



**EOG Resources - Midland**

Lea County, NM (NAD 83 NME)

Caravan 28 State Com

#702H

OH

Design: OH

**Final PVA Report**

21 January, 2019

**HOBBS OCD**  
**APR 12 2019**  
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# Final PVA Report

|           |                             |  |  |                              |                      |
|-----------|-----------------------------|--|--|------------------------------|----------------------|
| Company:  | EOG Resources - Midland     |  |  | Local Co-ordinate Reference: | Well #702H           |
| Project:  | Lea County, NM (NAD 83 NME) |  |  | TVD Reference:               | KB = 25 @ 3543.0usft |
| Site:     | Caravan 28 State Com        |  |  | MD Reference:                | KB = 25 @ 3543.0usft |
| Well:     | #702H                       |  |  | North Reference:             | Grid                 |
| Wellbore: | OH                          |  |  | Survey Calculation Method:   | Minimum Curvature    |
| Design:   | .OH                         |  |  | Database:                    | EDM 5000.14          |

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

|                       |                      |              |                 |                   |                   |
|-----------------------|----------------------|--------------|-----------------|-------------------|-------------------|
| Site                  | Caravan 28 State Com |              |                 |                   |                   |
| Site Position:        |                      | Northing:    | 435,288.00 usft | Latitude:         | 32° 11' 39.963 N  |
| From:                 | Map                  | Easting:     | 774,678.00 usft | Longitude:        | 103° 34' 44.423 W |
| Position Uncertainty: | 0.0 usft             | Slot Radius: | 13-3/16 "       | Grid Convergence: | 0.40 °            |

|                      |          |          |                     |                 |               |                   |
|----------------------|----------|----------|---------------------|-----------------|---------------|-------------------|
| Well                 | #702H    |          |                     |                 |               |                   |
| Well Position        | +N-S     | 0.0 usft | Northing:           | 435,235.00 usft | Latitude:     | 32° 11' 39.435 N  |
|                      | +E-W     | 0.0 usft | Easting:            | 774,738.00 usft | Longitude:    | 103° 34' 43.729 W |
| Position Uncertainty | 0.0 usft |          | Wellhead Elevation: | usft            | Ground Level: | 3,518.0 usft      |

|           |            |             |                 |               |                     |
|-----------|------------|-------------|-----------------|---------------|---------------------|
| Wellbore  | OH         |             |                 |               |                     |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|           | IGRF2015   | 9/26/2018   | 6.82            | 60.02         | 47,787.78387720     |

|                   |                            |                |                |                  |     |
|-------------------|----------------------------|----------------|----------------|------------------|-----|
| Design            | OH                         |                |                |                  |     |
| Audit Notes:      |                            |                |                |                  |     |
| Version:          | 1.0                        | Phase:         | ACTUAL         | Tie On Depth:    | 0.0 |
| Vertical Section: | Depth From (TVD)<br>(usft) | +N-S<br>(usft) | +E-W<br>(usft) | Direction<br>(°) |     |
|                   | 0.0                        | 0.0            | 0.0            | 180.55           |     |

|                |              |                      |           |                     |
|----------------|--------------|----------------------|-----------|---------------------|
| Survey Program | Date         | 1/21/2019            |           |                     |
| From<br>(usft) | To<br>(usft) | Survey (Wellbore)    | Tool Name | Description         |
| 145.0          | 22,811.0     | Intrepid MWD #1 (OH) | MWD       | OWSG MWD - Standard |



