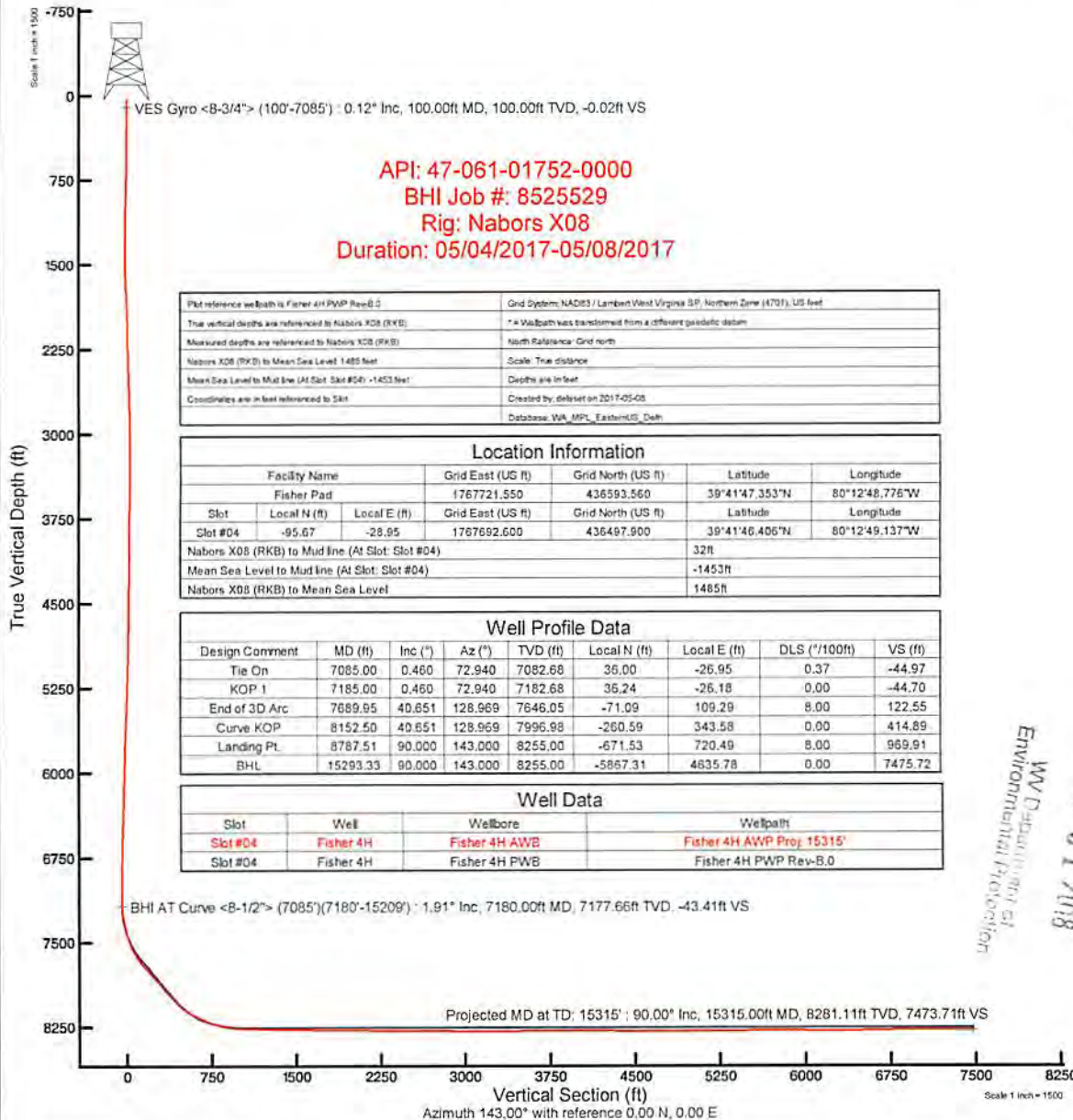


NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV
 Field: Monongalia
 Facility: Fisher Pad

Slot: Slot #04
 Well: Fisher 4H
 Wellbore: Fisher 4H PWB

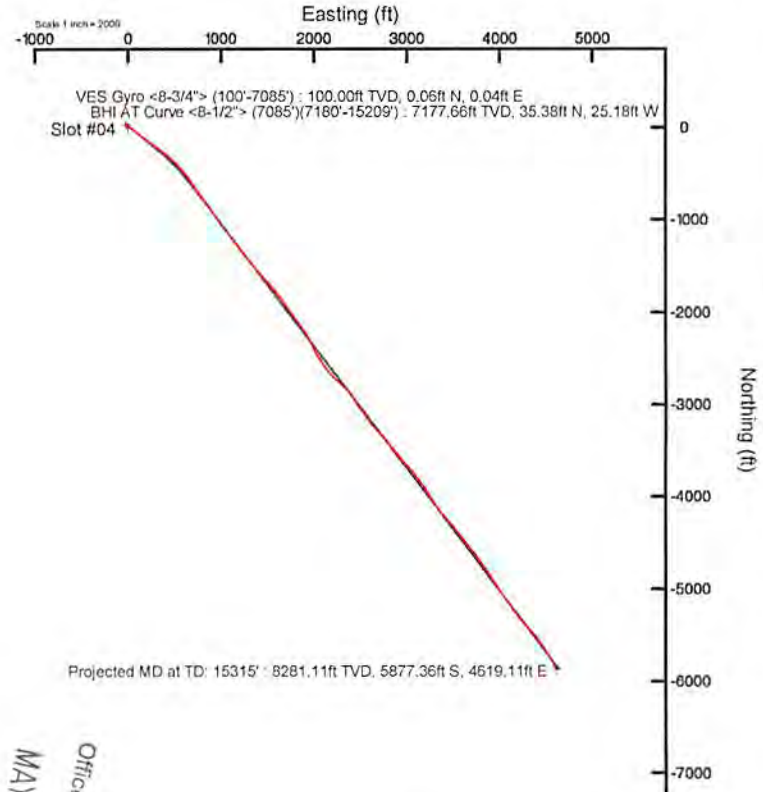


| | |
|---|--|
| Plot reference wellbore is Fisher 4H PWB Rev-B.0 | Grid System: NAD83 / Lambert West Virginia SR, Northern Zone (4701), US feet |
| True vertical depths are referenced to Nabors X08 (RKB) | ** Wellpath was transformed from a different geoidic datum |
| Measured depths are referenced to Nabors X08 (RKB) | North Reference: Grid north |
| Nabors X08 (RKB) to Mean Sea Level: 1485 feet | Scale: True distance |
| Mean Sea Level to Mud line (At Slot: Slot #04) : -1453 feet | Depths are in feet |
| Coordinates are in feet referenced to Slot | Created by: ddesmet on 2017-05-08 |
| | Database: WA_MPL_EasternUS_Dept |

| Location Information | | | | | | |
|--|--------------|-------------------|--------------------|--------------------|----------------|----------------|
| Facility Name | | Grid East (US ft) | Grid North (US ft) | Latitude | Longitude | |
| Fisher Pad | | 1767721.550 | 436593.560 | 39°41'47.353"N | 80°12'48.776"W | |
| Slot | Local N (ft) | Local E (ft) | Grid East (US ft) | Grid North (US ft) | Latitude | Longitude |
| Slot #04 | -95.67 | -28.95 | 1767692.600 | 436497.900 | 39°41'46.406"N | 80°12'49.137"W |
| Nabors X08 (RKB) to Mud line (At Slot: Slot #04) | | | 32ft | | | |
| Mean Sea Level to Mud line (At Slot: Slot #04) | | | -1453ft | | | |
| Nabors X08 (RKB) to Mean Sea Level | | | 1485ft | | | |

| Well Profile Data | | | | | | | | |
|-------------------|----------|---------|---------|----------|--------------|--------------|---------------|---------|
| Design Comment | MD (ft) | Inc (") | Az (°) | TVD (ft) | Local N (ft) | Local E (ft) | DLS ("/100ft) | VS (ft) |
| Tie On | 7085.00 | 0.460 | 72.940 | 7082.68 | 36.00 | -26.95 | 0.37 | -44.97 |
| KOP 1 | 7185.00 | 0.460 | 72.940 | 7182.68 | 35.24 | -26.18 | 0.00 | -44.70 |
| End of 3D Arc | 7689.95 | 40.651 | 128.969 | 7646.05 | -71.09 | 109.29 | 8.00 | 122.55 |
| Curve KOP | 8152.50 | 40.651 | 128.969 | 7996.98 | -260.59 | 343.58 | 0.00 | 414.89 |
| Landing Pt. | 8787.51 | 90.000 | 143.000 | 8255.00 | -671.53 | 720.49 | 8.00 | 969.91 |
| BHL | 15293.33 | 90.000 | 143.000 | 8255.00 | -5867.31 | 4835.78 | 0.00 | 7475.72 |

| Well Data | | | |
|-----------|-----------|---------------|----------------------------|
| Slot | Well | Wellbore | Wellpath |
| Slot #04 | Fisher 4H | Fisher 4H AWE | Fisher 4H AWP Proj: 15315' |
| Slot #04 | Fisher 4H | Fisher 4H PWB | Fisher 4H PWB Rev-B.0 |



