

**HOBBS OCD**  
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**EOG Resources - Midland**

Lea County, NM (NAD 83 NME)

Red Raider 25 State Com

#701H

OH

Survey: MS Directional

**Midland PVA**

01 May, 2018





Midland PVA



|                  |                             |  |  |                                     |                                |
|------------------|-----------------------------|--|--|-------------------------------------|--------------------------------|
| <b>Company:</b>  | EOG Resources - Midland     |  |  | <b>Local Co-ordinate Reference:</b> | Well #701H                     |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME) |  |  | <b>TVD Reference:</b>               | KB = 25 @ 3529.0usft (H&P 620) |
| <b>Site:</b>     | Red Raider 25 State Com     |  |  | <b>MD Reference:</b>                | KB = 25 @ 3529.0usft (H&P 620) |
| <b>Well:</b>     | #701H                       |  |  | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | OH                          |  |  | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | OH                          |  |  | <b>Database:</b>                    | EDM 5000.14                    |

|                    |                             |  |                      |                |  |
|--------------------|-----------------------------|--|----------------------|----------------|--|
| <b>Project</b>     | Lea County, NM (NAD 83 NME) |  |                      |                |  |
| <b>Map System:</b> | US State Plane 1983         |  | <b>System Datum:</b> | Mean Sea Level |  |
| <b>Geo Datum:</b>  | North American Datum 1983   |  |                      |                |  |
| <b>Map Zone:</b>   | New Mexico Eastern Zone     |  |                      |                |  |

|                              |                         |                     |                 |                          |                   |
|------------------------------|-------------------------|---------------------|-----------------|--------------------------|-------------------|
| <b>Site</b>                  | Red Raider 25 State Com |                     |                 |                          |                   |
| <b>Site Position:</b>        |                         | <b>Northing:</b>    | 430,866.00 usft | <b>Latitude:</b>         | 32° 10' 54.895 N  |
| <b>From:</b>                 | Map                     | <b>Easting:</b>     | 792,872.00 usft | <b>Longitude:</b>        | 103° 31' 13.091 W |
| <b>Position Uncertainty:</b> | 0.0 usft                | <b>Slot Radius:</b> | 13-3/16 "       | <b>Grid Convergence:</b> | 0.43 °            |

|                             |          |          |                            |                 |                      |                   |
|-----------------------------|----------|----------|----------------------------|-----------------|----------------------|-------------------|
| <b>Well</b>                 | #701H    |          |                            |                 |                      |                   |
| <b>Well Position</b>        | +N/-S    | 0.0 usft | <b>Northing:</b>           | 430,866.00 usft | <b>Latitude:</b>     | 32° 10' 54.895 N  |
|                             | +E/-W    | 0.0 usft | <b>Easting:</b>            | 792,872.00 usft | <b>Longitude:</b>    | 103° 31' 13.091 W |
| <b>Position Uncertainty</b> | 0.0 usft |          | <b>Wellhead Elevation:</b> | usft            | <b>Ground Level:</b> | 3,504.0 usft      |

|                  |                   |                    |                            |                          |                                |
|------------------|-------------------|--------------------|----------------------------|--------------------------|--------------------------------|
| <b>Wellbore</b>  | OH                |                    |                            |                          |                                |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination<br/>(°)</b> | <b>Dip Angle<br/>(°)</b> | <b>Field Strength<br/>(nT)</b> |
|                  | IGRF2015          | 2/7/2018           | 6.86                       | 60.02                    | 47,851.73084595                |

|                          |                                    |                         |                         |                          |     |
|--------------------------|------------------------------------|-------------------------|-------------------------|--------------------------|-----|
| <b>Design</b>            | OH                                 |                         |                         |                          |     |
| <b>Audit Notes:</b>      |                                    |                         |                         |                          |     |
| <b>Version:</b>          | 1.0                                | <b>Phase:</b>           | ACTUAL                  | <b>Tie On Depth:</b>     | 0.0 |
| <b>Vertical Section:</b> | <b>Depth From (TVD)<br/>(usft)</b> | <b>+N/-S<br/>(usft)</b> | <b>+E/-W<br/>(usft)</b> | <b>Direction<br/>(°)</b> |     |
|                          | 0.0                                | 0.0                     | 0.0                     | 5.31                     |     |