# Final PVA Report

|                                             |  |                                                     |  |
|---------------------------------------------|--|-----------------------------------------------------|--|
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| <b>Project:</b> Lea County, NM (NAD 83 NME) |  | <b>TVD Reference:</b> KB = 25 @ 3543.0usft          |  |
| <b>Site:</b> Caravan 28 State Com           |  | <b>MD Reference:</b> KB = 25 @ 3543.0usft           |  |
| <b>Well:</b> #702H                          |  | <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<br>(grid_north_azim) | 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) |       |
| 0.0          | 0.00       | 0.00                     | 0.0           | 0.0           | 0.0           | 0.00                | 0.00                 | 0.00                | 0.0                    | 0.0                     | 0.0   |
| 145.0        | 0.30       | 123.30                   | 145.0         | -0.2          | 0.3           | 0.21                | 0.21                 | 0.00                | -0.4                   | 0.0                     | 0.0   |
| 323.0        | 0.50       | 122.90                   | 323.0         | -0.9          | 1.4           | 0.11                | 0.11                 | -0.22               | -1.6                   | 0.0                     | 0.0   |
| 501.0        | 0.20       | 155.20                   | 501.0         | -1.6          | 2.1           | 0.20                | -0.17                | 18.15               | -2.3                   | 1.3                     | 1.3   |
| 688.0        | 0.10       | 111.10                   | 688.0         | -1.9          | 2.4           | 0.08                | -0.05                | -23.58              | -3.0                   | -0.9                    | -0.9  |
| 878.0        | 0.20       | 302.10                   | 878.0         | -1.8          | 2.3           | 0.16                | 0.05                 | -88.95              | 2.9                    | 0.3                     | 0.3   |
| 1,067.0      | 0.40       | 298.30                   | 1,067.0       | -1.4          | 1.4           | 0.11                | 0.11                 | -3.07               | 1.9                    | 0.6                     | 0.6   |
| 1,238.0      | 0.10       | 278.30                   | 1,238.0       | -1.1          | 0.8           | 0.18                | -0.18                | -10.53              | 0.9                    | 1.0                     | 1.0   |
| 1,432.0      | 0.10       | 277.00                   | 1,432.0       | -1.0          | 0.4           | 0.00                | 0.00                 | -0.67               | 0.5                    | 1.0                     | 1.0   |
| 1,622.0      | 0.60       | 287.60                   | 1,622.0       | -0.7          | -0.7          | 0.26                | 0.26                 | 5.58                | -0.5                   | 0.9                     | 0.9   |
| 1,812.0      | 0.60       | 294.10                   | 1,812.0       | 0.0           | -2.6          | 0.04                | 0.00                 | 3.42                | -2.3                   | 1.0                     | 1.0   |
| 2,002.0      | 0.70       | 290.50                   | 2,002.0       | 0.8           | -4.5          | 0.06                | 0.05                 | -1.89               | -4.5                   | 0.8                     | 0.8   |
| 2,192.0      | 1.10       | 289.40                   | 2,191.9       | 2.1           | -7.2          | 0.22                | 0.21                 | 4.68                | -7.3                   | 1.7                     | 1.7   |
| 2,381.0      | 1.30       | 313.60                   | 2,380.9       | 4.5           | -10.4         | 0.19                | 0.11                 | 7.51                | -10.6                  | 3.9                     | 3.9   |
| 2,571.0      | 1.60       | 333.30                   | 2,570.8       | 8.3           | -13.1         | 0.30                | 0.16                 | 10.37               | -13.3                  | 8.0                     | 8.0   |
| 2,761.0      | 1.80       | 338.70                   | 2,760.8       | 13.5          | -15.4         | 0.13                | 0.11                 | 2.84                | -18.2                  | 9.4                     | 9.4   |
| 2,951.0      | 1.70       | 347.10                   | 2,950.7       | 19.0          | -17.1         | 0.14                | -0.05                | 4.42                | -22.4                  | 12.4                    | 12.4  |
| 3,141.0      | 6.20       | 0.60                     | 3,140.2       | 32.0          | -17.6         | 2.40                | 2.37                 | 7.11                | -31.8                  | 18.0                    | 18.0  |
| 3,331.0      | 7.70       | 353.30                   | 3,328.8       | 54.9          | -19.0         | 0.91                | 0.79                 | -3.84               | -54.1                  | 12.0                    | 12.0  |
| 3,521.0      | 9.00       | 351.40                   | 3,516.7       | 82.3          | -22.7         | 0.70                | 0.68                 | -1.00               | -67.5                  | 7.4                     | 7.4   |
| 3,711.0      | 9.80       | 338.30                   | 3,704.2       | 112.0         | -30.9         | 1.20                | 0.42                 | -6.89               | -72.9                  | -9.6                    | -9.6  |
| 3,901.0      | 9.20       | 340.10                   | 3,891.6       | 141.3         | -42.1         | 0.35                | -0.32                | 0.95                | -78.1                  | -5.7                    | -5.7  |
| 4,091.0      | 8.00       | 343.50                   | 4,079.5       | 168.3         | -51.0         | 0.69                | -0.63                | 1.79                | -80.3                  | -0.7                    | -0.7  |
| 4,281.0      | 6.40       | 351.90                   | 4,268.0       | 191.4         | -56.2         | 1.01                | -0.84                | 4.42                | -77.1                  | 8.5                     | 8.5   |
| 4,471.0      | 5.70       | 13.10                    | 4,458.9       | 211.1         | -55.6         | 1.22                | -0.37                | 11.16               | -65.3                  | 25.9                    | 25.9  |
| 4,661.0      | 5.70       | 0.10                     | 4,648.0       | 229.7         | -53.4         | 0.68                | 0.00                 | -6.84               | -62.8                  | 0.6                     | 0.6   |
| 4,851.0      | 5.40       | 338.20                   | 4,835.1       | 247.5         | -56.7         | 1.12                | -0.16                | -11.53              | -49.8                  | -24.3                   | -24.3 |