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BGGM (1900.0 to 2018.0) Dip: 66.78° Field: 52154.6 nT
 Magnetic North is 9.05 degrees West of True North (at 28/Apr/2017)
 Grid North is 0.46 degrees West of True North
 To correct azimuth from True to Grid add 0.46 degrees
 To correct azimuth from Magnetic to Grid subtract 8.59 degrees



Actual Wellpath Report

Fisher 4H AWP Proj: 15315'

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|-------------------------------|----------|---------------|
| Operator | NORTHEAST NATURAL ENERGY, LLC | Slot | Slot #04 |
| Area | Monongalia County, WV | Well | Fisher 4H |
| Field | Monongalia | Wellbore | Fisher 4H AWB |
| Facility | Fisher Pad | | |

| REPORT SETUP INFORMATION | | | |
|--------------------------|---|----------------------|---|
| Projection System | NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet | Software System | WellArchitect® 5.0 |
| North Reference | Grid | User | Delaset |
| Scale | 0.999941 | Report Generated | 08/May/2017 at 15:00 |
| Convergence at slot | 0.46° West | Database/Source file | WA_MPL_EasternUS_Defn/Fisher_4H_AWP_Proj_15315_.xml |

| WELLPATH LOCATION | | | | | | |
|-----------------------|-------------------|----------|------------------|-----------------|------------------------|----------------|
| | Local coordinates | | Grid coordinates | | Geographic coordinates | |
| | North[ft] | East[ft] | Easting[US ft] | Northing[US ft] | Latitude | Longitude |
| Slot Location | -95.67 | -28.95 | 1767692.60 | 436497.90 | 39°41'46.406"N | 80°12'49.137"W |
| Facility Reference Pt | | | 1767721.55 | 436593.56 | 39°41'47.353"N | 80°12'48.776"W |
| Field Reference Pt | | | 1777685.71 | 440640.65 | 39°42'28.114"N | 80°10'41.690"W |

| WELLPATH DATUM | | | |
|--------------------------|-------------------|---|-------------------|
| Calculation method | Minimum curvature | Nabors X08 (RKB) to Facility Vertical Datum | 1485.00ft |
| Horizontal Reference Pt | Slot | Nabors X08 (RKB) to Mean Sea Level | 1485.00ft |
| Vertical Reference Pt | Nabors X08 (RKB) | Nabors X08 (RKB) to Mud Line at Slot (Slot #04) | 32.00ft |
| MD Reference Pt | Nabors X08 (RKB) | Section Origin | N 0.00, E 0.00 ft |
| Field Vertical Reference | Mean Sea Level | Section Azimuth | 143.00° |

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Actual Wellpath Report

Fisher 4H AWP Proj: 15315'

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|-------------------------------|----------|---------------|
| Operator | NORTHEAST NATURAL ENERGY, LLC | Slot | Slot #04 |
| Area | Monongalia County, WV | Well | Fisher 4H |
| Field | Monongalia | Wellbore | Fisher 4H AWB |
| Facility | Fisher Pad | | |