Midland PVA



|           |                             |                              |                                |
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| Site:     | Red Raider 25 State Com     | MD Reference:                | KB = 25 @ 3529.0usft (H&P 620) |
| Well:     | #701H                       | North Reference:             | Grid                           |
| Wellbore: | OH                          | Survey Calculation Method:   | Minimum Curvature              |
| Design:   | OH                          | Database:                    | EDM 5000.14                    |

| Survey Program |           | Date 5/1/2018                       |           |                     |  |
|----------------|-----------|-------------------------------------|-----------|---------------------|--|
| From (usft)    | To (usft) | Survey (Wellbore)                   | Tool Name | Description         |  |
| 174.0          | 1,321.0   | Olebook Dir Corrected for Grid (OH) | MWD       | OWSG MWD - Standard |  |
| 1,444.0        | 17,191.0  | MS Directional (OH)                 | MWD       | OWSG MWD - Standard |  |

| MD (usft) | Inc (") | Azi (azimuth) (") | TVD (usft) | N/S (usft) | E/W (usft) | DLeg (°/100usft) | Build (°/100usft) | Turn (°/100usft) | High to Plan (usft) | Right to Plan (usft) |
|-----------|---------|-------------------|------------|------------|------------|------------------|-------------------|------------------|---------------------|----------------------|
| 1,321.0   | 0.26    | 98.18             | 1,321.0    | -5.0       | 1.9        | 0.00             | 0.00              | 0.00             | 0.0                 | 0.0                  |
| 1,444.0   | 0.60    | 263.90            | 1,444.0    | -5.1       | 1.5        | 0.69             | 0.28              | 134.74           | -0.9                | -0.1                 |
| 1,631.0   | 0.60    | 284.00            | 1,630.9    | -5.0       | -0.4       | 0.11             | 0.00              | 10.75            | -3.6                | 0.7                  |
| 1,819.0   | 0.70    | 245.90            | 1,818.9    | -5.2       | -2.4       | 0.23             | 0.05              | -20.27           | -5.9                | -2.8                 |
| 2,006.0   | 0.40    | 250.90            | 2,005.9    | -5.9       | -4.1       | 0.16             | -0.16             | 2.67             | -8.7                | -2.5                 |
| 2,194.0   | 0.70    | 275.80            | 2,193.9    | -6.0       | -5.8       | 0.20             | 0.16              | 13.24            | -11.5               | 1.8                  |
| 2,382.0   | 0.80    | 273.90            | 2,381.9    | -5.8       | -8.3       | 0.05             | 0.05              | -1.01            | -14.9               | 1.1                  |
| 2,570.0   | 0.70    | 289.10            | 2,569.9    | -5.3       | -10.7      | 0.12             | -0.05             | 8.09             | -17.3               | 5.5                  |
| 2,758.0   | 0.80    | 319.40            | 2,757.9    | -4.0       | -12.6      | 0.21             | 0.05              | 16.12            | -15.1               | 14.6                 |
| 2,946.0   | 1.10    | 62.20             | 2,945.9    | -2.1       | -11.9      | 0.80             | 0.16              | 54.68            | 16.8                | 13.3                 |
| 3,133.0   | 1.40    | 64.10             | 3,132.8    | -0.3       | -8.2       | 0.16             | 0.16              | 1.02             | 13.8                | 13.3                 |
| 3,322.0   | 1.50    | 55.60             | 3,321.7    | 2.1        | -4.1       | 0.13             | 0.05              | -4.50            | 7.6                 | 15.4                 |
| 3,509.0   | 2.00    | 67.00             | 3,508.7    | 4.8        | 0.9        | 0.32             | 0.27              | 6.10             | 5.6                 | 14.5                 |
| 3,697.0   | 2.10    | 60.30             | 3,696.5    | 7.8        | 6.9        | 0.14             | 0.05              | -3.56            | -2.2                | 15.2                 |
| 3,886.0   | 2.10    | 57.90             | 3,885.4    | 11.3       | 12.8       | 0.05             | 0.00              | -1.27            | -9.1                | 15.5                 |
| 4,074.0   | 2.00    | 59.10             | 4,073.3    | 14.8       | 18.6       | 0.06             | -0.05             | 0.64             | -14.8               | 16.3                 |
| 4,262.0   | 1.80    | 61.20             | 4,261.2    | 18.0       | 24.0       | 0.11             | -0.11             | 1.12             | -19.8               | 17.5                 |
| 4,450.0   | 2.70    | 65.80             | 4,449.0    | 21.2       | 30.6       | 0.49             | 0.48              | 2.45             | -24.8               | 19.9                 |
| 4,637.0   | 6.10    | 91.80             | 4,635.5    | 22.7       | 44.6       | 2.06             | 1.82              | 13.90            | -18.7               | 33.1                 |
| 4,825.0   | 9.30    | 106.00            | 4,821.8    | 18.2       | 69.2       | 1.97             | 1.70              | 7.55             | -13.5               | 39.8                 |
| 5,013.0   | 9.70    | 110.00            | 5,007.2    | 8.6        | 98.6       | 0.41             | 0.21              | 2.13             | -10.2               | 40.5                 |



