 0.460 | 152.160 | 311.99 | 1.54 | -1.27 | 0.99 | 0.99 | 1705569.19 | 14288990.36 | 39°20'55.417"N | 80°46'10.327"W | 1.61 | 142.089 | 0.02 | 0.02 | 1.29 | |
| 412.00 | 0.410 | 138.920 | 411.99 | 2.28 | -1.89 | 1.41 | 1.41 | 1705569.61 | 14288989.74 | 39°20'55.411"N | 80°46'10.322"W | 2.36 | 143.314 | 0.11 | -0.05 | -13.24 | |
| 512.00 | 0.280 | 150.050 | 511.99 | 2.86 | -2.37 | 1.77 | 1.77 | 1705669.97 | 14288989.26 | 39°20'55.406"N | 80°46'10.318"W | 2.96 | 143.338 | 0.15 | -0.13 | 11.13 | |
| 612.00 | 0.210 | 162.490 | 611.99 | 3.29 | -2.76 | 1.94 | 1.94 | 1705570.14 | 14288988.87 | 39°20'55.403"N | 80°46'10.315"W | 3.38 | 144.843 | 0.09 | -0.07 | 12.44 | |
| 712.00 | 0.170 | 110.520 | 711.99 | 3.57 | -2.99 | 2.14 | 2.14 | 1705570.34 | 14288988.64 | 39°20'55.400"N | 80°46'10.313"W | 3.67 | 144.405 | 0.17 | -0.04 | -51.97 | |
| 812.00 | 1.870 | 43.280 | 811.97 | 2.99 | -1.85 | 3.40 | 3.40 | 1705571.59 | 14288989.78 | 39°20'55.412"N | 80°46'10.297"W | 3.87 | 118.594 | 1.81 | -1.70 | -67.24 | |
| 912.00 | 3.740 | 46.630 | 911.85 | 1.01 | 1.66 | 6.81 | 6.81 | 1705575.00 | 14288993.29 | 39°20'55.446"N | 80°46'10.253"W | 7.00 | 76.306 | 1.87 | 1.87 | 1.35 | |
| 1012.00 | 5.710 | 56.080 | 1011.50 | -1.31 | 6.76 | 13.23 | 13.23 | 1705581.42 | 14288998.38 | 39°20'55.496"N | 80°46'10.171"W | 14.85 | 62.941 | 2.17 | 1.97 | 11.45 | |
| 1112.00 | 7.260 | 59.910 | 1110.86 | -3.23 | 12.70 | 22.82 | 22.82 | 1705591.01 | 14289004.33 | 39°20'55.555"N | 80°46'10.049"W | 26.12 | 60.904 | 1.61 | 1.55 | 3.83 | |
| 1212.00 | 8.920 | 60.350 | 1209.86 | -5.15 | 19.70 | 35.03 | 35.03 | 1705603.21 | 14289011.33 | 39°20'55.624"N | 80°46'09.893"W | 40.19 | 60.641 | 1.66 | 1.66 | 0.44 | |
| 1312.00 | 11.440 | 62.520 | 1308.28 | -7.14 | 28.12 | 50.57 | 50.57 | 1705618.75 | 14289019.74 | 39°20'55.707"N | 80°46'09.695"W | 57.86 | 60.924 | 2.55 | 2.52 | 2.17 | |
| 1412.00 | 12.310 | 60.730 | 1406.14 | -9.44 | 37.91 | 68.66 | 68.66 | 1705636.84 | 14289029.52 | 39°20'55.803"N | 80°46'09.465"W | 78.43 | 61.099 | 0.94 | 0.87 | -1.79 | |
| 1512.00 | 13.890 | 58.310 | 1503.53 | -12.81 | 49.42 | 88.18 | 88.18 | 1705656.34 | 14289041.90 | 39°20'55.916"N | 80°46'09.216"W | 101.08 | 60.729 | 1.67 | 1.58 | -2.42 | |
| 1612.00 | 15.980 | 57.020 | 1600.15 | -17.46 | 63.22 | 109.94 | 109.94 | 1705678.10 | 14289054.83 | 39°20'56.052"N | 80°46'08.938"W | 126.82 | 60.098 | 2.12 | 2.09 | -1.29 | |
| 1712.00 | 17.850 | 55.220 | 1695.82 | -23.48 | 79.46 | 134.08 | 134.08 | 1705702.22 | 14289071.06 | 39°20'56.212"N | 80°46'08.631"W | 155.85 | 59.347 | 1.94 | 1.87 | -1.80 | |
| 1812.00 | 18.780 | 56.130 | 1790.76 | -30.18 | 97.17 | 160.03 | 160.03 | 1705728.17 | 14289088.77 | 39°20'56.386"N | 80°46'08.300"W | 187.22 | 58.733 | 0.97 | 0.93 | 0.91 | |
| 1912.00 | 18.030 | 58.980 | 1885.64 | -35.92 | 114.12 | 186.66 | 186.66 | 1705754.79 | 14289105.71 | 39°20'56.553"N | 80°46'07.960"W | 218.78 | 58.559 | 1.17 | -0.75 | 2.85 | |
| 2012.00 | 18.790 | 62.160 | 1980.53 | -40.00 | 129.62 | 214.16 | 214.16 | 1705782.28 | 14289121.20 | 39°20'56.706"N | 80°46'07.610"W | 250.33 | 58.817 | 1.26 | 0.76 | 3.18 | |
| 2112.00 | 18.270 | 62.320 | 2075.34 | -43.19 | 144.42 | 242.29 | 242.29 | 1705810.39 | 14289135.99 | 39°20'56.851"N | 80°46'07.251"W | 282.06 | 59.202 | 0.52 | -0.52 | 0.16 | |
| 2212.00 | 18.560 | 61.340 | 2170.22 | -46.59 | 159.34 | 270.13 | 270.13 | 1705838.23 | 14289150.90 | 39°20'56.998"N | 80°46'06.896"W | 313.62 | 59.466 | 0.42 | 0.29 | -0.98 | |
| 2312.00 | 19.740 | 62.080 | 2264.68 | -50.19 | 174.88 | 299.02 | 299.02 | 1705867.10 | 14289166.44 | 39°20'57.151"N | 80°46'06.528"W | 346.40 | 59.680 | 1.20 | 1.18 | 0.74 | |
| 2412.00 | 18.110 | 56.320 | 2359.28 | -55.08 | 191.40 | 326.88 | 326.88 | 1705894.95 | 14289182.96 | 39°20'57.313"N | 80°46'06.173"W | 378.80 | 59.649 | 2.48 | -1.63 | -5.76 | |
| 2512.00 | 16.030 | 51.310 | 2454.88 | -62.20 | 208.66 | 350.59 | 350.59 | 1705918.66 | 14289200.20 | 39°20'57.483"N | 80°46'05.870"W | 407.99 | 59.241 | 2.55 | -2.08 | -5.01 | |
| 2612.00 | 14.790 | 48.190 | 2551.28 | -70.50 | 225.80 | 370.89 | 370.89 | 1705938.94 | 14289217.34 | 39°20'57.652"N | 80°46'05.612"W | 434.21 | 58.667 | 1.49 | -1.24 | -3.12 | |
| 2712.00 | 14.850 | 52.280 | 2647.96 | -78.30 | 242.15 | 390.54 | 390.54 | 1705958.58 | 14289233.68 | 39°20'57.813"N | 80°46'05.361"W | 459.52 | 58.199 | 1.05 | 0.06 | 4.09 | |
| 2812.00 | 17.230 | 55.130 | 2744.06 | -85.07 | 258.46 | 412.83 | 412.83 | 1705980.86 | 14289249.99 | 39°20'57.974"N | 80°46'05.077"W | 487.06 | 57.951 | 2.51 | 2.38 | 2.85 | |



