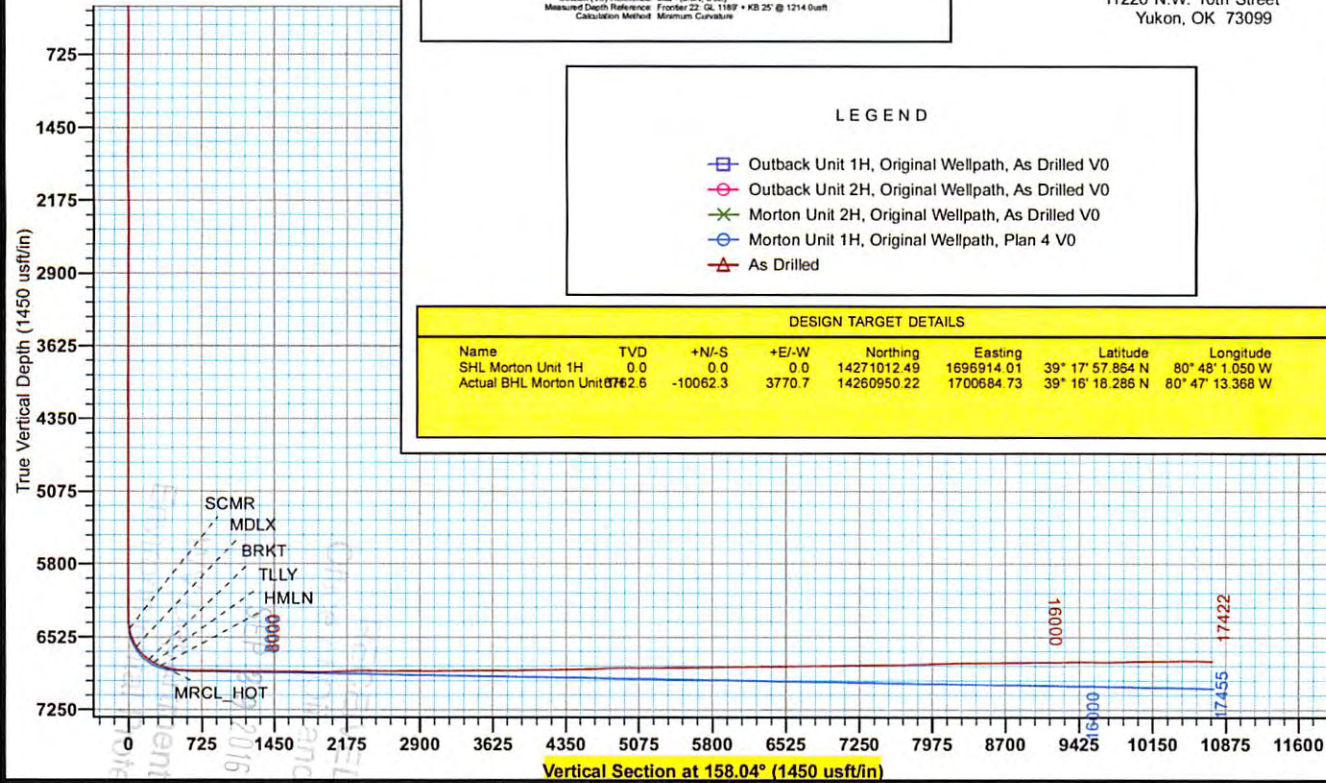




Antero
Morton Unit 1H
Doddridge County WV
Northing: 14271012.49
Easting: 1696914.01
As Drilled



WELL DETAILS: Morton Unit 1H

| | | | | | |
|----------------------|-------|-------------|------------|------------------|-----------------|
| Ground Level: 1189.0 | | | | | |
| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| 0.0 | 0.0 | 14271012.49 | 1696914.01 | 39° 17' 57.864 N | 80° 48' 1.050 W |

PROJECT DETAILS: Doddridge County WV

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 17N (84 W to 78 W)
System Datum: Mean Sea Level



Genie Lightfoot
8:45, February 10 2015

Scientific Drilling
11220 N.W. 10th Street
Yukon, OK 73099

REFERENCE INFORMATION

Coordinate (N/E) Reference: Well Morton Unit 1H, Grid North
Vertical (T/V) Reference: Frontier 22, GL 1189' + KB 25' @ 1214 Outh
Section (V/S) Reference: Star - (S) OK, (S) 363
Measured Depth Reference: Frontier 22, GL 1189' + KB 25' @ 1214 Outh
Calculation Method: Minimum Curvature

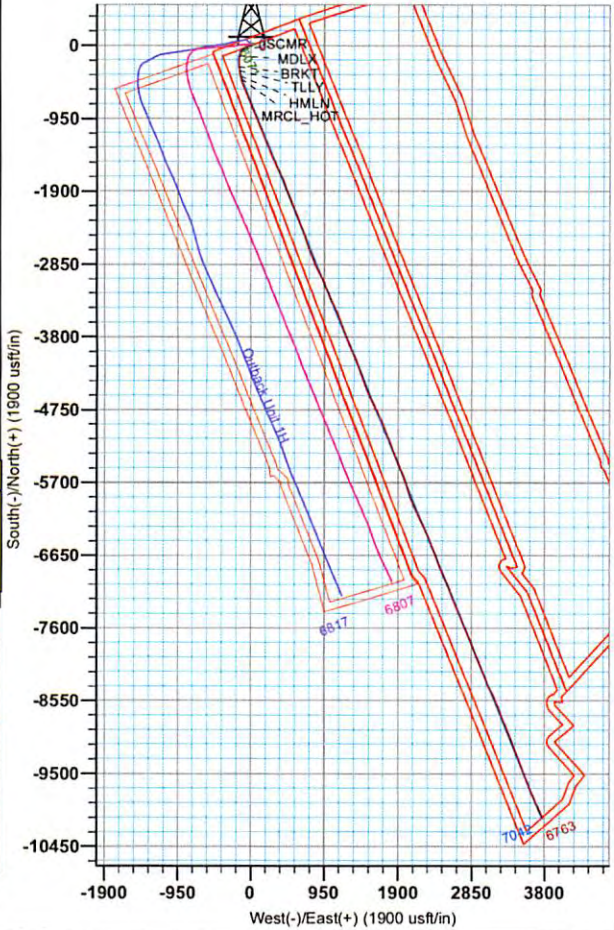
LEGEND

- Outback Unit 1H, Original Wellpath, As Drilled V0
- Outback Unit 2H, Original Wellpath, As Drilled V0
- Morton Unit 2H, Original Wellpath, As Drilled V0
- Morton Unit 1H, Original Wellpath, Plan 4 V0
- As Drilled



To convert Magnetic North to Grid, Subtract 8.60°
To convert True North to Grid, Subtract 0.13°

Azimuths to Grid North
True North: -0.13°
Magnetic North: -8.60°
Magnetic Field
Strength: 52222.1snT
Dip Angle: 66.85°
Date: 10/16/2014
Model: BGGM2014





Antero

**Doddridge County WV
Cofor Pad/Outback Morton Nova Grape Rainer
Morton Unit 1H
Original Wellpath**

Design: As Drilled

EOW Completion Report

10 February, 2015



12/16/2016



EOW Completion Report



| | | | |
|------------------|--|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Morton Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Site: | Cofor Pad/Outback Morton Nova Grape Rainer | MD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Well: | Morton Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| | | | |
|--------------------|--|----------------------|----------------|
| Project | Doddridge County WV, McClellan District | | |
| Map System: | Universal Transverse Mercator (US Survey Feet) | System Datum: | Mean Sea Level |
| Geo Datum: | NAD 1927 (NADCON CONUS) | | |
| Map Zone: | Zone 17N (84 W to 78 W) | | |

| | | | | | |
|------------------------------|--|---------------------|-------------------|--------------------------|--------|
| Site | Cofor Pad/Outback Morton Nova Grape Rainer | | | | |
| Site Position: | Northing: | 14,271,032.41 usft | Latitude: | 39° 17' 58.061 N | |
| From: Map | Easting: | 1,696,909.68 usft | Longitude: | 80° 48' 1.105 W | |
| Position Uncertainty: | 2.0 usft | Slot Radius: | 13-3/16" | Grid Convergence: | 0.13 ° |