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| Site:     | Red Raider 25 State Com     | MD Reference:                | KB = 25 @ 3529.0usft (H&P 620) |
| Well:     | #701H                       | North Reference:             | Grid                           |
| Wellbore: | OH                          | Survey Calculation Method:   | Minimum Curvature              |
| Design:   | OH                          | Database:                    | EDM 5000.14                    |

| Survey       |            |                      |               |               |               |                     |                     |                     |                        |                         |  |
|--------------|------------|----------------------|---------------|---------------|---------------|---------------------|---------------------|---------------------|------------------------|-------------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | DLeg<br>(°/100usft) | BuId<br>(°/100usft) | Turn<br>(°/100usft) | High to Plan<br>(usft) | Right to Plan<br>(usft) |  |
| 5,098.0      | 8.90       | 107.00               | 5,091.1       | 4.2           | 111.7         | 1.10                | -0.94               | -3.53               | -11.2                  | 39.8                    |  |
| 5,189.0      | 8.50       | 108.10               | 5,181.0       | 0.1           | 124.8         | 0.48                | -0.44               | 1.21                | -8.4                   | 40.1                    |  |
| 5,377.0      | 9.60       | 110.50               | 5,366.7       | -9.7          | 152.7         | 0.62                | 0.59                | 1.28                | -3.6                   | 39.5                    |  |
| 5,565.0      | 10.50      | 112.50               | 5,551.8       | -21.8         | 183.2         | 0.51                | 0.48                | 1.06                | -2.6                   | 37.5                    |  |
| 5,753.0      | 10.20      | 113.30               | 5,736.7       | -34.9         | 214.3         | 0.18                | -0.16               | 0.43                | -3.3                   | 34.7                    |  |
| 5,941.0      | 9.70       | 109.80               | 5,921.9       | -46.9         | 244.5         | 0.42                | -0.27               | -1.86               | -5.2                   | 32.3                    |  |
| 6,129.0      | 9.70       | 108.70               | 6,107.2       | -57.3         | 274.4         | 0.10                | 0.00                | -0.59               | -4.9                   | 31.5                    |  |
| 6,316.0      | 8.70       | 108.40               | 6,291.8       | -66.8         | 302.7         | 0.54                | -0.53               | -0.16               | -2.4                   | 31.1                    |  |
| 6,505.0      | 9.60       | 113.20               | 6,478.4       | -77.6         | 330.8         | 0.62                | 0.48                | 2.54                | 2.8                    | 29.3                    |  |
| 6,693.0      | 9.50       | 113.50               | 6,663.8       | -89.9         | 359.4         | 0.06                | -0.05               | 0.16                | 4.3                    | 26.2                    |  |
| 6,882.0      | 9.20       | 111.10               | 6,850.3       | -101.6        | 387.8         | 0.26                | -0.16               | -1.27               | 5.3                    | 23.9                    |  |
| 7,068.0      | 8.80       | 109.10               | 7,034.0       | -111.6        | 415.1         | 0.27                | -0.22               | -1.08               | 7.7                    | 22.8                    |  |
| 7,255.0      | 8.00       | 110.50               | 7,219.0       | -120.8        | 440.8         | 0.44                | -0.43               | 0.75                | 13.4                   | 21.5                    |  |
| 7,443.0      | 6.50       | 102.50               | 7,405.5       | -127.7        | 463.5         | 0.96                | -0.80               | -4.26               | 13.2                   | 23.9                    |  |
| 7,630.0      | 3.80       | 141.30               | 7,591.8       | -134.8        | 477.7         | 2.28                | -1.44               | 20.75               | 22.5                   | 9.2                     |  |
| 7,818.0      | 2.20       | 136.50               | 7,779.5       | -142.3        | 484.1         | 0.86                | -0.85               | -2.55               | 14.2                   | 9.3                     |  |
| 8,005.0      | 1.10       | 241.30               | 7,966.5       | -145.8        | 485.0         | 1.44                | -0.59               | 56.04               | 4.5                    | -12.6                   |  |
| 8,193.0      | 0.80       | 227.00               | 8,154.4       | -147.6        | 482.4         | 0.20                | -0.16               | -7.61               | 4.4                    | -11.6                   |  |
| 8,380.0      | 0.80       | 223.20               | 8,341.4       | -149.4        | 480.6         | 0.03                | 0.00                | -2.03               | 2.5                    | -11.3                   |  |
| 8,568.0      | 0.90       | 210.30               | 8,529.4       | -151.6        | 478.9         | 0.11                | 0.05                | -6.86               | 2.3                    | -10.8                   |  |
| 8,755.0      | 0.80       | 210.20               | 8,716.4       | -154.0        | 477.5         | 0.05                | -0.05               | -0.05               | -0.5                   | -10.8                   |  |
| 8,943.0      | 1.00       | 225.80               | 8,904.4       | -156.3        | 475.7         | 0.17                | 0.11                | 8.30                | -6.3                   | -9.9                    |  |
| 9,130.0      | 0.90       | 200.10               | 9,091.3       | -158.8        | 474.0         | 0.23                | -0.05               | -13.74              | -4.3                   | -12.3                   |  |
| 9,317.0      | 0.30       | 253.10               | 9,278.3       | -160.3        | 473.1         | 0.41                | -0.32               | 26.34               | -13.8                  | -2.8                    |  |
| 9,504.0      | 0.10       | 90.40                | 9,465.3       | -160.5        | 472.8         | 0.21                | -0.11               | -87.01              | 14.3                   | -1.6                    |  |
| 9,691.0      | 1.00       | 61.10                | 9,652.3       | -159.7        | 474.3         | 0.49                | 0.48                | -15.67              | 11.5                   | 5.6                     |  |
| 9,879.0      | 1.50       | 43.80                | 9,840.3       | -157.1        | 477.5         | 0.33                | 0.27                | -9.20               | 5.3                    | 8.2                     |  |



