

ANTERO RESOURCES CORPORATION

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

Slot: Slot #07
 Well: Addie Unit 2H
 Wellbore: Addie Unit 2H PWB



Scale 1 inch = 1500
 Easting (ft)
 -3000 -2250 -1500 -750 0 750 1500

Projected MD at TD: 14749' : 6461.86ft TVD, 7617.83ft N, 1637.25ft W



API: 47-017-06807-0000
 BHI Job #: 8877723
 Rig: Frontier 22
 Duration: 11/18/2017-11/20/2017

| | |
|---|---|
| Plot reference wellpath is Addie Unit 2H PWP Ex-Rev-A.0 | Grid System: NAD27 / UTM Zone 17 North, US feet |
| True vertical depths are referenced to Frontier 22 (RKB) | North Reference: Grid north |
| Measured depths are referenced to Frontier 22 (RKB) | Scale: True distance |
| Frontier 22 (RKB) to Mean Sea Level: 914.5 feet | Depths are in feet |
| Mean Sea Level to Mud line (At Slot: Slot #07): -890 feet | Created by: delassot on 2018-01-11 |
| Coordinates are in feet referenced to Slot | Database: WA_MPL_EasternUS_Data |

Gyrodata MS Gyro <17-1/2"> (100'-475') : 0.15° Inc, 109.50ft MD, 109.50ft TVD, 0.00ft VS

Gyrodata MS Gyro <12-1/4"> (475')(532'-712') : 0.38° Inc, 541.50ft MD, 541.50ft TVD, 0.82ft VS

WFT EM <12-1/4"> (712')(793'-2521') : 4.33° Inc, 802.50ft MD, 802.32ft TVD, -6.25ft VS

| Location Information | | | | |
|---|-------------------|--------------------|-------------------|--------------------|
| Facility Name | Grid East (US ft) | Grid North (US ft) | Latitude | Longitude |
| Addie Pad | 1695325.147 | 14283415.126 | 39°20'00.530"N | 80°48'20.630"W |
| Slot | Local N (ft) | Local E (ft) | Grid East (US ft) | Grid North (US ft) |
| Slot #07 | -0.00 | 50.29 | 1695375.418 | 14283414.223 |
| Comment | Addie Unit 2H | | | |
| Frontier 22 (RKB) to Mud line (At Slot: Slot #07) | 24.5ft | | | |
| Mean Sea Level to Mud line (At Slot: Slot #07) | -890ft | | | |
| Frontier 22 (RKB) to Mean Sea Level | 914.5ft | | | |

WFT EM <8-3/4"> (2521')(2629'-6128') : 0.78° Inc, 2638.50ft MD, 2634.57ft TVD, -72.50ft VS

| Well Profile Data | | | | | | | | |
|-------------------|----------|---------|---------|----------|--------------|--------------|---------------|---------|
| Design Comment | MD (ft) | Inc (°) | Az (°) | TVD (ft) | Local N (ft) | Local E (ft) | DLS (°/100ft) | VS (ft) |
| Tie On | 6137.50 | 22.920 | 37.470 | 5932.07 | -177.25 | 1142.55 | 6.33 | -592.53 |
| Proj. To Bottom | 6210.50 | 25.410 | 30.950 | 5998.68 | -152.53 | 1159.26 | 5.00 | -575.87 |
| End of 3D Arc | 6386.42 | 33.500 | 15.751 | 6151.95 | -73.19 | 1191.95 | 6.23 | -514.56 |
| POE | 6877.57 | 70.762 | 350.500 | 6451.00 | 302.71 | 1190.41 | 8.50 | -165.48 |
| Landing PL | 7118.08 | 90.000 | 350.500 | 6491.00 | 535.48 | 1151.45 | 8.00 | 64.93 |
| On Azimuth | 7535.07 | 90.000 | 337.990 | 6491.00 | 936.01 | 1038.45 | 3.00 | 478.62 |
| BHL | 14785.07 | 90.000 | 337.990 | 6491.00 | 7657.61 | -1678.65 | 0.00 | 7728.52 |

| Well Data | | | |
|-----------|---------------|-------------------|--------------------------------|
| Slot | Well | Wellbore | Wellpath |
| Slot #07 | Addie Unit 2H | Addie Unit 2H AWB | Addie Unit 2H AWP Proj: 14749' |
| Slot #07 | Addie Unit 2H | Addie Unit 2H PWB | Addie Unit 2H PWP Ex-Rev-A.0 |

BHI AT Curve <8-1/2"> (6137.5')(6191'-14725') : 24.80° Inc, 6191.00ft MD, 5981.02ft TVD, -580.00ft VS

Marcellus POE: 6886' MD : 72.51° Inc, 6886.00ft MD, 6448.03ft TVD, -143.56ft VS

Projected MD at TD: 14749' : 90.31° Inc, 14749.00ft MD, 6461.86ft TVD, 7676.22ft VS

Vertical Section (ft)
 Azimuth 337.99° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500

True Vertical Depth (ft)
 -750
 0
 750
 1500
 2250
 3000
 3750
 4500
 5250
 6000
 6750
 7500

Northing (ft)
 -750
 0
 750
 1500
 2250
 3000
 3750
 4500
 5250
 6000
 6750
 7500
 8250

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Marcellus POE: 6886' MD : 6448.03ft TVD, 319.18ft N, 1172.65ft E
 Slot #07
 Gyrodata MS Gyro <17-1/2"> (100'-475') : 109.50ft TVD, 0.04ft N, 0.10ft E
 Gyrodata MS Gyro <12-1/4"> (475')(532'-712') : 541.50ft TVD, 1.01ft N, 0.32ft E
 WFT EM <12-1/4"> (712')(793'-2521') : 802.32ft TVD, 4.70ft N, 5.04ft E
 WFT EM <8-3/4"> (2521')(2629'-6128') : 2634.57ft TVD, 63.34ft S, 36.75ft E
 BHI AT Curve <8-1/2"> (6137.5')(6191'-14725') : 5981.02ft TVD, 159.06ft S, 1154.14ft E



User specified Dip: 66.50° Field: 52073 nT
 Magnetic North is 7.63 degrees West of True North (at 16/Nov/2017)
 Grid North is 0.12 degrees East of True North
 To correct azimuth from True to Grid subtract 0.12 degrees
 To correct azimuth from Magnetic to Grid subtract 7.75 degrees



Actual Wellpath Report

Addie Unit 2H AWP Proj: 14749'

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|------------------------------|----------|-------------------|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #07 |
| Area | Doddridge Co., WV | Well | Addie Unit 2H |
| Field | Doddridge | Wellbore | Addie Unit 2H AWB |
| Facility | Addie Pad | | |

| REPORT SETUP INFORMATION | | | |
|--------------------------|------------------------------------|----------------------|---|
| Projection System | NAD27 / UTM Zone 17 North, US feet | Software System | WellArchitect® 5.1 |
| North Reference | Grid | User | Delaset |
| Scale | 0.999603 | Report Generated | 11/Jan/2018 at 11:49 |
| Convergence at slot | 0.12" East | Database/Source file | WA_MPL_EasternUS_Defn/Addie_Unit_2H_AWP_Proj_14749_.xml |

| WELLPATH LOCATION | | | | | | |
|-----------------------|-------------------|----------|------------------|-----------------|------------------------|----------------|
| | Local coordinates | | Grid coordinates | | Geographic coordinates | |
| | North[ft] | East[ft] | Easting[US ft] | Northing[US ft] | Latitude | Longitude |
| Slot Location | -0.90 | 50.29 | 1695375.42 | 14283414.22 | 39°20'00.520"N | 80°48'20.290"W |
| Facility Reference Pt | | | 1695325.15 | 14283415.13 | 39°20'00.530"N | 80°48'20.930"W |
| Field Reference Pt | | | 0.00 | 0.00 | 0°00'00.000" | 85°29'19.301"W |

| WELLPATH DATUM | | | |
|--------------------------|-------------------|--|-------------------|
| Calculation method | Minimum curvature | Frontier 22 (RKB) to Facility Vertical Datum | 24.50ft |
| Horizontal Reference Pt | Slot | Frontier 22 (RKB) to Mean Sea Level | 914.50ft |
| Vertical Reference Pt | Frontier 22 (RKB) | Frontier 22 (RKB) to Mud Line at Slot (Slot #07) | 24.50ft |
| MD Reference Pt | Frontier 22 (RKB) | Section Origin | N 0.00, E 0.00 ft |
| Field Vertical Reference | Mean Sea Level | Section Azimuth | 337.99° |