| | | | | | |
|-----------------------------|---------------------------|----------------------------|------------------|----------------------|--------------|
| Well | Morton Unit 1H, Marcellus | | | | |
| Well Position | +N/-S | 0.0 usft | Northing: | 14,271,012.49 usft | |
| | +E/-W | 0.0 usft | Easting: | 1,696,914.01 usft | |
| Position Uncertainty | 2.0 usft | Wellhead Elevation: | 1,214.0 usft | Ground Level: | 1,189.0 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Original Wellpath | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | BGGM2014 | 10/16/2014 | -8.47 | 66.85 | 52,222 |

| | | | | | |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|-----|
| Design | As Drilled | | | | |
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) | |
| | 0.0 | 0.0 | 0.0 | 158.04 | |

| | | | | |
|-----------------------|------------------|--|---------------------|--|
| Survey Program | Date 2/10/2015 | | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
| 112.4 | 6,049.5 | Survey #7 Final Gyro (Original Wellpath) | Standard Keeper 104 | Standard Wireline Keeper ver 1.0.4 |
| 6,136.0 | 17,422.0 | Survey #8 MWD (Original Wellpath) | SDI MWD | Scientific Drilling Intl. MWD - Standard ver 1.0.1 |

| | | | | | | | | | |
|------------------|----------------|--------------------------|-------------------|-------------------|-------------------|----------------------|-------------------------|------|--|
| Survey | | | | | | | | | |
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | | |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 112.4 | 0.17 | 83.28 | 112.4 | 0.0 | 0.2 | 0.0 | 0.0 | 0.15 | |
| 137.4 | 0.16 | 90.89 | 137.4 | 0.0 | 0.2 | 0.1 | 0.1 | 0.10 | |
| 163.3 | 0.21 | 85.37 | 163.3 | 0.0 | 0.3 | 0.1 | 0.1 | 0.20 | |
| 189.2 | 0.07 | 96.75 | 189.2 | 0.0 | 0.4 | 0.1 | 0.1 | 0.55 | |
| 212.4 | 0.05 | 274.24 | 212.4 | 0.0 | 0.4 | 0.1 | 0.1 | 0.52 | |
| 238.1 | 0.08 | 185.13 | 238.1 | 0.0 | 0.4 | 0.1 | 0.1 | 0.36 | |
| 263.9 | 0.06 | 156.51 | 263.9 | 0.0 | 0.4 | 0.2 | 0.2 | 0.15 | |
| 287.2 | 0.07 | 231.47 | 287.2 | 0.0 | 0.4 | 0.2 | 0.2 | 0.34 | |
| 312.9 | 0.06 | 248.81 | 312.9 | -0.1 | 0.3 | 0.2 | 0.2 | 0.09 | |
| 338.7 | 0.06 | 252.92 | 338.7 | -0.1 | 0.3 | 0.2 | 0.2 | 0.02 | |

| | | | |
|------------------|--|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Morton Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Site: | Cofor Pad/Outback Morton Nova Grape Rainer | MD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Well: | Morton Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| Survey | | | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|--|--|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | | |
| 362.6 | 0.05 | 206.16 | 362.6 | -0.1 | 0.3 | 0.2 | 0.19 | | |
| 388.3 | 0.04 | 125.53 | 388.3 | -0.1 | 0.3 | 0.2 | 0.23 | | |
| 413.6 | 0.14 | 172.05 | 413.6 | -0.1 | 0.3 | 0.2 | 0.46 | | |
| 437.4 | 0.17 | 161.75 | 437.4 | -0.2 | 0.3 | 0.3 | 0.17 | | |
| 463.1 | 0.12 | 166.36 | 463.1 | -0.3 | 0.4 | 0.4 | 0.20 | | |
| 488.8 | 0.47 | 232.16 | 488.8 | -0.3 | 0.3 | 0.4 | 1.69 | | |
| 512.3 | 0.86 | 233.14 | 512.3 | -0.5 | 0.1 | 0.5 | 1.66 | | |
| 538.0 | 1.48 | 243.89 | 538.0 | -0.8 | -0.4 | 0.6 | 2.55 | | |
| 563.8 | 1.81 | 245.11 | 563.8 | -1.1 | -1.1 | 0.6 | 1.29 | | |
| 589.6 | 2.26 | 246.04 | 589.6 | -1.5 | -1.9 | 0.7 | 1.75 | | |
| 612.9 | 2.50 | 250.12 | 612.9 | -1.8 | -2.8 | 0.6 | 1.26 | | |
| 638.7 | 2.77 | 248.82 | 638.6 | -2.2 | -3.9 | 0.6 | 1.07 | | |
| 662.2 | 3.35 | 248.54 | 662.1 | -2.7 | -5.1 | 0.6 | 2.47 | | |
| 688.5 | 3.80 | 249.60 | 688.4 | -3.3 | -6.6 | 0.6 | 1.73 | | |
| 714.3 | 4.15 | 250.22 | 714.0 | -3.9 | -8.3 | 0.5 | 1.37 | | |
| 738.2 | 4.30 | 250.57 | 737.9 | -4.5 | -9.9 | 0.4 | 0.64 | | |
| 764.1 | 4.96 | 249.20 | 763.7 | -5.2 | -11.9 | 0.4 | 2.58 | | |
| 787.4 | 5.24 | 249.27 | 786.9 | -5.9 | -13.8 | 0.3 | 1.20 | | |
| 813.4 | 5.54 | 249.41 | 812.8 | -6.8 | -16.1 | 0.3 | 1.15 | | |
| 839.3 | 5.77 | 249.39 | 838.6 | -7.7 | -18.5 | 0.2 | 0.89 | | |
| 862.6 | 5.87 | 250.43 | 861.8 | -8.5 | -20.7 | 0.1 | 0.62 | | |
| 888.7 | 5.93 | 249.89 | 887.7 | -9.4 | -23.3 | 0.0 | 0.31 | | |
| 914.6 | 5.86 | 249.72 | 913.5 | -10.3 | -25.8 | 0.0 | 0.28 | | |
| 937.6 | 5.95 | 249.68 | 936.4 | -11.2 | -28.0 | -0.1 | 0.39 | | |
| 963.2 | 6.03 | 249.44 | 961.8 | -12.1 | -30.5 | -0.2 | 0.33 | | |
| 989.1 | 6.17 | 249.82 | 987.6 | -13.1 | -33.1 | -0.3 | 0.56 | | |
| 1,012.1 | 6.20 | 249.08 | 1,010.5 | -13.9 | -35.4 | -0.3 | 0.37 | | |
| 1,037.5 | 6.29 | 249.61 | 1,035.7 | -14.9 | -38.0 | -0.4 | 0.42 | | |
| 1,063.1 | 6.24 | 250.51 | 1,061.2 | -15.9 | -40.6 | -0.5 | 0.43 | | |
| 1,088.5 | 5.42 | 252.62 | 1,086.5 | -16.7 | -43.0 | -0.6 | 3.33 | | |
| 1,114.1 | 4.91 | 253.84 | 1,111.9 | -17.3 | -45.2 | -0.8 | 2.04 | | |
| 1,139.4 | 4.53 | 254.03 | 1,137.1 | -17.9 | -47.2 | -1.1 | 1.51 | | |
| 1,162.5 | 4.14 | 254.63 | 1,160.1 | -18.4 | -48.9 | -1.2 | 1.70 | | |
| 1,188.0 | 3.78 | 255.68 | 1,185.6 | -18.8 | -50.6 | -1.5 | 1.44 | | |
| 1,213.2 | 3.53 | 255.39 | 1,210.8 | -19.2 | -52.2 | -1.7 | 0.99 | | |
| 1,238.9 | 3.14 | 254.86 | 1,236.5 | -19.6 | -53.6 | -1.9 | 1.52 | | |
| 1,262.3 | 2.88 | 255.79 | 1,259.8 | -19.9 | -54.8 | -2.0 | 1.13 | | |
| 1,287.8 | 2.65 | 257.22 | 1,285.3 | -20.2 | -56.0 | -2.2 | 0.94 | | |
| 1,313.1 | 2.45 | 255.45 | 1,310.5 | -20.5 | -57.1 | -2.4 | 0.85 | | |
| 1,338.6 | 1.96 | 257.13 | 1,336.0 | -20.7 | -58.1 | -2.5 | 1.94 | | |
| 1,364.1 | 1.86 | 255.34 | 1,361.5 | -20.9 | -58.9 | -2.6 | 0.46 | | |
| 1,387.0 | 1.76 | 258.75 | 1,384.4 | -21.1 | -59.6 | -2.7 | 0.64 | | |
| 1,412.5 | 1.49 | 259.49 | 1,409.9 | -21.2 | -60.3 | -2.9 | 1.06 | | |
| 1,438.1 | 1.36 | 258.95 | 1,435.5 | -21.3 | -60.9 | -3.0 | 0.51 | | |