Midland PVA



|                  |                             |                                     |                                |
|------------------|-----------------------------|-------------------------------------|--------------------------------|
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| <b>Project:</b>  | Lea County, NM (NAD 83 NME) | <b>TVD Reference:</b>               | KB = 25 @ 3529.0usft (H&P 620) |
| <b>Site:</b>     | Red Raider 25 State Com     | <b>MD Reference:</b>                | KB = 25 @ 3529.0usft (H&P 620) |
| <b>Well:</b>     | #701H                       | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | OH                          | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | OH                          | <b>Database:</b>                    | EDM 5000.14                    |

| Survey                                                       |            |                      |               |               |               |                     |                      |                     |                        |                         |  |
|--------------------------------------------------------------|------------|----------------------|---------------|---------------|---------------|---------------------|----------------------|---------------------|------------------------|-------------------------|--|
| MD<br>(usft)                                                 | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | DLeg<br>(°/100usft) | Build<br>(°/100usft) | Turn<br>(°/100usft) | High to Plan<br>(usft) | Right to Plan<br>(usft) |  |
| 10,067.0                                                     | 1.10       | 3.30                 | 10,028.2      | -153.5        | 479.3         | 0.52                | -0.21                | -21.54              | -5.0                   | 8.1                     |  |
| 10,254.0                                                     | 0.70       | 0.70                 | 10,215.2      | -150.6        | 479.4         | 0.21                | -0.21                | -1.39               | -8.3                   | 7.8                     |  |
| 10,441.0                                                     | 0.70       | 334.00               | 10,402.2      | -148.4        | 478.9         | 0.17                | 0.00                 | -14.28              | -13.1                  | 2.7                     |  |
| 10,629.0                                                     | 1.20       | 309.10               | 10,590.2      | -146.2        | 476.9         | 0.34                | 0.27                 | -13.24              | -16.0                  | -3.5                    |  |
| 10,817.0                                                     | 1.70       | 327.70               | 10,778.1      | -142.6        | 473.9         | 0.36                | 0.27                 | 9.89                | -21.0                  | 2.4                     |  |
| 11,005.0                                                     | 1.10       | 340.00               | 10,966.0      | -138.5        | 471.8         | 0.36                | -0.32                | 6.54                | -24.5                  | 7.4                     |  |
| 11,193.0                                                     | 0.30       | 134.40               | 11,154.0      | -137.2        | 471.5         | 0.73                | -0.43                | 82.13               | 26.4                   | 4.7                     |  |
| 11,381.0                                                     | 1.30       | 84.40                | 11,342.0      | -137.3        | 474.0         | 0.60                | 0.53                 | -26.60              | 10.9                   | 22.9                    |  |
| 11,568.0                                                     | 2.20       | 57.60                | 11,528.9      | -135.2        | 479.1         | 0.64                | 0.48                 | -14.33              | -6.0                   | 24.4                    |  |
| 11,744.0                                                     | 1.80       | 65.60                | 11,704.8      | -132.2        | 484.5         | 0.28                | -0.23                | 4.55                | -8.7                   | 25.5                    |  |
| 11,869.0                                                     | 1.30       | 96.80                | 11,829.8      | -131.6        | 487.7         | 0.77                | -0.40                | 24.96               | 2.7                    | 27.3                    |  |
| 11,963.0                                                     | 0.80       | 125.80               | 11,923.7      | -132.1        | 489.3         | 0.76                | -0.53                | 30.85               | 14.0                   | 23.1                    |  |
| 12,057.0                                                     | 8.20       | 333.50               | 12,017.5      | -126.5        | 486.8         | 9.49                | 7.87                 | -162.02             | -29.2                  | -14.4                   |  |
| 12,150.0                                                     | 24.30      | 339.20               | 12,106.4      | -102.5        | 477.0         | 17.38               | 17.31                | 6.13                | -44.6                  | -5.6                    |  |
| 12,197.0                                                     | 24.40      | 340.30               | 12,149.3      | -84.3         | 470.3         | 0.99                | 0.21                 | 2.34                | -48.7                  | 1.6                     |  |
| 12,244.0                                                     | 28.60      | 343.00               | 12,191.3      | -64.4         | 463.7         | 9.29                | 8.94                 | 5.74                | -47.1                  | 11.5                    |  |
| 12,291.0                                                     | 34.70      | 344.00               | 12,231.3      | -40.8         | 456.7         | 13.03               | 12.98                | 2.13                | -42.7                  | 20.9                    |  |
| 12,338.0                                                     | 37.50      | 345.00               | 12,269.3      | -14.1         | 449.3         | 6.09                | 5.96                 | 2.13                | -34.9                  | 30.8                    |  |
| 12,385.0                                                     | 45.10      | 348.60               | 12,304.6      | 16.1          | 442.3         | 16.94               | 16.17                | 7.66                | -23.6                  | 40.8                    |  |
| 12,432.0                                                     | 54.00      | 349.30               | 12,335.0      | 51.2          | 435.5         | 18.97               | 18.94                | 1.49                | -13.5                  | 48.8                    |  |
| 12,479.0                                                     | 62.70      | 354.30               | 12,359.7      | 90.7          | 429.9         | 20.60               | 18.51                | 10.64               | -2.1                   | 55.2                    |  |
| 12,500.7                                                     | 65.78      | 356.53               | 12,369.1      | 110.2         | 428.3         | 16.93               | 14.17                | 10.28               | 2.7                    | 56.8                    |  |
| HL Crossing 12500.7' MD; 12369.1' TVD; 110.2°; 428.3°; 65.78 |            |                      |               |               |               |                     |                      |                     |                        |                         |  |
| 12,526.0                                                     | 69.40      | 359.00               | 12,378.8      | 133.6         | 427.4         | 16.93               | 14.33                | 9.76                | 8.2                    | 57.5                    |  |
| 12,575.0                                                     | 78.60      | 359.70               | 12,392.3      | 180.6         | 426.9         | 18.83               | 18.78                | 1.43                | 16.4                   | 57.6                    |  |
| 12,622.0                                                     | 83.10      | 1.40                 | 12,399.7      | 227.0         | 427.4         | 10.22               | 9.57                 | 3.62                | 23.9                   | 56.8                    |  |
| 12,716.0                                                     | 92.00      | 2.70                 | 12,403.7      | 320.8         | 430.7         | 9.57                | 9.47                 | 1.38                | 28.5                   | 52.7                    |  |