| WELLPATH DATA (160 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 | 38.030 | 0.00 | 0.00 | 0.00 | 0.00 | 1767692.60 | 436497.90 | 39°41'46.406"N | 80°12'49.137"W | 0.00 | 0.000 | 0.00 | 0.00 | 0.00 | |
| 32.00 | 0.000 | 38.030 | 32.00 | 0.00 | 0.00 | 0.00 | 1767692.60 | 436497.90 | 39°41'46.406"N | 80°12'49.137"W | 0.00 | 0.000 | 0.00 | 0.00 | 0.00 | |
| 100.00 | 0.120 | 38.030 | 100.00 | -0.02 | 0.06 | 0.04 | 1767692.64 | 436497.96 | 39°41'46.406"N | 80°12'49.136"W | 0.07 | 38.030 | 0.18 | 0.18 | 55.93 | VES Gyro <8-3/4"> (100'-7085') |
| 200.00 | 0.410 | 128.620 | 200.00 | 0.30 | -0.08 | 0.39 | 1767692.99 | 436497.82 | 39°41'46.405"N | 80°12'49.132"W | 0.40 | 102.322 | 0.43 | 0.29 | 90.59 | |
| 300.00 | 0.170 | 269.380 | 300.00 | 0.56 | -0.31 | 0.52 | 1767693.12 | 436497.59 | 39°41'46.403"N | 80°12'49.130"W | 0.60 | 120.816 | 0.55 | -0.24 | 140.76 | |
| 400.00 | 0.470 | 250.020 | 400.00 | 0.35 | -0.45 | -0.01 | 1767692.59 | 436497.45 | 39°41'46.401"N | 80°12'49.137"W | 0.45 | 181.863 | 0.31 | 0.30 | -19.36 | |
| 500.00 | 0.990 | 262.790 | 499.99 | -0.20 | -0.70 | -1.26 | 1767691.34 | 436497.20 | 39°41'46.399"N | 80°12'49.153"W | 1.44 | 240.892 | 0.54 | 0.52 | 12.77 | |
| 600.00 | 0.800 | 266.420 | 599.98 | -1.01 | -0.85 | -2.81 | 1767689.79 | 436497.05 | 39°41'46.397"N | 80°12'49.173"W | 2.94 | 253.138 | 0.20 | -0.19 | 3.63 | |
| 700.00 | 1.170 | 290.930 | 699.96 | -2.26 | -0.53 | -4.46 | 1767688.14 | 436497.37 | 39°41'46.400"N | 80°12'49.194"W | 4.49 | 263.214 | 0.55 | 0.37 | 24.51 | |
| 800.00 | 1.340 | 293.510 | 799.94 | -4.14 | 0.30 | -6.49 | 1767686.11 | 436498.20 | 39°41'46.408"N | 80°12'49.220"W | 6.49 | 272.650 | 0.18 | 0.17 | 2.58 | |
| 900.00 | 1.300 | 296.430 | 899.91 | -6.18 | 1.27 | -8.58 | 1767684.03 | 436499.17 | 39°41'46.417"N | 80°12'49.247"W | 8.67 | 278.435 | 0.08 | -0.04 | 2.92 | |
| 1000.00 | 1.070 | 297.330 | 999.89 | -8.03 | 2.21 | -10.42 | 1767682.18 | 436500.11 | 39°41'46.427"N | 80°12'49.271"W | 10.65 | 281.949 | 0.23 | -0.23 | 0.90 | |
| 1100.00 | 0.370 | 343.740 | 1099.88 | -9.18 | 2.94 | -11.34 | 1767681.26 | 436500.84 | 39°41'46.434"N | 80°12'49.282"W | 11.72 | 284.552 | 0.86 | -0.70 | 46.41 | |
| 1200.00 | 0.230 | 307.900 | 1199.88 | -9.67 | 3.38 | -11.59 | 1767681.01 | 436501.28 | 39°41'46.438"N | 80°12'49.286"W | 12.07 | 286.246 | 0.23 | -0.14 | -35.84 | |
| 1300.00 | 0.030 | 154.170 | 1299.88 | -9.84 | 3.48 | -11.74 | 1767680.86 | 436501.38 | 39°41'46.439"N | 80°12'49.288"W | 12.24 | 286.502 | 0.26 | -0.20 | -153.73 | |
| 1400.00 | 0.420 | 334.130 | 1399.88 | -10.17 | 3.78 | -11.88 | 1767680.72 | 436501.68 | 39°41'46.442"N | 80°12'49.289"W | 12.47 | 287.657 | 0.45 | 0.39 | 179.96 | |
| 1500.00 | 0.600 | 79.330 | 1499.88 | -10.30 | 4.21 | -11.53 | 1767681.07 | 436502.11 | 39°41'46.446"N | 80°12'49.285"W | 12.27 | 290.058 | 0.82 | 0.18 | 105.20 | |
| 1600.00 | 2.180 | 114.210 | 1599.85 | -8.40 | 3.53 | -9.28 | 1767683.32 | 436501.43 | 39°41'46.440"N | 80°12'49.256"W | 9.93 | 290.807 | 1.72 | 1.58 | 34.88 | |
| 1700.00 | 2.840 | 122.810 | 1699.75 | -4.41 | 1.40 | -5.46 | 1767687.14 | 436499.30 | 39°41'46.419"N | 80°12'49.207"W | 5.64 | 284.415 | 0.76 | 0.66 | 8.60 | |
| 1800.00 | 3.060 | 119.530 | 1799.62 | 0.36 | -1.25 | -1.06 | 1767691.54 | 436496.65 | 39°41'46.393"N | 80°12'49.150"W | 1.64 | 220.198 | 0.28 | 0.22 | -3.28 | |
| 1900.00 | 2.260 | 132.150 | 1899.51 | 4.75 | -3.89 | 2.73 | 1767695.32 | 436494.01 | 39°41'46.367"N | 80°12'49.102"W | 4.75 | 145.004 | 0.99 | -0.80 | 12.62 | |
| 2000.00 | 1.120 | 136.370 | 1999.46 | 7.66 | -5.92 | 4.86 | 1767697.46 | 436491.98 | 39°41'46.347"N | 80°12'49.074"W | 7.66 | 140.622 | 1.15 | -1.14 | 4.22 | |
| 2100.00 | 1.140 | 131.160 | 2099.44 | 9.60 | -7.29 | 6.28 | 1767698.88 | 436490.62 | 39°41'46.334"N | 80°12'49.056"W | 9.62 | 139.217 | 0.10 | 0.02 | -5.21 | |
| 2200.00 | 1.760 | 88.350 | 2199.41 | 11.46 | -7.90 | 8.57 | 1767701.17 | 436490.00 | 39°41'46.328"N | 80°12'49.027"W | 11.65 | 132.659 | 1.21 | 0.62 | -42.81 | |
| 2300.00 | 2.150 | 82.750 | 2299.36 | 13.28 | -7.61 | 11.96 | 1767704.56 | 436490.29 | 39°41'46.331"N | 80°12'48.983"W | 14.18 | 122.474 | 0.43 | 0.39 | -5.60 | |
| 2400.00 | 2.690 | 89.600 | 2399.27 | 15.61 | -7.36 | 16.17 | 1767708.77 | 436490.54 | 39°41'46.334"N | 80°12'48.929"W | 17.77 | 114.475 | 0.61 | 0.54 | 6.85 | |
| 2500.00 | 2.880 | 97.410 | 2499.15 | 18.77 | -7.67 | 21.01 | 1767713.61 | 436490.23 | 39°41'46.331"N | 80°12'48.867"W | 22.37 | 110.054 | 0.42 | 0.19 | 7.81 | |
| 2600.00 | 2.630 | 97.800 | 2599.03 | 22.14 | -8.30 | 25.77 | 1767718.37 | 436489.60 | 39°41'46.325"N | 80°12'48.806"W | 27.08 | 107.859 | 0.25 | -0.25 | 0.39 | |
| 2700.00 | 2.220 | 97.260 | 2698.94 | 25.11 | -8.86 | 29.97 | 1767722.57 | 436489.04 | 39°41'46.320"N | 80°12'48.753"W | 31.25 | 106.471 | 0.41 | -0.41 | -0.54 | |
| 2800.00 | 1.550 | 96.690 | 2798.89 | 27.40 | -9.26 | 33.23 | 1767725.83 | 436488.64 | 39°41'46.317"N | 80°12'48.711"W | 34.50 | 105.575 | 0.67 | -0.67 | -0.57 | |

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Fisher 4H AWP Proj: 15315'
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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|-------------------------------|----------|---------------|
| Operator | NORTHEAST NATURAL ENERGY, LLC | Slot | Slot #04 |
| Area | Monongalia County, WV | Well | Fisher 4H |
| Field | Monongalia | Wellbore | Fisher 4H AWB |
| Facility | Fisher Pad | | |

