



Where energy meets innovation.

EQT PRODUCTION

Doddridge County, WV

OXF160

Well #514101 - Slot 514101

Main Wellbore

API # 47-017-06770

Design: 514101 As Drilled Surveys

Standard Survey Report

15 December, 2016

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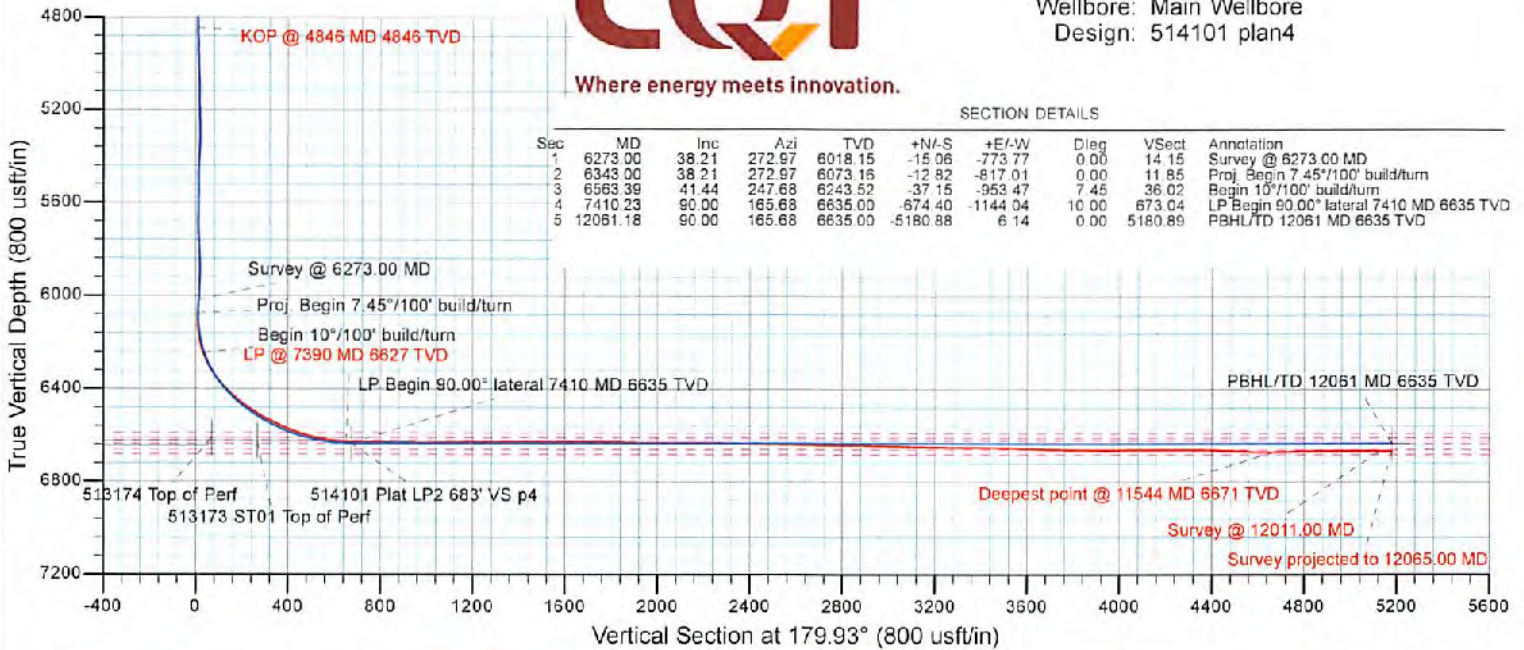


09/15/2017



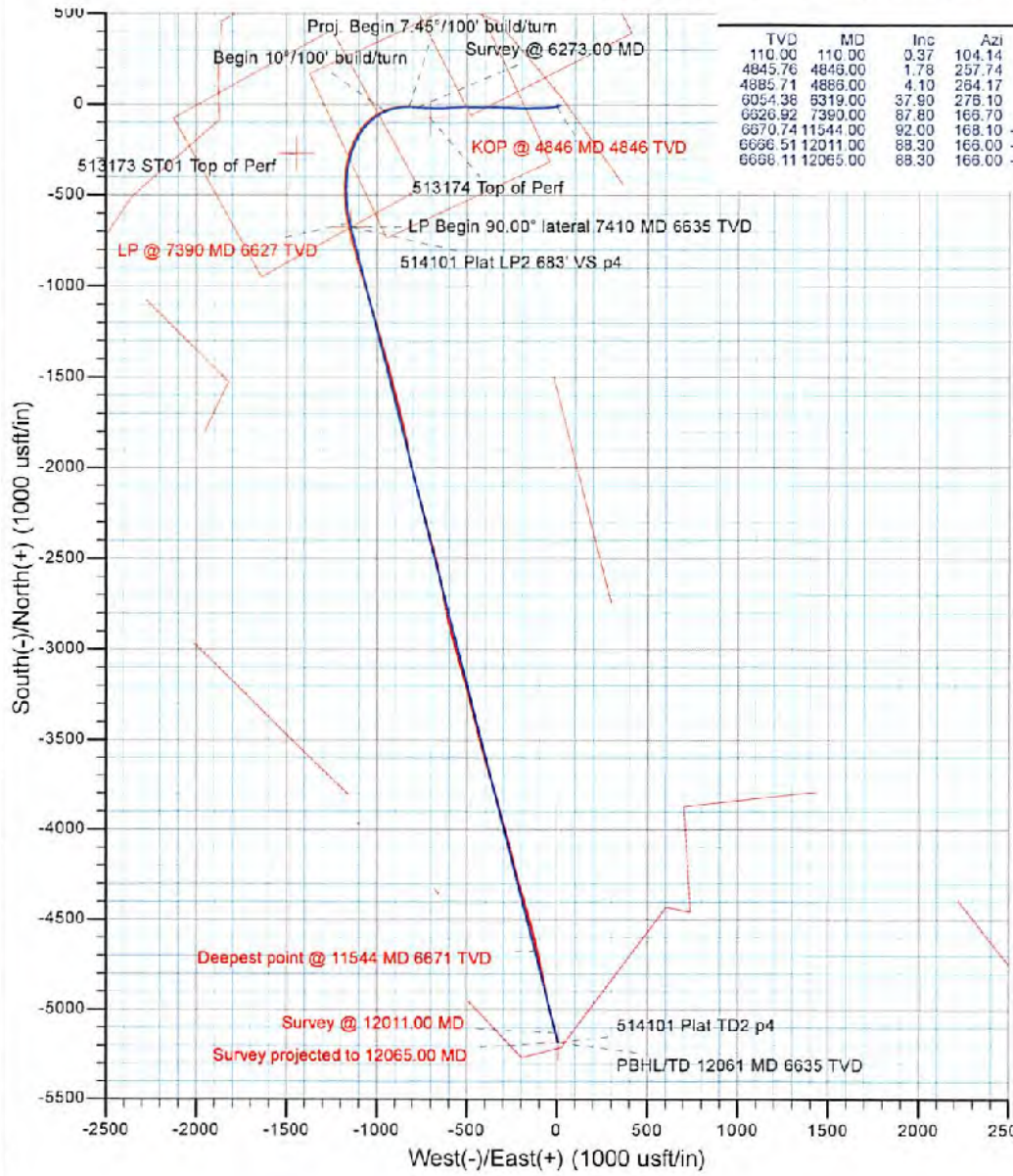
Project: Doddridge County, WV
 Site: OXF160
 Well: Well #514101
 Wellbore: Main Wellbore
 Design: 514101 plan4