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| Survey       |            |                      |               |               |              |                     |                      |                     |                        |                         |  |
|--------------|------------|----------------------|---------------|---------------|--------------|---------------------|----------------------|---------------------|------------------------|-------------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | EW<br>(usft) | DLeg<br>(°/100usft) | Build<br>(°/100usft) | Turn<br>(°/100usft) | High to Plan<br>(usft) | Right to Plan<br>(usft) |  |
| 12,810.0     | 92.50      | 2.20                 | 12,400.1      | 414.6         | 434.7        | 0.75                | 0.53                 | -0.53               | 25.5                   | 48.0                    |  |
| 12,904.0     | 93.70      | 1.90                 | 12,395.0      | 508.4         | 438.1        | 1.32                | 1.28                 | -0.32               | 21.0                   | 43.9                    |  |
| 12,997.0     | 94.20      | 1.60                 | 12,388.6      | 601.2         | 440.9        | 0.63                | 0.54                 | -0.32               | 15.3                   | 40.4                    |  |
| 13,091.0     | 91.30      | 2.20                 | 12,384.1      | 695.0         | 444.0        | 3.15                | -3.09                | 0.64                | 11.6                   | 36.5                    |  |
| 13,185.0     | 92.30      | 2.50                 | 12,381.1      | 788.9         | 447.9        | 1.11                | 1.06                 | 0.32                | 9.3                    | 32.0                    |  |
| 13,279.0     | 89.90      | 1.90                 | 12,379.3      | 882.8         | 451.5        | 2.63                | -2.55                | -0.64               | 8.2                    | 27.6                    |  |
| 13,373.0     | 89.10      | 1.70                 | 12,380.1      | 976.7         | 454.4        | 0.88                | -0.85                | -0.21               | 9.8                    | 23.9                    |  |
| 13,466.0     | 89.60      | 2.20                 | 12,381.2      | 1,069.6       | 457.6        | 0.76                | 0.54                 | 0.54                | 11.5                   | 20.0                    |  |
| 13,560.0     | 88.40      | 1.80                 | 12,382.8      | 1,163.6       | 460.9        | 1.35                | -1.28                | -0.43               | 13.8                   | 16.0                    |  |
| 13,654.0     | 92.10      | 0.20                 | 12,382.4      | 1,257.5       | 462.5        | 4.29                | 3.94                 | -1.70               | 14.8                   | 13.7                    |  |
| 13,748.0     | 93.20      | 1.60                 | 12,378.1      | 1,351.4       | 464.0        | 1.89                | 1.17                 | 1.49                | 11.9                   | 11.5                    |  |
| 13,842.0     | 91.00      | 1.10                 | 12,374.6      | 1,445.3       | 466.2        | 2.40                | -2.34                | -0.53               | 9.9                    | 8.6                     |  |
| 13,935.0     | 88.90      | 356.50               | 12,374.7      | 1,538.3       | 464.3        | 5.44                | -2.26                | -4.95               | 11.4                   | 9.8                     |  |
| 13,955.0     | 87.80      | 355.50               | 12,375.3      | 1,558.2       | 462.9        | 7.43                | -5.50                | -5.00               | 12.3                   | 11.1                    |  |
| 14,029.0     | 88.80      | 356.00               | 12,377.5      | 1,632.0       | 457.4        | 1.51                | 1.35                 | 0.68                | 15.6                   | 16.0                    |  |
| 14,066.0     | 88.90      | 355.90               | 12,378.2      | 1,668.9       | 454.8        | 0.38                | 0.27                 | -0.27               | 16.9                   | 18.3                    |  |
| 14,123.0     | 93.60      | 356.50               | 12,377.0      | 1,725.7       | 451.0        | 8.31                | 8.25                 | 1.05                | 16.6                   | 21.6                    |  |
| 14,217.0     | 97.80      | 358.30               | 12,367.6      | 1,819.1       | 446.8        | 4.86                | 4.47                 | 1.91                | 8.7                    | 25.2                    |  |
| 14,310.0     | 95.00      | 359.10               | 12,357.3      | 1,911.5       | 444.7        | 3.13                | -3.01                | 0.86                | -0.3                   | 26.6                    |  |
| 14,404.0     | 91.00      | 0.70                 | 12,352.3      | 2,005.4       | 444.5        | 4.58                | -4.26                | 1.70                | -3.8                   | 26.0                    |  |
| 14,497.0     | 90.20      | 0.30                 | 12,351.4      | 2,098.4       | 445.3        | 0.96                | -0.86                | -0.43               | -3.3                   | 24.5                    |  |
| 14,591.0     | 92.30      | 2.70                 | 12,349.3      | 2,192.3       | 447.8        | 3.39                | 2.23                 | 2.55                | -4.0                   | 21.3                    |  |
| 14,685.0     | 92.00      | 1.40                 | 12,345.8      | 2,286.2       | 451.1        | 1.42                | -0.32                | -1.38               | -6.0                   | 17.2                    |  |
| 14,779.0     | 90.40      | 0.70                 | 12,343.8      | 2,380.1       | 452.9        | 1.86                | -1.70                | -0.74               | -6.5                   | 14.8                    |  |
| 14,873.0     | 88.30      | 0.60                 | 12,344.9      | 2,474.1       | 453.9        | 2.24                | -2.23                | -0.11               | -4.0                   | 13.0                    |  |
| 14,967.0     | 93.40      | 2.00                 | 12,343.5      | 2,568.0       | 456.1        | 5.63                | 5.43                 | 1.49                | -3.9                   | 10.2                    |  |
| 15,060.0     | 93.60      | 0.00                 | 12,337.8      | 2,660.9       | 457.7        | 2.16                | 0.22                 | -2.15               | -8.0                   | 7.9                     |  |