EOW Completion Report



| | | | |
|------------------|--|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Morton Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Site: | Cofor Pad/Outback Morton Nova Grape Rainer | MD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Well: | Morton Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| Survey | | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|--|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | |
| 1,463.6 | 1.25 | 260.86 | 1,460.9 | -21.4 | -61.5 | -3.1 | 0.46 | |
| 1,489.0 | 1.03 | 258.16 | 1,486.4 | -21.5 | -62.0 | -3.2 | 0.89 | |
| 1,512.1 | 0.84 | 257.89 | 1,509.4 | -21.6 | -62.4 | -3.3 | 0.82 | |
| 1,538.1 | 0.75 | 256.99 | 1,535.4 | -21.7 | -62.7 | -3.3 | 0.35 | |
| 1,563.5 | 0.68 | 259.52 | 1,560.9 | -21.8 | -63.0 | -3.4 | 0.30 | |
| 1,589.0 | 0.42 | 266.46 | 1,586.4 | -21.8 | -63.3 | -3.5 | 1.05 | |
| 1,612.1 | 0.53 | 265.80 | 1,609.5 | -21.8 | -63.5 | -3.5 | 0.48 | |
| 1,637.6 | 0.49 | 267.62 | 1,635.0 | -21.8 | -63.7 | -3.6 | 0.17 | |
| 1,663.1 | 0.48 | 264.06 | 1,660.5 | -21.8 | -63.9 | -3.6 | 0.12 | |
| 1,688.7 | 0.31 | 270.43 | 1,686.0 | -21.8 | -64.1 | -3.7 | 0.69 | |
| 1,712.2 | 0.20 | 299.63 | 1,709.6 | -21.8 | -64.2 | -3.8 | 0.71 | |
| 1,737.8 | 0.07 | 294.83 | 1,735.1 | -21.8 | -64.2 | -3.8 | 0.51 | |
| 1,762.9 | 0.10 | 337.53 | 1,760.3 | -21.8 | -64.2 | -3.8 | 0.27 | |
| 1,788.5 | 0.06 | 291.62 | 1,785.9 | -21.7 | -64.3 | -3.9 | 0.28 | |
| 1,813.7 | 0.08 | 341.84 | 1,811.1 | -21.7 | -64.3 | -3.9 | 0.25 | |
| 1,838.8 | 0.12 | 247.84 | 1,836.1 | -21.7 | -64.3 | -3.9 | 0.59 | |
| 1,863.8 | 0.08 | 315.82 | 1,861.2 | -21.7 | -64.4 | -3.9 | 0.47 | |
| 1,889.1 | 0.09 | 266.63 | 1,886.4 | -21.7 | -64.4 | -4.0 | 0.28 | |
| 1,914.2 | 0.06 | 357.74 | 1,911.5 | -21.7 | -64.4 | -4.0 | 0.44 | |
| 1,939.4 | 0.07 | 341.48 | 1,936.8 | -21.7 | -64.4 | -4.0 | 0.08 | |
| 1,962.6 | 0.05 | 76.00 | 1,959.9 | -21.6 | -64.4 | -4.0 | 0.39 | |
| 1,988.8 | 0.04 | 179.56 | 1,986.1 | -21.6 | -64.4 | -4.0 | 0.27 | |
| 2,012.2 | 0.24 | 146.04 | 2,009.6 | -21.7 | -64.4 | -3.9 | 0.89 | |
| 2,038.5 | 0.12 | 86.86 | 2,035.9 | -21.7 | -64.3 | -3.9 | 0.78 | |
| 2,062.6 | 0.13 | 130.80 | 2,059.9 | -21.8 | -64.3 | -3.9 | 0.39 | |
| 2,088.8 | 0.12 | 125.90 | 2,086.2 | -21.8 | -64.2 | -3.8 | 0.06 | |
| 2,112.4 | 0.06 | 89.04 | 2,109.7 | -21.8 | -64.2 | -3.8 | 0.34 | |
| 2,138.7 | 0.05 | 114.99 | 2,136.0 | -21.8 | -64.2 | -3.8 | 0.10 | |
| 2,162.2 | 0.16 | 74.93 | 2,159.5 | -21.8 | -64.1 | -3.8 | 0.54 | |
| 2,188.6 | 0.11 | 175.27 | 2,185.9 | -21.8 | -64.1 | -3.7 | 0.80 | |
| 2,212.2 | 0.19 | 88.69 | 2,209.5 | -21.8 | -64.0 | -3.7 | 0.90 | |
| 2,238.4 | 0.17 | 127.16 | 2,235.7 | -21.9 | -64.0 | -3.6 | 0.46 | |
| 2,262.2 | 0.13 | 104.76 | 2,259.5 | -21.9 | -63.9 | -3.6 | 0.30 | |
| 2,288.4 | 0.16 | 125.53 | 2,285.7 | -21.9 | -63.9 | -3.5 | 0.23 | |
| 2,312.1 | 0.23 | 95.19 | 2,309.4 | -21.9 | -63.8 | -3.5 | 0.52 | |
| 2,338.4 | 0.21 | 88.44 | 2,335.7 | -22.0 | -63.7 | -3.5 | 0.12 | |
| 2,362.0 | 0.22 | 72.16 | 2,359.4 | -21.9 | -63.6 | -3.4 | 0.26 | |
| 2,388.4 | 0.31 | 135.34 | 2,385.7 | -22.0 | -63.5 | -3.4 | 1.09 | |
| 2,412.1 | 0.23 | 114.62 | 2,409.5 | -22.0 | -63.4 | -3.3 | 0.53 | |
| 2,438.7 | 0.31 | 123.64 | 2,436.0 | -22.1 | -63.3 | -3.2 | 0.34 | |
| 2,462.1 | 0.59 | 94.55 | 2,459.4 | -22.1 | -63.1 | -3.1 | 1.51 | |
| 2,513.9 | 0.18 | 86.67 | 2,511.2 | -22.2 | -62.8 | -2.9 | 0.80 | |
| 2,537.4 | 0.19 | 107.85 | 2,534.7 | -22.2 | -62.7 | -2.9 | 0.29 | |
| 2,563.1 | 0.12 | 107.86 | 2,560.4 | -22.2 | -62.6 | -2.8 | 0.27 | |
| 2,588.6 | 0.16 | 101.45 | 2,585.9 | -22.2 | -62.6 | -2.8 | 0.17 | |

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 SEP 29 2016
 Environmental Department of