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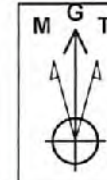
SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N-S | +E-W | Dleg | VSect | Annotation |
|-----|----------|--------|--------|---------|----------|----------|-------|---------|--|
| 1 | 6273.00 | 38.21 | 272.97 | 6018.15 | -15.06 | -773.77 | 0.00 | 14.15 | Survey @ 6273.00 MD |
| 2 | 6343.00 | 38.21 | 272.97 | 6073.18 | -12.82 | -817.01 | 0.00 | 11.85 | Proj. Begin 7.45°/100' build/turn |
| 3 | 6563.39 | -41.44 | 247.68 | 6243.52 | -37.15 | -953.47 | 7.45 | 36.02 | Begin 10°/100' build/turn |
| 4 | 7410.23 | 90.00 | 165.68 | 6635.00 | -674.40 | -1144.04 | 10.00 | 673.04 | LP Begin 90.00° lateral 7410 MD 6635 TVD |
| 5 | 12061.18 | 90.00 | 165.68 | 6635.00 | -5180.88 | 6.14 | 0.00 | 5180.89 | PBHL/TD 12061 MD 6635 TVD |



ANNOTATIONS

| TVD | MD | Inc | Azi | +N-S | +E-W | VSect | Annotation |
|---------|----------|-------|--------|----------|----------|---------|-----------------------------------|
| 110.00 | 110.00 | 0.37 | 104.14 | -0.09 | 0.34 | 0.09 | Gyro |
| 4845.76 | 4846.00 | 1.78 | 257.74 | -10.89 | -3.64 | 10.89 | KOP @ 4846 MD 4846 TVD |
| 4885.71 | 4886.00 | 4.10 | 264.17 | -11.17 | -5.67 | 11.16 | SDI MWD surveys |
| 6054.38 | 6319.00 | 37.90 | 275.10 | -12.83 | -802.02 | 11.85 | ProD MWD surveys |
| 6626.92 | 7390.00 | 87.80 | 165.70 | -654.31 | -1156.04 | 652.90 | LP @ 7390 MD 6627 TVD |
| 6670.74 | 11544.00 | 92.00 | 168.10 | -4672.52 | -111.63 | 4672.38 | Deepest point @ 11544 MD 6671 TVD |
| 6666.51 | 12011.00 | 88.30 | 166.00 | -5127.49 | -7.09 | 5127.48 | Survey @ 12011.00 MD |
| 6666.11 | 12065.00 | 88.30 | 166.00 | -5179.86 | 5.96 | 5179.86 | Survey projected to 12065.00 MD |



Azimuths to Grid North
 True North: 0.83°
 Magnetic North: -6.96°
 Magnetic Field
 Strength: 52013.0snT
 Dip Angle: 66.50°
 Date: 12/10/2015
 Model: HDGM

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---------|---------|-----------|
| 6591.00 | 7149.23 | Tully |
| 6611.00 | 7216.24 | Hamilton |
| 6623.00 | 7274.79 | Marcellus |