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Actual Wellpath Report

Addie Unit 2H AWP Proj: 14749'
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12/28/2018

| REFERENCE WELLPATH IDENTIFICATION | | Slot | Slot #07 |
|-----------------------------------|------------------------------|----------|-------------------|
| Operator | ANTERO RESOURCES CORPORATION | Well | Addie Unit 2H |
| Area | Doddridge Co., WV | Wellbore | Addie Unit 2H AWB |
| Field | Doddridge | | |
| Facility | Addie Pad | | |

| WELLPATH DATA (181 stations) † = Interpolated/extrapolated station | | | | | | | | | | | | | | | | |
|--|-----------------|-------------|----------|----------------|------------|-----------|----------------|-----------------|----------------|----------------|-------------------|-----------------|---------------|----------------------|---------------------|--|
| MD (ft) | Inclination (°) | Azimuth (°) | TVD (ft) | Vert Sect (ft) | North (ft) | East (ft) | Grid East (ft) | Grid North (ft) | Latitude | Longitude | Closure Dist (ft) | Closure Dir (°) | DLS (F/100ft) | Build Rate (F/100ft) | Turn Rate (F/100ft) | Comments |
| 0.00H | 0.000 | 67.120 | 0.00 | 0.00 | 0.00 | 0.00 | 1695375.42 | 14283414.22 | 39°20'00.520"N | 80°48'20.280"W | 0.00 | 0.000 | 0.00 | 0.00 | 0.00 | |
| 24.50 | 0.000 | 67.120 | 24.50 | 0.00 | 0.00 | 0.00 | 1695375.42 | 14283414.22 | 39°20'00.520"N | 80°48'20.280"W | 0.00 | 0.000 | 0.00 | 0.00 | 0.00 | |
| 109.50 | 0.150 | 67.120 | 109.50 | 0.00 | 0.04 | 0.10 | 1695375.52 | 14283414.27 | 39°20'00.520"N | 80°48'20.288"W | 0.11 | 67.120 | 0.18 | 0.18 | 78.96 | Gyrodala MS Gyro <17-1/2"> (100'-475') |
| 209.50 | 0.030 | 252.870 | 209.50 | 0.01 | 0.09 | 0.20 | 1695375.62 | 14283414.31 | 39°20'00.521"N | 80°48'20.287"W | 0.22 | 66.425 | 0.18 | -0.12 | -174.25 | |
| 309.50 | 0.120 | 329.780 | 309.50 | 0.11 | 0.17 | 0.12 | 1695375.54 | 14283414.39 | 39°20'00.522"N | 80°48'20.288"W | 0.21 | 35.424 | 0.12 | 0.09 | 76.91 | |
| 409.50 | 0.160 | 354.480 | 409.50 | 0.35 | 0.40 | 0.05 | 1695375.47 | 14283414.62 | 39°20'00.524"N | 80°48'20.289"W | 0.40 | 7.746 | 0.07 | 0.04 | 24.70 | |
| 484.50 | 0.370 | 15.190 | 484.50 | 0.64 | 0.74 | 0.11 | 1695375.53 | 14283414.96 | 39°20'00.527"N | 80°48'20.289"W | 0.74 | 8.311 | 0.30 | 0.28 | 27.61 | |
| 541.50 | 0.360 | 58.170 | 541.50 | 0.82 | 1.01 | 0.32 | 1695375.73 | 14283415.24 | 39°20'00.530"N | 80°48'20.286"W | 1.06 | 17.332 | 0.48 | 0.02 | 75.40 | Gyrodala MS Gyro <12-1/4"> (475')(532'-712') |
| 631.50 | 0.640 | 105.980 | 631.50 | 0.56 | 1.03 | 1.05 | 1695376.47 | 14283415.26 | 39°20'00.530"N | 80°48'20.277"W | 1.48 | 45.557 | 0.53 | 0.29 | 53.12 | |
| 721.50 | 2.380 | 145.130 | 721.48 | -1.57 | -0.64 | 2.60 | 1695378.02 | 14283413.58 | 39°20'00.514"N | 80°48'20.277"W | 2.68 | 103.778 | 2.14 | 1.93 | 43.50 | |
| 802.50 | 4.330 | 151.270 | 802.32 | -6.25 | -4.70 | 5.04 | 1695380.45 | 14283409.52 | 39°20'00.473"N | 80°48'20.226"W | 6.99 | 133.023 | 2.44 | 2.41 | 7.58 | WFT EM <12-1/4"> (712')(793'-2521') |
| 895.50 | 6.070 | 148.250 | 894.93 | -14.58 | -11.96 | 9.31 | 1695384.73 | 14283402.27 | 39°20'00.402"N | 80°48'20.172"W | 15.16 | 142.098 | 1.89 | 1.87 | -3.25 | |
| 990.50 | 6.830 | 144.460 | 989.33 | -25.02 | -20.83 | 15.24 | 1695390.65 | 14283399.40 | 39°20'00.314"N | 80°48'20.097"W | 25.81 | 143.810 | 0.92 | 0.80 | -3.99 | |
| 1085.50 | 7.300 | 138.950 | 1083.61 | -36.22 | -29.98 | 22.48 | 1695397.89 | 14283384.26 | 39°20'00.223"N | 80°48'20.005"W | 37.47 | 143.126 | 0.87 | 0.49 | -5.80 | |
| 1179.50 | 6.230 | 144.370 | 1176.96 | -46.82 | -38.63 | 29.38 | 1695404.79 | 14283375.51 | 39°20'00.138"N | 80°48'19.917"W | 48.53 | 142.743 | 1.32 | -1.14 | 6.77 | |
| 1273.50 | 4.080 | 154.120 | 1270.57 | -55.12 | -45.78 | 33.81 | 1695409.22 | 14283368.46 | 39°20'00.067"N | 80°48'19.861"W | 56.91 | 143.553 | 2.46 | -2.29 | 10.37 | |
| 1368.50 | 2.580 | 175.710 | 1365.41 | -60.53 | -50.96 | 35.45 | 1695410.85 | 14283363.29 | 39°20'00.016"N | 80°48'19.840"W | 62.07 | 145.176 | 2.03 | -1.58 | 22.73 | |
| 1462.50 | 2.390 | 193.780 | 1459.33 | -64.13 | -54.97 | 35.14 | 1695410.54 | 14283359.28 | 39°19'59.976"N | 80°48'19.844"W | 65.24 | 147.412 | 0.85 | -0.20 | 19.22 | |
| 1557.50 | 3.180 | 171.560 | 1554.21 | -68.30 | -59.50 | 35.05 | 1695410.46 | 14283354.75 | 39°19'59.931"N | 80°48'19.846"W | 69.06 | 149.497 | 1.39 | 0.83 | -23.39 | |
| 1652.50 | 3.100 | 157.060 | 1649.07 | -73.43 | -64.47 | 36.44 | 1695411.84 | 14283349.78 | 39°19'59.882"N | 80°48'19.828"W | 74.06 | 150.524 | 0.84 | -0.08 | -15.26 | |
| 1746.50 | 1.480 | 148.960 | 1743.00 | -77.17 | -67.85 | 38.06 | 1695413.46 | 14283345.40 | 39°19'59.849"N | 80°48'19.808"W | 77.80 | 150.713 | 1.75 | -1.72 | -8.62 | |
| 1841.50 | 1.340 | 11.180 | 1837.98 | -77.45 | -67.81 | 38.91 | 1695414.31 | 14283345.44 | 39°19'59.849"N | 80°48'19.797"W | 78.18 | 150.157 | 2.77 | -0.15 | -145.03 | |
| 1936.50 | 3.370 | 0.040 | 1932.90 | -73.93 | -63.93 | 39.12 | 1695414.52 | 14283350.32 | 39°19'59.887"N | 80°48'19.794"W | 74.95 | 148.536 | 2.18 | 2.14 | -11.73 | |
| 2030.50 | 2.880 | 4.180 | 2026.76 | -69.25 | -56.81 | 39.30 | 1695414.70 | 14283355.43 | 39°19'59.938"N | 80°48'19.792"W | 70.73 | 146.251 | 0.57 | -0.52 | 4.40 | |
| 2124.50 | 0.530 | 333.680 | 2120.71 | -66.70 | -56.07 | 39.28 | 1695414.68 | 14283358.18 | 39°19'59.965"N | 80°48'19.792"W | 68.46 | 144.988 | 2.59 | -2.50 | -32.45 | |
| 2219.50 | 1.820 | 200.520 | 2215.70 | -67.37 | -57.09 | 38.55 | 1695413.95 | 14283357.16 | 39°19'59.955"N | 80°48'19.801"W | 68.89 | 145.968 | 2.33 | 1.36 | -140.17 | |
| 2313.50 | 2.430 | 196.870 | 2309.63 | -70.03 | -60.39 | 37.45 | 1695412.85 | 14283353.65 | 39°19'59.922"N | 80°48'19.815"W | 71.06 | 148.196 | 0.66 | 0.65 | -3.88 | |
| 2408.50 | 1.330 | 195.650 | 2404.58 | -72.47 | -63.38 | 36.57 | 1695411.97 | 14283350.87 | 39°19'59.893"N | 80°48'19.826"W | 73.17 | 150.016 | 1.16 | -1.16 | -1.28 | |
| 2503.50 | 0.140 | 46.910 | 2499.57 | -73.30 | -64.36 | 36.36 | 1695411.76 | 14283349.89 | 39°19'59.883"N | 80°48'19.829"W | 73.92 | 150.540 | 1.53 | -1.25 | -156.57 | |
| 2580.50 | 0.320 | 42.600 | 2526.57 | -73.25 | -64.29 | 36.43 | 1695411.83 | 14283349.86 | 39°19'59.884"N | 80°48'19.828"W | 73.89 | 150.459 | 0.67 | 0.67 | -15.96 | |