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| Project:  | Lea County, NM (NAD 83 NME) | TVD Reference:               | KB = 25 @ 3543.0usft |
| Site:     | Caravan 28 State Corn       | MD Reference:                | KB = 25 @ 3543.0usft |
| Well:     | #702H                       | North Reference:             | Grid                 |
| Wellbore: | OH                          | Survey Calculation Method:   | Minimum Curvature    |
| Design:   | OH                          | Database:                    | EDM 5000.14          |

| Survey       |            |                          |               |               |               |                     |                     |                     |                        |                         |  |
|--------------|------------|--------------------------|---------------|---------------|---------------|---------------------|---------------------|---------------------|------------------------|-------------------------|--|
| MD<br>(usft) | Inc<br>(") | Azi<br>(grid_north_azim) | 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) |  |
| 5,041.0      | 5.20       | 333.20                   | 5,024.3       | 263.4         | -83.9         | 0.26                | -0.11               | -2.63               | -38.9                  | -25.0                   |  |
| 5,231.0      | 4.80       | 335.10                   | 5,213.6       | 278.3         | -71.2         | 0.23                | -0.21               | 1.00                | -29.9                  | -20.1                   |  |
| 5,421.0      | 5.30       | 329.70                   | 5,402.9       | 293.1         | -78.9         | 0.36                | 0.26                | -2.84               | -18.8                  | -17.7                   |  |
| 5,611.0      | 5.50       | 327.50                   | 5,592.0       | 308.4         | -88.3         | 0.15                | 0.11                | -1.16               | -10.3                  | -11.9                   |  |
| 5,800.0      | 7.10       | 338.20                   | 5,779.9       | 326.9         | -97.5         | 1.05                | 0.85                | 5.66                | -6.6                   | -6.2                    |  |
| 5,990.0      | 7.70       | 337.90                   | 5,968.3       | 349.6         | -106.6        | 0.32                | 0.32                | -0.16               | -4.7                   | -4.1                    |  |
| 6,181.0      | 7.80       | 334.10                   | 6,157.6       | 373.1         | -117.1        | 0.27                | 0.05                | -1.99               | -3.8                   | -1.4                    |  |
| 6,371.0      | 7.80       | 333.50                   | 6,345.8       | 396.2         | -128.5        | 0.04                | 0.00                | -0.32               | -3.4                   | 2.5                     |  |
| 6,561.0      | 8.10       | 333.60                   | 6,534.0       | 419.7         | -140.2        | 0.16                | 0.16                | 0.05                | -3.6                   | 6.8                     |  |
| 6,751.0      | 8.30       | 333.90                   | 6,722.0       | 444.1         | -152.2        | 0.11                | 0.11                | 0.16                | -4.5                   | 10.6                    |  |
| 6,941.0      | 8.30       | 333.30                   | 6,910.0       | 468.6         | -164.4        | 0.05                | 0.00                | -0.32               | -5.9                   | 14.6                    |  |
| 7,132.0      | 8.40       | 334.00                   | 7,099.0       | 493.5         | -176.7        | 0.07                | 0.05                | 0.37                | -7.2                   | 18.8                    |  |
| 7,321.0      | 4.10       | 344.20                   | 7,286.9       | 512.4         | -184.6        | 2.34                | -2.28               | 5.40                | -1.3                   | 21.5                    |  |
| 7,511.0      | 3.20       | 353.20                   | 7,476.5       | 524.2         | -187.0        | 0.56                | -0.47               | 4.74                | 0.6                    | 20.5                    |  |
| 7,701.0      | 0.90       | 338.40                   | 7,666.3       | 530.8         | -188.2        | 1.23                | -1.21               | -7.79               | -10.5                  | 18.7                    |  |
| 7,891.0      | 0.70       | 327.10                   | 7,856.3       | 533.2         | -189.4        | 0.13                | -0.11               | -5.95               | -16.5                  | 16.0                    |  |
| 8,081.0      | 0.50       | 11.60                    | 8,046.3       | 535.0         | -189.9        | 0.26                | -0.11               | 23.42               | -2.3                   | 23.8                    |  |
| 8,271.0      | 0.70       | 275.80                   | 8,236.3       | 535.9         | -190.9        | 0.47                | 0.11                | -50.42              | -24.5                  | -5.5                    |  |
| 8,460.0      | 0.80       | 222.20                   | 8,425.3       | 535.1         | -192.9        | 0.36                | 0.05                | -28.36              | -12.2                  | -23.9                   |  |
| 8,651.0      | 1.10       | 227.00                   | 8,616.3       | 532.8         | -195.1        | 0.16                | 0.16                | 2.51                | -17.3                  | -22.7                   |  |
| 8,840.0      | 0.80       | 237.70                   | 8,805.2       | 530.9         | -197.6        | 0.18                | -0.16               | 5.66                | -24.3                  | -18.8                   |  |
| 9,030.0      | 1.20       | 223.40                   | 8,995.2       | 528.7         | -200.1        | 0.25                | 0.21                | -7.53               | -22.2                  | -24.5                   |  |
| 9,220.0      | 1.10       | 214.50                   | 9,185.2       | 525.8         | -202.5        | 0.11                | -0.05               | -4.68               | -21.9                  | -28.0                   |  |
| 9,410.0      | 1.30       | 201.60                   | 9,375.1       | 522.3         | -204.3        | 0.18                | 0.11                | -6.79               | -19.0                  | -32.6                   |  |
| 9,600.0      | 1.40       | 222.60                   | 9,565.1       | 518.6         | -206.6        | 0.26                | 0.05                | 11.05               | -33.8                  | -22.8                   |  |
| 9,790.0      | 2.80       | 223.70                   | 9,754.9       | 513.5         | -211.4        | 0.74                | 0.74                | 0.58                | -41.2                  | -22.1                   |  |
| 9,980.0      | 2.90       | 196.80                   | 9,944.7       | 505.5         | -216.0        | 0.70                | 0.05                | -14.16              | -35.6                  | -40.5                   |  |