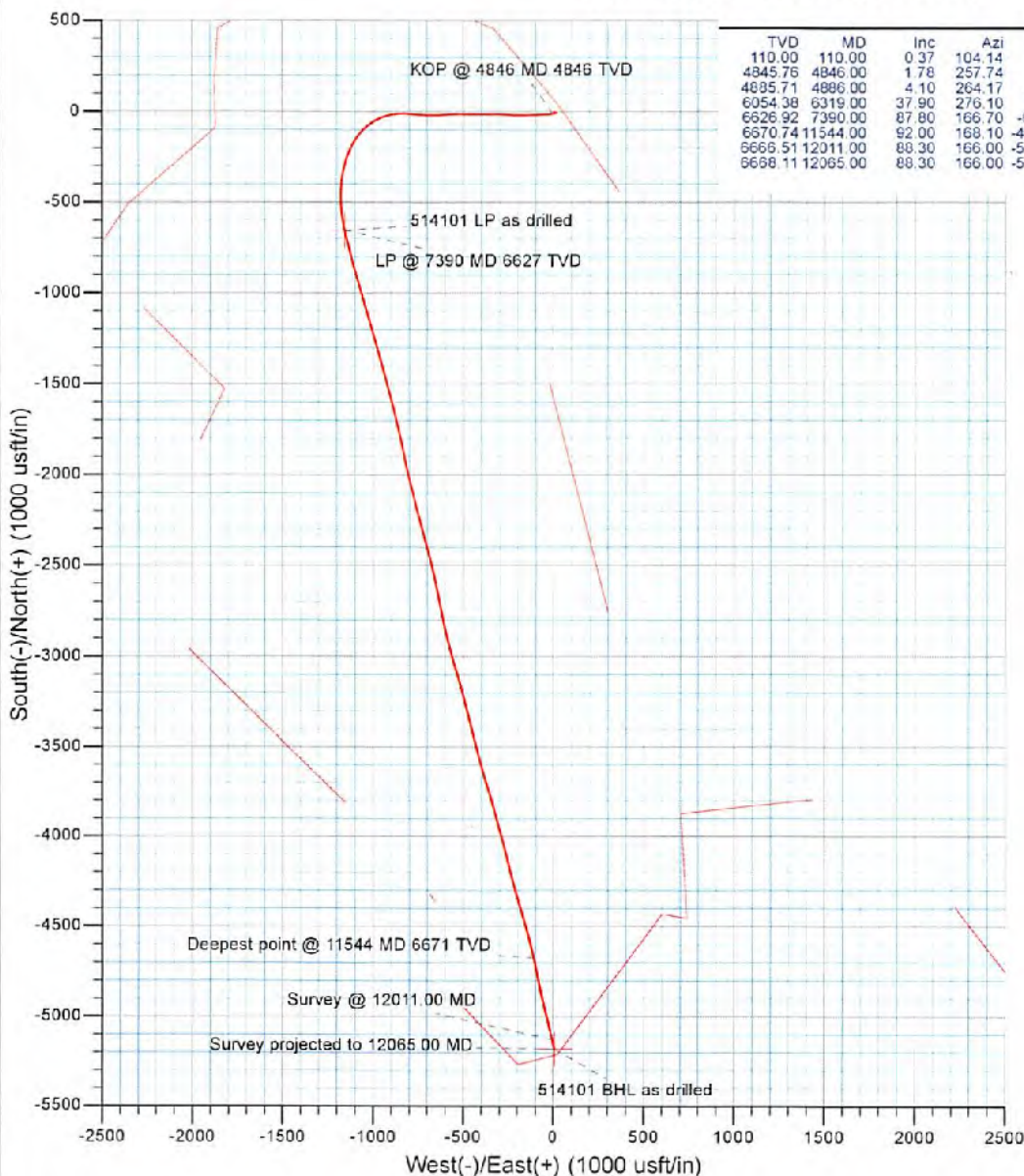
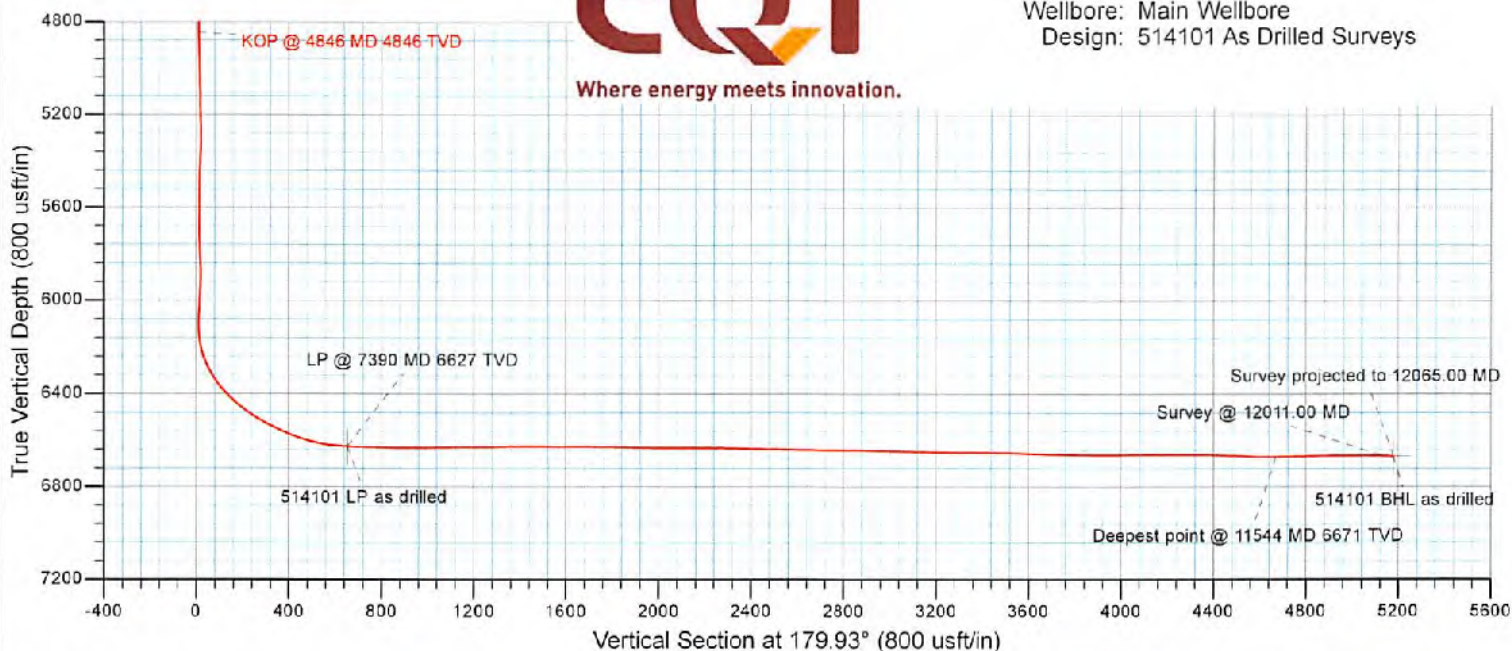
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Project: Doddridge County, WV
 Site: OXF160
 Well: Well #514101
 Wellbore: Main Wellbore
 Design: 514101 As Drilled Surveys



ANNOTATIONS

| TVD | MD | Inc | Azi | +N/-S | +E/-W | Vsect | Annotation |
|---------|----------|-------|--------|----------|----------|---------|-----------------------------------|
| 110.00 | 110.00 | 0.37 | 104.14 | -0.09 | 0.34 | 0.09 | Gyro |
| 4845.76 | 4846.00 | 1.78 | 257.74 | -10.89 | -3.64 | 10.89 | KOP @ 4846 MD 4845 TVD |
| 4895.71 | 4896.00 | 4.10 | 264.17 | -11.17 | -5.67 | 11.16 | SDI MWD surveys |
| 6054.38 | 6319.00 | 37.90 | 276.10 | -12.83 | -602.02 | 11.85 | ProD MWD surveys |
| 6626.92 | 7390.00 | 87.80 | 166.70 | -654.31 | -1155.04 | 652.90 | LP @ 7390 MD 6627 TVD |
| 6670.74 | 11544.00 | 92.00 | 168.10 | -4672.52 | -111.63 | 4572.38 | Deepest point @ 11544 MD 6671 TVD |
| 6665.51 | 12011.00 | 88.30 | 166.00 | -5127.49 | -7.09 | 5127.48 | Survey @ 12011.00 MD |
| 6668.11 | 12065.00 | 88.30 | 166.00 | -5179.83 | 5.95 | 5179.96 | Survey projected to 12065.00 MD |

Azimuths to Grid North
 True North: 0.83°
 Magnetic North: -6.95°

Magnetic Field
 Strength: 52013.0snT
 Dip Angle: 66.50°
 Date: 12/10/2016
 Model: HDGM



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| | | | |
|------------------|---------------------------|-------------------------------------|---------------------------------|
| Company: | EQT PRODUCTION | Local Co-ordinate Reference: | Well Well #514101 - Slot 514101 |
| Project: | Doddridge County, WV | TVD Reference: | RKB=1220+23 @ 1243.00usft |
| Site: | OXF160 | MD Reference: | RKB=1220+23 @ 1243.00usft |
| Well: | Well #514101 | North Reference: | Grid |
| Wellbore: | Main Wellbore | Survey Calculation Method: | Minimum Curvature |
| Design: | 514101 As Drilled Surveys | Database: | DB Jul2216dt |