Actual Wellpath Report

Yoho Unit 1H AWP Proj: 14840'

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 WV Department of Environmental Protection

| REFERENCE WELLPATH IDENTIFICATION | | | | |
|-----------------------------------|------------------------------|--|----------|------------------|
| Operator | ANTERO RESOURCES CORPORATION | | Slot | Slot #05 |
| Area | Doddridge Co., WV | | Well | Yoho Unit 1H |
| Field | Doddridge | | Wellbore | Yoho Unit 1H AWB |
| Facility | Yvonne Pad | | | |

| WELLPATH DATA (176 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 |
| 2912.00 | 18.770 | 56.230 | 2839.16 | -91.66 | 275.87 | 438.35 | 1706006.38 | 14289267.39 | 39°20'58.145"N | 80°46'04.751"W | 517.94 | 57.817 | 1.58 | 1.54 | 1.10 | |
| 3012.00 | 19.240 | 60.550 | 2933.72 | -97.08 | 292.91 | 466.08 | 1706034.09 | 14289284.43 | 39°20'58.313"N | 80°46'04.398"W | 550.48 | 57.852 | 1.48 | 0.47 | 4.32 | |
| 3112.00 | 18.530 | 56.280 | 3028.34 | -102.45 | 309.84 | 493.64 | 1706061.65 | 14289301.34 | 39°20'58.480"N | 80°46'04.046"W | 582.82 | 57.885 | 1.55 | -0.71 | -4.27 | |
| 3212.00 | 18.400 | 56.960 | 3123.19 | -108.71 | 327.26 | 520.09 | 1706088.08 | 14289318.76 | 39°20'58.651"N | 80°46'03.709"W | 614.49 | 57.820 | 0.25 | -0.13 | 0.68 | |
| 3312.00 | 18.100 | 61.150 | 3218.16 | -113.59 | 343.36 | 546.93 | 1706114.91 | 14289334.86 | 39°20'58.810"N | 80°46'03.367"W | 645.78 | 57.879 | 1.35 | -0.30 | 4.19 | |
| 3412.00 | 17.750 | 61.550 | 3313.31 | -117.16 | 358.12 | 573.94 | 1706141.91 | 14289349.61 | 39°20'58.955"N | 80°46'03.022"W | 676.50 | 58.037 | 0.37 | -0.35 | 0.40 | |
| 3512.00 | 18.660 | 60.520 | 3408.30 | -120.96 | 373.26 | 601.27 | 1706169.23 | 14289364.74 | 39°20'59.104"N | 80°46'02.674"W | 707.70 | 58.169 | 0.97 | 0.91 | -1.03 | |
| 3612.00 | 18.910 | 55.420 | 3502.98 | -126.58 | 390.33 | 628.53 | 1706196.49 | 14289381.80 | 39°20'59.272"N | 80°46'02.326"W | 739.87 | 58.159 | 1.66 | 0.25 | -5.10 | |
| 3712.00 | 18.230 | 55.120 | 3597.78 | -133.60 | 408.47 | 654.71 | 1706222.65 | 14289399.94 | 39°20'59.451"N | 80°46'01.993"W | 771.68 | 58.040 | 0.69 | -0.68 | -0.30 | |
| 3812.00 | 19.690 | 54.730 | 3692.35 | -140.96 | 427.14 | 681.30 | 1706249.22 | 14289418.60 | 39°20'59.634"N | 80°46'01.654"W | 804.12 | 57.914 | 1.47 | 1.46 | -0.39 | |
| 3912.00 | 20.260 | 54.420 | 3786.33 | -148.90 | 446.94 | 709.13 | 1706277.05 | 14289438.40 | 39°20'59.829"N | 80°46'01.299"W | 838.23 | 57.778 | 0.58 | 0.57 | -0.31 | |
| 4012.00 | 20.460 | 55.220 | 3880.09 | -156.84 | 466.99 | 737.57 | 1706305.48 | 14289458.43 | 39°21'00.027"N | 80°46'00.936"W | 872.97 | 57.660 | 0.34 | 0.20 | 0.80 | |
| 4112.00 | 18.870 | 57.730 | 3974.25 | -163.59 | 485.59 | 765.60 | 1706333.50 | 14289477.03 | 39°21'00.210"N | 80°46'00.579"W | 906.61 | 57.614 | 1.80 | -1.59 | 2.51 | |
| 4212.00 | 17.160 | 57.650 | 4069.35 | -169.13 | 502.12 | 791.74 | 1706359.62 | 14289493.55 | 39°21'00.373"N | 80°46'00.245"W | 937.54 | 57.617 | 1.71 | -1.71 | -0.08 | |
| 4312.00 | 15.890 | 53.600 | 4165.22 | -175.19 | 518.14 | 815.22 | 1706383.10 | 14289509.56 | 39°21'00.530"N | 80°45'59.946"W | 965.95 | 57.561 | 1.71 | -1.27 | -4.05 | |
| 4412.00 | 15.960 | 54.240 | 4261.38 | -181.87 | 534.30 | 837.39 | 1706405.26 | 14289525.72 | 39°21'00.690"N | 80°45'59.663"W | 993.33 | 57.460 | 0.19 | 0.07 | 0.64 | |
| 4512.00 | 16.340 | 54.370 | 4357.43 | -188.46 | 550.53 | 859.98 | 1706427.84 | 14289541.94 | 39°21'00.849"N | 80°45'59.375"W | 1021.10 | 57.374 | 0.38 | 0.38 | 0.13 | |
| 4612.00 | 16.970 | 57.580 | 4453.24 | -194.42 | 566.55 | 883.74 | 1706451.59 | 14289557.95 | 39°21'01.007"N | 80°45'59.072"W | 1049.75 | 57.337 | 1.11 | 0.63 | 3.21 | |
| 4712.00 | 18.380 | 59.230 | 4548.52 | -199.47 | 582.44 | 909.61 | 1706477.44 | 14289573.84 | 39°21'01.163"N | 80°45'58.742"W | 1080.10 | 57.368 | 1.50 | 1.41 | 1.65 | |
| 4812.00 | 18.410 | 55.600 | 4643.41 | -205.27 | 599.42 | 936.18 | 1706504.01 | 14289590.82 | 39°21'01.331"N | 80°45'58.403"W | 1111.64 | 57.369 | 1.15 | 0.03 | -3.63 | |
| 4912.00 | 18.070 | 59.140 | 4738.39 | -211.05 | 616.30 | 962.52 | 1706530.34 | 14289607.69 | 39°21'01.497"N | 80°45'58.068"W | 1142.93 | 57.369 | 1.16 | -0.34 | 3.54 | |
| 5012.00 | 18.570 | 59.650 | 4833.32 | -215.76 | 632.30 | 989.58 | 1706557.39 | 14289623.68 | 39°21'01.654"N | 80°45'57.723"W | 1174.34 | 57.423 | 0.53 | 0.50 | 0.51 | |
| 5112.00 | 18.620 | 63.760 | 4928.10 | -219.26 | 647.41 | 1017.64 | 1706585.44 | 14289638.78 | 39°21'01.803"N | 80°45'57.365"W | 1206.12 | 57.536 | 1.31 | 0.05 | 4.11 | |
| 5212.00 | 16.980 | 61.430 | 5023.31 | -222.11 | 661.45 | 1044.79 | 1706612.57 | 14289652.82 | 39°21'01.941"N | 80°45'57.019"W | 1236.57 | 57.662 | 1.79 | -1.64 | -2.33 | |
| 5312.00 | 17.970 | 51.800 | 5118.72 | -228.10 | 677.98 | 1069.74 | 1706637.51 | 14289669.34 | 39°21'02.104"N | 80°45'56.701"W | 1266.49 | 57.634 | 3.05 | 0.99 | -9.63 | |
| 5412.00 | 19.160 | 49.270 | 5213.51 | -237.67 | 698.22 | 1094.30 | 1706662.06 | 14289689.58 | 39°21'02.303"N | 80°45'56.387"W | 1298.08 | 57.460 | 1.44 | 1.19 | -2.53 | |
| 5512.00 | 20.000 | 53.760 | 5307.74 | -247.16 | 719.04 | 1120.53 | 1706688.28 | 14289710.39 | 39°21'02.508"N | 80°45'56.053"W | 1331.39 | 57.312 | 1.72 | 0.84 | 4.49 | |
| 5612.00 | 20.020 | 59.070 | 5401.71 | -254.03 | 737.95 | 1149.01 | 1706716.75 | 14289729.29 | 39°21'02.694"N | 80°45'55.690"W | 1365.57 | 57.289 | 1.82 | 0.02 | 5.31 | |
| 5712.00 | 18.840 | 62.380 | 5496.01 | -258.27 | 754.24 | 1178.00 | 1706745.73 | 14289745.57 | 39°21'02.855"N | 80°45'55.320"W | 1398.77 | 57.370 | 1.61 | -1.18 | 3.31 | |
| 5812.00 | 17.990 | 62.930 | 5590.89 | -261.22 | 768.75 | 1206.06 | 1706773.78 | 14289760.08 | 39°21'02.997"N | 80°45'54.962"W | 1430.23 | 57.486 | 0.87 | -0.85 | 0.55 | |