| | | | |
|------------------|--|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Morton Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Site: | Cofor Pad/Outback Morton Nova Grape Rainer | MD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Well: | Morton Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| Survey | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
| 2,614.2 | 0.11 | 124.59 | 2,611.5 | -22.2 | -62.5 | -2.8 | 0.29 |
| 2,637.1 | 0.11 | 95.39 | 2,634.5 | -22.2 | -62.5 | -2.7 | 0.24 |
| 2,662.3 | 0.02 | 54.34 | 2,659.6 | -22.2 | -62.5 | -2.7 | 0.38 |
| 2,688.3 | 0.08 | 51.36 | 2,685.6 | -22.2 | -62.4 | -2.7 | 0.23 |
| 2,713.9 | 0.11 | 6.75 | 2,711.2 | -22.2 | -62.4 | -2.8 | 0.30 |
| 2,739.5 | 0.04 | 83.29 | 2,736.8 | -22.2 | -62.4 | -2.8 | 0.42 |
| 2,762.5 | 0.09 | 54.67 | 2,759.9 | -22.2 | -62.4 | -2.8 | 0.25 |
| 2,788.5 | 0.07 | 123.94 | 2,785.9 | -22.2 | -62.4 | -2.8 | 0.36 |
| 2,814.0 | 0.12 | 31.01 | 2,811.3 | -22.1 | -62.3 | -2.8 | 0.56 |
| 2,837.1 | 0.03 | 68.65 | 2,834.4 | -22.1 | -62.3 | -2.8 | 0.42 |
| 2,862.7 | 0.03 | 38.99 | 2,860.1 | -22.1 | -62.3 | -2.8 | 0.06 |
| 2,888.2 | 0.15 | 351.08 | 2,885.6 | -22.1 | -62.3 | -2.8 | 0.52 |
| 2,913.7 | 0.10 | 357.06 | 2,911.0 | -22.0 | -62.3 | -2.9 | 0.20 |
| 2,939.4 | 0.12 | 325.89 | 2,936.7 | -22.0 | -62.3 | -2.9 | 0.24 |
| 2,962.5 | 0.22 | 311.14 | 2,959.8 | -21.9 | -62.4 | -3.0 | 0.47 |
| 2,988.0 | 0.20 | 321.75 | 2,985.3 | -21.9 | -62.4 | -3.1 | 0.17 |
| 3,013.6 | 0.20 | 327.84 | 3,011.0 | -21.8 | -62.5 | -3.2 | 0.08 |
| 3,039.3 | 0.16 | 326.29 | 3,036.6 | -21.7 | -62.5 | -3.2 | 0.16 |
| 3,062.3 | 0.19 | 330.07 | 3,059.6 | -21.7 | -62.6 | -3.3 | 0.14 |
| 3,088.0 | 0.19 | 335.16 | 3,085.3 | -21.6 | -62.6 | -3.4 | 0.07 |
| 3,114.0 | 0.17 | 333.54 | 3,111.3 | -21.5 | -62.6 | -3.5 | 0.08 |
| 3,137.1 | 0.14 | 322.14 | 3,134.5 | -21.4 | -62.7 | -3.5 | 0.19 |
| 3,162.7 | 0.22 | 322.63 | 3,160.0 | -21.4 | -62.7 | -3.6 | 0.31 |
| 3,188.4 | 0.18 | 352.66 | 3,185.7 | -21.3 | -62.8 | -3.7 | 0.43 |
| 3,214.0 | 0.21 | 320.63 | 3,211.3 | -21.2 | -62.8 | -3.8 | 0.43 |
| 3,237.1 | 0.20 | 320.58 | 3,234.4 | -21.2 | -62.8 | -3.9 | 0.04 |
| 3,262.9 | 0.19 | 307.96 | 3,260.2 | -21.1 | -62.9 | -4.0 | 0.17 |
| 3,288.5 | 0.18 | 322.72 | 3,285.9 | -21.0 | -63.0 | -4.0 | 0.19 |
| 3,314.2 | 0.24 | 335.20 | 3,311.5 | -21.0 | -63.0 | -4.1 | 0.29 |
| 3,337.4 | 0.26 | 340.51 | 3,334.8 | -20.9 | -63.1 | -4.2 | 0.13 |
| 3,362.5 | 0.24 | 334.87 | 3,359.9 | -20.8 | -63.1 | -4.3 | 0.13 |
| 3,388.2 | 0.19 | 334.44 | 3,385.5 | -20.7 | -63.1 | -4.4 | 0.20 |
| 3,413.3 | 0.26 | 344.45 | 3,410.6 | -20.6 | -63.2 | -4.5 | 0.32 |
| 3,438.4 | 0.13 | 314.09 | 3,435.8 | -20.5 | -63.2 | -4.6 | 0.64 |
| 3,463.7 | 0.11 | 305.39 | 3,461.0 | -20.5 | -63.2 | -4.7 | 0.11 |
| 3,489.0 | 0.18 | 312.15 | 3,486.3 | -20.4 | -63.3 | -4.7 | 0.28 |
| 3,514.2 | 0.20 | 310.17 | 3,511.5 | -20.4 | -63.4 | -4.8 | 0.08 |
| 3,539.3 | 0.24 | 308.02 | 3,536.6 | -20.3 | -63.4 | -4.9 | 0.16 |
| 3,562.1 | 0.25 | 317.43 | 3,559.5 | -20.3 | -63.5 | -5.0 | 0.18 |
| 3,587.3 | 0.19 | 321.29 | 3,584.6 | -20.2 | -63.6 | -5.0 | 0.25 |
| 3,612.6 | 0.22 | 312.51 | 3,610.0 | -20.1 | -63.6 | -5.1 | 0.17 |
| 3,637.8 | 0.24 | 315.58 | 3,635.1 | -20.1 | -63.7 | -5.2 | 0.09 |
| 3,663.5 | 0.19 | 326.82 | 3,660.8 | -20.0 | -63.8 | -5.3 | 0.25 |
| 3,688.8 | 0.22 | 310.36 | 3,686.1 | -19.9 | -63.8 | -5.4 | 0.26 |

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 Oil and Gas



EOW Completion Report



| | | | |
|------------------|--|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Morton Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Site: | Cofor Pad/Outback Morton Nova Grape Rainer | MD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Well: | Morton Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| Survey | | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|--|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | |
| 3,714.0 | 0.21 | 313.27 | 3,711.3 | -19.8 | -63.9 | -5.5 | 0.06 | |
| 3,739.1 | 0.20 | 309.11 | 3,736.5 | -19.8 | -64.0 | -5.6 | 0.07 | |
| 3,762.0 | 0.33 | 301.03 | 3,759.3 | -19.7 | -64.0 | -5.7 | 0.59 | |
| 3,787.3 | 0.23 | 286.01 | 3,784.6 | -19.7 | -64.2 | -5.7 | 0.49 | |
| 3,812.4 | 0.25 | 300.95 | 3,809.8 | -19.6 | -64.3 | -5.8 | 0.26 | |
| 3,837.8 | 0.22 | 288.58 | 3,835.1 | -19.6 | -64.3 | -5.9 | 0.23 | |
| 3,863.1 | 0.26 | 308.97 | 3,860.5 | -19.5 | -64.4 | -6.0 | 0.37 | |
| 3,888.9 | 0.27 | 297.33 | 3,886.2 | -19.5 | -64.5 | -6.1 | 0.21 | |
| 3,914.1 | 0.12 | 317.36 | 3,911.4 | -19.4 | -64.6 | -6.1 | 0.64 | |
| 3,939.4 | 0.07 | 282.40 | 3,936.7 | -19.4 | -64.6 | -6.2 | 0.29 | |
| 3,962.4 | 0.11 | 219.62 | 3,959.7 | -19.4 | -64.7 | -6.2 | 0.43 | |
| 3,987.6 | 0.08 | 239.72 | 3,984.9 | -19.4 | -64.7 | -6.2 | 0.18 | |
| 4,012.9 | 0.10 | 241.97 | 4,010.2 | -19.5 | -64.7 | -6.2 | 0.08 | |
| 4,038.4 | 0.09 | 254.25 | 4,035.7 | -19.5 | -64.8 | -6.2 | 0.09 | |
| 4,063.8 | 0.15 | 242.36 | 4,061.1 | -19.5 | -64.8 | -6.2 | 0.25 | |
| 4,089.3 | 0.10 | 255.46 | 4,086.6 | -19.5 | -64.9 | -6.2 | 0.22 | |
| 4,112.1 | 0.06 | 279.84 | 4,109.4 | -19.5 | -64.9 | -6.2 | 0.23 | |
| 4,139.3 | 0.11 | 36.55 | 4,136.7 | -19.5 | -64.9 | -6.2 | 0.54 | |
| 4,162.2 | 0.09 | 42.93 | 4,159.6 | -19.5 | -64.9 | -6.2 | 0.10 | |
| 4,187.1 | 0.14 | 26.20 | 4,184.4 | -19.4 | -64.8 | -6.2 | 0.24 | |
| 4,214.4 | 0.06 | 92.95 | 4,211.8 | -19.4 | -64.8 | -6.2 | 0.47 | |
| 4,239.3 | 0.15 | 62.42 | 4,236.6 | -19.4 | -64.8 | -6.2 | 0.41 | |
| 4,264.3 | 0.09 | 59.36 | 4,261.6 | -19.4 | -64.7 | -6.2 | 0.24 | |
| 4,289.1 | 0.12 | 28.52 | 4,286.4 | -19.3 | -64.7 | -6.3 | 0.25 | |
| 4,314.0 | 0.12 | 45.93 | 4,311.3 | -19.3 | -64.7 | -6.3 | 0.15 | |
| 4,338.9 | 0.16 | 50.34 | 4,336.2 | -19.2 | -64.6 | -6.3 | 0.17 | |
| 4,363.7 | 0.12 | 61.21 | 4,361.0 | -19.2 | -64.6 | -6.3 | 0.19 | |
| 4,389.0 | 0.14 | 59.30 | 4,386.4 | -19.2 | -64.5 | -6.3 | 0.08 | |
| 4,413.9 | 0.11 | 46.33 | 4,411.2 | -19.2 | -64.5 | -6.4 | 0.17 | |
| 4,438.9 | 0.11 | 61.29 | 4,436.3 | -19.1 | -64.4 | -6.4 | 0.11 | |
| 4,463.7 | 0.10 | 47.87 | 4,461.0 | -19.1 | -64.4 | -6.4 | 0.11 | |
| 4,488.5 | 0.12 | 101.17 | 4,485.9 | -19.1 | -64.4 | -6.4 | 0.40 | |
| 4,513.5 | 0.15 | 68.87 | 4,510.8 | -19.1 | -64.3 | -6.4 | 0.32 | |
| 4,538.3 | 0.07 | 98.11 | 4,535.6 | -19.1 | -64.3 | -6.3 | 0.38 | |
| 4,563.2 | 0.19 | 146.58 | 4,560.5 | -19.1 | -64.2 | -6.3 | 0.61 | |
| 4,588.2 | 0.15 | 187.67 | 4,585.5 | -19.2 | -64.2 | -6.2 | 0.50 | |
| 4,613.6 | 0.13 | 150.26 | 4,611.0 | -19.2 | -64.2 | -6.2 | 0.36 | |
| 4,638.5 | 0.25 | 162.78 | 4,635.8 | -19.3 | -64.2 | -6.1 | 0.51 | |
| 4,663.3 | 0.20 | 128.40 | 4,660.6 | -19.4 | -64.1 | -6.0 | 0.57 | |
| 4,688.3 | 0.15 | 162.59 | 4,685.6 | -19.4 | -64.1 | -5.9 | 0.45 | |
| 4,713.1 | 0.19 | 146.06 | 4,710.5 | -19.5 | -64.0 | -5.9 | 0.25 | |
| 4,738.1 | 0.16 | 142.55 | 4,735.4 | -19.6 | -64.0 | -5.8 | 0.13 | |
| 4,763.1 | 0.25 | 151.55 | 4,760.4 | -19.7 | -64.0 | -5.7 | 0.38 | |
| 4,787.1 | 0.21 | 145.18 | 4,784.4 | -19.7 | -63.9 | -5.6 | 0.20 | |