# Final PVA Report

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| Project:  | Lea County, NM (NAD 83 NME) | TVD Reference:               | KB = 25 @ 3543.0usft |
| Site:     | Caravan 28 State Com        | MD Reference:                | KB = 25 @ 3543.0usft |
| Well:     | #702H                       | North Reference:             | Grid                 |
| Wellbore: | OH                          | Survey Calculation Method:   | Minimum Curvature    |
| Design:   | OH                          | Database:                    | EDM 5000.14          |

| Survey                                                                 |            |                          |               |               |               |                     |                      |                     |                        |                         |  |
|------------------------------------------------------------------------|------------|--------------------------|---------------|---------------|---------------|---------------------|----------------------|---------------------|------------------------|-------------------------|--|
| MD<br>(usft)                                                           | Inc<br>(°) | Azi<br>(grid_north_azim) | 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) |  |
| 10,170.0                                                               | 0.10       | 113.10                   | 10,134.6      | 500.9         | -217.3        | 1.52                | -1.47                | -44.05              | 35.6                   | -44.7                   |  |
| 10,360.0                                                               | 0.50       | 47.40                    | 10,324.6      | 501.4         | -216.5        | 0.25                | 0.21                 | -34.58              | 54.5                   | 13.9                    |  |
| 10,548.0                                                               | 0.60       | 43.70                    | 10,512.6      | 502.6         | -215.2        | 0.06                | 0.05                 | -1.97               | 51.6                   | 17.3                    |  |
| 10,738.0                                                               | 1.80       | 86.50                    | 10,702.6      | 503.5         | -211.5        | 0.75                | 0.63                 | 22.53               | 45.9                   | -21.7                   |  |
| 10,928.0                                                               | 1.40       | 103.10                   | 10,892.5      | 503.2         | -208.3        | 0.32                | -0.21                | 8.74                | 32.7                   | -33.1                   |  |
| 11,118.0                                                               | 0.20       | 321.40                   | 11,082.5      | 502.9         | -204.2        | 0.82                | -0.63                | -74.58              | -3.6                   | 44.8                    |  |
| 11,308.0                                                               | 0.90       | 43.40                    | 11,272.5      | 504.3         | -203.4        | 0.47                | 0.37                 | 43.16               | 42.3                   | 10.2                    |  |
| 11,498.0                                                               | 0.80       | 152.00                   | 11,462.5      | 504.2         | -201.8        | 0.73                | -0.05                | 57.16               | -4.7                   | -41.9                   |  |
| 11,639.0                                                               | 1.50       | 137.40                   | 11,603.4      | 502.0         | -200.1        | 0.53                | 0.50                 | -10.35              | 3.2                    | -42.0                   |  |
| 11,828.0                                                               | 1.50       | 140.60                   | 11,782.4      | 488.2         | -196.8        | 0.04                | 0.00                 | 1.69                | -4.1                   | -41.9                   |  |
| 11,923.0                                                               | 1.10       | 153.20                   | 11,887.3      | 486.4         | -195.6        | 0.52                | -0.42                | 13.26               | -15.3                  | -39.8                   |  |