Actual Wellpath Report

Addie Unit 2H AWP Proj: 14749'

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| REFERENCE WELLPATH IDENTIFICATION | | | | |
|-----------------------------------|------------------------------|--|----------|-------------------|
| Operator | ANTERO RESOURCES CORPORATION | | Slot | Slot #07 |
| Area | Doddridge Co., WV | | Well | Addie Unit 2H |
| Field | Doddridge | | Wellbore | Addie Unit 2H AWB |
| Facility | Addie Pad | | | |

| WELLPATH DATA (181 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 |
| 2638.50 | 0.780 | 9.280 | 2634.57 | -72.50 | -63.34 | 36.75 | 1695412.16 | 14283350.91 | 39°19'59.893"N | 80°48'19.824"W | 73.23 | 149.874 | 0.50 | 0.43 | -30.85 | WFT EM <8-3/4"> (2521')(2629'-6128') |
| 2733.50 | 2.940 | 86.640 | 2729.52 | -72.72 | -62.56 | 39.29 | 1695414.69 | 14283351.69 | 39°19'59.901"N | 80°48'19.792"W | 73.87 | 147.868 | 3.02 | 2.27 | 81.43 | |
| 2827.50 | 6.730 | 100.300 | 2823.17 | -76.44 | -63.40 | 47.12 | 1695422.52 | 14283350.85 | 39°19'59.892"N | 80°48'19.692"W | 78.99 | 143.380 | 4.19 | 4.03 | 14.53 | |
| 2921.50 | 10.140 | 97.090 | 2916.14 | -83.41 | -65.41 | 60.75 | 1695436.15 | 14283348.84 | 39°19'59.872"N | 80°48'19.519"W | 89.27 | 137.112 | 3.66 | 3.63 | -3.41 | |
| 3016.50 | 11.780 | 97.640 | 3009.40 | -92.27 | -67.73 | 78.67 | 1695454.05 | 14283346.52 | 39°19'59.849"N | 80°48'19.291"W | 103.80 | 130.728 | 1.73 | 1.73 | 0.58 | |
| 3111.50 | 13.700 | 98.630 | 3102.06 | -102.81 | -70.71 | 99.40 | 1695474.78 | 14283343.54 | 39°19'59.819"N | 80°48'19.027"W | 121.98 | 125.425 | 2.03 | 2.02 | 1.04 | |
| 3207.50 | 16.110 | 100.170 | 3194.83 | -115.69 | -74.76 | 123.75 | 1695499.12 | 14283339.49 | 39°19'59.778"N | 80°48'18.717"W | 144.59 | 121.138 | 2.54 | 2.51 | 1.60 | |
| 3302.50 | 19.240 | 98.230 | 3285.33 | -130.60 | -79.33 | 152.23 | 1695527.58 | 14283334.92 | 39°19'59.733"N | 80°48'18.355"W | 171.66 | 117.527 | 3.35 | 3.29 | -2.04 | |
| 3396.50 | 19.280 | 96.710 | 3374.07 | -145.86 | -83.36 | 182.97 | 1695558.31 | 14283330.89 | 39°19'59.692"N | 80°48'17.964"W | 201.06 | 114.495 | 0.54 | 0.04 | -1.62 | |
| 3491.50 | 21.060 | 97.480 | 3463.24 | -161.80 | -87.42 | 215.47 | 1695590.80 | 14283326.84 | 39°19'59.651"N | 80°48'17.550"W | 232.53 | 112.083 | 1.89 | 1.87 | 0.81 | |
| 3586.50 | 20.990 | 96.750 | 3551.92 | -178.39 | -91.64 | 249.29 | 1695624.61 | 14283322.62 | 39°19'59.609"N | 80°48'17.120"W | 265.60 | 110.184 | 0.29 | -0.07 | -0.77 | |
| 3680.50 | 21.050 | 102.020 | 3639.67 | -195.94 | -97.14 | 282.52 | 1695657.83 | 14283317.13 | 39°19'59.554"N | 80°48'16.697"W | 298.76 | 108.974 | 2.01 | 0.06 | 5.61 | |
| 3774.50 | 20.880 | 100.880 | 3727.45 | -214.48 | -103.81 | 315.49 | 1695690.78 | 14283310.45 | 39°19'59.487"N | 80°48'16.278"W | 332.13 | 108.214 | 0.47 | -0.18 | -1.21 | |
| 3869.50 | 20.190 | 98.800 | 3816.41 | -232.07 | -109.52 | 348.31 | 1695723.59 | 14283304.75 | 39°19'59.430"N | 80°48'15.860"W | 365.12 | 107.454 | 1.06 | -0.73 | -2.19 | |
| 3964.50 | 18.920 | 96.850 | 3905.93 | -247.90 | -113.86 | 379.81 | 1695755.07 | 14283300.41 | 39°19'59.387"N | 80°48'15.460"W | 396.51 | 106.688 | 1.50 | -1.34 | -2.05 | |
| 4058.50 | 20.060 | 97.720 | 3994.54 | -263.25 | -117.85 | 410.91 | 1695786.17 | 14283296.42 | 39°19'59.346"N | 80°48'15.064"W | 427.48 | 106.002 | 1.25 | 1.21 | 0.93 | |
| 4152.50 | 22.110 | 98.370 | 4082.24 | -280.20 | -122.59 | 444.39 | 1695819.63 | 14283291.68 | 39°19'59.299"N | 80°48'14.638"W | 460.99 | 105.422 | 2.19 | 2.18 | 0.69 | |
| 4246.50 | 23.830 | 99.090 | 4168.79 | -298.95 | -128.16 | 480.65 | 1695855.88 | 14283286.11 | 39°19'59.243"N | 80°48'14.177"W | 497.44 | 104.930 | 1.85 | 1.83 | 0.77 | |
| 4340.50 | 23.490 | 97.440 | 4254.89 | -317.97 | -133.59 | 517.98 | 1695893.19 | 14283280.69 | 39°19'59.189"N | 80°48'13.702"W | 534.93 | 104.462 | 0.79 | -0.36 | -1.76 | |
| 4435.50 | 23.040 | 95.420 | 4342.16 | -335.85 | -137.80 | 555.26 | 1695930.45 | 14283276.48 | 39°19'59.146"N | 80°48'13.227"W | 572.10 | 103.937 | 0.96 | -0.47 | -2.13 | |
| 4529.50 | 22.450 | 94.050 | 4428.85 | -352.21 | -140.80 | 591.47 | 1695966.66 | 14283273.48 | 39°19'59.116"N | 80°48'12.767"W | 608.00 | 103.390 | 0.84 | -0.63 | -1.46 | |
| 4623.50 | 22.960 | 96.310 | 4515.57 | -368.79 | -144.08 | 627.60 | 1696002.77 | 14283270.20 | 39°19'59.083"N | 80°48'12.307"W | 643.93 | 102.930 | 1.07 | 0.54 | 2.40 | |
| 4718.50 | 22.240 | 95.250 | 4603.28 | -385.81 | -147.77 | 663.92 | 1696039.08 | 14283266.52 | 39°19'59.045"N | 80°48'11.845"W | 680.17 | 102.547 | 0.87 | -0.76 | -1.12 | |
| 4812.50 | 21.830 | 98.230 | 4690.41 | -402.76 | -151.90 | 698.93 | 1696074.07 | 14283262.39 | 39°19'59.004"N | 80°48'11.399"W | 715.25 | 102.261 | 1.27 | -0.44 | 3.17 | |
| 4907.50 | 21.170 | 99.120 | 4778.80 | -420.53 | -157.14 | 733.35 | 1696108.48 | 14283257.14 | 39°19'58.951"N | 80°48'10.961"W | 750.00 | 102.094 | 0.77 | -0.69 | 0.94 | |
| 5002.50 | 21.180 | 97.730 | 4867.39 | -437.91 | -162.17 | 767.30 | 1696142.41 | 14283252.12 | 39°19'58.901"N | 80°48'10.530"W | 784.25 | 101.934 | 0.53 | 0.01 | -1.46 | |
| 5096.50 | 21.440 | 100.230 | 4954.96 | -455.50 | -167.51 | 801.03 | 1696176.13 | 14283246.78 | 39°19'58.847"N | 80°48'10.100"W | 818.36 | 101.811 | 1.01 | 0.28 | 2.66 | |
| 5191.50 | 21.650 | 100.000 | 5043.32 | -474.05 | -173.63 | 835.38 | 1696210.46 | 14283240.66 | 39°19'58.786"N | 80°48'09.663"W | 853.23 | 101.742 | 0.24 | 0.22 | -0.24 | |
| 5285.50 | 21.660 | 98.740 | 5130.69 | -492.11 | -179.28 | 869.60 | 1696244.67 | 14283235.02 | 39°19'58.729"N | 80°48'09.228"W | 887.89 | 101.649 | 0.49 | 0.01 | -1.34 | |
| 5380.50 | 20.160 | 99.980 | 5219.43 | -509.75 | -184.78 | 903.05 | 1696278.11 | 14283229.52 | 39°19'58.674"N | 80°48'08.803"W | 921.76 | 101.564 | 1.65 | -1.58 | 1.31 | |