EOW Completion Report



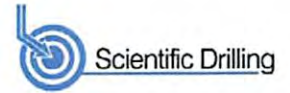
| | | | |
|------------------|--|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Morton Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Site: | Cofor Pad/Outback Morton Nova Grape Rainer | MD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Well: | Morton Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| Survey | | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|--|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | |
| 4,813.5 | 0.25 | 183.53 | 4,810.8 | -19.8 | -63.9 | -5.5 | 0.59 | |
| 4,837.3 | 0.24 | 138.45 | 4,834.6 | -19.9 | -63.8 | -5.4 | 0.79 | |
| 4,862.4 | 0.29 | 179.34 | 4,859.7 | -20.0 | -63.8 | -5.3 | 0.76 | |
| 4,887.1 | 0.24 | 161.44 | 4,884.4 | -20.1 | -63.8 | -5.2 | 0.39 | |
| 4,912.3 | 0.28 | 166.37 | 4,909.6 | -20.2 | -63.8 | -5.1 | 0.18 | |
| 4,939.3 | 0.24 | 172.80 | 4,936.6 | -20.4 | -63.7 | -4.9 | 0.18 | |
| 4,964.0 | 0.27 | 169.66 | 4,961.3 | -20.5 | -63.7 | -4.8 | 0.13 | |
| 4,988.6 | 0.24 | 154.58 | 4,985.9 | -20.6 | -63.7 | -4.7 | 0.30 | |
| 5,013.2 | 0.29 | 172.98 | 5,010.5 | -20.7 | -63.7 | -4.6 | 0.40 | |
| 5,037.9 | 0.27 | 164.77 | 5,035.2 | -20.8 | -63.6 | -4.5 | 0.18 | |
| 5,062.6 | 0.25 | 172.16 | 5,059.9 | -20.9 | -63.6 | -4.4 | 0.16 | |
| 5,087.7 | 0.27 | 183.26 | 5,085.0 | -21.0 | -63.6 | -4.3 | 0.22 | |
| 5,112.3 | 0.19 | 183.22 | 5,109.6 | -21.1 | -63.6 | -4.2 | 0.33 | |
| 5,139.4 | 0.17 | 183.93 | 5,136.7 | -21.2 | -63.6 | -4.1 | 0.07 | |
| 5,164.0 | 0.14 | 197.78 | 5,161.4 | -21.3 | -63.6 | -4.1 | 0.19 | |
| 5,188.7 | 0.11 | 206.01 | 5,186.0 | -21.3 | -63.7 | -4.0 | 0.14 | |
| 5,213.4 | 0.15 | 201.02 | 5,210.8 | -21.4 | -63.7 | -4.0 | 0.17 | |
| 5,238.2 | 0.12 | 207.06 | 5,235.5 | -21.4 | -63.7 | -3.9 | 0.13 | |
| 5,262.7 | 0.20 | 216.34 | 5,260.0 | -21.5 | -63.7 | -3.9 | 0.34 | |
| 5,287.4 | 0.14 | 187.52 | 5,284.7 | -21.6 | -63.8 | -3.9 | 0.42 | |
| 5,312.6 | 0.17 | 208.50 | 5,309.9 | -21.6 | -63.8 | -3.8 | 0.25 | |
| 5,337.3 | 0.28 | 207.63 | 5,334.6 | -21.7 | -63.8 | -3.7 | 0.45 | |
| 5,362.0 | 0.20 | 220.05 | 5,359.3 | -21.8 | -63.9 | -3.7 | 0.38 | |
| 5,389.3 | 0.19 | 202.58 | 5,386.6 | -21.9 | -63.9 | -3.6 | 0.22 | |
| 5,413.9 | 0.23 | 235.08 | 5,411.2 | -21.9 | -64.0 | -3.6 | 0.50 | |
| 5,438.7 | 0.25 | 248.71 | 5,436.0 | -22.0 | -64.1 | -3.6 | 0.24 | |
| 5,463.5 | 0.26 | 272.19 | 5,460.8 | -22.0 | -64.2 | -3.6 | 0.42 | |
| 5,488.9 | 0.21 | 293.29 | 5,486.2 | -22.0 | -64.3 | -3.7 | 0.39 | |
| 5,513.4 | 0.30 | 274.26 | 5,510.7 | -22.0 | -64.4 | -3.7 | 0.50 | |
| 5,538.2 | 0.34 | 273.58 | 5,535.5 | -21.9 | -64.5 | -3.8 | 0.16 | |
| 5,563.1 | 0.15 | 303.89 | 5,560.5 | -21.9 | -64.6 | -3.8 | 0.90 | |
| 5,587.9 | 0.22 | 286.99 | 5,585.2 | -21.9 | -64.7 | -3.9 | 0.36 | |
| 5,612.7 | 0.19 | 282.31 | 5,610.0 | -21.9 | -64.8 | -4.0 | 0.14 | |
| 5,637.1 | 0.27 | 281.09 | 5,634.4 | -21.8 | -64.9 | -4.0 | 0.33 | |
| 5,663.7 | 0.26 | 303.24 | 5,661.1 | -21.8 | -65.0 | -4.1 | 0.38 | |
| 5,687.7 | 0.14 | 275.66 | 5,685.0 | -21.8 | -65.1 | -4.1 | 0.63 | |
| 5,712.9 | 0.27 | 287.31 | 5,710.2 | -21.7 | -65.2 | -4.2 | 0.54 | |
| 5,737.1 | 0.21 | 278.20 | 5,734.4 | -21.7 | -65.3 | -4.3 | 0.29 | |
| 5,763.9 | 0.21 | 259.31 | 5,761.2 | -21.7 | -65.4 | -4.3 | 0.26 | |
| 5,788.1 | 0.11 | 318.18 | 5,785.4 | -21.7 | -65.4 | -4.3 | 0.74 | |
| 5,812.3 | 0.22 | 266.21 | 5,809.6 | -21.7 | -65.5 | -4.4 | 0.72 | |
| 5,839.0 | 0.15 | 214.64 | 5,836.3 | -21.7 | -65.6 | -4.4 | 0.65 | |
| 5,863.4 | 0.08 | 24.74 | 5,860.7 | -21.7 | -65.6 | -4.3 | 0.94 | |
| 5,888.0 | 0.04 | 134.09 | 5,885.4 | -21.7 | -65.5 | -4.4 | 0.41 | |