| WELLPATH DATA (160 stations) | | | | | | | | | | | | | | | | |
|------------------------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------------|-----------------------|----------------|----------------|----------------------|--------------------|------------------|-------------------------|------------------------|----------|
| MD (ft) | Inclination (°) | Azimuth (°) | TVD (ft) | Vert Sect (ft) | North (ft) | East (ft) | Grid East (US ft) | Grid North (US ft) | Latitude | Longitude | Closure Dist (ft) | Closure Dir (°) | DLS (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | Comments |
| 2900.00 | 0.530 | 102.360 | 2898.87 | 28.68 | -9.52 | 35.03 | 1767727.63 | 436488.38 | 39°41'46.314"N | 80°12'48.688"W | 36.30 | 105.204 | 1.02 | -1.02 | 5.67 | |
| 3000.00 | 0.320 | 130.230 | 2998.87 | 29.31 | -9.80 | 35.69 | 1767728.29 | 436488.10 | 39°41'46.311"N | 80°12'48.679"W | 37.01 | 105.351 | 0.29 | -0.21 | 27.87 | |
| 3100.00 | 0.120 | 345.630 | 3098.87 | 29.48 | -9.88 | 35.88 | 1767728.48 | 436488.02 | 39°41'46.311"N | 80°12'48.677"W | 37.22 | 105.392 | 0.42 | -0.20 | -144.60 | |
| 3200.00 | 0.160 | 233.760 | 3198.87 | 29.38 | -9.86 | 35.74 | 1767728.34 | 436488.04 | 39°41'46.311"N | 80°12'48.679"W | 37.08 | 105.421 | 0.23 | 0.04 | -111.87 | |
| 3300.00 | 0.210 | 310.070 | 3298.87 | 29.20 | -9.82 | 35.49 | 1767728.09 | 436488.08 | 39°41'46.311"N | 80°12'48.682"W | 36.82 | 105.472 | 0.23 | 0.05 | 76.31 | |
| 3400.00 | 0.280 | 257.230 | 3398.87 | 28.92 | -9.76 | 35.11 | 1767727.71 | 436488.14 | 39°41'46.312"N | 80°12'48.687"W | 36.44 | 105.534 | 0.23 | 0.07 | -52.84 | |
| 3500.00 | 0.370 | 312.990 | 3498.87 | 28.51 | -9.59 | 34.64 | 1767727.23 | 436488.31 | 39°41'46.313"N | 80°12'48.693"W | 35.94 | 105.482 | 0.31 | 0.09 | 55.76 | |
| 3600.00 | 0.540 | 309.470 | 3598.86 | 27.73 | -9.07 | 34.04 | 1767726.63 | 436488.83 | 39°41'46.319"N | 80°12'48.701"W | 35.22 | 104.927 | 0.17 | 0.17 | -3.52 | |
| 3700.00 | 0.360 | 296.120 | 3698.86 | 26.99 | -8.64 | 33.39 | 1767725.99 | 436489.26 | 39°41'46.323"N | 80°12'48.709"W | 34.49 | 104.501 | 0.21 | -0.18 | -13.35 | |
| 3800.00 | 0.630 | 295.830 | 3798.86 | 26.22 | -8.26 | 32.61 | 1767725.21 | 436489.64 | 39°41'46.326"N | 80°12'48.719"W | 33.64 | 104.212 | 0.27 | 0.27 | -0.49 | |
| 3900.00 | 0.390 | 303.020 | 3898.85 | 25.41 | -7.84 | 31.83 | 1767724.43 | 436490.06 | 39°41'46.331"N | 80°12'48.729"W | 32.78 | 103.830 | 0.25 | -0.24 | 7.39 | |
| 4000.00 | 0.480 | 321.610 | 3998.85 | 24.68 | -7.32 | 31.29 | 1767723.88 | 436490.58 | 39°41'46.336"N | 80°12'48.736"W | 32.13 | 103.173 | 0.17 | 0.09 | 18.59 | |
| 4100.00 | 0.520 | 306.360 | 4098.84 | 23.82 | -6.73 | 30.66 | 1767723.26 | 436491.18 | 39°41'46.341"N | 80°12'48.744"W | 31.39 | 102.372 | 0.14 | 0.04 | -15.25 | |
| 4200.00 | 0.460 | 303.870 | 4198.84 | 23.01 | -6.23 | 29.96 | 1767722.56 | 436491.67 | 39°41'46.346"N | 80°12'48.753"W | 30.60 | 101.751 | 0.06 | -0.06 | -2.49 | |
| 4300.00 | 0.300 | 301.720 | 4298.84 | 22.39 | -5.87 | 29.41 | 1767722.00 | 436492.03 | 39°41'46.350"N | 80°12'48.760"W | 29.99 | 101.291 | 0.16 | -0.16 | -2.15 | |
| 4400.00 | 0.610 | 289.160 | 4398.84 | 21.70 | -5.56 | 28.68 | 1767721.28 | 436492.34 | 39°41'46.353"N | 80°12'48.770"W | 29.21 | 100.969 | 0.32 | 0.31 | -12.58 | |
| 4500.00 | 0.700 | 281.970 | 4498.83 | 20.80 | -5.26 | 27.58 | 1767720.18 | 436492.64 | 39°41'46.356"N | 80°12'48.784"W | 28.08 | 100.793 | 0.12 | 0.09 | -7.19 | |
| 4600.00 | 0.990 | 288.980 | 4598.82 | 19.62 | -4.85 | 26.16 | 1767718.76 | 436493.05 | 39°41'46.360"N | 80°12'48.802"W | 26.61 | 100.501 | 0.31 | 0.29 | 7.01 | |
| 4700.00 | 1.110 | 286.630 | 4698.80 | 18.12 | -4.29 | 24.42 | 1767717.02 | 436493.61 | 39°41'46.365"N | 80°12'48.824"W | 24.79 | 99.967 | 0.13 | 0.12 | -2.35 | |
| 4800.00 | 1.210 | 287.480 | 4798.78 | 16.48 | -3.70 | 22.48 | 1767715.08 | 436494.20 | 39°41'46.371"N | 80°12'48.849"W | 22.79 | 99.338 | 0.10 | 0.10 | 0.85 | |
| 4900.00 | 1.240 | 280.530 | 4898.76 | 14.83 | -3.18 | 20.41 | 1767713.01 | 436494.72 | 39°41'46.376"N | 80°12'48.876"W | 20.66 | 98.861 | 0.15 | 0.03 | -6.95 | |
| 5000.00 | 1.510 | 287.790 | 4998.73 | 12.95 | -2.58 | 18.10 | 1767710.69 | 436495.32 | 39°41'46.381"N | 80°12'48.905"W | 18.28 | 98.121 | 0.32 | 0.27 | 7.26 | |
| 5100.00 | 1.800 | 290.050 | 5098.69 | 10.56 | -1.64 | 15.37 | 1767707.96 | 436496.26 | 39°41'46.391"N | 80°12'48.940"W | 15.45 | 96.096 | 0.30 | 0.29 | 2.26 | |
| 5200.00 | 2.260 | 296.950 | 5198.62 | 7.47 | -0.21 | 12.13 | 1767704.73 | 436497.69 | 39°41'46.404"N | 80°12'48.982"W | 12.13 | 90.987 | 0.52 | 0.46 | 6.90 | |
| 5300.00 | 2.310 | 303.860 | 5298.55 | 3.80 | 1.80 | 8.70 | 1767701.30 | 436499.70 | 39°41'46.424"N | 80°12'49.026"W | 8.88 | 78.297 | 0.27 | 0.05 | 6.71 | |
| 5400.00 | 2.150 | 301.020 | 5398.47 | 0.15 | 3.89 | 5.41 | 1767698.01 | 436501.79 | 39°41'46.444"N | 80°12'49.068"W | 6.66 | 54.328 | 0.19 | -0.16 | -2.64 | |
| 5500.00 | 2.240 | 307.750 | 5498.40 | -3.47 | 6.05 | 2.26 | 1767694.86 | 436503.95 | 39°41'46.465"N | 80°12'49.109"W | 6.46 | 20.487 | 0.27 | 0.09 | 6.73 | |
| 5600.00 | 2.280 | 312.800 | 5598.32 | -7.31 | 8.60 | -0.74 | 1767691.86 | 436506.50 | 39°41'46.490"N | 80°12'49.147"W | 8.63 | 355.048 | 0.20 | 0.04 | 5.05 | |
| 5700.00 | 2.440 | 315.170 | 5698.23 | -11.38 | 11.46 | -3.71 | 1767688.90 | 436509.36 | 39°41'46.518"N | 80°12'49.186"W | 12.04 | 342.080 | 0.19 | 0.16 | 2.37 | |
| 5800.00 | 1.780 | 294.680 | 5798.17 | -14.86 | 13.62 | -6.62 | 1767685.98 | 436511.51 | 39°41'46.540"N | 80°12'49.223"W | 15.14 | 334.081 | 0.99 | -0.66 | -20.48 | |

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 WV Department of



Actual Wellpath Report

Fisher 4H AWP Proj: 15315'

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|-------------------------------|----------|---------------|
| Operator | NORTHEAST NATURAL ENERGY, LLC | Slot | Slot #04 |
| Area | Monongalia County, WV | Well | Fisher 4H |
| Field | Monongalia | Wellbore | Fisher 4H AWB |
| Facility | Fisher Pad | | |