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| | | | |
|--------------------|--------------------------------------|----------------------|----------------|
| Project | Doddridge County, WV | | |
| Map System: | US State Plane 1927 (Exact solution) | System Datum: | Mean Sea Level |
| Geo Datum: | NAD 1927 (NADCON CONUS) | | |
| Map Zone: | West Virginia North 4701 | | |

| | | | | | |
|------------------------------|-----------|---------------------|-------------------|--------------------------|-------------------|
| Site | OXF160 | | | | |
| Site Position: | | Northing: | 250,835.87 usft | Latitude: | 39° 10' 52.9707 N |
| From: | Map | Easting: | 1,631,720.38 usft | Longitude: | 80° 47' 57.0806 W |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13-3/16 " | Grid Convergence: | -0.83 ° |

| | | | | | | |
|-----------------------------|----------------------------|-----------|----------------------------|-------------------|----------------------|-------------------|
| Well | Well #514101 - Slot 514101 | | | | | |
| Well Position | +N/-S | 0.00 usft | Northing: | 250,870.75 usft | Latitude: | 39° 10' 53.3151 N |
| | +E/-W | 0.00 usft | Easting: | 1,631,717.48 usft | Longitude: | 80° 47' 57.1237 W |
| Position Uncertainty | | 0.00 usft | Wellhead Elevation: | 0.00 usft | Ground Level: | 1,220.00 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Main Wellbore | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | HDGM | 12/10/2016 | -7.78 | 66.50 | 52,013 |

| | | | | | |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|------|
| Design | 514101 As Drilled Surveys | | | | |
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | 179.93 | |

| | | | | | |
|-----------------------|------------------|---------------------------------------|------------------|-----------------------------------|--|
| Survey Program | Date | 12/15/2016 | | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description | |
| 110.00 | 4,846.00 | 514101 Gyrodata Gyros (Main Wellbore) | GYD_DP_MS | Gyrodata gyro-compassing and drop | |
| 4,886.00 | 6,273.00 | 514101 SDI MWD Air Curve (Main Wellbo | MWD | MWD - Standard | |
| 6,319.00 | 12,065.00 | MWD ProD (Main Wellbore) | MWD - OWSG | MWD - OWSG | |

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 110.00 | 0.37 | 104.14 | 110.00 | -0.09 | 0.34 | 0.09 | 0.34 | 0.34 | 0.00 | |
| Gyro | | | | | | | | | | |
| 210.00 | 0.43 | 111.29 | 210.00 | -0.30 | 1.01 | 0.30 | 0.08 | 0.06 | 7.15 | |
| 310.00 | 0.06 | 172.89 | 310.00 | -0.49 | 1.36 | 0.49 | 0.40 | -0.37 | 61.60 | |
| 410.00 | 0.07 | 179.90 | 410.00 | -0.60 | 1.37 | 0.60 | 0.01 | 0.01 | 7.01 | |
| 510.00 | 0.04 | 225.04 | 510.00 | -0.69 | 1.35 | 0.69 | 0.05 | -0.03 | 45.14 | |
| 610.00 | 0.04 | 188.09 | 610.00 | -0.75 | 1.33 | 0.75 | 0.04 | 0.00 | -56.95 | |
| 710.00 | 0.07 | 145.48 | 710.00 | -0.83 | 1.37 | 0.83 | 0.04 | 0.03 | -22.61 | |

Company: EQT PRODUCTION
 Project: Doddridge County, WV
 Site: OXF160
 Well: Well #514101
 Wellbore: Main Wellbore
 Design: 514101 As Drilled Surveys

Local Co-ordinate Reference: Well Well #514101 - Slot 514101
 TVD Reference: RKB=1220+23 @ 1243.00usft
 MD Reference: RKB=1220+23 @ 1243.00usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: DB Jul2216dt

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Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 810.00 | 0.20 | 119.44 | 810.00 | -0.97 | 1.56 | 0.97 | 0.14 | 0.13 | -26.04 |