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EOW Completion Report



| | | | |
|------------------|--|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Morton Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Site: | Cofor Pad/Outback Morton Nova Grape Rainer | MD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Well: | Morton Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-------------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 5,912.3 | 0.18 | 214.39 | 5,909.6 | -21.8 | -65.6 | -4.3 | 0.73 |
| 5,939.1 | 0.15 | 226.11 | 5,936.4 | -21.8 | -65.6 | -4.3 | 0.17 |
| 5,962.4 | 0.29 | 218.98 | 5,959.7 | -21.9 | -65.7 | -4.2 | 0.61 |
| 5,988.3 | 0.19 | 152.48 | 5,985.6 | -22.0 | -65.7 | -4.2 | 1.06 |
| 6,012.9 | 0.36 | 145.25 | 6,010.2 | -22.1 | -65.6 | -4.1 | 0.70 |
| 6,038.0 | 0.04 | 335.68 | 6,035.3 | -22.1 | -65.6 | -4.0 | 1.59 |
| 6,049.5 | 0.10 | 344.32 | 6,046.8 | -22.1 | -65.6 | -4.0 | 0.53 |
| 6,136.0 | 0.27 | 255.33 | 6,133.3 | -22.1 | -65.8 | -4.1 | 0.33 |
| 6,168.0 | 0.09 | 75.07 | 6,165.3 | -22.1 | -65.9 | -4.1 | 1.12 |
| 6,200.0 | 0.11 | 122.26 | 6,197.3 | -22.1 | -65.8 | -4.1 | 0.26 |
| 6,233.0 | 1.90 | 237.44 | 6,230.3 | -22.4 | -66.2 | -4.0 | 5.91 |
| 6,265.0 | 6.45 | 240.82 | 6,262.2 | -23.6 | -68.3 | -3.6 | 14.23 |
| 6,297.0 | 11.15 | 244.97 | 6,293.8 | -25.8 | -72.6 | -3.2 | 14.81 |
| 6,329.0 | 14.18 | 249.96 | 6,325.0 | -28.4 | -79.1 | -3.2 | 10.06 |
| 6,361.0 | 15.61 | 247.81 | 6,356.0 | -31.4 | -86.8 | -3.3 | 4.79 |
| 6,393.0 | 15.87 | 233.52 | 6,386.8 | -35.6 | -94.3 | -2.2 | 12.11 |
| 6,425.0 | 17.89 | 222.58 | 6,417.4 | -41.9 | -101.1 | 1.0 | 11.74 |
| 6,449.0 | 19.73 | 217.05 | 6,440.1 | -47.8 | -106.1 | 4.7 | 10.68 |
| SCMR | | | | | | | |
| 6,457.0 | 20.38 | 215.42 | 6,447.6 | -50.0 | -107.7 | 6.1 | 10.68 |
| 6,490.0 | 22.95 | 211.39 | 6,478.3 | -60.2 | -114.4 | 13.1 | 8.99 |
| 6,521.0 | 25.80 | 205.74 | 6,506.5 | -71.4 | -120.5 | 21.2 | 11.87 |
| 6,553.0 | 29.05 | 204.85 | 6,534.9 | -84.8 | -126.8 | 31.2 | 10.24 |
| 6,585.0 | 31.81 | 202.63 | 6,562.5 | -99.6 | -133.3 | 42.5 | 9.31 |
| 6,617.0 | 35.02 | 198.33 | 6,589.2 | -116.1 | -139.4 | 55.6 | 12.46 |
| 6,649.0 | 38.69 | 194.87 | 6,614.8 | -134.5 | -144.9 | 70.6 | 13.17 |
| 6,654.0 | 39.15 | 194.16 | 6,618.7 | -137.6 | -145.6 | 73.1 | 12.84 |
| MDLX | | | | | | | |
| 6,681.0 | 41.71 | 190.55 | 6,639.3 | -154.7 | -149.4 | 87.6 | 12.84 |
| 6,713.0 | 43.97 | 186.56 | 6,662.8 | -176.2 | -152.6 | 106.3 | 11.03 |
| 6,745.0 | 47.02 | 183.77 | 6,685.2 | -198.9 | -154.6 | 126.6 | 11.38 |
| 6,778.0 | 49.97 | 181.31 | 6,707.1 | -223.6 | -155.7 | 149.1 | 10.54 |
| 6,810.0 | 53.02 | 179.08 | 6,727.0 | -248.6 | -155.8 | 172.3 | 10.98 |
| 6,842.0 | 56.33 | 177.11 | 6,745.5 | -274.7 | -154.9 | 196.8 | 11.50 |
| 6,846.0 | 56.72 | 176.85 | 6,747.7 | -278.0 | -154.7 | 200.0 | 11.10 |
| BRKT | | | | | | | |
| 6,874.0 | 59.46 | 175.13 | 6,762.5 | -301.7 | -153.1 | 222.6 | 11.10 |
| 6,903.0 | 62.17 | 173.27 | 6,776.6 | -326.9 | -150.5 | 246.9 | 10.89 |
| TLLY | | | | | | | |
| 6,906.0 | 62.45 | 173.08 | 6,778.0 | -329.5 | -150.2 | 249.5 | 10.89 |
| 6,938.0 | 64.99 | 170.81 | 6,792.2 | -358.0 | -146.2 | 277.3 | 10.17 |
| 6,970.0 | 67.18 | 169.20 | 6,805.2 | -386.8 | -141.1 | 305.9 | 8.25 |
| 6,982.0 | 68.31 | 168.09 | 6,809.7 | -397.6 | -138.9 | 316.9 | 12.72 |
| HMLN | | | | | | | |
| 7,002.0 | 70.21 | 166.28 | 6,816.8 | -415.9 | -134.8 | 335.3 | 12.72 |