| WELLPATH DATA (160 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 |
| 5900.00 | 1.610 | 295.610 | 5898.12 | -17.47 | 14.87 | -9.30 | 1767683.31 | 436512.77 | 39°41'46.552"N | 80°12'49.257"W | 17.54 | 327.993 | 0.17 | -0.17 | 0.93 | |
| 6000.00 | 1.610 | 305.400 | 5998.08 | -20.06 | 16.29 | -11.71 | 1767680.89 | 436514.19 | 39°41'46.556"N | 80°12'49.288"W | 20.06 | 324.301 | 0.27 | 0.00 | 9.79 | |
| 6100.00 | 1.590 | 292.580 | 6098.05 | -22.59 | 17.64 | -14.13 | 1767678.47 | 436515.54 | 39°41'46.579"N | 80°12'49.320"W | 22.60 | 321.297 | 0.36 | -0.02 | -12.82 | |
| 6200.00 | 1.520 | 294.990 | 6198.01 | -24.96 | 18.73 | -16.62 | 1767675.98 | 436516.63 | 39°41'46.589"N | 80°12'49.352"W | 25.04 | 318.425 | 0.10 | -0.07 | 2.41 | |
| 6300.00 | 1.650 | 310.450 | 6297.97 | -27.54 | 20.23 | -18.91 | 1767673.69 | 436518.13 | 39°41'46.604"N | 80°12'49.381"W | 27.69 | 316.920 | 0.45 | 0.13 | 15.48 | |
| 6400.00 | 2.060 | 311.610 | 6397.92 | -30.70 | 22.35 | -21.35 | 1767671.25 | 436520.25 | 39°41'46.625"N | 80°12'49.412"W | 30.91 | 316.311 | 0.41 | 0.41 | 1.16 | |
| 6500.00 | 2.370 | 325.900 | 6497.84 | -34.53 | 25.26 | -23.86 | 1767668.75 | 436523.16 | 39°41'46.653"N | 80°12'49.445"W | 34.74 | 316.636 | 0.63 | 0.31 | 14.29 | |
| 6600.00 | 1.780 | 313.770 | 6597.78 | -38.13 | 28.05 | -26.14 | 1767666.46 | 436525.94 | 39°41'46.681"N | 80°12'49.474"W | 38.34 | 317.018 | 0.73 | -0.59 | -12.13 | |
| 6700.00 | 1.520 | 349.830 | 6697.74 | -40.84 | 30.43 | -27.49 | 1767665.11 | 436528.32 | 39°41'46.704"N | 80°12'49.492"W | 41.01 | 317.899 | 1.05 | -0.26 | 36.06 | |
| 6800.00 | 1.150 | 342.850 | 6797.71 | -42.97 | 32.69 | -28.02 | 1767664.58 | 436530.59 | 39°41'46.726"N | 80°12'49.499"W | 43.06 | 319.396 | 0.40 | -0.37 | -8.98 | |
| 6900.00 | 0.980 | 20.380 | 6897.70 | -44.38 | 34.45 | -28.02 | 1767664.58 | 436532.35 | 39°41'46.744"N | 80°12'49.499"W | 44.41 | 320.876 | 0.70 | -0.17 | 37.53 | |
| 7000.00 | 0.490 | 34.520 | 6997.69 | -44.97 | 35.60 | -27.48 | 1767665.12 | 436533.50 | 39°41'46.755"N | 80°12'49.492"W | 44.98 | 322.338 | 0.52 | -0.49 | 14.14 | |
| 7085.00 | 0.460 | 72.940 | 7082.68 | -44.97 | 36.00 | -26.95 | 1767665.65 | 436533.90 | 39°41'46.759"N | 80°12'49.485"W | 44.97 | 323.186 | 0.37 | -0.04 | 45.20 | |
| 7180.00 | 1.910 | 117.740 | 7177.66 | -43.41 | 35.38 | -25.18 | 1767667.42 | 436533.28 | 39°41'46.753"N | 80°12'49.463"W | 43.43 | 324.557 | 1.70 | 1.53 | 47.16 | BHI AT Curve <8-1/2"> (7085')(7180'-15209') |
| 7275.00 | 8.620 | 124.280 | 7272.21 | -35.23 | 30.63 | -17.89 | 1767674.71 | 436528.53 | 39°41'46.707"N | 80°12'49.369"W | 35.47 | 329.709 | 7.08 | 7.06 | 6.88 | |
| 7369.00 | 13.440 | 129.760 | 7364.45 | -17.91 | 19.67 | -3.66 | 1767688.94 | 436517.56 | 39°41'46.600"N | 80°12'49.186"W | 20.00 | 349.448 | 5.24 | 5.13 | 5.83 | |
| 7463.00 | 18.540 | 127.950 | 7454.78 | 7.17 | 3.48 | 16.53 | 1767709.13 | 436501.38 | 39°41'46.441"N | 80°12'48.926"W | 16.89 | 78.120 | 5.45 | 5.43 | -1.93 | |
| 7558.00 | 24.650 | 125.640 | 7543.07 | 40.70 | -17.37 | 44.57 | 1767737.17 | 436480.53 | 39°41'46.237"N | 80°12'48.565"W | 47.84 | 111.297 | 6.49 | 6.43 | -2.43 | |
| 7653.00 | 33.190 | 127.130 | 7626.15 | 84.70 | -44.66 | 81.47 | 1767774.06 | 436453.24 | 39°41'45.971"N | 80°12'48.090"W | 92.91 | 118.733 | 9.02 | 8.99 | 1.57 | |
| 7747.00 | 41.910 | 129.390 | 7700.61 | 140.07 | -80.19 | 126.33 | 1767818.93 | 436417.72 | 39°41'45.623"N | 80°12'47.513"W | 149.63 | 122.405 | 9.39 | 9.28 | 2.40 | |
| 7842.00 | 42.730 | 128.440 | 7770.85 | 202.10 | -120.36 | 176.10 | 1767868.69 | 436377.55 | 39°41'45.230"N | 80°12'46.872"W | 213.30 | 124.352 | 1.09 | 0.86 | -1.00 | |
| 7937.00 | 42.740 | 127.130 | 7840.63 | 264.31 | -159.86 | 227.05 | 1767919.63 | 436338.05 | 39°41'44.844"N | 80°12'46.216"W | 277.68 | 125.148 | 0.94 | 0.01 | -1.38 | |
| 8031.00 | 42.810 | 125.820 | 7909.63 | 325.51 | -197.81 | 278.38 | 1767970.96 | 436300.11 | 39°41'44.473"N | 80°12'45.556"W | 341.50 | 125.396 | 0.95 | 0.07 | -1.39 | |
| 8126.00 | 42.710 | 125.350 | 7979.38 | 387.05 | -235.34 | 330.83 | 1768023.41 | 436262.58 | 39°41'44.106"N | 80°12'44.881"W | 406.00 | 125.426 | 0.35 | -0.11 | -0.49 | |
| 8221.00 | 47.320 | 128.480 | 8046.53 | 451.60 | -275.73 | 384.48 | 1768077.06 | 436222.18 | 39°41'43.711"N | 80°12'44.191"W | 473.13 | 125.646 | 5.38 | 4.85 | 3.29 | |
| 8315.00 | 55.500 | 132.040 | 8105.12 | 523.21 | -323.26 | 440.40 | 1768132.98 | 436174.66 | 39°41'43.245"N | 80°12'43.470"W | 546.31 | 126.279 | 9.19 | 8.70 | 3.79 | |
| 8410.00 | 64.060 | 133.950 | 8152.89 | 603.98 | -379.23 | 500.34 | 1768192.91 | 436118.69 | 39°41'42.697"N | 80°12'42.698"W | 627.82 | 127.160 | 9.18 | 9.01 | 2.01 | |
| 8504.00 | 66.870 | 137.110 | 8191.93 | 688.75 | -440.25 | 560.21 | 1768252.78 | 436057.67 | 39°41'42.099"N | 80°12'41.926"W | 712.51 | 128.163 | 4.28 | 2.99 | 3.36 | |
| 8599.00 | 72.690 | 142.680 | 8224.77 | 777.69 | -508.43 | 617.53 | 1768310.09 | 435989.50 | 39°41'41.429"N | 80°12'41.186"W | 799.90 | 129.466 | 8.23 | 6.13 | 5.86 | |
| 8694.00 | 78.790 | 145.940 | 8248.17 | 869.68 | -583.18 | 671.18 | 1768363.74 | 435914.75 | 39°41'40.695"N | 80°12'40.492"W | 889.15 | 130.987 | 7.23 | 6.42 | 3.43 | |

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REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|-------------------------------|----------|---------------|
| Operator | NORTHEAST NATURAL ENERGY, LLC | Slot | Slot #04 |
| Area | Monongalia County, WV | Well | Fisher 4H |
| Field | Monongalia | Wellbore | Fisher 4H AWB |
| Facility | Fisher Pad | | |