| 910.00 | 0.23 | 107.69 | 909.99 | -1.12 | 1.90 | 1.12 | 0.05 | 0.03 | -11.75 |
| 1,010.00 | 0.29 | 99.19 | 1,009.99 | -1.22 | 2.34 | 1.22 | 0.07 | 0.06 | -8.50 |
| 1,110.00 | 0.32 | 101.43 | 1,109.99 | -1.31 | 2.86 | 1.32 | 0.03 | 0.03 | 2.24 |
| 1,210.00 | 0.45 | 113.99 | 1,209.99 | -1.53 | 3.50 | 1.53 | 0.15 | 0.13 | 12.56 |
| 1,310.00 | 0.55 | 118.20 | 1,309.99 | -1.91 | 4.28 | 1.92 | 0.11 | 0.10 | 4.21 |
| 1,410.00 | 0.58 | 113.79 | 1,409.96 | -2.34 | 5.16 | 2.35 | 0.05 | 0.03 | -4.41 |
| 1,510.00 | 0.59 | 114.70 | 1,509.96 | -2.76 | 6.10 | 2.77 | 0.01 | 0.01 | 0.91 |
| 1,610.00 | 0.61 | 112.41 | 1,609.97 | -3.18 | 7.06 | 3.19 | 0.03 | 0.02 | -2.29 |
| 1,710.00 | 0.65 | 111.26 | 1,709.96 | -3.59 | 8.08 | 3.60 | 0.04 | 0.04 | -1.15 |
| 1,810.00 | 0.62 | 109.51 | 1,809.96 | -3.98 | 9.11 | 3.99 | 0.04 | -0.03 | -1.75 |
| 1,910.00 | 0.52 | 110.15 | 1,909.95 | -4.31 | 10.05 | 4.33 | 0.10 | -0.10 | 0.64 |
| 2,010.00 | 0.46 | 110.31 | 2,009.95 | -4.61 | 10.85 | 4.62 | 0.06 | -0.05 | 0.16 |
| 2,110.00 | 0.31 | 106.03 | 2,109.95 | -4.82 | 11.49 | 4.84 | 0.15 | -0.15 | -4.28 |
| 2,210.00 | 0.31 | 99.09 | 2,209.95 | -4.94 | 12.02 | 4.96 | 0.04 | 0.00 | -6.94 |
| 2,310.00 | 0.30 | 102.85 | 2,309.94 | -5.04 | 12.54 | 5.06 | 0.02 | -0.01 | 3.56 |
| 2,410.00 | 0.24 | 98.90 | 2,409.94 | -5.12 | 13.00 | 5.14 | 0.07 | -0.05 | -5.75 |
| 2,510.00 | 0.19 | 100.97 | 2,509.94 | -5.18 | 13.37 | 5.20 | 0.05 | -0.05 | 4.07 |
| 2,610.00 | 0.19 | 90.07 | 2,609.94 | -5.21 | 13.70 | 5.23 | 0.04 | 0.00 | -10.90 |
| 2,710.00 | 0.08 | 41.80 | 2,709.94 | -5.16 | 13.91 | 5.18 | 0.15 | -0.11 | -48.27 |
| 2,810.00 | 0.12 | 74.91 | 2,809.94 | -5.08 | 14.06 | 5.10 | 0.07 | 0.04 | 33.11 |
| 2,910.00 | 0.10 | 62.49 | 2,909.94 | -5.01 | 14.24 | 5.03 | 0.03 | -0.02 | -12.42 |
| 3,010.00 | 0.09 | 29.36 | 3,009.94 | -4.90 | 14.36 | 4.92 | 0.06 | -0.01 | -33.13 |
| 3,110.00 | 0.06 | 260.69 | 3,109.94 | -4.84 | 14.34 | 4.86 | 0.14 | -0.03 | -128.67 |
| 3,210.00 | 0.18 | 235.96 | 3,209.94 | -4.94 | 14.16 | 4.96 | 0.13 | 0.12 | -24.73 |
| 3,310.00 | 0.18 | 242.09 | 3,309.94 | -5.10 | 13.89 | 5.12 | 0.02 | 0.00 | 6.13 |
| 3,410.00 | 0.15 | 227.55 | 3,409.94 | -5.26 | 13.66 | 5.28 | 0.05 | -0.03 | -14.54 |
| 3,510.00 | 0.19 | 230.55 | 3,509.94 | -5.46 | 13.43 | 5.47 | 0.04 | 0.04 | 3.00 |
| 3,610.00 | 0.18 | 205.53 | 3,609.94 | -5.71 | 13.24 | 5.72 | 0.08 | -0.01 | -25.02 |
| 3,710.00 | 0.15 | 182.86 | 3,709.94 | -5.98 | 13.16 | 5.99 | 0.07 | -0.03 | -22.67 |
| 3,810.00 | 0.21 | 212.99 | 3,809.94 | -6.26 | 13.06 | 6.28 | 0.11 | 0.06 | 30.13 |
| 3,910.00 | 0.33 | 240.75 | 3,909.94 | -6.56 | 12.70 | 6.57 | 0.17 | 0.12 | 27.76 |
| 4,010.00 | 0.61 | 255.37 | 4,009.93 | -6.83 | 11.94 | 6.85 | 0.30 | 0.28 | 14.62 |
| 4,110.00 | 0.69 | 257.83 | 4,109.93 | -7.09 | 10.83 | 7.11 | 0.08 | 0.08 | 2.46 |
| 4,210.00 | 0.78 | 256.07 | 4,209.92 | -7.38 | 9.59 | 7.40 | 0.09 | 0.09 | -1.76 |
| 4,310.00 | 0.90 | 254.60 | 4,309.91 | -7.76 | 8.17 | 7.77 | 0.12 | 0.12 | -1.47 |
| 4,410.00 | 0.90 | 251.26 | 4,409.90 | -8.22 | 6.67 | 8.23 | 0.05 | 0.00 | -3.34 |
| 4,510.00 | 1.19 | 252.14 | 4,509.88 | -8.79 | 4.93 | 8.79 | 0.29 | 0.29 | 0.88 |
| 4,610.00 | 1.32 | 254.18 | 4,609.86 | -9.42 | 2.84 | 9.42 | 0.14 | 0.13 | 2.04 |
| 4,710.00 | 1.65 | 257.78 | 4,709.82 | -10.04 | 0.32 | 10.04 | 0.34 | 0.33 | 3.60 |
| 4,810.00 | 1.73 | 257.88 | 4,809.78 | -10.66 | -2.56 | 10.66 | 0.08 | 0.08 | 0.10 |
| 4,846.00 | 1.78 | 257.74 | 4,845.76 | -10.89 | -3.64 | 10.89 | 0.14 | 0.14 | -0.39 |