Midland PVA



|                  |                             |                                     |                                |
|------------------|-----------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | EOG Resources - Midland     | <b>Local Co-ordinate Reference:</b> | Well #701H                     |
| <b>Project:</b>  | Lea County, NM (NAD 83 NME) | <b>TVD Reference:</b>               | KB = 25 @ 3529.0usft (H&P 620) |
| <b>Site:</b>     | Red Raider 25 State Com     | <b>MD Reference:</b>                | KB = 25 @ 3529.0usft (H&P 620) |
| <b>Well:</b>     | #701H                       | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | OH                          | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | OH                          | <b>Database:</b>                    | EDM 5000.14                    |

| Survey                                                    |            |                      |               |               |               |                     |                      |                     |                        |                         |  |
|-----------------------------------------------------------|------------|----------------------|---------------|---------------|---------------|---------------------|----------------------|---------------------|------------------------|-------------------------|--|
| MD<br>(usft)                                              | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | DLeg<br>(°/100usft) | Bulid<br>(°/100usft) | Turn<br>(°/100usft) | High to Plan<br>(usft) | Right to Plan<br>(usft) |  |
| 15,154.0                                                  | 88.70      | 359.70               | 12,335.9      | 2,754.8       | 457.4         | 5.22                | -5.21                | -0.32               | -8.3                   | 7.4                     |  |
| 15,248.0                                                  | 86.60      | 359.90               | 12,339.8      | 2,848.7       | 457.1         | 2.24                | -2.23                | 0.21                | -2.9                   | 7.0                     |  |
| 15,342.0                                                  | 87.40      | 0.10                 | 12,344.7      | 2,942.6       | 457.1         | 0.88                | 0.85                 | 0.21                | 3.6                    | 6.3                     |  |
| 15,436.0                                                  | 89.50      | 1.20                 | 12,347.2      | 3,036.5       | 458.2         | 2.52                | 2.23                 | 1.17                | 7.7                    | 4.5                     |  |
| 15,530.0                                                  | 92.10      | 1.00                 | 12,345.9      | 3,130.5       | 460.0         | 2.77                | 2.77                 | -0.21               | 7.9                    | 2.0                     |  |
| 15,624.0                                                  | 92.50      | 359.20               | 12,342.2      | 3,224.4       | 460.1         | 1.96                | 0.43                 | -1.91               | 5.7                    | 1.1                     |  |
| 15,718.0                                                  | 88.80      | 357.30               | 12,341.1      | 3,318.4       | 457.3         | 4.42                | -3.94                | -2.02               | 6.2                    | 3.3                     |  |
| 15,812.0                                                  | 91.40      | 359.20               | 12,340.9      | 3,412.3       | 454.4         | 3.43                | 2.77                 | 2.02                | 7.6                    | 5.4                     |  |
| 15,906.0                                                  | 92.90      | 357.70               | 12,337.4      | 3,506.2       | 451.9         | 2.26                | 1.60                 | -1.60               | 5.6                    | 7.2                     |  |
| 15,999.0                                                  | 92.90      | 357.50               | 12,332.7      | 3,599.0       | 448.0         | 0.21                | 0.00                 | -0.22               | 2.5                    | 10.4                    |  |