| | | | |
|------------------|--|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Morton Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Site: | Cofor Pad/Outback Morton Nova Grape Rainer | MD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Well: | Morton Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| Survey | | | | | | | | |
|-----------------|---------|-------------------|------------|------------|------------|---------------|------------------|--|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | |
| 7,017.0 | 71.76 | 164.91 | 6,821.7 | -429.6 | -131.2 | 349.4 | 13.46 | |
| MRCL_HOT | | | | | | | | |
| 7,034.0 | 73.53 | 163.39 | 6,826.7 | -445.2 | -126.8 | 365.5 | 13.46 | |
| 7,066.0 | 76.62 | 160.99 | 6,835.0 | -474.7 | -117.3 | 396.3 | 12.07 | |
| 7,098.0 | 79.07 | 159.79 | 6,841.7 | -504.1 | -106.8 | 427.6 | 8.49 | |
| 7,130.0 | 81.25 | 159.06 | 6,847.2 | -533.6 | -95.8 | 459.1 | 7.17 | |
| 7,162.0 | 84.39 | 157.82 | 6,851.2 | -563.2 | -84.1 | 490.9 | 10.54 | |
| 7,195.0 | 86.21 | 156.04 | 6,853.9 | -593.4 | -71.2 | 523.7 | 7.70 | |
| 7,235.0 | 86.20 | 155.21 | 6,856.5 | -629.8 | -54.7 | 563.6 | 2.07 | |
| 7,291.0 | 88.15 | 156.05 | 6,859.3 | -680.7 | -31.7 | 619.5 | 3.79 | |
| 7,387.0 | 89.63 | 158.34 | 6,861.2 | -769.2 | 5.5 | 715.5 | 2.84 | |
| 7,484.0 | 90.34 | 158.84 | 6,861.2 | -859.5 | 41.0 | 812.4 | 0.90 | |
| 7,580.0 | 90.40 | 158.30 | 6,860.6 | -948.9 | 76.0 | 908.4 | 0.57 | |
| 7,676.0 | 88.69 | 155.16 | 6,861.3 | -1,037.0 | 113.9 | 1,004.4 | 3.72 | |
| 7,772.0 | 89.53 | 159.12 | 6,862.8 | -1,125.5 | 151.2 | 1,100.4 | 4.22 | |
| 7,866.0 | 89.23 | 160.93 | 6,863.8 | -1,213.8 | 183.3 | 1,194.3 | 1.95 | |
| 7,960.0 | 88.89 | 158.30 | 6,865.4 | -1,301.9 | 216.1 | 1,288.2 | 2.82 | |
| 8,055.0 | 88.93 | 157.59 | 6,867.2 | -1,389.9 | 251.7 | 1,383.2 | 0.75 | |
| 8,149.0 | 89.83 | 156.06 | 6,868.2 | -1,476.3 | 288.7 | 1,477.2 | 1.89 | |
| 8,243.0 | 90.07 | 155.20 | 6,868.3 | -1,561.9 | 327.5 | 1,571.1 | 0.95 | |
| 8,338.0 | 89.97 | 153.24 | 6,868.3 | -1,647.5 | 368.8 | 1,665.9 | 2.07 | |
| 8,430.0 | 88.46 | 155.31 | 6,869.5 | -1,730.4 | 408.8 | 1,757.7 | 2.78 | |
| 8,525.0 | 89.16 | 160.94 | 6,871.5 | -1,818.5 | 444.1 | 1,852.6 | 5.97 | |
| 8,619.0 | 91.75 | 158.91 | 6,870.7 | -1,906.7 | 476.4 | 1,946.5 | 3.50 | |
| 8,713.0 | 91.68 | 158.03 | 6,867.9 | -1,994.1 | 510.9 | 2,040.5 | 0.94 | |
| 8,808.0 | 92.49 | 159.41 | 6,864.5 | -2,082.6 | 545.3 | 2,135.4 | 1.68 | |
| 8,903.0 | 91.11 | 158.92 | 6,861.5 | -2,171.3 | 579.1 | 2,230.4 | 1.54 | |
| 8,996.0 | 90.91 | 158.05 | 6,859.9 | -2,257.8 | 613.2 | 2,323.3 | 0.96 | |
| 9,090.0 | 88.25 | 157.49 | 6,860.5 | -2,344.8 | 648.8 | 2,417.3 | 2.89 | |
| 9,185.0 | 89.23 | 159.26 | 6,862.6 | -2,433.1 | 683.8 | 2,512.3 | 2.13 | |
| 9,280.0 | 90.84 | 165.11 | 6,862.6 | -2,523.5 | 712.8 | 2,607.0 | 6.39 | |
| 9,373.0 | 90.64 | 159.54 | 6,861.4 | -2,612.1 | 741.0 | 2,699.7 | 5.99 | |
| 9,469.0 | 89.93 | 158.53 | 6,860.9 | -2,701.7 | 775.4 | 2,795.7 | 1.29 | |
| 9,564.0 | 90.17 | 160.39 | 6,860.8 | -2,790.7 | 808.7 | 2,890.6 | 1.97 | |
| 9,660.0 | 89.87 | 154.21 | 6,860.8 | -2,879.2 | 845.7 | 2,986.6 | 6.45 | |
| 9,756.0 | 89.53 | 153.11 | 6,861.3 | -2,965.3 | 888.3 | 3,082.3 | 1.20 | |
| 9,853.0 | 90.71 | 155.40 | 6,861.1 | -3,052.6 | 930.5 | 3,179.1 | 2.66 | |
| 9,949.0 | 91.58 | 158.15 | 6,859.2 | -3,140.8 | 968.3 | 3,275.0 | 3.00 | |
| 10,044.0 | 90.34 | 156.92 | 6,857.6 | -3,228.6 | 1,004.6 | 3,370.0 | 1.84 | |
| 10,139.0 | 91.27 | 157.60 | 6,856.2 | -3,316.2 | 1,041.3 | 3,465.0 | 1.21 | |
| 10,233.0 | 88.66 | 154.11 | 6,856.3 | -3,401.9 | 1,079.8 | 3,558.9 | 4.64 | |
| 10,326.0 | 90.40 | 157.61 | 6,857.1 | -3,486.8 | 1,117.8 | 3,651.8 | 4.20 | |
| 10,421.0 | 89.73 | 158.62 | 6,856.9 | -3,574.9 | 1,153.2 | 3,746.8 | 1.28 | |
| 10,515.0 | 90.61 | 160.55 | 6,856.7 | -3,663.0 | 1,186.0 | 3,840.8 | 2.26 | |



EOW Completion Report



| | | | |
|------------------|--|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Morton Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Site: | Cofor Pad/Outback Morton Nova Grape Rainer | MD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Well: | Morton Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 10,609.0 | 92.04 | 162.48 | 6,854.5 | -3,752.2 | 1,215.8 | 3,934.6 | 2.55 |
| 10,702.0 | 91.91 | 159.86 | 6,851.3 | -3,840.1 | 1,245.8 | 4,027.4 | 2.82 |
| 10,800.0 | 90.00 | 156.56 | 6,849.7 | -3,931.1 | 1,282.1 | 4,125.3 | 3.89 |
| 10,897.0 | 90.40 | 157.68 | 6,849.3 | -4,020.5 | 1,319.9 | 4,222.3 | 1.23 |
| 10,993.0 | 90.57 | 157.54 | 6,848.5 | -4,109.2 | 1,356.4 | 4,318.3 | 0.23 |
| 11,090.0 | 91.47 | 160.08 | 6,846.8 | -4,199.6 | 1,391.5 | 4,415.3 | 2.78 |
| 11,186.0 | 91.88 | 160.76 | 6,844.0 | -4,290.0 | 1,423.6 | 4,511.2 | 0.83 |
| 11,282.0 | 91.55 | 160.50 | 6,841.1 | -4,380.6 | 1,455.5 | 4,607.0 | 0.44 |
| 11,373.0 | 92.39 | 157.43 | 6,838.0 | -4,465.4 | 1,488.1 | 4,697.9 | 3.50 |
| 11,464.0 | 92.31 | 157.12 | 6,834.2 | -4,549.3 | 1,523.2 | 4,788.9 | 0.35 |
| 11,554.0 | 90.17 | 153.17 | 6,832.3 | -4,630.9 | 1,561.0 | 4,878.7 | 4.99 |
| 11,644.0 | 89.70 | 153.20 | 6,832.4 | -4,711.3 | 1,601.6 | 4,968.4 | 0.52 |
| 11,735.0 | 90.03 | 156.70 | 6,832.6 | -4,793.7 | 1,640.2 | 5,059.2 | 3.86 |
| 11,826.0 | 89.87 | 156.82 | 6,832.7 | -4,877.3 | 1,676.1 | 5,150.2 | 0.22 |
| 11,917.0 | 91.38 | 157.10 | 6,831.7 | -4,961.0 | 1,711.7 | 5,241.2 | 1.69 |
| 12,007.0 | 89.96 | 159.36 | 6,830.6 | -5,044.6 | 1,745.0 | 5,331.2 | 2.97 |
| 12,099.0 | 91.45 | 160.61 | 6,829.5 | -5,131.0 | 1,776.5 | 5,423.1 | 2.11 |
| 12,189.0 | 90.47 | 159.24 | 6,828.0 | -5,215.5 | 1,807.4 | 5,513.0 | 1.87 |
| 12,280.0 | 90.50 | 158.24 | 6,827.2 | -5,300.4 | 1,840.4 | 5,604.0 | 1.10 |
| 12,371.0 | 91.08 | 159.77 | 6,826.0 | -5,385.3 | 1,873.0 | 5,695.0 | 1.80 |
| 12,467.0 | 91.04 | 157.11 | 6,824.2 | -5,474.6 | 1,908.3 | 5,791.0 | 2.77 |
| 12,564.0 | 90.34 | 156.03 | 6,823.0 | -5,563.6 | 1,946.8 | 5,887.9 | 1.33 |
| 12,659.0 | 90.87 | 161.01 | 6,822.0 | -5,651.9 | 1,981.6 | 5,982.9 | 5.27 |
| 12,754.0 | 91.17 | 163.83 | 6,820.3 | -5,742.5 | 2,010.3 | 6,077.6 | 2.98 |
| 12,851.0 | 90.87 | 163.12 | 6,818.6 | -5,835.4 | 2,037.9 | 6,174.1 | 0.79 |
| 12,946.0 | 90.64 | 157.73 | 6,817.4 | -5,924.9 | 2,069.7 | 6,269.0 | 5.68 |
| 13,042.0 | 90.13 | 156.50 | 6,816.7 | -6,013.3 | 2,107.0 | 6,365.0 | 1.39 |
| 13,138.0 | 90.81 | 155.16 | 6,815.9 | -6,100.9 | 2,146.3 | 6,460.9 | 1.57 |
| 13,234.0 | 90.71 | 154.30 | 6,814.6 | -6,187.7 | 2,187.3 | 6,556.7 | 0.90 |
| 13,330.0 | 91.58 | 154.62 | 6,812.7 | -6,274.3 | 2,228.7 | 6,652.5 | 0.97 |
| 13,426.0 | 90.13 | 156.06 | 6,811.3 | -6,361.6 | 2,268.7 | 6,748.4 | 2.13 |
| 13,522.0 | 90.27 | 159.25 | 6,811.0 | -6,450.3 | 2,305.2 | 6,844.4 | 3.33 |
| 13,619.0 | 89.66 | 157.54 | 6,811.0 | -6,540.5 | 2,341.0 | 6,941.4 | 1.87 |
| 13,715.0 | 91.41 | 161.13 | 6,810.1 | -6,630.3 | 2,374.8 | 7,037.3 | 4.16 |
| 13,811.0 | 91.71 | 161.28 | 6,807.5 | -6,721.2 | 2,405.7 | 7,133.2 | 0.35 |
| 13,907.0 | 91.84 | 158.15 | 6,804.5 | -6,811.2 | 2,439.0 | 7,229.1 | 3.26 |
| 14,003.0 | 89.83 | 155.87 | 6,803.1 | -6,899.5 | 2,476.5 | 7,325.0 | 3.17 |
| 14,099.0 | 89.97 | 156.06 | 6,803.3 | -6,987.2 | 2,515.6 | 7,421.0 | 0.25 |
| 14,196.0 | 90.57 | 158.48 | 6,802.8 | -7,076.7 | 2,553.1 | 7,518.0 | 2.57 |
| 14,292.0 | 91.68 | 160.68 | 6,801.0 | -7,166.6 | 2,586.6 | 7,613.9 | 2.57 |
| 14,388.0 | 91.25 | 158.41 | 6,798.5 | -7,256.5 | 2,620.1 | 7,709.8 | 2.41 |
| 14,484.0 | 91.01 | 157.40 | 6,796.6 | -7,345.4 | 2,656.2 | 7,805.8 | 1.08 |
| 14,580.0 | 92.12 | 157.40 | 6,794.0 | -7,434.0 | 2,693.1 | 7,901.8 | 1.16 |
| 14,677.0 | 92.25 | 157.00 | 6,790.3 | -7,523.4 | 2,730.6 | 7,998.7 | 0.43 |
| 14,773.0 | 91.88 | 155.68 | 6,786.8 | -7,611.3 | 2,769.1 | 8,094.6 | 1.43 |