| 12,006.9                                                               | 4.54       | 164.67                   | 11,971.1      | 482.5         | -194.4        | 4.14                | 4.10                 | 13.67               | -26.9                  | -35.8                   |  |
| KOP (Caravan 28 State Com #702H)                                       |            |                          |               |               |               |                     |                      |                     |                        |                         |  |
| 12,018.0                                                               | 5.00       | 165.00                   | 11,982.2      | 481.6         | -194.1        | 4.14                | 4.13                 | 2.89                | -28.0                  | -35.6                   |  |
| 12,065.0                                                               | 13.50      | 171.00                   | 12,028.5      | 484.2         | -192.8        | 18.18               | 18.09                | 12.77               | -35.6                  | -31.8                   |  |
| 12,088.1                                                               | 17.02      | 173.72                   | 12,050.8      | 478.2         | -192.0        | 15.56               | 15.25                | 11.76               | -39.7                  | -29.6                   |  |
| HL Crossing, MD:12088.1, TVD:12050.8, N/S:478.2, E/W:-192.0, INC:17.02 |            |                          |               |               |               |                     |                      |                     |                        |                         |  |
| 12,114.0                                                               | 21.00      | 175.70                   | 12,075.3      | 469.8         | -191.2        | 15.56               | 15.38                | 7.66                | -43.8                  | -27.7                   |  |
| 12,161.0                                                               | 27.40      | 180.70                   | 12,118.2      | 450.6         | -190.7        | 14.29               | 13.62                | 10.84               | -51.9                  | -23.5                   |  |
| 12,209.0                                                               | 31.20      | 183.50                   | 12,160.0      | 427.1         | -191.6        | 8.41                | 7.92                 | 5.83                | -58.0                  | -21.9                   |  |
| 12,256.0                                                               | 35.90      | 184.00                   | 12,189.2      | 401.2         | -193.3        | 10.02               | 10.00                | 1.06                | -61.4                  | -23.3                   |  |
| 12,304.0                                                               | 41.10      | 183.00                   | 12,236.7      | 371.4         | -195.1        | 10.91               | 10.83                | -2.08               | -62.9                  | -26.3                   |  |
| 12,351.0                                                               | 46.90      | 183.10                   | 12,270.5      | 338.8         | -196.8        | 12.34               | 12.34                | 0.21                | -64.0                  | -28.4                   |  |
| 12,359.8                                                               | 47.96      | 182.69                   | 12,276.5      | 332.3         | -197.2        | 12.54               | 12.05                | -4.69               | -64.0                  | -29.2                   |  |
| FTP (Caravan 28 State Com #702H)                                       |            |                          |               |               |               |                     |                      |                     |                        |                         |  |
| 12,398.0                                                               | 52.70      | 181.00                   | 12,301.5      | 302.2         | -198.1        | 12.54               | 12.09                | -4.30               | -63.6                  | -31.7                   |  |
| 12,448.0                                                               | 58.50      | 179.80                   | 12,328.0      | 263.4         | -198.4        | 12.52               | 12.34                | -2.55               | -63.0                  | -33.1                   |  |