| 16,093.0                                                  | 90.80      | 357.70               | 12,329.7      | 3,692.9       | 444.0         | 2.24                | -2.23                | 0.21                | 1.0                    | 13.6                    |  |
| 16,186.0                                                  | 91.80      | 358.40               | 12,327.6      | 3,785.8       | 440.9         | 1.31                | 1.08                 | 0.75                | 0.5                    | 16.1                    |  |
| 16,280.0                                                  | 91.20      | 0.60                 | 12,325.1      | 3,879.7       | 440.0         | 2.43                | -0.64                | 2.34                | -0.3                   | 16.2                    |  |
| 16,374.0                                                  | 92.90      | 1.10                 | 12,321.7      | 3,973.7       | 441.4         | 1.89                | 1.81                 | 0.53                | -2.1                   | 14.1                    |  |
| 16,468.0                                                  | 92.20      | 0.00                 | 12,317.5      | 4,067.6       | 442.3         | 1.39                | -0.74                | -1.17               | -4.6                   | 12.5                    |  |
| 16,562.0                                                  | 87.10      | 0.50                 | 12,318.1      | 4,161.5       | 442.7         | 5.45                | -5.43                | 0.53                | -2.4                   | 11.3                    |  |
| 16,656.0                                                  | 87.80      | 0.00                 | 12,322.3      | 4,255.4       | 443.2         | 0.91                | 0.74                 | -0.53               | 3.4                    | 10.2                    |  |
| 16,750.0                                                  | 88.40      | 359.40               | 12,327.1      | 4,349.3       | 442.7         | 1.62                | -1.49                | -0.64               | 9.7                    | 10.0                    |  |
| 16,844.0                                                  | 89.00      | 0.60                 | 12,330.8      | 4,443.2       | 442.7         | 3.05                | 2.77                 | 1.28                | 15.2                   | 9.3                     |  |
| 16,938.0                                                  | 92.00      | 1.40                 | 12,330.0      | 4,537.2       | 444.3         | 3.30                | 3.19                 | 0.85                | 16.0                   | 6.9                     |  |
| 17,031.0                                                  | 93.60      | 2.40                 | 12,325.5      | 4,630.0       | 447.4         | 2.03                | 1.72                 | 1.08                | 13.0                   | 3.1                     |  |
| 17,125.0                                                  | 93.20      | 2.70                 | 12,319.9      | 4,723.8       | 451.6         | 0.53                | -0.43                | 0.32                | 9.1                    | -1.7                    |  |
| Last MWD Survey (MD = 17125.0)                            |            |                      |               |               |               |                     |                      |                     |                        |                         |  |
| 17,129.3                                                  | 93.20      | 2.70                 | 12,319.7      | 4,728.1       | 451.8         | 0.00                | 0.00                 | 0.00                | 8.9                    | -2.0                    |  |
| HL Crossing 17129.3 MD; 12319.7 TVD; 4728.1; 451.8; 93.20 |            |                      |               |               |               |                     |                      |                     |                        |                         |  |
| 17,191.0                                                  | 93.20      | 2.70                 | 12,316.2      | 4,789.6       | 454.7         | 0.00                | 0.00                 | 0.00                | 6.5                    | -5.4                    |  |
| Projection to Bit (MD = 17191.0)                          |            |                      |               |               |               |                     |                      |                     |                        |                         |  |