WELLPATH DATA (160 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 [°/100ft] | Comments |
|----------|-----------------|-------------|----------|-----------------|------------|-----------|-------------------|--------------------|----------------|----------------|-------------------|-----------------|----------------|-----------------------|---------------------|----------|
| 8788.00 | 85.530 | 145.070 | 8260.99 | 962.65 | -659.88 | 723.89 | 1768416.45 | 4358338.06 | 39°41'39.941"N | 80°12'39.810"W | 979.52 | 132.352 | 7.23 | 7.17 | -0.93 | |
| 8883.00 | 88.520 | 144.090 | 8265.92 | 1057.48 | -737.19 | 778.87 | 1768471.42 | 435760.76 | 39°41'39.181"N | 80°12'39.099"W | 1072.42 | 139.425 | 3.31 | 3.15 | -1.03 | |
| 8977.00 | 87.420 | 143.920 | 8269.25 | 1151.40 | -813.19 | 834.08 | 1768526.63 | 435684.76 | 39°41'38.435"N | 80°12'38.385"W | 1164.89 | 134.273 | 1.18 | -1.17 | -0.18 | |
| 9072.00 | 88.220 | 144.630 | 8272.86 | 1246.31 | -890.26 | 889.51 | 1768582.05 | 435607.70 | 39°41'37.677"N | 80°12'37.668"W | 1258.48 | 135.024 | 1.13 | 0.84 | 0.75 | |
| 9167.00 | 88.430 | 145.850 | 8275.64 | 1341.20 | -968.78 | 943.78 | 1768636.32 | 435529.78 | 39°41'36.911"N | 80°12'36.965"W | 1352.07 | 135.731 | 1.11 | 0.22 | 1.08 | |
| 9261.00 | 89.110 | 145.890 | 8277.65 | 1435.08 | -1045.79 | 996.77 | 1768689.31 | 435452.17 | 39°41'36.149"N | 80°12'36.280"W | 1444.72 | 136.375 | 0.72 | 0.72 | 0.03 | |
| 9356.00 | 89.690 | 142.380 | 8278.65 | 1530.04 | -1122.67 | 1052.55 | 1768745.09 | 435370.21 | 39°41'35.393"N | 80°12'35.559"W | 1538.91 | 136.846 | 3.54 | 0.61 | -3.48 | |
| 9450.00 | 89.570 | 141.670 | 8279.26 | 1624.03 | -1196.76 | 1110.39 | 1768802.92 | 435301.20 | 39°41'34.665"N | 80°12'34.811"W | 1632.55 | 137.144 | 0.77 | -0.13 | -0.76 | |
| 9545.00 | 89.320 | 141.930 | 8280.18 | 1719.00 | -1271.42 | 1169.13 | 1768861.66 | 435226.56 | 39°41'33.932"N | 80°12'34.052"W | 1727.24 | 137.400 | 0.38 | -0.26 | 0.27 | |
| 9639.00 | 89.910 | 144.270 | 8280.81 | 1812.99 | -1346.56 | 1225.57 | 1768918.09 | 435151.40 | 39°41'33.194"N | 80°12'33.323"W | 1820.79 | 137.694 | 2.57 | 0.63 | 2.49 | |
| 9734.00 | 89.200 | 142.000 | 8281.55 | 1907.98 | -1422.58 | 1282.56 | 1768975.08 | 435075.41 | 39°41'32.447"N | 80°12'32.585"W | 1915.38 | 137.963 | 2.50 | -0.75 | -2.39 | |
| 9828.00 | 89.420 | 140.700 | 8282.68 | 2001.93 | -1495.98 | 1341.26 | 1769033.78 | 435002.01 | 39°41'31.726"N | 80°12'31.828"W | 2009.21 | 138.121 | 1.40 | 0.23 | -1.38 | |
| 9923.00 | 89.320 | 140.250 | 8283.72 | 2096.84 | -1569.25 | 1401.71 | 1769094.23 | 434928.74 | 39°41'31.007"N | 80°12'31.047"W | 2104.13 | 138.228 | 0.49 | -0.11 | -0.47 | |
| 10017.00 | 89.260 | 137.980 | 8284.89 | 2190.61 | -1640.31 | 1463.23 | 1769155.74 | 434857.69 | 39°41'30.310"N | 80°12'30.253"W | 2198.11 | 138.266 | 2.42 | -0.06 | -2.41 | |
| 10112.00 | 89.910 | 138.230 | 8285.58 | 2285.26 | -1711.02 | 1526.67 | 1769219.18 | 434786.98 | 39°41'29.616"N | 80°12'29.434"W | 2293.10 | 138.259 | 0.73 | 0.68 | 0.26 | |
| 10206.00 | 89.940 | 139.990 | 8285.70 | 2379.04 | -1782.08 | 1588.20 | 1769280.70 | 434715.93 | 39°41'28.918"N | 80°12'28.640"W | 2387.09 | 138.292 | 1.87 | 0.03 | 1.87 | |
| 10301.00 | 90.310 | 143.750 | 8285.49 | 2474.00 | -1856.80 | 1646.85 | 1769339.35 | 434641.22 | 39°41'28.184"N | 80°12'27.882"W | 2481.89 | 138.429 | 3.98 | 0.39 | 3.96 | |
| 10395.00 | 89.540 | 147.110 | 8285.61 | 2567.90 | -1934.19 | 1700.18 | 1769392.67 | 434563.83 | 39°41'27.424"N | 80°12'27.192"W | 2575.20 | 138.684 | 3.67 | -0.82 | 3.57 | |
| 10490.00 | 89.230 | 143.440 | 8286.63 | 2662.80 | -2012.25 | 1754.28 | 1769446.77 | 434485.77 | 39°41'26.657"N | 80°12'26.492"W | 2669.58 | 138.918 | 3.88 | -0.33 | -3.86 | |
| 10584.00 | 89.320 | 143.600 | 8287.82 | 2756.79 | -2087.82 | 1810.16 | 1769502.65 | 434410.20 | 39°41'25.914"N | 80°12'25.770"W | 2763.28 | 139.074 | 0.20 | 0.10 | 0.17 | |
| 10679.00 | 89.350 | 145.610 | 8288.93 | 2851.74 | -2165.26 | 1865.18 | 1769557.67 | 434332.77 | 39°41'25.153"N | 80°12'25.058"W | 2857.84 | 139.258 | 2.12 | 0.03 | 2.12 | |
| 10773.00 | 89.510 | 148.420 | 8289.86 | 2945.50 | -2244.09 | 1916.35 | 1769608.63 | 434253.94 | 39°41'24.378"N | 80°12'24.396"W | 2950.99 | 139.504 | 2.99 | 0.17 | 2.99 | |
| 10867.00 | 89.690 | 154.510 | 8290.52 | 3038.43 | -2326.63 | 1961.23 | 1769653.71 | 434171.41 | 39°41'23.566"N | 80°12'23.813"W | 3042.97 | 139.871 | 6.48 | 0.19 | 6.48 | |
| 10962.00 | 89.630 | 154.100 | 8291.08 | 3131.58 | -2412.24 | 2002.42 | 1769694.90 | 434085.81 | 39°41'22.723"N | 80°12'23.278"W | 3135.06 | 140.304 | 0.44 | -0.06 | -0.43 | |
| 11057.00 | 89.720 | 146.250 | 8291.62 | 3225.77 | -2494.59 | 2049.63 | 1769742.10 | 434003.46 | 39°41'21.913"N | 80°12'22.655"W | 3228.62 | 140.592 | 8.26 | 0.09 | -8.26 | |
| 11151.00 | 90.310 | 148.350 | 8291.60 | 3319.50 | -2573.99 | 2100.41 | 1769792.88 | 433924.37 | 39°41'21.135"N | 80°12'22.008"W | 3321.98 | 140.782 | 2.32 | 0.63 | 2.23 | |
| 11246.00 | 90.950 | 140.740 | 8290.55 | 3414.38 | -2651.01 | 2155.47 | 1769847.94 | 433847.05 | 39°41'20.375"N | 80°12'21.296"W | 3416.71 | 140.886 | 8.04 | 0.67 | -8.01 | |
| 11340.00 | 90.650 | 133.120 | 8289.24 | 3507.78 | -2719.82 | 2219.61 | 1769912.07 | 433778.44 | 39°41'19.702"N | 80°12'20.469"W | 3510.41 | 140.871 | 8.11 | -0.32 | -8.11 | |
| 11434.00 | 90.370 | 130.970 | 8288.40 | 3600.06 | -2782.57 | 2289.41 | 1769981.87 | 433715.50 | 39°41'19.085"N | 80°12'19.570"W | 3603.34 | 140.554 | 2.31 | -0.30 | -2.29 | |
| 11527.00 | 90.550 | 138.720 | 8287.65 | 3692.04 | -2848.10 | 2355.29 | 1770047.75 | 433649.97 | 39°41'18.443"N | 80°12'18.720"W | 3695.82 | 140.410 | 8.34 | 0.19 | 8.33 | |

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Environmental Protection



Actual Wellpath Report

Fisher 4H AWP Proj: 15315'