KOP @ 4846 MD 4846 TVD

| | | | |
|------------------|---------------------------|-------------------------------------|---------------------------------|
| Company: | EQT PRODUCTION | Local Co-ordinate Reference: | Well Well #514101 - Slot 514101 |
| Project: | Doddridge County, WV | TVD Reference: | RKB=1220+23 @ 1243.00usft |
| Site: | OXF160 | MD Reference: | RKB=1220+23 @ 1243.00usft |
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|-------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| 4,886.00 | 4.10 | 264.17 | 4,885.71 | -11.17 | -5.67 | 11.16 | 5.85 | 5.80 | 16.08 | |
| SDI MWD surveys | | | | | | | | | | |
| 4,929.00 | 8.52 | 263.59 | 4,928.44 | -11.68 | -10.36 | 11.67 | 10.26 | 10.26 | -1.35 | |
| 4,971.00 | 13.45 | 262.59 | 4,969.65 | -12.66 | -18.30 | 12.64 | 11.75 | 11.74 | -2.36 | |
| 5,014.00 | 17.81 | 263.31 | 5,011.05 | -14.07 | -29.80 | 14.04 | 10.15 | 10.14 | 1.67 | |
| 5,055.00 | 21.33 | 265.70 | 5,049.68 | -15.36 | -43.47 | 15.31 | 8.80 | 8.59 | 5.83 | |
| 5,097.00 | 24.94 | 268.63 | 5,088.30 | -16.15 | -59.94 | 16.07 | 9.02 | 8.60 | 6.96 | |
| 5,139.00 | 26.76 | 270.16 | 5,126.09 | -16.33 | -78.26 | 16.24 | 4.66 | 4.38 | 3.64 | |
| 5,184.00 | 28.81 | 269.20 | 5,165.90 | -16.46 | -99.24 | 16.33 | 4.62 | 4.51 | -2.13 | |
| 5,227.00 | 29.94 | 266.99 | 5,203.37 | -17.16 | -120.32 | 17.02 | 3.64 | 2.63 | -5.14 | |
| 5,268.00 | 31.46 | 267.08 | 5,238.62 | -18.25 | -141.22 | 18.07 | 3.71 | 3.71 | 0.22 | |
| 5,311.00 | 33.21 | 267.73 | 5,274.95 | -19.28 | -164.20 | 19.08 | 4.15 | 4.07 | 1.51 | |
| 5,354.00 | 35.06 | 270.28 | 5,310.54 | -19.69 | -188.32 | 19.46 | 5.44 | 4.30 | 5.93 | |
| 5,395.00 | 36.57 | 271.91 | 5,343.79 | -19.23 | -212.30 | 18.97 | 4.36 | 3.68 | 3.96 | |
| 5,437.00 | 37.35 | 274.41 | 5,377.35 | -17.83 | -237.51 | 17.54 | 4.03 | 1.86 | 5.95 | |
| 5,482.00 | 39.08 | 274.42 | 5,412.71 | -15.69 | -265.27 | 15.36 | 3.64 | 3.84 | 0.02 | |
| 5,524.00 | 40.81 | 272.41 | 5,444.91 | -14.09 | -292.18 | 13.73 | 5.14 | 4.12 | -4.79 | |
| 5,566.00 | 41.24 | 270.89 | 5,476.59 | -13.30 | -319.74 | 12.91 | 2.59 | 1.02 | -3.62 | |
| 5,609.00 | 40.51 | 269.64 | 5,509.11 | -13.16 | -347.87 | 12.74 | 2.55 | -1.70 | -2.91 | |
| 5,653.00 | 39.92 | 268.65 | 5,542.71 | -13.59 | -376.28 | 13.13 | 1.98 | -1.34 | -2.25 | |
| 5,694.00 | 40.22 | 269.30 | 5,574.08 | -14.06 | -402.67 | 13.57 | 1.26 | 0.73 | 1.59 | |
| 5,737.00 | 39.38 | 269.43 | 5,607.12 | -14.36 | -430.19 | 13.84 | 1.96 | -1.95 | 0.30 | |
| 5,780.00 | 39.14 | 271.66 | 5,640.42 | -14.11 | -457.40 | 13.55 | 3.33 | -0.56 | 5.19 | |
| 5,823.00 | 39.63 | 271.94 | 5,673.65 | -13.25 | -484.67 | 12.66 | 1.21 | 1.14 | 0.65 | |
| 5,865.00 | 40.60 | 270.51 | 5,705.77 | -12.67 | -511.72 | 12.05 | 3.19 | 2.31 | -3.40 | |
| 5,905.00 | 41.46 | 268.33 | 5,735.95 | -12.94 | -537.97 | 12.29 | 4.17 | 2.15 | -5.45 | |
| 5,947.00 | 40.18 | 265.99 | 5,767.73 | -14.30 | -565.39 | 13.61 | 4.75 | -3.05 | -5.57 | |
| 5,990.00 | 38.43 | 265.36 | 5,801.00 | -16.35 | -592.55 | 15.62 | 4.17 | -4.07 | -1.47 | |
| 6,031.00 | 38.72 | 266.64 | 5,833.06 | -18.13 | -618.05 | 17.37 | 2.07 | 0.71 | 3.12 | |
| 6,074.00 | 39.93 | 268.10 | 5,866.32 | -19.38 | -645.27 | 18.59 | 3.54 | 2.81 | 3.40 | |
| 6,117.00 | 40.67 | 271.20 | 5,899.12 | -19.54 | -673.08 | 18.72 | 4.97 | 1.72 | 7.21 | |
| 6,159.00 | 41.46 | 272.47 | 5,930.78 | -18.65 | -700.65 | 17.80 | 2.74 | 1.88 | 3.02 | |
| 6,201.00 | 40.51 | 272.49 | 5,962.49 | -17.46 | -728.17 | 16.57 | 2.26 | -2.26 | 0.05 | |
| 6,243.00 | 39.17 | 273.34 | 5,994.74 | -16.10 | -755.04 | 15.17 | 3.44 | -3.19 | 2.02 | |
| 6,273.00 | 38.21 | 272.97 | 6,018.15 | -15.06 | -773.77 | 14.12 | 3.29 | -3.20 | -1.23 | |
| 6,319.00 | 37.90 | 276.10 | 6,054.38 | -12.83 | -802.02 | 11.85 | 4.25 | -0.67 | 6.80 | |
| ProD MWD surveys | | | | | | | | | | |
| 6,351.00 | 38.80 | 273.70 | 6,079.48 | -11.13 | -821.80 | 10.13 | 5.44 | 2.81 | -7.50 | |
| 6,382.00 | 39.40 | 269.50 | 6,103.54 | -10.59 | -841.34 | 9.56 | 8.76 | 1.94 | -13.55 | |
| 6,414.00 | 40.00 | 266.50 | 6,128.16 | -11.31 | -861.76 | 10.26 | 6.27 | 1.88 | -9.38 | |
| 6,445.00 | 40.30 | 263.00 | 6,151.86 | -13.14 | -881.66 | 12.06 | 7.34 | 0.97 | -11.29 | |
| 6,477.00 | 40.80 | 258.90 | 6,176.18 | -16.41 | -902.19 | 15.31 | 8.47 | 1.56 | -12.81 | |
| 6,508.00 | 40.70 | 254.40 | 6,199.67 | -21.08 | -921.67 | 19.96 | 9.48 | -0.32 | -14.52 | |
| 6,540.00 | 41.00 | 250.50 | 6,223.88 | -27.39 | -941.82 | 26.24 | 8.03 | 0.94 | -12.19 | |

Company: EQT PRODUCTION
 Project: Doddridge County, WV
 Site: OXF160
 Well: Well #514101
 Wellbore: Main Wellbore
 Design: 514101 As Drilled Surveys

Local Co-ordinate Reference: Well Well #514101 - Slot 514101
 TVD Reference: RKB=1220+23 @ 1243.00usft
 MD Reference: RKB=1220+23 @ 1243.00usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: DB Jul2216dt