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Actual Wellpath Report

Addie Unit 2H AWP Proj: 14749'

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| REFERENCE WELLPATH IDENTIFICATION | | | | |
|-----------------------------------|------------------------------|--|----------|-------------------|
| Operator | ANTERO RESOURCES CORPORATION | | Slot | Slot #07 |
| Area | Doddridge Co., WV | | Well | Addie Unit 2H |
| Field | Doddridge | | Wellbore | Addie Unit 2H AWB |
| Facility | Addie Pad | | | |

| WELLPATH DATA (181 stations) † = interpolated/extrapolated station | | | | | | | | | | | | | | | | |
|--|-------------|---------|---------|-----------|---------|---------|------------|-------------|----------------|----------------|--------------|-------------|-----------|------------|-----------|---|
| MD | Inclination | Azimuth | TVD | Vert Sect | North | East | Grid East | Grid North | Latitude | Longitude | Closure Dist | Closure Dir | DLS | Build Rate | Turn Rate | Comments |
| (ft) | (°) | (°) | (ft) | (ft) | (ft) | (ft) | (US ft) | (US ft) | | | (ft) | (°) | ("/100ft) | ("/100ft) | ("/100ft) | |
| 5475.50 | 19.150 | 100.650 | 5308.90 | -526.83 | -190.50 | 934.49 | 1696309.53 | 14283223.80 | 39°19'58.617"N | 80°48'08.403"W | 953.71 | 101.522 | 1.09 | -1.06 | 0.71 | |
| 5569.50 | 18.600 | 99.870 | 5397.84 | -543.07 | -195.92 | 964.41 | 1696339.44 | 14283218.38 | 39°19'58.563"N | 80°48'08.022"W | 984.11 | 101.483 | 0.64 | -0.59 | -0.83 | |
| 5664.50 | 19.700 | 101.140 | 5487.58 | -559.83 | -201.61 | 995.05 | 1696370.07 | 14283212.70 | 39°19'58.506"N | 80°48'07.632"W | 1015.27 | 101.454 | 1.24 | 1.16 | 1.34 | |
| 5758.50 | 19.490 | 100.570 | 5576.14 | -576.93 | -207.54 | 1026.01 | 1696401.02 | 14283206.76 | 39°19'58.447"N | 80°48'07.238"W | 1046.79 | 101.436 | 0.30 | -0.22 | -0.61 | |
| 5853.50 | 19.320 | 99.920 | 5665.74 | -593.78 | -213.16 | 1057.07 | 1696432.06 | 14283201.15 | 39°19'58.391"N | 80°48'06.843"W | 1078.35 | 101.401 | 0.29 | -0.18 | -0.68 | |
| 5884.50 | 19.630 | 95.910 | 5694.97 | -598.93 | -214.58 | 1067.30 | 1696442.29 | 14283199.73 | 39°19'58.376"N | 80°48'06.713"W | 1088.66 | 101.368 | 4.43 | 1.00 | -12.94 | |
| 5916.50 | 19.780 | 87.860 | 5725.10 | -603.29 | -214.93 | 1078.06 | 1696453.05 | 14283199.38 | 39°19'58.373"N | 80°48'06.576"W | 1099.28 | 101.275 | 8.49 | 0.47 | -25.16 | |
| 5948.50 | 19.860 | 79.330 | 5755.21 | -606.20 | -213.72 | 1088.81 | 1696463.80 | 14283200.59 | 39°19'58.384"N | 80°48'06.439"W | 1109.59 | 101.105 | 9.03 | 0.25 | -26.66 | |
| 5979.50 | 19.830 | 71.910 | 5784.38 | -607.59 | -211.11 | 1098.99 | 1696473.97 | 14283203.19 | 39°19'58.410"N | 80°48'06.310"W | 1119.08 | 100.874 | 8.12 | -0.10 | -23.94 | |
| 6011.50 | 19.540 | 63.110 | 5814.51 | -607.51 | -207.01 | 1108.92 | 1696483.90 | 14283207.30 | 39°19'58.450"N | 80°48'06.183"W | 1128.08 | 100.574 | 9.30 | -0.91 | -27.50 | |
| 6042.50 | 20.240 | 55.200 | 5843.67 | -605.88 | -201.60 | 1117.95 | 1696492.92 | 14283212.70 | 39°19'58.503"N | 80°48'06.068"W | 1135.98 | 100.222 | 8.96 | 2.26 | -25.52 | |
| 6074.50 | 21.100 | 48.320 | 5873.61 | -602.72 | -194.61 | 1126.80 | 1696501.77 | 14283219.69 | 39°19'58.572"N | 80°48'05.955"W | 1143.48 | 99.799 | 8.05 | 2.69 | -21.50 | |
| 6105.50 | 21.760 | 41.840 | 5902.47 | -598.30 | -186.62 | 1134.80 | 1696509.77 | 14283227.68 | 39°19'58.651"N | 80°48'05.853"W | 1150.04 | 99.339 | 7.92 | 2.13 | -20.90 | |