Actual Wellpath Report

Yoho Unit 1H AWP Proj: 14840



REFERENCE WELLPATH IDENTIFICATION

| | |
|----------|------------------------------|
| Operator | ANTERO RESOURCES CORPORATION |
| Area | Doddridge Co., WV |
| Field | Doddridge |
| Facility | Yvonne Pad |
| Slot | Slot #05 |
| Well | Yoho Unit 1H |
| Wellbore | Yoho Unit 1H AWB |

WELLPATH DATA (176 stations) † = interpolated/extrapolated station

| MD | Inclination | Azimuth | TVD | Vert | North | East | Grid East | Grid North | Latitude | Longitude | Closure | Dir | Build | Turn | Comments |
|----------|-------------|---------|---------|---------|--------|---------|------------|-------------|----------------|----------------|---------|--------|-------|-------|----------|
| [ft] | [°] | [°] | [ft] | [ft] | [ft] | [ft] | [ft] | [ft] | [ft] | [ft] | [ft] | [ft] | [ft] | [ft] | [ft] |
| 5912.00 | 17.290 | 64.690 | 5686.19 | -263.45 | 782.13 | 1233.24 | 1706800.95 | 14289773.45 | 89°21'03.129"N | 80°45'54.616"W | 1460.35 | 57.617 | 0.88 | -0.70 | 1.76 |
| 6012.00 | 16.570 | 57.690 | 5781.87 | -266.87 | 796.11 | 1258.73 | 1706826.43 | 14289787.42 | 89°21'03.266"N | 80°45'54.291"W | 1489.36 | 57.688 | 2.16 | -0.72 | -7.00 |
| 6054.00 | 16.530 | 55.520 | 5822.13 | -269.23 | 802.69 | 1268.72 | 1706836.41 | 14289794.00 | 89°21'03.331"N | 80°45'54.164"W | 1501.32 | 57.679 | 1.47 | -0.10 | -5.17 |
| 6193.00 | 18.760 | 55.850 | 5954.58 | -278.22 | 826.44 | 1303.52 | 1706871.20 | 14289817.74 | 89°21'03.565"N | 80°45'53.720"W | 1543.42 | 57.625 | 1.60 | -0.88 | 5.87 |
| 6217.00 | 18.550 | 57.260 | 5977.32 | -279.74 | 830.67 | 1309.92 | 1706877.60 | 14289821.97 | 89°21'03.607"N | 80°45'53.638"W | 1551.10 | 57.620 | 2.07 | -0.88 | 5.87 |
| 6264.00 | 18.670 | 58.540 | 6021.86 | -282.37 | 838.64 | 1322.63 | 1706890.30 | 14289829.93 | 89°21'03.685"N | 80°45'53.476"W | 1566.10 | 57.623 | 0.91 | 0.26 | 2.72 |
| 6311.00 | 18.760 | 57.400 | 6066.37 | -285.00 | 846.64 | 1335.41 | 1706903.08 | 14289837.93 | 89°21'03.764"N | 80°45'53.313"W | 1581.18 | 57.626 | 0.80 | 0.19 | -2.43 |
| 6358.00 | 18.770 | 55.370 | 6110.88 | -288.05 | 855.00 | 1348.00 | 1706915.67 | 14289846.29 | 89°21'03.846"N | 80°45'53.153"W | 1596.29 | 57.614 | 1.39 | 0.02 | -4.32 |
| 6406.00 | 18.800 | 54.320 | 6156.32 | -291.57 | 863.90 | 1360.64 | 1706928.30 | 14289855.19 | 89°21'03.934"N | 80°45'52.992"W | 1611.73 | 57.588 | 0.71 | 0.06 | -2.19 |
| 6453.00 | 18.750 | 52.600 | 6200.82 | -295.37 | 872.91 | 1372.79 | 1706940.45 | 14289864.19 | 89°21'04.022"N | 80°45'52.837"W | 1626.82 | 57.549 | 1.18 | -0.11 | -3.66 |
| 6500.00 | 18.680 | 53.010 | 6245.33 | -299.32 | 882.03 | 1384.80 | 1706952.45 | 14289873.31 | 89°21'04.112"N | 80°45'52.683"W | 1641.84 | 57.506 | 0.32 | -0.15 | 0.87 |
| 6547.00 | 18.020 | 59.630 | 6289.95 | -302.33 | 890.23 | 1397.09 | 1706964.74 | 14289881.51 | 89°21'04.193"N | 80°45'52.527"W | 1656.61 | 57.495 | 4.65 | -1.40 | 14.09 |
| 6594.00 | 17.010 | 74.060 | 6334.79 | -302.67 | 895.80 | 1409.98 | 1706977.62 | 14289887.07 | 89°21'04.248"N | 80°45'52.362"W | 1670.48 | 57.571 | 9.46 | -2.15 | 30.70 |
| 6644.00 | 16.860 | 90.560 | 6382.65 | -299.11 | 897.74 | 1424.27 | 1706991.90 | 14289889.01 | 89°21'04.267"N | 80°45'52.180"W | 1683.59 | 57.776 | 9.59 | -0.30 | 33.00 |