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Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 6,571.00 | 42.20 | 246.40 | 6,247.06 | -34.96 | -960.95 | 33.78 | 9.59 | 3.67 | -13.23 |
| 6,603.00 | 43.40 | 242.70 | 6,270.54 | -44.31 | -980.57 | 43.11 | 8.70 | 3.75 | -11.56 |
| 6,634.00 | 44.00 | 238.40 | 6,292.96 | -54.83 | -999.21 | 53.61 | 9.78 | 1.94 | -13.87 |
| 6,666.00 | 44.70 | 233.40 | 6,315.86 | -67.37 | -1,017.72 | 66.13 | 11.14 | 2.19 | -15.63 |
| 6,697.00 | 46.00 | 229.70 | 6,337.64 | -81.09 | -1,034.98 | 79.82 | 9.47 | 4.19 | -11.94 |
| 6,729.00 | 47.30 | 225.10 | 6,359.61 | -96.84 | -1,052.09 | 95.55 | 11.21 | 4.06 | -14.38 |
| 6,760.00 | 49.00 | 221.10 | 6,380.30 | -113.70 | -1,067.85 | 112.39 | 11.06 | 5.48 | -12.90 |
| 6,792.00 | 50.40 | 217.00 | 6,401.00 | -132.65 | -1,083.21 | 131.32 | 10.70 | 4.38 | -12.81 |
| 6,823.00 | 51.80 | 213.50 | 6,420.47 | -152.35 | -1,097.13 | 151.01 | 9.86 | 4.52 | -11.29 |
| 6,855.00 | 53.50 | 209.40 | 6,439.89 | -174.05 | -1,110.39 | 172.69 | 11.49 | 5.31 | -12.81 |
| 6,886.00 | 55.00 | 206.40 | 6,458.00 | -196.28 | -1,122.15 | 194.91 | 9.22 | 4.64 | -9.66 |
| 6,917.00 | 56.80 | 202.30 | 6,475.39 | -219.66 | -1,132.72 | 218.28 | 12.39 | 5.81 | -13.23 |
| 6,949.00 | 58.50 | 199.00 | 6,492.51 | -244.95 | -1,142.25 | 243.56 | 10.20 | 5.31 | -10.31 |
| 6,980.00 | 60.30 | 196.00 | 6,508.30 | -270.40 | -1,150.26 | 268.99 | 10.15 | 5.81 | -9.66 |
| 7,012.00 | 62.20 | 193.40 | 6,523.69 | -297.53 | -1,157.38 | 296.12 | 9.27 | 5.94 | -8.13 |
| 7,043.00 | 64.10 | 191.80 | 6,537.69 | -324.52 | -1,163.40 | 323.10 | 7.67 | 6.13 | -5.16 |
| 7,075.00 | 65.80 | 189.60 | 6,551.24 | -353.00 | -1,168.78 | 351.58 | 8.19 | 5.31 | -6.88 |
| 7,106.00 | 67.30 | 187.40 | 6,563.58 | -381.13 | -1,172.98 | 379.70 | 8.11 | 4.84 | -7.10 |
| 7,138.00 | 69.20 | 184.40 | 6,575.44 | -410.69 | -1,176.03 | 409.25 | 10.54 | 5.94 | -9.38 |
| 7,169.00 | 70.10 | 182.30 | 6,586.22 | -439.70 | -1,177.73 | 438.26 | 6.98 | 2.90 | -6.77 |
| 7,201.00 | 72.50 | 179.00 | 6,596.48 | -470.00 | -1,178.07 | 468.56 | 12.31 | 7.50 | -10.31 |
| 7,232.00 | 75.20 | 177.00 | 6,605.10 | -499.76 | -1,177.02 | 498.32 | 10.69 | 8.71 | -6.45 |
| 7,264.00 | 78.20 | 175.00 | 6,612.46 | -530.82 | -1,174.85 | 529.38 | 11.17 | 9.38 | -6.25 |
| 7,296.00 | 81.20 | 173.30 | 6,618.19 | -562.13 | -1,171.64 | 560.70 | 10.73 | 9.38 | -5.31 |
| 7,327.00 | 83.50 | 171.70 | 6,622.31 | -592.59 | -1,167.63 | 591.16 | 9.01 | 7.42 | -5.16 |
| 7,359.00 | 86.00 | 169.50 | 6,625.24 | -624.02 | -1,162.42 | 622.60 | 10.39 | 7.81 | -6.88 |
| 7,390.00 | 87.80 | 166.70 | 6,626.92 | -654.31 | -1,156.04 | 652.90 | 10.73 | 5.81 | -9.03 |
| LP @ 7390 MD 6627 TVD | | | | | | | | | |
| 7,485.00 | 88.70 | 165.90 | 6,629.82 | -746.56 | -1,133.55 | 745.18 | 1.27 | 0.95 | -0.84 |
| 7,579.00 | 88.90 | 165.30 | 6,631.79 | -837.59 | -1,110.18 | 836.23 | 0.67 | 0.21 | -0.64 |
| 7,674.00 | 90.30 | 163.80 | 6,632.45 | -929.15 | -1,084.87 | 927.82 | 2.16 | 1.47 | -1.58 |
| 7,768.00 | 90.50 | 163.90 | 6,631.79 | -1,019.44 | -1,058.73 | 1,018.14 | 0.24 | 0.21 | 0.11 |
| 7,863.00 | 90.60 | 162.80 | 6,630.88 | -1,110.45 | -1,031.51 | 1,109.19 | 1.16 | 0.11 | -1.16 |
| 7,957.00 | 90.50 | 164.80 | 6,629.98 | -1,200.71 | -1,005.29 | 1,199.48 | 2.13 | -0.11 | 2.13 |
| 8,052.00 | 90.80 | 164.30 | 6,628.90 | -1,292.27 | -979.98 | 1,291.07 | 0.61 | 0.32 | -0.53 |
| 8,146.00 | 91.30 | 163.60 | 6,627.18 | -1,382.59 | -954.00 | 1,381.42 | 0.92 | 0.53 | -0.74 |
| 8,240.00 | 89.40 | 165.50 | 6,626.61 | -1,473.16 | -928.96 | 1,472.04 | 2.86 | -2.02 | 2.02 |
| 8,335.00 | 89.80 | 165.60 | 6,627.27 | -1,565.17 | -905.25 | 1,564.06 | 0.43 | 0.42 | 0.11 |
| 8,429.00 | 90.40 | 165.50 | 6,627.10 | -1,656.20 | -881.80 | 1,655.12 | 0.65 | 0.64 | -0.11 |
| 8,524.00 | 88.80 | 167.70 | 6,627.77 | -1,748.60 | -859.76 | 1,747.55 | 2.86 | -1.68 | 2.32 |
| 8,618.00 | 88.40 | 167.00 | 6,630.06 | -1,840.29 | -839.20 | 1,839.26 | 0.86 | -0.43 | -0.74 |
| 8,712.00 | 90.10 | 170.10 | 6,631.29 | -1,932.40 | -820.55 | 1,931.39 | 3.76 | 1.81 | 3.30 |
| 8,807.00 | 88.90 | 165.30 | 6,632.12 | -2,025.18 | -800.32 | 2,024.21 | 5.21 | -1.26 | -5.05 |
| 8,901.00 | 89.90 | 164.80 | 6,633.11 | -2,116.00 | -776.07 | 2,115.05 | 1.19 | 1.06 | -0.53 |

| | | | |
|------------------|---------------------------|-------------------------------------|---------------------------------|
| Company: | EQT PRODUCTION | Local Co-ordinate Reference: | Well Well #514101 - Slot 514101 |
| Project: | Doddridge County, WV | TVD Reference: | RKB=1220+23 @ 1243.00usft |
| Site: | OXF160 | MD Reference: | RKB=1220+23 @ 1243.00usft |
| Well: | Well #514101 | North Reference: | Grid |
| Wellbore: | Main Wellbore | Survey Calculation Method: | Minimum Curvature |
| Design: | 514101 As Drilled Surveys | Database: | DB Jul2216dt |

Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|--|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 8,995.00 | 90.70 | 164.40 | 6,632.82 | -2,206.62 | -751.11 | 2,205.70 | 0.95 | 0.85 | -0.43 |
| 9,090.00 | 88.50 | 165.30 | 6,633.28 | -2,298.31 | -726.28 | 2,297.42 | 2.50 | -2.32 | 0.95 |
| 9,184.00 | 88.50 | 165.20 | 6,635.74 | -2,389.18 | -702.36 | 2,388.32 | 0.11 | 0.00 | -0.11 |
| 9,278.00 | 88.80 | 165.00 | 6,637.95 | -2,479.99 | -678.19 | 2,479.16 | 0.38 | 0.32 | -0.21 |
| 9,373.00 | 89.40 | 168.30 | 6,639.45 | -2,572.40 | -656.27 | 2,571.60 | 3.53 | 0.63 | 3.47 |
| 9,467.00 | 88.60 | 168.20 | 6,641.09 | -2,664.42 | -637.13 | 2,663.64 | 0.86 | -0.65 | -0.11 |
| 9,562.00 | 90.30 | 170.10 | 6,642.00 | -2,757.71 | -619.25 | 2,755.95 | 2.68 | 1.79 | 2.00 |
| 9,656.00 | 89.40 | 167.00 | 6,642.25 | -2,849.62 | -600.59 | 2,849.09 | 3.43 | -0.96 | -3.30 |
| 9,750.00 | 88.20 | 165.10 | 6,644.21 | -2,941.03 | -577.93 | 2,940.32 | 2.39 | -1.28 | -2.02 |
| 9,845.00 | 88.30 | 163.80 | 6,647.12 | -3,032.50 | -552.48 | 3,031.83 | 1.37 | 0.11 | -1.37 |
| 9,939.00 | 88.80 | 164.40 | 6,649.49 | -3,122.88 | -526.74 | 3,122.23 | 0.83 | 0.53 | 0.64 |
| 10,034.00 | 89.50 | 164.60 | 6,650.90 | -3,214.41 | -501.35 | 3,213.80 | 0.77 | 0.74 | 0.21 |
| 10,128.00 | 90.10 | 164.80 | 6,651.23 | -3,305.08 | -476.55 | 3,304.50 | 0.67 | 0.64 | 0.21 |
| 10,222.00 | 89.10 | 166.40 | 6,651.89 | -3,396.12 | -453.17 | 3,395.56 | 2.01 | -1.06 | 1.70 |
| 10,317.00 | 89.50 | 167.60 | 6,653.05 | -3,488.68 | -431.80 | 3,488.15 | 1.33 | 0.42 | 1.26 |
| 10,411.00 | 87.70 | 164.50 | 6,655.35 | -3,579.88 | -409.15 | 3,579.36 | 3.81 | -1.91 | -3.30 |
| 10,505.00 | 88.00 | 163.40 | 6,658.87 | -3,670.13 | -383.18 | 3,669.66 | 1.21 | 0.32 | -1.17 |
| 10,600.00 | 88.80 | 162.80 | 6,661.69 | -3,760.99 | -355.58 | 3,760.55 | 0.89 | 0.63 | -0.63 |
| 10,694.00 | 90.00 | 165.90 | 6,662.84 | -3,851.48 | -330.23 | 3,851.08 | 3.62 | 1.49 | 3.30 |
| 10,789.00 | 90.30 | 165.00 | 6,662.59 | -3,943.44 | -306.36 | 3,943.06 | 1.00 | 0.32 | -0.95 |
| 10,883.00 | 90.80 | 164.40 | 6,661.69 | -4,034.10 | -281.56 | 4,033.75 | 0.83 | 0.53 | -0.64 |
| 10,977.00 | 89.90 | 166.40 | 6,661.11 | -4,125.06 | -257.87 | 4,124.74 | 2.33 | -0.96 | 2.13 |
| 11,072.00 | 90.30 | 166.60 | 6,660.95 | -4,217.43 | -235.69 | 4,217.14 | 0.47 | 0.42 | 0.21 |
| 11,166.00 | 89.00 | 163.70 | 6,661.52 | -4,308.28 | -211.60 | 4,308.02 | 3.36 | -1.38 | -3.09 |
| 11,260.00 | 89.00 | 162.80 | 6,663.16 | -4,398.28 | -184.52 | 4,398.05 | 0.96 | 0.00 | -0.96 |
| 11,355.00 | 87.20 | 165.00 | 6,666.31 | -4,489.49 | -158.19 | 4,489.29 | 2.99 | -1.89 | 2.32 |
| 11,449.00 | 87.70 | 164.90 | 6,670.50 | -4,580.18 | -133.80 | 4,580.01 | 0.54 | 0.53 | -0.11 |
| 11,544.00 | 92.00 | 168.10 | 6,670.74 | -4,672.52 | -111.63 | 4,672.38 | 5.64 | 4.53 | 3.37 |
| Deepest point @ 11544 MD 6671 TVD | | | | | | | | | |
| 11,638.00 | 90.90 | 168.40 | 6,668.37 | -4,764.52 | -92.50 | 4,764.40 | 1.21 | -1.17 | 0.32 |
| 11,732.00 | 91.30 | 168.50 | 6,666.56 | -4,856.60 | -73.68 | 4,856.50 | 0.44 | 0.43 | 0.11 |
| 11,827.00 | 89.80 | 165.50 | 6,665.65 | -4,949.14 | -52.31 | 4,949.08 | 3.53 | -1.58 | -3.16 |
| 11,921.00 | 90.40 | 165.80 | 6,665.49 | -5,040.21 | -29.02 | 5,040.17 | 0.71 | 0.64 | 0.32 |
| 12,011.00 | 88.30 | 168.00 | 6,666.51 | -5,127.49 | -7.09 | 5,127.48 | 2.34 | -2.33 | 0.22 |
| Survey @ 12011.00 MD | | | | | | | | | |
| 12,065.00 | 88.30 | 168.00 | 6,668.11 | -5,179.86 | 5.96 | 5,179.86 | 0.00 | 0.00 | 0.00 |
| Survey projected to 12065.00 MD | | | | | | | | | |

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|------------------|---------------------------|-------------------------------------|---------------------------------|
| Company: | EQT PRODUCTION | Local Co-ordinate Reference: | Wall Well #514101 - Slot 514101 |
| Project: | Doddridge County, WV | TVD Reference: | RKB=1220+23 @ 1243.00usft |
| Site: | OXF160 | MD Reference: | RKB=1220+23 @ 1243.00usft |
| Well: | Well #514101 | North Reference: | Grid |
| Wellbore: | Main Wellbore | Survey Calculation Method: | Minimum Curvature |
| Design: | 514101 As Drilled Surveys | Database: | DB Jul2216dt |

Design Targets

| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|--|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-------------------|-------------------|
| 514101 LP as drilled - hit/miss target - Shape - Point | 0.00 | 0.00 | 6,626.92 | -654.31 | -1,156.04 | 250,216.44 | 1,630,561.44 | 39° 10' 46.6829 N | 80° 48' 11.6826 W |
| 514101 BHL as drilled - actual wellpath hits target center - Point | 0.00 | 360.00 | 6,668.11 | -5,179.86 | 5.96 | 245,690.69 | 1,631,723.44 | 39° 10' 2.1224 N | 80° 47' 56.0970 W |

Design Annotations

| | Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
|--|-----------------------|-----------------------|-------------------|--------------|-----------------------------------|
| | | | +N/-S (usft) | +E/-W (usft) | |
| | 110.00 | 110.00 | -0.09 | 0.34 | Gyro |
| | 4,846.00 | 4,845.76 | -10.89 | -3.64 | KOP @ 4846 MD 4846 TVD |
| | 4,866.00 | 4,865.71 | -11.17 | -5.67 | SDI MWD surveys |
| | 6,319.00 | 6,054.38 | -12.83 | -802.02 | ProD MWD surveys |
| | 7,390.00 | 6,626.92 | -654.31 | -1,156.04 | LP @ 7390 MD 6627 TVD |
| | 11,544.00 | 6,670.74 | -4,672.52 | -111.63 | Deepest point @ 11544 MD 6871 TVD |
| | 12,011.00 | 6,666.51 | -5,127.49 | -7.09 | Survey @ 12011.00 MD |
| | 12,065.00 | 6,668.11 | -5,179.86 | 5.96 | Survey projected to 12065.00 MD |

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