| 6137.50 | 22.920 | 37.470 | 5932.07 | -592.53 | -177.25 | 1142.55 | 1696517.51 | 14283237.04 | 39°19'58.744"N | 80°48'05.754"W | 1156.22 | 98.818 | 6.33 | 3.62 | -13.66 | |
| 6191.00 | 24.800 | 27.880 | 5981.02 | -580.00 | -159.06 | 1154.14 | 1696529.10 | 14283255.23 | 39°19'58.923"N | 80°48'05.608"W | 1165.05 | 97.847 | 8.05 | 3.51 | -17.93 | BHI AT Curve <8-1/2"> (6137.5')(6191'-14725') |
| 6238.00 | 25.910 | 23.310 | 6023.49 | -566.43 | -140.91 | 1162.81 | 1696537.77 | 14283273.37 | 39°19'59.102"N | 80°48'05.496"W | 1171.32 | 96.910 | 4.79 | 2.36 | -9.72 | |
| 6287.00 | 28.260 | 17.310 | 6067.13 | -549.92 | -120.00 | 1170.50 | 1696545.45 | 14283294.27 | 39°19'59.309"N | 80°48'05.397"W | 1176.64 | 95.853 | 7.35 | 4.80 | -12.24 | |
| 6334.00 | 31.140 | 12.100 | 6107.95 | -531.24 | -97.48 | 1176.36 | 1696551.31 | 14283316.78 | 39°19'59.531"N | 80°48'05.322"W | 1180.40 | 94.737 | 8.22 | 6.13 | -11.09 | |
| 6382.00 | 33.520 | 8.290 | 6148.51 | -509.52 | -72.23 | 1180.88 | 1696555.82 | 14283342.02 | 39°19'59.781"N | 80°48'05.264"W | 1183.08 | 93.500 | 6.53 | 4.96 | -7.94 | |
| 6428.00 | 35.830 | 4.950 | 6187.17 | -486.05 | -45.67 | 1183.94 | 1696558.88 | 14283388.57 | 39°20'00.043"N | 80°48'05.224"W | 1184.82 | 92.209 | 6.36 | 4.91 | -7.11 | |
| 6477.00 | 39.300 | 1.290 | 6225.21 | -459.55 | -16.47 | 1185.49 | 1696560.44 | 14283397.76 | 39°20'00.332"N | 80°48'05.203"W | 1185.61 | 90.796 | 8.59 | 7.23 | -7.62 | |
| 6500.00† | 41.258 | 0.317 | 6242.76 | -445.85 | -1.60 | 1185.70 | 1696560.64 | 14283412.62 | 39°20'00.479"N | 80°48'05.200"W | 1185.70 | 90.077 | 8.94 | 8.51 | -4.23 | Middlesex: 6500' MD |
| 6524.00 | 43.310 | 359.380 | 6260.52 | -430.86 | 14.55 | 1185.65 | 1696560.60 | 14283428.76 | 39°20'00.638"N | 80°48'05.201"W | 1185.74 | 89.297 | 8.94 | 8.55 | -3.91 | |
| 6572.00 | 47.390 | 357.740 | 6294.24 | -398.89 | 48.67 | 1184.78 | 1696559.72 | 14283462.88 | 39°20'00.976"N | 80°48'05.211"W | 1185.78 | 87.648 | 8.84 | 8.50 | -3.42 | |
| 6619.00 | 51.400 | 356.790 | 6324.83 | -365.21 | 84.31 | 1183.07 | 1696558.01 | 14283498.50 | 39°20'01.328"N | 80°48'05.231"W | 1186.07 | 85.924 | 8.67 | 8.53 | -2.02 | |
| 6667.00 | 55.140 | 356.630 | 6353.53 | -328.78 | 122.71 | 1180.86 | 1696555.80 | 14283536.88 | 39°20'01.707"N | 80°48'05.259"W | 1187.22 | 84.068 | 7.80 | 7.79 | -0.33 | |
| 6712.00† | 59.391 | 356.659 | 6377.86 | -292.93 | 160.49 | 1178.64 | 1696553.59 | 14283574.64 | 39°20'02.081"N | 80°48'05.286"W | 1189.52 | 82.246 | 9.45 | 9.45 | 0.06 | Burkett: 6712' MD |
| 6714.00 | 59.580 | 356.660 | 6378.87 | -291.30 | 162.21 | 1178.54 | 1696553.49 | 14283576.36 | 39°20'02.098"N | 80°48'05.287"W | 1189.65 | 82.163 | 9.45 | 9.45 | 0.06 | |
| 6762.00 | 63.630 | 357.490 | 6401.69 | -251.40 | 204.37 | 1176.39 | 1696551.34 | 14283618.51 | 39°20'02.515"N | 80°48'05.313"W | 1194.01 | 80.145 | 8.57 | 8.44 | 1.73 | |
| 6770.00† | 64.166 | 357.622 | 6405.21 | -244.63 | 211.54 | 1176.09 | 1696551.04 | 14283625.68 | 39°20'02.586"N | 80°48'05.317"W | 1194.96 | 79.803 | 6.86 | 6.70 | 1.65 | fully: 6770' MD |

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Actual Wellpath Report

Addie Unit 2H AWP Proj: 14749'

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| REFERENCE WELLPATH IDENTIFICATION | | | | |
|-----------------------------------|------------------------------|--|----------|-------------------|
| Operator | ANTERO RESOURCES CORPORATION | | Slot | Slot #07 |
| Area | Doddridge Co., WV | | Well | Addie Unit 2H |
| Field | Doddridge | | Wellbore | Addie Unit 2H AWB |
| Facility | Addie Pad | | | |