| 6689.00 | 17.630 | 102.710 | 6425.64 | -292.73 | 896.17 | 1437.45 | 1707005.08 | 14289887.45 | 89°21'04.251"N | 80°45'52.013"W | 1693.92 | 58.059 | 8.17 | 1.71 | 27.00 |
| 6736.00 | 18.930 | 111.270 | 6470.28 | -283.45 | 891.84 | 1451.50 | 1707019.12 | 14289883.12 | 89°21'04.208"N | 80°45'51.834"W | 1703.59 | 58.432 | 6.34 | 2.77 | 18.21 |
| 6783.00 | 20.430 | 127.850 | 6514.53 | -271.85 | 885.10 | 1465.16 | 1707033.31 | 14289876.38 | 89°21'04.141"N | 80°45'51.652"W | 1712.30 | 58.875 | 6.38 | 3.26 | 16.30 |
| 6830.00 | 23.180 | 126.090 | 6558.17 | -257.61 | 875.67 | 1480.46 | 1707048.08 | 14289866.96 | 89°21'04.047"N | 80°45'51.466"W | 1720.05 | 59.396 | 8.09 | 5.79 | 15.23 |
| 6877.00 | 25.230 | 131.920 | 6601.04 | -240.76 | 863.53 | 1495.40 | 1707063.00 | 14289854.82 | 89°21'03.927"N | 80°45'51.276"W | 1726.82 | 59.995 | 6.70 | 4.36 | 12.40 |
| 6924.00 | 27.730 | 138.110 | 6643.12 | -221.48 | 848.69 | 1510.16 | 1707077.76 | 14289839.98 | 89°21'03.780"N | 80°45'51.089"W | 1732.30 | 60.664 | 7.92 | 5.32 | 13.17 |
| 6972.00 | 31.500 | 141.490 | 6684.84 | -198.95 | 830.56 | 1525.43 | 1707093.02 | 14289821.86 | 89°21'03.600"N | 80°45'50.895"W | 1736.88 | 61.433 | 8.59 | 7.85 | 7.04 |
| 6998.00† | 34.327 | 143.880 | 6706.67 | -185.32 | 819.32 | 1533.98 | 1707101.57 | 14289810.62 | 89°21'03.489"N | 80°45'50.786"W | 1739.07 | 61.893 | 11.96 | 10.87 | 9.19 |
| 7019.00 | 36.640 | 145.570 | 6723.77 | -173.46 | 809.36 | 1541.02 | 1707108.60 | 14289800.67 | 89°21'03.390"N | 80°45'50.697"W | 1740.63 | 62.291 | 11.96 | 11.01 | 8.05 |
| 7066.00 | 40.780 | 149.240 | 6760.44 | -144.58 | 784.59 | 1556.80 | 1707124.39 | 14289775.91 | 89°21'03.145"N | 80°45'50.497"W | 1743.34 | 63.253 | 10.07 | 8.81 | 7.81 |
| 7113.00 | 46.430 | 151.480 | 6794.46 | -112.46 | 756.42 | 1572.80 | 1707140.37 | 14289747.75 | 89°21'02.866"N | 80°45'50.294"W | 1745.24 | 64.315 | 12.46 | 12.02 | 4.77 |
| 7160.00 | 50.530 | 151.660 | 6825.61 | -77.50 | 725.48 | 1589.55 | 1707157.11 | 14289716.82 | 89°21'02.560"N | 80°45'50.082"W | 1747.28 | 65.468 | 8.73 | 8.72 | 0.38 |
| 7186.00† | 53.533 | 152.248 | 6841.60 | -57.12 | 707.39 | 1599.18 | 1707174.67 | 14289698.74 | 89°21'02.381"N | 80°45'49.960"W | 1748.65 | 66.138 | 11.69 | 11.56 | 2.11 |
| 7207.00 | 56.960 | 152.690 | 6853.72 | -40.05 | 692.18 | 1607.11 | 1707174.67 | 14289698.74 | 89°21'02.230"N | 80°45'49.860"W | 1749.83 | 66.698 | 11.69 | 11.56 | 2.11 |
| 7241.00† | 58.442 | 154.861 | 6872.14 | -11.56 | 666.55 | 1619.73 | 1707187.28 | 14289657.91 | 89°21'01.977"N | 80°45'49.700"W | 1751.51 | 67.632 | 9.06 | 7.30 | 6.38 |
| 7254.00 | 59.400 | 155.660 | 6878.85 | -0.44 | 656.43 | 1624.38 | 1707191.94 | 14289647.80 | 89°21'01.876"N | 80°45'49.644"W | 1752.01 | 67.996 | 9.06 | 7.37 | 6.15 |

† = interpolated/extrapolated station



Actual Wellpath Report

Yoho Unit 1H AWP Proj: 14840



| Operator | Area | Field | Facility |
|------------------------------|------------------|----------|------------------|
| ANTERO RESOURCES CORPORATION | Doddrige Co., WV | Doddrige | Yvonne Pad |
| Slot #05 | Yoho Unit 1H | Wellbore | Yoho Unit 1H AWB |