Page 6 of 9



| REFERENCE WELLPATH IDENTIFICATION | | | | |
|-----------------------------------|-------------------------------|--|----------|---------------|
| Operator | NORTHEAST NATURAL ENERGY, LLC | | Slot | Slot #04 |
| Area | Monongalia County, WV | | Well | Fisher 4H |
| Field | Monongalia | | Wellbore | Fisher 4H AWB |
| Facility | Fisher Pad | | | |

| WELLPATH DATA (160 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 |
| 11621.00 | 89.630 | 147.420 | 8287.50 | 3785.95 | -2923.17 | 2411.72 | 1770104.17 | 433574.91 | 39°41'17.705"N | 80°12'17.991"W | 3789.63 | 140.476 | 9.31 | -0.98 | 9.26 | |
| 11715.00 | 89.970 | 145.660 | 8287.83 | 3879.77 | -3001.58 | 2463.54 | 1770155.99 | 433496.50 | 39°41'16.934"N | 80°12'17.320"W | 3883.11 | 140.623 | 1.91 | 0.36 | -1.87 | |
| 11810.00 | 89.510 | 144.420 | 8288.26 | 3974.71 | -3079.44 | 2517.96 | 1770210.42 | 433418.65 | 39°41'16.169"N | 80°12'16.616"W | 3977.83 | 140.728 | 1.39 | -0.48 | -1.31 | |
| 11904.00 | 90.370 | 144.080 | 8288.36 | 4068.68 | -3155.73 | 2572.89 | 1770265.34 | 433342.36 | 39°41'15.420"N | 80°12'15.906"W | 4071.66 | 140.809 | 0.98 | 0.91 | -0.36 | |
| 11998.00 | 89.970 | 140.890 | 8288.08 | 4162.67 | -3230.28 | 2630.13 | 1770322.57 | 433267.82 | 39°41'14.687"N | 80°12'15.167"W | 4165.81 | 140.847 | 3.42 | -0.43 | -3.39 | |
| 12092.00 | 89.290 | 137.120 | 8288.69 | 4256.42 | -3301.21 | 2691.78 | 1770384.22 | 433196.89 | 39°41'13.991"N | 80°12'14.371"W | 4259.54 | 140.806 | 4.08 | -0.72 | -4.01 | |
| 12186.00 | 89.690 | 139.360 | 8289.53 | 4350.08 | -3371.32 | 2754.38 | 1770446.81 | 433126.78 | 39°41'13.303"N | 80°12'13.563"W | 4353.44 | 140.751 | 2.42 | 0.43 | 2.38 | |
| 12280.00 | 89.720 | 140.310 | 8290.01 | 4443.94 | -3443.15 | 2815.01 | 1770507.44 | 433054.96 | 39°41'12.598"N | 80°12'12.780"W | 4447.42 | 140.732 | 1.01 | 0.03 | 1.01 | |
| 12375.00 | 90.400 | 140.400 | 8289.91 | 4538.84 | -3516.30 | 2875.62 | 1770568.04 | 432981.81 | 39°41'11.880"N | 80°12'11.998"W | 4542.42 | 140.724 | 0.72 | 0.72 | 0.09 | |
| 12469.00 | 89.750 | 141.700 | 8289.79 | 4632.78 | -3589.41 | 2934.71 | 1770627.13 | 432908.71 | 39°41'11.162"N | 80°12'11.235"W | 4636.42 | 140.730 | 1.55 | -0.69 | 1.38 | |
| 12564.00 | 89.350 | 139.230 | 8290.53 | 4727.68 | -3662.66 | 2995.17 | 1770687.59 | 432835.46 | 39°41'10.442"N | 80°12'10.454"W | 4731.40 | 140.725 | 2.63 | -0.42 | -2.60 | |
| 12658.00 | 89.290 | 140.500 | 8291.65 | 4821.53 | -3734.52 | 3055.76 | 1770748.18 | 432763.60 | 39°41'09.737"N | 80°12'09.672"W | 4825.39 | 140.708 | 1.35 | -0.06 | 1.35 | |
| 12753.00 | 89.720 | 143.050 | 8292.47 | 4916.49 | -3809.15 | 3114.54 | 1770806.95 | 432688.99 | 39°41'09.004"N | 80°12'08.913"W | 4920.36 | 140.729 | 2.72 | 0.45 | 2.68 | |
| 12847.00 | 89.450 | 145.000 | 8293.15 | 5010.47 | -3885.21 | 3169.75 | 1770862.16 | 432612.92 | 39°41'08.257"N | 80°12'08.199"W | 5014.20 | 140.791 | 2.09 | -0.29 | 2.07 | |
| 12942.00 | 90.550 | 148.740 | 8293.15 | 5105.24 | -3964.75 | 3221.66 | 1770914.07 | 432533.39 | 39°41'07.475"N | 80°12'07.527"W | 5108.66 | 140.904 | 4.10 | 1.16 | 3.94 | |
| 13036.00 | 90.310 | 148.090 | 8292.45 | 5198.81 | -4044.82 | 3270.89 | 1770963.30 | 432453.32 | 39°41'06.687"N | 80°12'06.889"W | 5201.86 | 141.039 | 0.74 | -0.26 | -0.69 | |
| 13130.00 | 90.520 | 143.550 | 8291.77 | 5292.67 | -4122.57 | 3323.69 | 1771016.09 | 432375.58 | 39°41'05.923"N | 80°12'06.206"W | 5295.51 | 141.124 | 4.83 | 0.22 | -4.83 | |
| 13225.00 | 90.710 | 140.840 | 8290.75 | 5387.65 | -4197.61 | 3381.91 | 1771074.31 | 432300.54 | 39°41'05.186"N | 80°12'05.454"W | 5390.48 | 141.142 | 2.86 | 0.20 | -2.85 | |
| 13319.00 | 90.740 | 138.750 | 8289.56 | 5481.49 | -4269.40 | 3442.58 | 1771134.97 | 432228.76 | 39°41'04.481"N | 80°12'04.671"W | 5484.44 | 141.119 | 2.22 | 0.03 | -2.22 | |
| 13414.00 | 90.610 | 140.420 | 8288.44 | 5576.31 | -4341.72 | 3504.17 | 1771196.55 | 432156.44 | 39°41'03.771"N | 80°12'03.876"W | 5579.40 | 141.093 | 1.76 | -0.14 | 1.76 | |
| 13508.00 | 90.890 | 141.690 | 8287.21 | 5670.25 | -4414.82 | 3563.24 | 1771255.63 | 432083.35 | 39°41'03.053"N | 80°12'03.113"W | 5673.39 | 141.093 | 1.38 | 0.30 | 1.35 | |
| 13603.00 | 90.520 | 141.540 | 8286.04 | 5765.21 | -4489.28 | 3622.23 | 1771314.61 | 432008.89 | 39°41'02.322"N | 80°12'02.351"W | 5768.38 | 141.101 | 0.42 | -0.39 | -0.16 | |
| 13697.00 | 88.950 | 142.740 | 8286.47 | 5859.19 | -4563.49 | 3679.92 | 1771372.29 | 431934.69 | 39°41'01.593"N | 80°12'01.606"W | 5862.36 | 141.118 | 2.10 | -1.67 | 1.28 | |
| 13791.00 | 88.740 | 143.430 | 8288.37 | 5953.17 | -4638.63 | 3736.36 | 1771428.74 | 431859.55 | 39°41'00.855"N | 80°12'00.876"W | 5956.28 | 141.149 | 0.77 | -0.22 | 0.73 | |
| 13886.00 | 89.200 | 142.700 | 8290.07 | 6048.16 | -4714.55 | 3793.44 | 1771485.81 | 431783.63 | 39°41'00.109"N | 80°12'00.139"W | 6051.21 | 141.179 | 0.91 | 0.48 | -0.77 | |
| 13980.00 | 89.380 | 144.170 | 8291.24 | 6142.15 | -4790.04 | 3849.43 | 1771541.80 | 431708.15 | 39°40'59.367"N | 80°11'59.415"W | 6145.13 | 141.214 | 1.58 | 0.19 | 1.56 | |
| 14075.00 | 89.750 | 148.390 | 8291.96 | 6236.97 | -4869.04 | 3902.16 | 1771594.52 | 431629.16 | 39°40'58.590"N | 80°11'58.733"W | 6239.74 | 141.291 | 4.46 | 0.39 | 4.44 | |
| 14170.00 | 90.250 | 146.200 | 8291.96 | 6331.69 | -4948.97 | 3953.49 | 1771645.85 | 431549.23 | 39°40'57.804"N | 80°11'58.068"W | 6334.22 | 141.380 | 2.36 | 0.53 | -2.31 | |
| 14263.00 | 91.080 | 145.860 | 8290.88 | 6424.56 | -5026.10 | 4005.45 | 1771697.80 | 431472.11 | 39°40'57.046"N | 80°11'57.396"W | 6426.91 | 141.448 | 0.96 | 0.89 | -0.37 | |
| 14358.00 | 90.920 | 145.820 | 8289.22 | 6519.42 | -5104.69 | 4058.78 | 1771751.14 | 431393.52 | 39°40'56.274"N | 80°11'56.706"W | 6521.62 | 141.512 | 0.17 | -0.17 | -0.04 | |