Midland PVA



|           |                             |                              |                                |
|-----------|-----------------------------|------------------------------|--------------------------------|
| Company:  | EOG Resources - Midland     | Local Co-ordinate Reference: | Well #701H                     |
| Project:  | Lea County, NM (NAD 83 NME) | TVD Reference:               | KB = 25 @ 3529.0usft (H&P 620) |
| Site:     | Red Raider 25 State Com     | MD Reference:                | KB = 25 @ 3529.0usft (H&P 620) |
| Well:     | #701H                       | North Reference:             | Grid                           |
| Wellbore: | OH                          | Survey Calculation Method:   | Minimum Curvature              |
| Design:   | OH                          | Database:                    | EDM 5000.14                    |

| Survey Annotations          |                             |                   |                |                                                               |
|-----------------------------|-----------------------------|-------------------|----------------|---------------------------------------------------------------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                | Comment                                                       |
|                             |                             | +N-S<br>(usft)    | +E-W<br>(usft) |                                                               |
| 12,500.7                    | 12,369.1                    | 110.2             | 428.3          | HL Crossing 12500.7' MD; 12369.1' TVD; 110.2'; 428.3'; 65.78  |
| 17,125.0                    | 12,319.9                    | 4,723.8           | 451.6          | Last MWD Survey (MD = 17125.0)                                |
| 17,129.3                    | 12,319.7                    | 4,728.1           | 451.8          | HL Crossing 17129.3' MD; 12319.7' TVD; 4728.1'; 451.8'; 93.20 |
| 17,191.0                    | 12,316.2                    | 4,789.6           | 454.7          | Projection to Bit (MD = 17191.0)                              |

|                   |                    |             |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|





## Lea County, NM (NAD 83 NME)

Red Raider 25 State Com #701H

**H&P 620**

### Plan #2

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level

## WELL DETAILS: #701H

KB = 25 @ 3529.0usft (H&P 620)

| Northing  | Easting   | Latitude         | Longitude         |
|-----------|-----------|------------------|-------------------|
| 430866.00 | 792872.00 | 32° 10' 54.695 N | 103° 31' 13.091 W |

## SECTION DETAILS

| Sec | MD      | Inc   | Azi    | TVD     | +N/A   | +E/W  | Dleg  | TFace  | VSet   | Target                     |
|-----|---------|-------|--------|---------|--------|-------|-------|--------|--------|----------------------------|
| 1   | 1321.0  | 0.26  | 98.18  | 1321.0  | -5.0   | 1.9   | 0.00  | 0.00   | -4.8   |                            |
| 2   | 4416.1  | 0.26  | 98.18  | 4416.0  | -7.0   | 15.8  | 0.00  | 0.00   | -5.5   |                            |
| 3   | 4903.1  | 10.00 | 107.90 | 4900.5  | -20.2  | 57.2  | 2.00  | 9.97   | -14.8  |                            |
| 4   | 7255.0  | 0.00  | 107.90 | 7216.7  | -145.6 | 445.7 | 0.00  | 0.00   | -103.7 |                            |
| 5   | 7754.8  | 0.00  | 0.00   | 7714.0  | -159.0 | 487.1 | 2.00  | 180.00 | -113.2 |                            |
| 6   | 12058.8 | 0.00  | 0.00   | 12018.0 | -159.0 | 487.1 | 0.00  | 0.00   | -113.2 |                            |
| 7   | 12624.0 | 90.42 | 359.56 | 12376.1 | 201.7  | 484.3 | 16.00 | 359.56 | 245.7  |                            |
| 8   | 13583.1 | 90.42 | 359.56 | 12369.0 | 186.8  | 477.0 | 0.00  | 0.00   | 1200.0 | TGT #1(RR 25 St Com #701H) |
| 9   | 13686.0 | 90.88 | 359.56 | 12365.7 | 119.7  | 476.8 | 2.00  | 180.00 | 122.7  |                            |
| 10  | 14895.0 | 90.88 | 359.56 | 12349.0 | 2467.4 | 467.0 | 2.00  | 0.00   | 2500.0 | TGT #2(RR 25 St Com #701H) |
| 11  | 14893.4 | 90.95 | 358.15 | 12348.9 | 2470.9 | 457.0 | 2.00  | -0.02  | 2503.5 |                            |
| 12  | 16096.1 | 90.95 | 359.58 | 12329.0 | 3673.4 | 467.0 | 0.00  | 0.00   | 3700.0 | TGT #3(RR 25 St Com #701H) |
| 13  | 16098.2 | 90.99 | 359.58 | 12329.0 | 3675.5 | 457.0 | 2.00  | 0.00   | 3702.1 |                            |
| 14  | 17251.9 | 90.99 | 359.58 | 12309.0 | 4829.0 | 449.0 | 0.00  | 0.00   | 4849.8 | PBHL(RR 25 St Com #701H)   |

### CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

| Name                        | TVD     | +N/S   | +E/W  | Northing | Easting   |
|-----------------------------|---------|--------|-------|----------|-----------|
| PBHL(RR 25 St Com #701H)    | 12309.0 | 4829.0 | 449.0 | 435685.0 | 793321.0  |
| TGT #01(RR 25 St Com #701H) | 12329.0 | 3673.4 | 457.8 | 434539.0 | 793329.8  |
| TGT #02(RR 25 St Com #701H) | 12349.0 | 2467.4 | 467.0 | 433333.0 | 793339.0  |
| TGT #1(RR 25 St Com #701H)  | 12369.0 | 1160.8 | 477.0 | 432026.8 | 793348.96 |
| FTP(RR 25 St Com #701H)     | 12387.0 | 111.0  | 483.0 | 430977.0 | 793357.0  |