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 Department of Environmental Protection
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| WELLPATH DATA (176 stations) † = interpolated/extrapolated station | | | | | | | | | | | | |
|--|-------------|---------|---------|-----------|----------|------------|-------------|----------------|----------------|-----------|---------|-------|
| MD | Inclination | Azimuth | TVD | Vert Sect | North | East | Grid East | Grid North | Latitude | Longitude | Closure | Dir |
| (ft) | [°] | [°] | (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (ft) |
| 7301.00 | 64.190 | 157.830 | 6901.06 | 40.96 | 618.39 | 1707208.26 | 14289609.77 | 39°21'01.500"N | 80°45'49.434"W | 1753.38 | 69.349 | 10.97 |
| 7348.00 | 68.510 | 158.910 | 6919.91 | 84.00 | 578.37 | 1707224.12 | 14289569.78 | 39°21'01.104"N | 80°45'49.234"W | 1754.64 | 70.754 | 9.43 |
| 7356.00 | 69.048 | 159.239 | 6922.81 | 91.45 | 571.41 | 1707226.78 | 14289562.81 | 39°21'01.035"N | 80°45'49.200"W | 1754.87 | 70.997 | 7.75 |
| 7400.00 | 72.020 | 161.010 | 6937.47 | 132.90 | 532.40 | 1707240.87 | 14289523.82 | 39°21'00.649"N | 80°45'49.022"W | 1755.99 | 72.351 | 6.75 |
| 7443.00 | 77.500 | 162.710 | 6948.77 | 174.28 | 492.99 | 1707253.77 | 14289484.42 | 39°21'00.259"N | 80°45'48.859"W | 1756.83 | 73.703 | 13.30 |
| 7490.00 | 83.090 | 162.910 | 6956.69 | 220.43 | 448.75 | 1707267.45 | 14289440.20 | 39°20'59.822"N | 80°45'48.686"W | 1758.16 | 75.212 | 11.90 |
| 7536.00 | 88.800 | 161.360 | 6959.94 | 266.17 | 405.10 | 1707281.51 | 14289396.56 | 39°20'59.390"N | 80°45'48.509"W | 1761.22 | 76.702 | 12.86 |
| 7631.00 | 89.170 | 160.530 | 6961.62 | 361.03 | 315.32 | 1707312.51 | 14289306.82 | 39°20'58.502"N | 80°45'48.117"W | 1773.26 | 79.757 | 0.96 |
| 7725.00 | 89.260 | 159.710 | 6962.91 | 454.96 | 226.93 | 1707344.46 | 14289218.47 | 39°20'57.627"N | 80°45'47.713"W | 1791.40 | 82.722 | 0.88 |
| 7819.00 | 89.230 | 156.310 | 6964.15 | 548.94 | 139.79 | 1707379.64 | 14289131.36 | 39°20'56.765"N | 80°45'47.268"W | 1817.54 | 85.589 | 3.62 |
| 7913.00 | 88.690 | 154.270 | 6965.04 | 642.78 | 51.37 | 1707411.30 | 14289042.98 | 39°20'55.891"N | 80°45'46.868"W | 1844.55 | 88.404 | 8.48 |
| 8008.00 | 88.950 | 157.350 | 6966.17 | 737.60 | -38.29 | 1707442.49 | 14288953.35 | 39°20'55.004"N | 80°45'46.474"W | 1875.43 | 91.170 | 7.33 |
| 8102.00 | 89.170 | 156.260 | 6967.71 | 831.57 | -124.68 | 1707479.49 | 14288867.00 | 39°20'54.149"N | 80°45'46.005"W | 1916.12 | 93.731 | 1.18 |
| 8197.00 | 89.200 | 156.410 | 6969.06 | 926.52 | -211.68 | 1707517.61 | 14288780.03 | 39°20'53.288"N | 80°45'45.523"W | 1961.64 | 96.195 | 0.16 |
| 8291.00 | 89.110 | 157.490 | 6970.45 | 1020.49 | -298.17 | 1707554.39 | 14288693.58 | 39°20'52.432"N | 80°45'45.057"W | 2009.23 | 98.534 | 1.15 |
| 8386.00 | 89.540 | 157.110 | 6971.56 | 1115.48 | -385.80 | 1707591.04 | 14288605.98 | 39°20'51.565"N | 80°45'44.594"W | 2060.09 | 100.794 | 0.60 |
| 8480.00 | 89.140 | 150.380 | 6972.65 | 1209.47 | -472.73 | 1707626.17 | 14288519.09 | 39°20'50.705"N | 80°45'44.141"W | 2112.95 | 102.928 | 1.22 |
| 8575.00 | 89.230 | 158.450 | 6974.00 | 1304.46 | -561.00 | 1707661.86 | 14288430.85 | 39°20'49.832"N | 80°45'43.698"W | 2168.32 | 104.994 | 0.30 |
| 8669.00 | 89.260 | 153.170 | 6975.24 | 1398.35 | -646.71 | 1707700.34 | 14288345.18 | 39°20'48.984"N | 80°45'43.210"W | 2228.87 | 106.867 | 5.62 |
| 8763.00 | 89.380 | 157.020 | 6976.35 | 1492.20 | -731.94 | 1707739.90 | 14288259.98 | 39°20'48.140"N | 80°45'42.710"W | 2292.55 | 108.619 | 4.10 |
| 8858.00 | 89.140 | 155.590 | 6977.58 | 1587.15 | -818.93 | 1707778.06 | 14288173.03 | 39°20'47.279"N | 80°45'42.227"W | 2357.54 | 110.326 | 1.53 |
| 8952.00 | 89.110 | 152.120 | 6979.02 | 1680.87 | -903.28 | 1707819.45 | 14288088.70 | 39°20'46.445"N | 80°45'41.702"W | 2426.54 | 111.855 | 3.69 |
| 9046.00 | 88.980 | 153.390 | 6980.58 | 1774.46 | -986.84 | 1707862.46 | 14288005.18 | 39°20'45.618"N | 80°45'41.157"W | 2498.34 | 113.266 | 1.36 |
| 9141.00 | 89.110 | 150.380 | 6982.17 | 1868.90 | -1070.61 | 1707907.20 | 14287921.44 | 39°20'44.788"N | 80°45'40.591"W | 2573.22 | 114.586 | 3.17 |
| 9235.00 | 89.350 | 154.870 | 6983.43 | 1962.45 | -1154.06 | 1707950.39 | 14287838.03 | 39°20'43.963"N | 80°45'40.043"W | 2647.86 | 115.839 | 4.78 |
| 9330.00 | 89.420 | 158.100 | 6984.45 | 2057.40 | -1241.15 | 1707988.27 | 14287750.97 | 39°20'43.101"N | 80°45'39.564"W | 2720.64 | 117.142 | 3.40 |
| 9424.00 | 89.380 | 159.190 | 6985.44 | 2151.39 | -1288.69 | 1708022.49 | 14287663.47 | 39°20'42.235"N | 80°45'39.131"W | 2791.72 | 118.421 | 1.16 |
| 9518.00 | 89.320 | 160.540 | 6986.50 | 2245.33 | -1416.94 | 1708054.83 | 14287575.25 | 39°20'41.362"N | 80°45'38.722"W | 2862.86 | 119.666 | 1.44 |
| 9612.00 | 89.350 | 160.820 | 6987.59 | 2339.22 | -1505.64 | 1708085.91 | 14287486.59 | 39°20'40.484"N | 80°45'38.330"W | 2934.43 | 120.870 | 0.30 |
| 9707.00 | 88.980 | 157.250 | 6988.98 | 2434.18 | -1594.33 | 1708119.88 | 14287397.94 | 39°20'39.607"N | 80°45'37.900"W | 3009.67 | 121.987 | 3.78 |



Actual Wellpath Report

Yoho Unit 1H AWP Proj: 14840



| Operator | Area | Field | Facility |
|------------------------------|------------------|----------|------------------|
| ANTERO RESOURCES CORPORATION | Doddrige Co., WV | Doddrige | Yvonne Pad |
| Slot #05 | Yoho Unit 1H | Well | Yoho Unit 1H AWP |