# Final PVA Report

|                  |                             |                                     |                      |
|------------------|-----------------------------|-------------------------------------|----------------------|
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| <b>Project:</b>  | Lea County, NM (NAD 83 NME) | <b>TVD Reference:</b>               | KB = 25 @ 3543.0usft |
| <b>Site:</b>     | Caravan 28 State Corn       | <b>MD Reference:</b>                | KB = 25 @ 3543.0usft |
| <b>Well:</b>     | #702H                       | <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<br>(grid_north_azim) | 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) |  |
| 12,494.0     | 62.90      | 178.20                   | 12,351.5      | 221.6         | -197.6        | 9.62                | 9.17                 | -3.33               | -61.2                  | -33.4                   |  |
| 12,541.0     | 66.20      | 177.20                   | 12,371.7      | 179.2         | -195.9        | 7.28                | 7.02                 | -2.13               | -57.5                  | -32.3                   |  |
| 12,588.0     | 69.10      | 176.00                   | 12,389.6      | 135.8         | -193.3        | 6.61                | 6.17                 | -2.55               | -51.1                  | -30.1                   |  |
| 12,635.0     | 70.50      | 176.10                   | 12,405.8      | 91.8          | -190.3        | 2.99                | 2.98                 | 0.21                | -41.6                  | -27.3                   |  |
| 12,684.0     | 72.00      | 176.90                   | 12,421.6      | 45.5          | -187.5        | 3.43                | 3.06                 | 1.63                | -27.7                  | -24.6                   |  |
| 12,731.0     | 73.00      | 177.90                   | 12,435.7      | 0.7           | -185.4        | 2.94                | 2.13                 | 2.13                | -14.1                  | -22.5                   |  |
| 12,778.0     | 76.00      | 179.50                   | 12,448.3      | -44.6         | -184.4        | 7.18                | 6.38                 | 3.40                | -2.3                   | -21.4                   |  |
| 12,825.0     | 79.00      | 180.50                   | 12,458.4      | -90.5         | -184.4        | 6.71                | 6.38                 | 2.13                | 7.2                    | -21.8                   |  |
| 12,873.0     | 83.40      | 180.50                   | 12,465.8      | -137.9        | -184.8        | 9.17                | 9.17                 | 0.00                | 14.3                   | -22.5                   |  |
| 12,968.0     | 86.20      | 178.40                   | 12,474.4      | -232.5        | -183.9        | 3.68                | 2.95                 | -2.21               | 22.3                   | -22.2                   |  |
| 13,063.0     | 87.80      | 176.30                   | 12,479.4      | -327.2        | -179.5        | 2.78                | 1.68                 | -2.21               | 26.6                   | -18.4                   |  |
| 13,158.0     | 88.60      | 175.90                   | 12,482.3      | -422.0        | -173.1        | 0.94                | 0.84                 | -0.42               | 28.9                   | -12.6                   |  |
| 13,253.0     | 90.40      | 177.20                   | 12,483.2      | -516.8        | -167.4        | 2.34                | 1.89                 | 1.37                | 29.0                   | -7.6                    |  |
| 13,348.0     | 90.00      | 176.80                   | 12,482.8      | -611.7        | -162.4        | 0.60                | -0.42                | -0.42               | 28.0                   | -3.3                    |  |
| 13,442.0     | 90.80      | 178.10                   | 12,482.2      | -705.6        | -158.2        | 1.62                | 0.85                 | 1.38                | 26.7                   | 0.3                     |  |
| 13,537.0     | 89.90      | 178.80                   | 12,481.6      | -800.5        | -155.6        | 1.20                | -0.95                | 0.74                | 25.4                   | 2.2                     |  |
| 13,632.0     | 89.00      | 178.30                   | 12,482.5      | -895.5        | -153.2        | 1.08                | -0.95                | -0.53               | 25.6                   | 3.9                     |  |
| 13,727.0     | 93.80      | 179.40                   | 12,480.2      | -990.4        | -151.3        | 5.18                | 5.05                 | 1.16                | 22.6                   | 5.2                     |  |
| 13,821.0     | 92.40      | 180.10                   | 12,475.1      | -1,084.3      | -150.9        | 1.66                | -1.49                | 0.74                | 16.8                   | 4.9                     |  |
| 13,916.0     | 91.40      | 180.20                   | 12,472.0      | -1,179.2      | -151.2        | 1.06                | -1.05                | 0.11                | 13.0                   | 4.0                     |  |
| 14,011.0     | 90.30      | 180.20                   | 12,470.5      | -1,274.2      | -151.5        | 1.16                | -1.16                | 0.00                | 10.9                   | 3.0                     |  |
| 14,107.0     | 89.20      | 179.80                   | 12,471.0      | -1,370.2      | -151.5        | 1.22                | -1.15                | -0.42               | 10.6                   | 2.4                     |  |
| 14,201.0     | 87.80      | 180.40                   | 12,473.4      | -1,464.2      | -151.7        | 1.62                | -1.49                | 0.64                | 12.3                   | 1.5                     |  |
| 14,296.0     | 88.70      | 179.90                   | 12,476.3      | -1,559.1      | -151.9        | 1.08                | 0.95                 | -0.53               | 14.5                   | 0.6                     |  |
| 14,392.0     | 88.60      | 179.60                   | 12,478.6      | -1,655.1      | -151.5        | 0.33                | -0.10                | -0.31               | 16.1                   | 0.4                     |  |
| 14,486.0     | 90.30      | 179.40                   | 12,479.5      | -1,749.1      | -150.7        | 1.82                | 1.81                 | -0.21               | 16.3                   | 0.6                     |  |
| 14,581.0     | 88.60      | 179.20                   | 12,480.4      | -1,844.1      | -149.5        | 1.80                | -1.79                | -0.21               | 16.5                   | 1.1                     |  |