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Actual Wellpath Report

Fisher 4H AWP Proj: 15315'
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| REFERENCE WELLPATH IDENTIFICATION | |
|-----------------------------------|-------------------------------|
| Operator | NORTHEAST NATURAL ENERGY, LLC |
| Area | Monongalia County, WV |
| Field | Monongalia |
| Facility | Fisher Pad |
| Slot | Slot #04 |
| Well | Fisher 4H |
| Wellbore | Fisher 4H AWB |

| WELLPATH DATA (160 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 [P/100ft] | Buld Rate [P/100ft] | Turn Rate [P/100ft] | Comments |
| 14453.00 | 91.480 | 145.260 | 8287.23 | 6614.31 | -5183.00 | 4112.52 | 1771804.87 | 431315.21 | 39°40'55.504"N | 80°11'56.011"W | 6616.37 | 141.569 | 0.83 | 0.59 | -0.59 | |
| 14548.00 | 91.080 | 142.890 | 8285.11 | 6709.26 | -5259.91 | 4168.24 | 1771860.59 | 431238.31 | 39°40'54.748"N | 80°11'55.290"W | 6711.25 | 141.605 | 2.53 | -0.42 | -2.49 | |
| 14641.00 | 90.490 | 141.030 | 8283.84 | 6802.23 | -5333.14 | 4225.54 | 1771917.99 | 431165.08 | 39°40'54.029"N | 80°11'54.550"W | 6804.24 | 141.610 | 2.10 | -0.63 | -2.00 | |
| 14736.00 | 90.490 | 138.260 | 8283.02 | 6897.06 | -5405.53 | 4287.05 | 1771979.39 | 431092.70 | 39°40'53.318"N | 80°11'53.756"W | 6899.17 | 141.593 | 2.92 | 0.00 | -2.92 | |
| 14831.00 | 89.910 | 137.490 | 8282.69 | 6991.68 | -5475.99 | 4350.77 | 1772043.11 | 431022.24 | 39°40'52.627"N | 80°11'52.934"W | 6993.97 | 141.532 | 1.01 | -0.61 | -0.81 | |
| 14926.00 | 90.150 | 142.550 | 8282.64 | 7086.52 | -5548.76 | 4411.79 | 1772104.12 | 430949.48 | 39°40'51.912"N | 80°11'52.147"W | 7088.91 | 141.512 | 5.33 | 0.25 | 5.33 | |
| 15020.00 | 90.460 | 144.310 | 8282.14 | 7180.51 | -5624.25 | 4467.79 | 1772160.12 | 430873.99 | 39°40'51.170"N | 80°11'51.423"W | 7182.85 | 141.537 | 1.90 | 0.33 | 1.87 | |
| 15114.00 | 90.400 | 150.870 | 8281.44 | 7274.15 | -5703.56 | 4518.14 | 1772210.47 | 430794.68 | 39°40'50.390"N | 80°11'50.771"W | 7276.28 | 141.615 | 6.98 | -0.06 | 6.98 | |
| 15209.00 | 90.000 | 149.530 | 8281.11 | 7368.40 | -5786.00 | 4565.36 | 1772257.68 | 430712.25 | 39°40'49.579"N | 80°11'50.159"W | 7370.23 | 141.725 | 1.47 | -0.42 | -1.41 | |
| 15315.00 | 90.000 | 149.530 | 8281.11 | 7473.71 | -5877.36 | 4619.11 | 1772311.43 | 430620.90 | 39°40'48.681"N | 80°11'49.463"W | 7475.26 | 141.836 | 0.00 | 0.00 | 0.00 | Projected MD at TD: 15315' |

| HOLE & CASING SECTIONS - Ref Wellbore: Fisher 4H AWB Ref Wellpath: Fisher 4H AWP Proj: 15315' | | | | | | | | | |
|---|---------------|-------------|---------------|----------------|--------------|----------------|--------------|---------------|-------------|
| String/Diameter | Start MD [ft] | End MD [ft] | Interval [ft] | Start TVD [ft] | End TVD [ft] | Start N/S [ft] | End N/S [ft] | Start EW [ft] | End EW [ft] |
| 24in Conductor | 32.00 | 72.00 | 40.00 | 32.00 | 72.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17.5in Open Hole | 72.00 | 1490.12 | 1418.12 | 72.00 | 1490.00 | 0.00 | 0.00 | 0.00 | -11.63 |
| 13.375in Casing Surface | 32.00 | 1490.12 | 1458.12 | 32.00 | 1490.00 | 0.00 | 0.00 | 0.00 | -11.63 |
| 12.25in Open Hole | 1490.12 | 2713.07 | 1222.95 | 1490.00 | 2712.00 | 4.19 | -8.92 | -11.63 | 30.46 |
| 9.625in Casing Intermediate | 32.00 | 2713.07 | 2681.07 | 32.00 | 2712.00 | 0.00 | 0.00 | 0.00 | 30.46 |
| 8.75in Open Hole | 2713.07 | 7085.00 | 4371.93 | 2712.00 | 7082.68 | -8.92 | 36.00 | 30.46 | -26.95 |
| 8.5in Open Hole | 7085.00 | 15315.00 | 8230.00 | 7082.68 | 8281.11 | 36.00 | -5677.36 | -26.95 | 4619.11 |
| 5.5in Casing Production | 32.00 | 15315.00 | 15283.00 | 32.00 | 8281.11 | 0.00 | -5677.36 | 0.00 | 4619.11 |

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Fisher 4H AWP Proj: 15315'

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|-------------------------------|----------|---------------|
| Operator | NORTHEAST NATURAL ENERGY, LLC | Slot | Slot #04 |
| Area | Monongalia County, WV | Well | Fisher 4H |
| Field | Monongalia | Wellbore | Fisher 4H AWB |
| Facility | Fisher Pad | | |

| TARGETS | | | | | | | | |
|---------------------|----------|------------|-----------|-------------------|--------------------|----------------|----------------|-------|
| Name | TVD [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | Shape |
| Fisher 4H BHL Rev-3 | 8255.00 | -5867.31 | 4635.78 | 1772328.09 | 430630.94 | 39°40'48.781"N | 80°11'49.250"W | point |
| Fisher 4H LP Rev-3 | 8255.00 | -671.53 | 720.49 | 1768413.05 | 435826.41 | 39°41'39.826"N | 80°12'39.852"W | point |

| WELLPATH COMPOSITION - Ref Wellbore: Fisher 4H AWB Ref Wellpath: Fisher 4H AWP Proj: 15315' | | | | | |
|---|-------------|------------------------------|---|---------------|--|
| Start MD [ft] | End MD [ft] | Positional Uncertainty Model | Log Name/Comment | Wellbore | |
| 32.00 | 7085.00 | VESSI GyroFlex v4 | 01_VES Gyro <8-3/4">(100'-7085') | Fisher 4H AWB | |
| 7085.00 | 15209.00 | BHI AutoTrak Curve (Short) | 02_BHI AT Curve <8-1/2">(7085')(7180'-15209') | Fisher 4H AWB | |
| 15209.00 | 15315.00 | Blind Drilling (std) | Projection to bit | Fisher 4H AWB | |

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Fisher 4H AWP Proj: 15315'

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| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|-------------------------------|----------|---------------|
| Operator | NORTHEAST NATURAL ENERGY, LLC | Slot | Slot #04 |
| Area | Monongalia County, WV | Well | Fisher 4H |
| Field | Monongalia | Wellbore | Fisher 4H AWB |
| Facility | Fisher Pad | | |

| COMMENTS |
|--|
| Wellpath general comments API: 47-061-01752-0000 BHI Job #: 8525529 Rig: Nabors X08 Duration: 05/04/2017-05/08/2017 VES Gyro <8-3/4"> (100'-7085') BHI AT Curve <8-1/2"> (7085')(7180'-15209') Projected MD at TD: 15315' |

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