WELLPATH DATA (176 stations)

| MD | Inclination | Azimuth | TVD | Vert Sect | North | East | East | Grid East | Grid North | Latitude | Longitude | Closure Dist | Closure Dir | DL5 | Build Rate | Turn Rate | Comments |
|----------|-------------|---------|---------|-----------|----------|---------|------------|-------------|----------------|----------------|-----------|--------------|-------------|-------|------------|-----------|------------|
| [ft] | [°] | [°] | [ft] | [ft] | [ft] | [ft] | [ft] | [US ft] | [US ft] | [ft] | [ft] | [ft] | [ft] | [ft] | [ft/100ft] | [°/100ft] | [ft/100ft] |
| 9801.00 | 89.420 | 153.010 | 6990.29 | 2528.03 | -1679.58 | 2592.21 | 1708159.39 | 14287312.72 | 39°20'38.763"N | 80°45'37.400"W | 3088.78 | 122.941 | 4.53 | 0.47 | -4.51 | | |
| 9895.00 | 90.030 | 153.370 | 6990.74 | 2621.70 | -1763.47 | 2634.61 | 1708201.76 | 14287228.86 | 39°20'37.933"N | 80°45'36.863"W | 3170.33 | 123.796 | 0.75 | 0.65 | 0.38 | | |
| 9990.00 | 89.320 | 160.200 | 6991.28 | 2716.62 | -1850.73 | 2672.04 | 1708239.17 | 14287141.64 | 39°20'37.069"N | 80°45'36.390"W | 3250.38 | 124.708 | 7.23 | -0.75 | 7.19 | | |
| 10084.00 | 89.660 | 163.410 | 6992.12 | 2810.39 | -1940.01 | 2701.38 | 1708268.51 | 14287052.39 | 39°20'36.186"N | 80°45'36.019"W | 3325.83 | 125.684 | 3.43 | 0.36 | 3.41 | | |
| 10178.00 | 89.450 | 165.430 | 6992.86 | 2903.80 | -2030.55 | 2726.63 | 1708293.74 | 14286961.88 | 39°20'35.291"N | 80°45'35.701"W | 3399.65 | 126.675 | 2.16 | -0.22 | 2.15 | | |
| 10272.00 | 89.380 | 165.390 | 6993.81 | 2997.01 | -2121.52 | 2750.30 | 1708317.41 | 14286870.96 | 39°20'34.931"N | 80°45'35.403"W | 3473.47 | 127.646 | 0.09 | -0.07 | -0.04 | | |
| 10367.00 | 89.420 | 160.620 | 6994.80 | 3091.62 | -2212.34 | 2778.06 | 1708345.16 | 14286780.17 | 39°20'33.493"N | 80°45'35.052"W | 3551.35 | 128.532 | 5.02 | 0.04 | -5.02 | | |
| 10461.00 | 89.540 | 155.960 | 6995.66 | 3185.59 | -2299.64 | 2812.82 | 1708379.91 | 14286692.90 | 39°20'32.629"N | 80°45'34.613"W | 3633.22 | 129.268 | 4.96 | 0.13 | -4.96 | | |
| 10556.00 | 88.890 | 154.190 | 6996.96 | 3280.45 | -2365.78 | 2852.85 | 1708419.92 | 14286606.80 | 39°20'31.776"N | 80°45'34.106"W | 3718.97 | 129.905 | 1.98 | -0.68 | -1.86 | | |
| 10650.00 | 89.600 | 149.930 | 6998.20 | 3373.91 | -2468.80 | 2896.88 | 1708463.93 | 14286523.81 | 39°20'30.955"N | 80°45'33.549"W | 3806.16 | 130.438 | 4.59 | 0.76 | -4.53 | | |
| 10744.00 | 89.260 | 151.140 | 6999.13 | 3467.11 | -2550.63 | 2943.12 | 1708510.15 | 14286442.01 | 39°20'30.145"N | 80°45'32.963"W | 3894.57 | 130.914 | 1.34 | -0.36 | 1.29 | | |
| 10838.00 | 89.200 | 155.960 | 7000.40 | 3560.76 | -2634.58 | 2985.35 | 1708552.36 | 14286358.10 | 39°20'29.314"N | 80°45'32.428"W | 3981.62 | 131.429 | 4.59 | -0.06 | 4.59 | | |
| 10932.00 | 89.140 | 156.960 | 7001.76 | 3654.70 | -2720.58 | 3023.27 | 1708590.27 | 14286272.13 | 39°20'28.463"N | 80°45'31.949"W | 4067.15 | 131.983 | 1.61 | -0.06 | 1.61 | | |
| 11027.00 | 88.860 | 160.160 | 7003.42 | 3749.67 | -2808.98 | 3057.98 | 1708624.97 | 14286183.77 | 39°20'27.588"N | 80°45'31.510"W | 4152.30 | 132.570 | 3.38 | -0.29 | 3.37 | | |
| 11121.00 | 89.350 | 161.310 | 7004.89 | 3843.55 | -2897.70 | 3088.99 | 1708655.97 | 14286095.08 | 39°20'26.711"N | 80°45'31.118"W | 4235.39 | 133.170 | 1.33 | 0.52 | 1.22 | | |
| 11215.00 | 89.230 | 162.170 | 7006.05 | 3937.34 | -2986.96 | 3118.44 | 1708685.40 | 14286005.86 | 39°20'25.828"N | 80°45'30.746"W | 4318.17 | 133.766 | 0.92 | -0.13 | 0.91 | | |
| 11310.00 | 88.830 | 159.800 | 7007.66 | 4032.19 | -3076.76 | 3149.39 | 1708716.34 | 14285916.09 | 39°20'24.939"N | 80°45'30.356"W | 4402.85 | 134.332 | 2.53 | -0.42 | -2.49 | | |
| 11404.00 | 89.600 | 159.700 | 7008.95 | 4126.14 | -3164.94 | 3181.92 | 1708748.86 | 14285827.95 | 39°20'24.067"N | 80°45'29.945"W | 4487.92 | 134.847 | 0.83 | 0.82 | -0.11 | | |
| 11498.00 | 89.200 | 162.900 | 7009.93 | 4219.97 | -3252.96 | 3212.05 | 1708778.98 | 14285738.96 | 39°20'23.186"N | 80°45'29.529"W | 4572.26 | 135.371 | 3.43 | -0.43 | 3.40 | | |
| 11593.00 | 89.290 | 161.850 | 7011.18 | 4314.68 | -3344.49 | 3240.81 | 1708807.73 | 14285648.47 | 39°20'22.291"N | 80°45'29.201"W | 4657.09 | 135.902 | 1.11 | 0.09 | -1.11 | | |
| 11687.00 | 89.480 | 161.530 | 7012.19 | 4408.48 | -3433.73 | 3270.34 | 1708837.24 | 14285559.27 | 39°20'21.408"N | 80°45'28.828"W | 4741.90 | 136.396 | 0.40 | 0.20 | -0.34 | | |
| 11782.00 | 89.540 | 169.060 | 7013.01 | 4502.64 | -3525.54 | 3294.44 | 1708861.33 | 14285467.49 | 39°20'20.500"N | 80°45'28.525"W | 4825.23 | 136.941 | 7.93 | 0.06 | 7.93 | | |
| 11876.00 | 88.950 | 166.090 | 7014.24 | 4595.32 | -3617.32 | 3314.66 | 1708881.54 | 14285375.74 | 39°20'19.592"N | 80°45'28.270"W | 4906.32 | 137.500 | 3.22 | -0.63 | -3.16 | | |
| 11970.00 | 89.020 | 155.360 | 7015.91 | 4689.06 | -3705.91 | 3345.64 | 1708912.51 | 14285287.19 | 39°20'18.716"N | 80°45'27.879"W | 4992.70 | 137.925 | 11.41 | 0.07 | -11.41 | | |
| 12065.00 | 88.890 | 157.230 | 7017.65 | 4784.00 | -3792.88 | 3383.82 | 1708950.68 | 14285200.26 | 39°20'17.855"N | 80°45'27.396"W | 5082.93 | 138.262 | 1.97 | -0.14 | 1.97 | | |
| 12159.00 | 89.230 | 156.940 | 7019.19 | 4877.96 | -3879.28 | 3420.82 | 1708987.66 | 14285113.88 | 39°20'17.000"N | 80°45'26.928"W | 5172.12 | 138.594 | 0.94 | 0.36 | -0.87 | | |
| 12253.00 | 89.170 | 152.940 | 7020.50 | 4971.78 | -3964.22 | 3461.02 | 1709027.84 | 14285026.84 | 39°20'16.160"N | 80°45'26.420"W | 5262.48 | 138.877 | 3.69 | -0.06 | -3.69 | | |
| 12348.00 | 88.920 | 150.020 | 7022.09 | 5066.14 | -4047.67 | 3506.37 | 1709073.17 | 14284945.56 | 39°20'15.334"N | 80°45'25.845"W | 5355.21 | 139.099 | 3.08 | -0.26 | -3.07 | | |
| 12442.00 | 89.050 | 151.930 | 7023.75 | 5159.42 | -4129.85 | 3551.97 | 1709118.75 | 14284863.42 | 39°20'14.520"N | 80°45'25.268"W | 5447.21 | 139.302 | 2.04 | 0.14 | 2.03 | | |
| 12536.00 | 89.140 | 159.110 | 7025.24 | 5253.25 | -4215.33 | 3590.89 | 1709157.66 | 14284777.97 | 39°20'13.674"N | 80°45'24.775"W | 5537.46 | 139.574 | 7.64 | 0.10 | 7.64 | | |