# Final PVA Report

|           |                             |                              |                      |
|-----------|-----------------------------|------------------------------|----------------------|
| Company:  | EOG Resources - Midland     | Local Co-ordinate Reference: | Well #702H           |
| Project:  | Lea County, NM (NAD 83 NME) | TVD Reference:               | KB = 25 @ 3543.0usft |
| Site:     | Caravan 28 State Com        | MD Reference:                | KB = 25 @ 3543.0usft |
| Well:     | #702H                       | North Reference:             | Grid                 |
| Wellbore: | OH                          | Survey Calculation Method:   | Minimum Curvature    |
| Design:   | OH                          | Database:                    | EDM 5000.14          |

| Survey                             |            |                          |               |               |               |                     |                      |                     |                        |                         |  |
|------------------------------------|------------|--------------------------|---------------|---------------|---------------|---------------------|----------------------|---------------------|------------------------|-------------------------|--|
| MD<br>(usft)                       | Inc<br>(°) | Azi<br>(grid_north_azim) | 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) |  |
| 14,676.0                           | 88.70      | 178.70                   | 12,482.6      | -1,939.0      | -147.8        | 0.54                | 0.11                 | -0.53               | 18.1                   | 2.2                     |  |
| 14,735.1                           | 88.64      | 177.70                   | 12,484.0      | -1,998.1      | -145.9        | 1.69                | -0.11                | -1.68               | 19.0                   | 3.6                     |  |
| TGT 1 (Caravan 28 State Com #702H) |            |                          |               |               |               |                     |                      |                     |                        |                         |  |
| 14,771.0                           | 88.60      | 177.10                   | 12,484.9      | -2,033.9      | -144.3        | 1.69                | -0.10                | -1.88               | 19.7                   | 5.0                     |  |
| 14,866.0                           | 91.30      | 178.70                   | 12,485.0      | -2,128.8      | -140.8        | 3.30                | 2.84                 | 1.68                | 19.3                   | 7.8                     |  |
| 14,961.0                           | 90.70      | 178.00                   | 12,483.3      | -2,223.8      | -138.1        | 0.97                | -0.63                | -0.74               | 17.2                   | 9.9                     |  |
| 15,057.0                           | 91.80      | 177.40                   | 12,481.2      | -2,319.7      | -134.2        | 1.31                | 1.15                 | -0.62               | 14.6                   | 13.1                    |  |
| 15,152.0                           | 93.10      | 178.10                   | 12,477.1      | -2,414.5      | -130.5        | 1.55                | 1.37                 | 0.74                | 10.1                   | 16.1                    |  |
| 15,247.0                           | 94.50      | 178.30                   | 12,470.9      | -2,509.3      | -127.5        | 1.49                | 1.47                 | 0.21                | 3.3                    | 18.5                    |  |
| 15,342.0                           | 92.20      | 178.70                   | 12,465.3      | -2,604.1      | -125.0        | 2.46                | -2.42                | 0.42                | -2.7                   | 20.3                    |  |
| 15,437.0                           | 91.30      | 178.60                   | 12,462.4      | -2,699.0      | -122.8        | 0.95                | -0.95                | -0.11               | -6.1                   | 21.9                    |  |
| 15,532.0                           | 90.40      | 178.00                   | 12,461.0      | -2,793.9      | -120.0        | 1.14                | -0.95                | -0.83               | -8.0                   | 24.0                    |  |
| 15,627.0                           | 89.10      | 177.30                   | 12,461.4      | -2,888.9      | -116.1        | 1.55                | -1.37                | -0.74               | -8.1                   | 27.3                    |  |