| WELLPATH DATA (181 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 |
| 9135.00 | 90.460 | 343.710 | 6490.30 | 2079.02 | 2416.34 | 430.17 | 1695805.42 | 14285829.60 | 39°20'24.393"N | 80°48'14.749"W | 2454.33 | 10.094 | 3.10 | 0.33 | 3.08 | |
| 9230.00 | 90.180 | 347.750 | 6489.77 | 2173.13 | 2508.38 | 406.76 | 1695782.01 | 14285921.61 | 39°20'25.303"N | 80°48'15.044"W | 2541.15 | 9.211 | 4.26 | -0.29 | -4.25 | |
| 9325.00 | 90.280 | 344.360 | 6489.39 | 2267.18 | 2600.57 | 383.87 | 1695759.13 | 14286013.76 | 39°20'26.215"N | 80°48'15.333"W | 2628.75 | 8.397 | 3.57 | 0.11 | -3.57 | |
| 9420.00 | 90.150 | 338.830 | 6489.03 | 2361.95 | 2690.68 | 353.88 | 1695729.16 | 14286103.83 | 39°20'27.106"N | 80°48'15.712"W | 2713.85 | 7.493 | 5.82 | -0.14 | -5.82 | |
| 9514.00 | 90.030 | 338.570 | 6488.88 | 2455.94 | 2778.25 | 319.74 | 1695695.03 | 14286191.37 | 39°20'27.972"N | 80°48'16.144"W | 2796.59 | 6.565 | 0.30 | -0.13 | -0.28 | |
| 9610.00 | 90.180 | 335.940 | 6488.71 | 2551.93 | 2866.78 | 282.63 | 1695657.93 | 14286279.86 | 39°20'28.848"N | 80°48'16.614"W | 2880.68 | 5.630 | 2.74 | 0.16 | -2.74 | |
| 9704.00 | 90.310 | 332.830 | 6488.31 | 2645.73 | 2951.53 | 241.99 | 1695617.31 | 14286364.58 | 39°20'29.687"N | 80°48'17.129"W | 2961.44 | 4.687 | 3.31 | 0.14 | -3.31 | |
| 9799.00 | 90.180 | 335.920 | 6487.90 | 2740.53 | 3037.18 | 200.91 | 1695576.25 | 14286450.19 | 39°20'30.534"N | 80°48'17.650"W | 3043.81 | 3.785 | 3.26 | -0.14 | 3.25 | |
| 9893.00 | 90.340 | 337.880 | 6487.47 | 2834.50 | 3123.63 | 164.04 | 1695539.39 | 14286536.61 | 39°20'31.389"N | 80°48'18.117"W | 3127.94 | 3.006 | 2.09 | 0.17 | 2.09 | |
| 9989.00 | 90.280 | 340.000 | 6486.95 | 2930.48 | 3213.22 | 129.54 | 1695504.81 | 14286626.16 | 39°20'32.275"N | 80°48'18.553"W | 3215.83 | 2.309 | 2.21 | -0.06 | 2.21 | |
| 10083.00 | 90.340 | 341.340 | 6486.44 | 3024.38 | 3301.91 | 98.43 | 1695473.81 | 14286714.82 | 39°20'33.153"N | 80°48'18.947"W | 3303.38 | 1.707 | 1.43 | 0.06 | 1.43 | |
| 10178.00 | 90.090 | 339.700 | 6486.09 | 3119.28 | 3391.47 | 66.75 | 1695442.14 | 14286804.34 | 39°20'34.039"N | 80°48'19.348"W | 3392.13 | 1.128 | 1.75 | -0.26 | -1.73 | |
| 10273.00 | 90.030 | 338.280 | 6485.99 | 3214.26 | 3480.15 | 32.69 | 1695408.09 | 14286892.99 | 39°20'34.916"N | 80°48'19.779"W | 3480.31 | 0.538 | 1.50 | -0.06 | -1.49 | |
| 10368.00 | 90.180 | 336.310 | 6485.81 | 3309.25 | 3567.79 | -3.98 | 1695371.44 | 14286980.59 | 39°20'35.783"N | 80°48'20.243"W | 3567.79 | 359.936 | 2.08 | 0.16 | -2.07 | |
| 10463.00 | 90.340 | 334.390 | 6485.38 | 3404.15 | 3654.12 | -43.60 | 1695331.84 | 14287066.89 | 39°20'36.637"N | 80°48'20.745"W | 3654.38 | 359.316 | 2.03 | 0.17 | -2.02 | |
| 10557.00 | 89.970 | 337.120 | 6485.13 | 3498.06 | 3739.83 | -82.19 | 1695293.26 | 14287152.56 | 39°20'37.485"N | 80°48'21.234"W | 3740.73 | 358.741 | 2.93 | -0.39 | 2.90 | |
| 10652.00 | 90.090 | 338.520 | 6485.08 | 3593.06 | 3827.79 | -118.06 | 1695257.41 | 14287240.49 | 39°20'38.355"N | 80°48'21.688"W | 3829.61 | 358.233 | 1.48 | 0.13 | 1.47 | |
| 10747.00 | 90.180 | 333.750 | 6484.85 | 3687.98 | 3914.65 | -156.48 | 1695219.00 | 14287327.31 | 39°20'39.214"N | 80°48'22.175"W | 3917.77 | 357.711 | 5.02 | 0.09 | -5.02 | |
| 10842.00 | 90.090 | 332.670 | 6484.63 | 3782.65 | 3999.45 | -199.30 | 1695176.20 | 14287412.08 | 39°20'40.053"N | 80°48'22.717"W | 4004.41 | 357.147 | 1.14 | -0.09 | -1.14 | |
| 10937.00 | 90.180 | 336.470 | 6484.41 | 3877.47 | 4085.23 | -240.09 | 1695135.43 | 14287497.82 | 39°20'40.902"N | 80°48'23.234"W | 4092.28 | 356.637 | 4.00 | 0.09 | 4.00 | |
| 11032.00 | 90.340 | 337.160 | 6483.98 | 3972.44 | 4172.55 | -277.49 | 1695098.04 | 14287585.11 | 39°20'41.766"N | 80°48'23.708"W | 4181.77 | 356.195 | 0.75 | 0.17 | 0.73 | |
| 11127.00 | 90.220 | 339.530 | 6483.51 | 4067.43 | 4260.84 | -312.54 | 1695063.00 | 14287673.37 | 39°20'42.639"N | 80°48'24.152"W | 4272.29 | 355.805 | 2.50 | -0.13 | 2.49 | |
| 11222.00 | 90.340 | 343.200 | 6483.05 | 4162.25 | 4350.84 | -342.89 | 1695032.66 | 14287763.33 | 39°20'43.529"N | 80°48'24.535"W | 4364.33 | 355.494 | 3.87 | 0.13 | 3.86 | |
| 11317.00 | 90.520 | 338.540 | 6482.33 | 4257.10 | 4440.57 | -374.01 | 1695001.55 | 14287853.02 | 39°20'44.417"N | 80°48'24.929"W | 4456.29 | 355.186 | 4.91 | 0.19 | -4.91 | |
| 11412.00 | 90.340 | 330.720 | 6481.82 | 4351.86 | 4526.34 | -414.89 | 1694960.90 | 14287938.76 | 39°20'45.265"N | 80°48'25.444"W | 4545.30 | 354.765 | 8.23 | -0.19 | -8.23 | |
| 11507.00 | 90.370 | 329.760 | 6481.03 | 4445.99 | 4608.81 | -461.84 | 1694913.76 | 14288021.19 | 39°20'46.081"N | 80°48'26.042"W | 4631.89 | 354.278 | 1.01 | 0.03 | -1.01 | |
| 11602.00 | 90.310 | 326.800 | 6480.47 | 4539.62 | 4689.61 | -511.78 | 1694863.84 | 14288101.96 | 39°20'46.881"N | 80°48'26.676"W | 4717.45 | 353.772 | 3.12 | -0.06 | -3.12 | |
| 11697.00 | 90.090 | 325.810 | 6480.14 | 4632.65 | 4768.65 | -564.48 | 1694811.16 | 14288180.97 | 39°20'47.663"N | 80°48'27.345"W | 4801.94 | 353.249 | 1.07 | -0.23 | -1.04 | |
| 11792.00 | 90.150 | 332.870 | 6479.94 | 4726.51 | 4850.31 | -612.90 | 1694762.77 | 14288262.60 | 39°20'48.472"N | 80°48'27.959"W | 4888.88 | 352.798 | 7.43 | 0.06 | 7.43 | |
| 11886.00 | 90.370 | 340.490 | 6479.51 | 4820.41 | 4936.57 | -650.08 | 1694725.60 | 14288348.83 | 39°20'49.325"N | 80°48'28.430"W | 4979.19 | 352.498 | 8.11 | 0.23 | 8.11 | |