Actual Wellpath Report

Yoho Unit 1H AWP Proj: 14840'

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| REFERENCE WELLPATH IDENTIFICATION | | | | | |
|-----------------------------------|------------------------------|--|--|----------|------------------|
| Operator | ANTERO RESOURCES CORPORATION | | | Slot | Slot #05 |
| Area | Doddridge Co., WV | | | Well | Yoho Unit 1H |
| Field | Doddridge | | | Wellbore | Yoho Unit 1H AWB |
| Facility | Yvonne Pad | | | | |

| WELLPATH DATA (176 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 |
| 12631.00 | 89.020 | 158.800 | 7026.76 | 5348.23 | -4303.99 | 3625.00 | 1709191.76 | 14284689.35 | 39°20'12.797"N | 80°45'24.344"W | 5627.16 | 139.895 | 0.35 | -0.13 | -0.33 | |
| 12725.00 | 89.140 | 157.610 | 7028.27 | 5442.21 | -4391.25 | 3659.89 | 1709226.64 | 14284602.12 | 39°20'11.934"N | 80°45'23.903"W | 5716.46 | 140.190 | 1.27 | 0.13 | -1.27 | |
| 12820.00 | 88.920 | 158.720 | 7029.88 | 5537.20 | -4479.42 | 3695.22 | 1709261.95 | 14284513.98 | 39°20'11.061"N | 80°45'23.457"W | 5806.88 | 140.480 | 1.19 | -0.23 | 1.17 | |
| 12914.00 | 89.080 | 155.800 | 7031.52 | 5631.17 | -4566.10 | 3731.55 | 1709298.26 | 14284427.35 | 39°20'10.204"N | 80°45'22.997"W | 5896.92 | 140.743 | 3.11 | 0.17 | -3.11 | |
| 13009.00 | 88.710 | 154.740 | 7033.35 | 5726.04 | -4652.37 | 3771.28 | 1709337.98 | 14284341.11 | 39°20'09.350"N | 80°45'22.494"W | 5988.91 | 140.971 | 1.18 | -0.39 | -1.12 | |
| 13103.00 | 89.200 | 155.280 | 7035.07 | 5819.89 | -4737.55 | 3810.99 | 1709377.67 | 14284255.96 | 39°20'08.507"N | 80°45'21.992"W | 6080.13 | 141.186 | 0.78 | 0.52 | 0.57 | |
| 13198.00 | 89.080 | 159.160 | 7036.49 | 5914.86 | -4825.11 | 3847.76 | 1709414.43 | 14284168.43 | 39°20'07.641"N | 80°45'21.527"W | 6171.46 | 141.430 | 4.09 | -0.13 | 4.08 | |
| 13292.00 | 89.690 | 159.160 | 7037.50 | 6008.83 | -4912.96 | 3881.20 | 1709447.86 | 14284080.62 | 39°20'06.772"N | 80°45'21.105"W | 6261.06 | 141.692 | 0.65 | 0.65 | 0.00 | |
| 13387.00 | 89.050 | 160.160 | 7038.55 | 6103.78 | -5002.03 | 3914.22 | 1709480.86 | 14283991.59 | 39°20'05.890"N | 80°45'20.687"W | 6351.49 | 141.956 | 1.25 | -0.67 | 1.05 | |
| 13481.00 | 88.680 | 162.140 | 7040.41 | 6197.62 | -5090.96 | 3944.58 | 1709511.21 | 14283902.69 | 39°20'05.011"N | 80°45'20.304"W | 6440.31 | 142.231 | 2.14 | -0.39 | 2.11 | |
| 13576.00 | 88.980 | 155.060 | 7042.35 | 6292.53 | -5179.34 | 3979.21 | 1709545.83 | 14283814.35 | 39°20'04.136"N | 80°45'19.866"W | 6531.44 | 142.465 | 7.46 | 0.32 | -7.45 | |
| 13670.00 | 89.420 | 155.860 | 7043.67 | 6386.43 | -5264.84 | 4018.25 | 1709584.85 | 14283728.88 | 39°20'03.290"N | 80°45'19.372"W | 6623.06 | 142.648 | 0.97 | 0.47 | 0.85 | |
| 13764.00 | 89.510 | 160.410 | 7044.54 | 6480.40 | -5352.05 | 4053.25 | 1709619.84 | 14283641.70 | 39°20'02.427"N | 80°45'18.930"W | 6713.66 | 142.862 | 4.84 | 0.10 | 4.84 | |
| 13859.00 | 89.480 | 158.360 | 7045.38 | 6575.37 | -5440.96 | 4086.69 | 1709653.27 | 14283552.83 | 39°20'01.548"N | 80°45'18.507"W | 6804.78 | 143.090 | 2.16 | -0.03 | -2.16 | |
| 13953.00 | 89.380 | 158.530 | 7046.32 | 6669.36 | -5528.38 | 4121.22 | 1709687.79 | 14283465.44 | 39°20'00.683"N | 80°45'18.071"W | 6895.47 | 143.297 | 0.21 | -0.11 | 0.18 | |
| 14047.00 | 90.030 | 158.730 | 7046.80 | 6763.35 | -5615.92 | 4155.48 | 1709722.03 | 14283377.94 | 39°19'59.816"N | 80°45'17.638"W | 6986.17 | 143.501 | 0.72 | 0.69 | 0.21 | |
| 14141.00 | 89.970 | 160.440 | 7046.80 | 6857.31 | -5704.01 | 4188.26 | 1709754.80 | 14283289.89 | 39°19'58.945"N | 80°45'17.224"W | 7076.53 | 143.711 | 1.82 | -0.06 | 1.82 | |
| 14236.00 | 90.120 | 159.460 | 7046.73 | 6952.26 | -5793.25 | 4220.83 | 1709787.36 | 14283200.68 | 39°19'58.062"N | 80°45'16.812"W | 7167.79 | 143.924 | 1.04 | 0.16 | -1.03 | |
| 14330.00 | 90.090 | 158.210 | 7046.55 | 7046.24 | -5880.91 | 4254.77 | 1709821.28 | 14283113.06 | 39°19'57.195"N | 80°45'16.384"W | 7258.66 | 144.115 | 1.33 | -0.03 | -1.33 | |