| | | | |
|------------------|--|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Morton Unit 1H |
| Project: | Doddridge County WV | TVD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Site: | Cofor Pad/Outback Morton Nova Grape Rainer | MD Reference: | Frontier 22: GL 1189' + KB 25' @ 1214.0usft |
| Well: | Morton Unit 1H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Oklahoma District |

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 14,870.0 | 90.92 | 158.04 | 6,784.5 | -7,700.4 | 2,807.2 | 8,191.5 | 2.63 |
| 14,966.0 | 90.67 | 158.65 | 6,783.1 | -7,789.6 | 2,842.7 | 8,287.5 | 0.69 |
| 15,062.0 | 90.07 | 158.66 | 6,782.5 | -7,879.0 | 2,877.6 | 8,383.5 | 0.63 |
| 15,158.0 | 90.30 | 157.90 | 6,782.2 | -7,968.2 | 2,913.1 | 8,479.5 | 0.83 |
| 15,255.0 | 90.37 | 157.55 | 6,781.6 | -8,058.0 | 2,949.9 | 8,576.5 | 0.37 |
| 15,350.0 | 91.51 | 158.17 | 6,780.1 | -8,146.0 | 2,985.7 | 8,671.5 | 1.37 |
| 15,446.0 | 90.74 | 158.51 | 6,778.2 | -8,235.2 | 3,021.1 | 8,767.4 | 0.88 |
| 15,542.0 | 90.94 | 158.66 | 6,776.8 | -8,324.5 | 3,056.2 | 8,863.4 | 0.26 |
| 15,639.0 | 90.44 | 154.16 | 6,775.6 | -8,413.4 | 3,095.0 | 8,960.4 | 4.67 |
| 15,734.0 | 90.03 | 153.27 | 6,775.2 | -8,498.6 | 3,137.0 | 9,055.1 | 1.03 |
| 15,830.0 | 90.34 | 158.04 | 6,774.9 | -8,586.0 | 3,176.6 | 9,151.0 | 4.98 |
| 15,927.0 | 91.24 | 159.71 | 6,773.6 | -8,676.5 | 3,211.6 | 9,248.0 | 1.96 |
| 16,023.0 | 91.75 | 159.44 | 6,771.1 | -8,766.4 | 3,245.0 | 9,343.9 | 0.60 |
| 16,119.0 | 89.46 | 155.32 | 6,770.1 | -8,855.0 | 3,282.0 | 9,439.8 | 4.91 |
| 16,216.0 | 88.89 | 157.22 | 6,771.5 | -8,943.8 | 3,321.0 | 9,536.8 | 2.04 |
| 16,312.0 | 89.52 | 159.01 | 6,772.8 | -9,032.9 | 3,356.8 | 9,632.8 | 1.98 |
| 16,409.0 | 90.07 | 159.23 | 6,773.1 | -9,123.5 | 3,391.3 | 9,729.8 | 0.61 |
| 16,505.0 | 91.71 | 159.97 | 6,771.6 | -9,213.5 | 3,424.8 | 9,825.7 | 1.87 |
| 16,602.0 | 91.82 | 159.05 | 6,768.7 | -9,304.3 | 3,458.7 | 9,922.6 | 0.95 |
| 16,698.0 | 92.15 | 159.63 | 6,765.3 | -9,394.0 | 3,492.6 | 10,018.5 | 0.69 |
| 16,794.0 | 90.17 | 158.06 | 6,763.4 | -9,483.5 | 3,527.2 | 10,114.5 | 2.63 |
| 16,891.0 | 89.90 | 158.60 | 6,763.3 | -9,573.7 | 3,563.0 | 10,211.5 | 0.62 |
| 16,987.0 | 90.64 | 158.38 | 6,762.9 | -9,663.0 | 3,598.2 | 10,307.5 | 0.80 |
| 17,083.0 | 90.64 | 157.57 | 6,761.8 | -9,752.0 | 3,634.2 | 10,403.5 | 0.84 |
| 17,180.0 | 89.80 | 156.54 | 6,761.4 | -9,841.3 | 3,672.1 | 10,500.5 | 1.37 |
| 17,276.0 | 89.63 | 154.70 | 6,761.9 | -9,928.7 | 3,711.7 | 10,596.4 | 1.92 |
| 17,365.0 | 89.80 | 156.78 | 6,762.4 | -10,009.9 | 3,748.2 | 10,685.3 | 2.34 |
| 17,422.0 | 89.80 | 156.78 | 6,762.6 | -10,062.3 | 3,770.7 | 10,742.3 | 0.00 |

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
|-----------------------|-----------------------|-------------------|--------------|----------|
| | | +N/-S (usft) | +E/-W (usft) | |
| 6,449.0 | 6,440.1 | -47.8 | -106.1 | SCMR |
| 6,654.0 | 6,618.7 | -137.6 | -145.6 | MDLX |
| 6,846.0 | 6,747.7 | -278.0 | -154.7 | BRKT |
| 6,903.0 | 6,776.6 | -326.9 | -150.5 | TLLY |
| 6,982.0 | 6,809.7 | -397.6 | -138.9 | HMLN |
| 7,017.0 | 6,821.7 | -429.6 | -131.2 | MRCL_HOT |

Checked By: _____ Approved By: _____ Date: SEP 29 2016