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Actual Wellpath Report

Addie Unit 2H AWP Proj: 14749'

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| REFERENCE WELLPATH IDENTIFICATION | | | | |
|-----------------------------------|------------------------------|--|----------|-------------------|
| Operator | ANTERO RESOURCES CORPORATION | | Slot | Slot #07 |
| Area | Doddridge Co., WV | | Well | Addie Unit 2H |
| Field | Doddridge | | Wellbore | Addie Unit 2H AWB |
| Facility | Addie Pad | | | |

| WELLPATH DATA (181 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 |
| 11981.00 | 90.400 | 339.530 | 6478.87 | 4915.35 | 5025.84 | -682.56 | 1694693.13 | 14288438.06 | 39°20'50.208"N | 80°48'28.841"W | 5071.98 | 352.266 | 1.01 | 0.03 | -1.01 | |
| 12076.00 | 90.280 | 341.600 | 6478.31 | 5010.25 | 5115.42 | -714.16 | 1694661.54 | 14288527.61 | 39°20'51.094"N | 80°48'29.241"W | 5165.04 | 352.052 | 2.18 | -0.13 | 2.18 | |
| 12171.00 | 90.370 | 344.750 | 6477.77 | 5104.85 | 5206.34 | -741.66 | 1694634.06 | 14288618.49 | 39°20'51.993"N | 80°48'29.588"W | 5258.90 | 351.893 | 3.32 | 0.09 | 3.32 | |
| 12266.00 | 90.250 | 346.100 | 6477.25 | 5199.05 | 5298.28 | -765.56 | 1694610.16 | 14288710.39 | 39°20'52.902"N | 80°48'29.890"W | 5353.31 | 351.778 | 1.43 | -0.13 | 1.42 | |
| 12361.00 | 90.430 | 346.110 | 6478.69 | 5293.09 | 5390.50 | -788.38 | 1694587.36 | 14288802.58 | 39°20'53.814"N | 80°48'30.178"W | 5447.85 | 351.679 | 0.19 | 0.19 | 0.01 | |
| 12456.00 | 90.430 | 347.390 | 6475.98 | 5386.98 | 5482.97 | -810.15 | 1694565.59 | 14288895.01 | 39°20'54.729"N | 80°48'30.452"W | 5542.50 | 351.595 | 1.35 | 0.00 | 1.35 | |
| 12551.00 | 90.460 | 343.140 | 6475.24 | 5481.19 | 5574.82 | -834.31 | 1694541.44 | 14288986.82 | 39°20'55.637"N | 80°48'30.757"W | 5636.90 | 351.489 | 4.47 | 0.03 | -4.47 | |
| 12646.00 | 90.400 | 342.790 | 6474.53 | 5575.83 | 5665.65 | -862.14 | 1694513.63 | 14289077.61 | 39°20'56.535"N | 80°48'31.109"W | 5730.87 | 351.348 | 0.37 | -0.06 | -0.37 | |
| 12741.00 | 90.830 | 338.670 | 6473.51 | 5670.69 | 5755.30 | -893.48 | 1694482.30 | 14289167.23 | 39°20'57.422"N | 80°48'31.506"W | 5824.24 | 351.176 | 4.36 | 0.45 | -4.34 | |
| 12836.00 | 90.370 | 334.260 | 6472.51 | 5765.63 | 5842.37 | -931.40 | 1694444.39 | 14289254.27 | 39°20'58.283"N | 80°48'31.986"W | 5916.15 | 350.942 | 4.67 | -0.48 | -4.64 | |
| 12931.00 | 90.280 | 331.210 | 6471.97 | 5860.22 | 5926.81 | -974.92 | 1694400.89 | 14289338.67 | 39°20'59.119"N | 80°48'32.538"W | 6006.46 | 350.659 | 3.21 | -0.09 | -3.21 | |
| 13026.00 | 90.220 | 333.530 | 6471.56 | 5954.76 | 6010.97 | -1018.97 | 1694356.85 | 14289422.79 | 39°20'59.952"N | 80°48'33.096"W | 6096.72 | 350.379 | 2.44 | -0.06 | 2.44 | |
| 13121.00 | 90.280 | 337.130 | 6471.14 | 6049.64 | 6097.28 | -1058.62 | 1694317.22 | 14289509.07 | 39°21'00.805"N | 80°48'33.599"W | 6188.50 | 350.150 | 3.79 | 0.06 | 3.79 | |
| 13216.00 | 90.280 | 337.950 | 6470.68 | 6144.63 | 6185.07 | -1094.91 | 1694280.95 | 14289596.83 | 39°21'01.674"N | 80°48'34.058"W | 6281.24 | 349.961 | 0.86 | 0.00 | 0.86 | |
| 13310.00 | 90.280 | 336.560 | 6470.22 | 6238.62 | 6271.76 | -1131.25 | 1694244.62 | 14289683.48 | 39°21'02.531"N | 80°48'34.519"W | 6372.97 | 349.775 | 1.48 | 0.00 | -1.48 | |
| 13405.00 | 90.310 | 334.710 | 6469.73 | 6333.54 | 6358.29 | -1170.44 | 1694205.44 | 14289769.98 | 39°21'03.388"N | 80°48'35.015"W | 6465.12 | 349.570 | 1.95 | 0.03 | -1.95 | |
| 13500.00 | 90.310 | 335.910 | 6469.22 | 6428.43 | 6444.61 | -1210.12 | 1694165.78 | 14289856.26 | 39°21'04.241"N | 80°48'35.518"W | 6557.24 | 349.365 | 1.26 | 0.00 | 1.26 | |
| 13594.00 | 90.310 | 341.650 | 6468.71 | 6522.38 | 6532.19 | -1244.13 | 1694131.78 | 14289943.81 | 39°21'05.108"N | 80°48'35.949"W | 6649.62 | 349.217 | 6.11 | 0.00 | 6.11 | |
| 13690.00 | 90.280 | 339.790 | 6468.21 | 6618.26 | 6622.81 | -1275.83 | 1694100.10 | 14290034.39 | 39°21'06.004"N | 80°48'36.350"W | 6744.57 | 349.096 | 1.94 | -0.03 | -1.94 | |
| 13784.00 | 90.310 | 338.300 | 6467.73 | 6712.24 | 6710.59 | -1309.44 | 1694066.50 | 14290122.13 | 39°21'06.872"N | 80°48'36.775"W | 6837.15 | 348.959 | 1.59 | 0.03 | -1.59 | |
| 13879.00 | 90.310 | 340.150 | 6467.21 | 6807.22 | 6799.40 | -1343.14 | 1694032.82 | 14290210.92 | 39°21'07.751"N | 80°48'37.202"W | 6930.79 | 348.826 | 1.95 | 0.00 | 1.95 | |
| 13974.00 | 90.370 | 341.170 | 6466.65 | 6902.11 | 6889.04 | -1374.60 | 1694001.37 | 14290300.52 | 39°21'08.637"N | 80°48'37.600"W | 7024.84 | 348.716 | 1.08 | 0.06 | 1.07 | |
| 14069.00 | 90.400 | 339.630 | 6466.01 | 6997.02 | 6978.53 | -1406.46 | 1693969.52 | 14290389.97 | 39°21'09.523"N | 80°48'38.003"W | 7118.85 | 348.605 | 1.62 | 0.03 | -1.62 | |
| 14164.00 | 90.490 | 337.860 | 6465.27 | 7092.01 | 7067.06 | -1440.90 | 1693935.09 | 14290478.47 | 39°21'10.398"N | 80°48'38.439"W | 7212.46 | 348.476 | 1.87 | 0.09 | -1.86 | |
| 14259.00 | 90.370 | 338.410 | 6464.56 | 7187.00 | 7155.22 | -1476.28 | 1693899.73 | 14290566.60 | 39°21'11.270"N | 80°48'38.887"W | 7305.93 | 348.342 | 0.59 | -0.13 | 0.58 | |
| 14353.00 | 90.280 | 340.670 | 6464.03 | 7280.96 | 7243.29 | -1509.13 | 1693866.89 | 14290654.62 | 39°21'12.141"N | 80°48'39.303"W | 7398.83 | 348.231 | 2.41 | -0.10 | 2.40 | |
| 14448.00 | 90.310 | 338.220 | 6463.54 | 7375.92 | 7332.23 | -1542.49 | 1693833.55 | 14290743.53 | 39°21'13.021"N | 80°48'39.725"W | 7492.72 | 348.120 | 2.58 | 0.03 | -2.58 | |
| 14543.00 | 90.340 | 341.420 | 6463.00 | 7470.86 | 7421.39 | -1575.25 | 1693800.79 | 14290832.65 | 39°21'13.903"N | 80°48'40.140"W | 7586.73 | 348.016 | 3.37 | 0.03 | 3.37 | |
| 14638.00 | 90.310 | 343.000 | 6462.46 | 7565.60 | 7511.84 | -1604.28 | 1693771.78 | 14290923.07 | 39°21'14.798"N | 80°48'40.507"W | 7681.24 | 347.945 | 1.66 | -0.03 | 1.66 | |
| 14725.00 | 90.310 | 342.540 | 6461.99 | 7652.29 | 7594.93 | -1630.05 | 1693746.02 | 14291006.13 | 39°21'15.619"N | 80°48'40.833"W | 7767.89 | 347.887 | 0.53 | 0.00 | -0.53 | |