| 14424.00 | 90.090 | 156.470 | 7046.41 | 7140.23 | -5967.65 | 4290.99 | 1709857.48 | 14283026.35 | 39°19'56.336"N | 80°45'15.926"W | 7350.20 | 144.282 | 1.85 | 0.00 | -1.85 | |
| 14519.00 | 89.970 | 155.330 | 7046.36 | 7235.17 | -6054.37 | 4329.78 | 1709896.26 | 14282939.67 | 39°19'55.478"N | 80°45'15.435"W | 7443.27 | 144.430 | 1.21 | -0.13 | -1.20 | |
| 14614.00 | 89.970 | 156.710 | 7046.41 | 7330.11 | -6141.16 | 4368.38 | 1709934.85 | 14282852.90 | 39°19'54.619"N | 80°45'14.947"W | 7536.36 | 144.575 | 1.45 | 0.00 | 1.45 | |
| 14708.00 | 90.090 | 157.380 | 7046.36 | 7424.09 | -6227.72 | 4405.05 | 1709971.50 | 14282766.38 | 39°19'53.763"N | 80°45'14.483"W | 7628.17 | 144.727 | 0.72 | 0.13 | 0.71 | |
| 14803.00 | 90.030 | 159.140 | 7046.26 | 7519.09 | -6315.96 | 4440.23 | 1710006.67 | 14282678.18 | 39°19'52.890"N | 80°45'14.038"W | 7720.56 | 144.892 | 1.85 | -0.06 | 1.85 | |
| 14817.00 | 90.120 | 159.580 | 7046.24 | 7533.09 | -6329.06 | 4445.17 | 1710011.60 | 14282665.08 | 39°19'52.760"N | 80°45'13.976"W | 7734.11 | 144.918 | 3.21 | 0.64 | 3.14 | |
| 14840.00 | 90.120 | 159.580 | 7046.19 | 7556.08 | -6350.62 | 4453.19 | 1710019.62 | 14282643.54 | 39°19'52.547"N | 80°45'13.875"W | 7756.37 | 144.961 | 0.00 | 0.00 | 0.00 | Projected MD at TD: 14840' |

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Actual Wellpath Report

Yoho Unit 1H AWP Proj: 14840'

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|------------------------------|----------|------------------|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #05 |
| Area | Doddridge Co., WV | Well | Yoho Unit 1H |
| Field | Doddridge | Wellbore | Yoho Unit 1H AWB |
| Facility | Yvonne Pad | | |

| TARGETS | | | | | | | | |
|--------------------------------|----------|------------|-----------|-------------------|--------------------|----------------|----------------|-----------|
| Name | TVD [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | Shape |
| Yoho Unit 1H POE Rev-1 | 6920.00 | 600.10 | 1645.78 | 1707213.33 | 14289591.49 | 39°21'01.319"N | 80°45'49.371"W | point |
| Yoho Unit 1H LP Rev-1 | 6960.00 | 426.54 | 1715.88 | 1707283.40 | 14289418.00 | 39°20'59.602"N | 80°45'48.484"W | point |
| Yoho Unit 1H BHL Rev-1 | 7023.54 | -6324.04 | 4442.49 | 1710008.93 | 14282670.11 | 39°19'52.810"N | 80°45'14.010"W | point |
| Yoho Unit 1H 20' L/R Hard Line | 7050.00 | -2948.75 | 3079.19 | 1708646.17 | 14286044.06 | 39°20'26.206"N | 80°45'31.245"W | rectangle |

| WELLPATH COMPOSITION - Ref Wellbore: Yoho Unit 1H AWB | | | | | Ref Wellpath: Yoho Unit 1H AWP Proj: 14840' | |
|---|-------------|-------------------------------------|--|------------------|---|--|
| Start MD [ft] | End MD [ft] | Positional Uncertainty Model | Log Name/Comment | Wellbore | | |
| 25.00 | 6054.00 | Gyrodata standard - Continuous gyro | 01_Gyrodata Cont. Gyro <8-3/4"> (100'-6042') | Yoho Unit 1H AWB | | |
| 6054.00 | 14817.00 | BHI AutoTrak Curve (Axial) | 02_BHI AT Curve <8-1/2"> (6054')(6193'-14817') | Yoho Unit 1H AWB | | |
| 14817.00 | 14840.00 | Blind Drilling (std) | Projection to bit | Yoho Unit 1H AWB | | |



Actual Wellpath Report

Yoho Unit 1H AWP Proj: 14840'
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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|------------------------------|----------|------------------|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #05 |
| Area | Doddridge Co., WV | Well | Yoho Unit 1H |
| Field | Doddridge | Wellbore | Yoho Unit 1H AWB |
| Facility | Yvonne Pad | | |

| COMMENTS |
|---|
| <p>Wellpath general comments API: 47-017-06543-0000 BHI Job #: 8242898 Rig: Patterson 343 Duration: 11/4/2016-11/7/2016 Gyrodata Cont. Gyro <8-3/4"> (100'-6042') BHI AT Curve <8-1/2"> (6054')(6193'-14817') Middlesex: 6998' MD Burket: 7186' MD Tully: 7241' MD Marcellus POE: 7356' MD Projected MD at TD: 14840'</p> |