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Actual Wellpath Report

Addie Unit 2H AWP Proj: 14749'

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|------------------------------|----------|-------------------|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #07 |
| Area | Doddridge Co., WV | Well | Addie Unit 2H |
| Field | Doddridge | Wellbore | Addie Unit 2H AWB |
| Facility | Addie Pad | | |

| WELLPATH DATA (181 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 |
| 14749.00 | 90.310 | 342.540 | 6461.86 | 7676.22 | 7617.83 | -1637.25 | 1693738.82 | 14291029.02 | 39°21'15.846"N | 80°48'40.924"W | 7791.78 | 347.870 | 0.00 | 0.00 | 0.00 | Projected MD at TD: 14749' |

| HOLE & CASING SECTIONS - Ref Wellbore: Addie Unit 2H AWB Ref Wellpath: Addie Unit 2H AWP Proj: 14749' | | | | | | | | | | |
|---|------------------|----------------|------------------|-------------------|-----------------|-------------------|-------------------|-----------------|-----------------|--|
| String/Diameter | Start MD [ft] | End MD [ft] | Interval [ft] | Start TVD [ft] | End TVD [ft] | Start N/S [ft] | Start E/W [ft] | End N/S [ft] | End E/W [ft] | |
| 20in Conductor | 24.50 | 104.50 | 80.00 | 24.50 | 104.50 | 0.00 | 0.00 | 0.04 | 0.09 | |
| 17.5in Open Hole | 104.50 | 502.50 | 398.00 | 104.50 | 502.50 | 0.04 | 0.09 | 0.84 | 0.15 | |
| 13.375in Casing Surface | 24.50 | 502.50 | 478.00 | 24.50 | 502.50 | 0.00 | 0.00 | 0.84 | 0.15 | |
| 12.25in Open Hole | 502.50 | 2613.60 | 2111.10 | 502.50 | 2609.67 | 0.84 | 0.15 | -63.65 | 36.69 | |
| 9.625in Casing Intermediate | 24.50 | 2613.60 | 2589.10 | 24.50 | 2609.67 | 0.00 | 0.00 | -63.65 | 36.69 | |
| 8.75in Open Hole | 2613.60 | 6210.50 | 3596.90 | 2609.67 | 5998.69 | -63.65 | 36.69 | -151.70 | 1157.87 | |
| 8.5in Open Hole | 6210.50 | 14749.00 | 8538.50 | 5998.69 | 6461.86 | -151.70 | 1157.87 | 7617.83 | -1637.25 | |
| 5.5in Casing Production | 24.50 | 14749.00 | 14724.50 | 24.50 | 6461.86 | 0.00 | 0.00 | 7617.83 | -1637.25 | |

| TARGETS | | | | | | | | |
|---------------------------|-------------|---------------|--------------|----------------------|-----------------------|----------------|----------------|-------|
| Name | TVD [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | Shape |
| Addie Unit 2H POE - Rev-2 | 6451.00 | 302.71 | 1190.41 | 1696565.35 | 14283716.81 | 39°20'03.486"N | 80°48'05.132"W | point |
| Addie Unit 2H BHL - Rev-2 | 6491.00 | 7657.61 | -1678.65 | 1693697.44 | 14291068.78 | 39°21'16.240"N | 80°48'41.450"W | point |
| Addie Unit 2H LP - Rev-1 | 6491.00 | 535.48 | 1151.45 | 1696526.41 | 14283949.49 | 39°20'05.788"N | 80°48'05.621"W | point |

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Addie Unit 2H AWP Proj: 14749'

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|------------------------------|----------|-------------------|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #07 |
| Area | Doddridge Co., WV | Well | Addie Unit 2H |
| Field | Doddridge | Wellbore | Addie Unit 2H AWB |
| Facility | Addie Pad | | |

| WELLPATH COMPOSITION - Ref Wellbore: Addie Unit 2H AWB Ref Wellpath: Addie Unit 2H AWP Proj: 14749' | | | | |
|---|-------------|---|--|-------------------|
| Start MD [ft] | End MD [ft] | Positional Uncertainty Model | Log Name/Comment | Wellbore |
| 24.50 | 484.50 | Gyrodata standard - Drop gyro or Multi-shot | 01 Gyrodata MS Gyro <17-1/2">(100'-475') | Addie Unit 2H AWB |
| 484.50 | 721.50 | Gyrodata standard - Drop gyro or Multi-shot | 02 Gyrodata MS Gyro <12-1/4">(475')(532'-712') | Addie Unit 2H AWB |
| 721.50 | 2530.50 | ISCWSA MWD, Rev. 4 (Standard) | 03 WFT EM <12-1/4">(712')(793'-2521') | Addie Unit 2H AWB |
| 2530.50 | 6137.50 | ISCWSA MWD, Rev. 4 (Standard) | 04 WFT EM <8-3/4">(2521')(2629'-6128') | Addie Unit 2H AWB |
| 6137.50 | 14725.00 | BHI AutoTrak Curve (Short) | 05 BH ATCurve <8-1/2">(6137.50')(6191'-14725') | Addie Unit 2H AWB |
| 14725.00 | 14749.00 | Blind Drilling (std) | Projection to bit | Addie Unit 2H AWB |

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Addie Unit 2H AWP Proj: 14749'

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REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|------------------------------|----------|-------------------|
| Operator | ANTERO RESOURCES CORPORATION | Slot | Slot #07 |
| Area | Doddridge Co., WV | Well | Addie Unit 2H |
| Field | Doddridge | Wellbore | Addie Unit 2H AWB |
| Facility | Addie Pad | | |

COMMENTS

Wellpath general comments

API: 47-017-06807-0000
BHI Job #: 8877723
Rig: Frontier 22
Duration: 11/18/2017-11/20/2017
Gyrodata MS Gyro <17-1/2"> (100'-475')
Gyrodata MS Gyro <12-1/4"> (475')(532'-712')
WFT EM <12-1/4"> (712')(793'-2521')
WFT EM <8-3/4"> (2521')(2629'-6128')
BHI AT Curve <8-1/2"> (6137.5')(6191'-14725')
Middlesex: 6500' MD
Burkett: 6712' MD
Tully: 6770' MD
Hamilton: 6859' MD
Marcellus POE: 6886' MD
Projected MD at TD: 14749'

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