| 15,722.0                           | 88.70      | 177.40                   | 12,463.2      | -2,983.7      | -111.7        | 0.43                | -0.42                | 0.11                | -8.7                   | 31.0                    |  |
| 15,817.0                           | 90.20      | 179.70                   | 12,464.1      | -3,078.7      | -109.3        | 2.89                | 1.58                 | 2.42                | -6.3                   | 32.7                    |  |
| 15,912.0                           | 90.50      | 180.30                   | 12,463.6      | -3,173.7      | -109.3        | 0.71                | 0.32                 | 0.63                | -7.3                   | 32.1                    |  |
| 16,007.0                           | 89.60      | 180.10                   | 12,463.5      | -3,268.7      | -109.6        | 0.97                | -0.95                | -0.21               | -7.9                   | 31.1                    |  |
| 16,102.0                           | 87.90      | 180.20                   | 12,465.6      | -3,363.7      | -109.9        | 1.78                | -1.79                | 0.11                | -6.3                   | 30.2                    |  |
| 16,197.0                           | 88.30      | 181.20                   | 12,468.7      | -3,458.6      | -111.0        | 1.13                | 0.42                 | 1.05                | -3.6                   | 28.4                    |  |
| 16,292.0                           | 87.80      | 181.60                   | 12,471.9      | -3,553.5      | -113.4        | 0.67                | -0.53                | 0.42                | -0.8                   | 25.4                    |  |
| 16,387.0                           | 87.80      | 180.90                   | 12,475.6      | -3,648.4      | -115.4        | 0.74                | 0.00                 | -0.74               | 2.3                    | 22.7                    |  |
| 16,482.0                           | 90.80      | 182.10                   | 12,476.7      | -3,743.4      | -117.9        | 3.40                | 3.16                 | 1.26                | 3.0                    | 19.5                    |  |
| 16,578.0                           | 90.00      | 181.20                   | 12,476.1      | -3,839.3      | -120.7        | 1.25                | -0.83                | -0.94               | 1.9                    | 16.1                    |  |
| 16,673.0                           | 89.80      | 179.60                   | 12,476.2      | -3,934.3      | -121.3        | 1.70                | -0.21                | -1.68               | 1.6                    | 14.8                    |  |
| 16,737.4                           | 90.55      | 178.98                   | 12,476.0      | -3,999.7      | -120.5        | 1.51                | 1.17                 | -0.96               | 1.0                    | 15.1                    |  |
| TGT 2 (Caravan 28 State Com #702H) |            |                          |               |               |               |                     |                      |                     |                        |                         |  |
| 16,767.0                           | 90.90      | 178.70                   | 12,475.7      | -4,028.3      | -119.9        | 1.51                | 1.17                 | -0.96               | 0.6                    | 15.5                    |  |



# Final PVA Report

|           |                             |                              |                      |
|-----------|-----------------------------|------------------------------|----------------------|
| Company:  | EOG Resources - Midland     | Local Co-ordinate Reference: | Well #702H           |
| Project:  | Lea County, NM (NAD 83 NME) | TVD Reference:               | KB = 25 @ 3543.0usft |
| Site:     | Caravan 28 State Com        | MD Reference:                | KB = 25 @ 3543.0usft |
| Well:     | #702H                       | North Reference:             | Grid                 |
| Wellbore: | OH                          | Survey Calculation Method:   | Minimum Curvature    |
| Design:   | OH                          | Database:                    | EDM 5000.14          |

| MD<br>(usft)                       | Inc<br>(°) | Azi<br>(grid_north_azim) | 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) |
|------------------------------------|------------|--------------------------|---------------|---------------|---------------|--------------------|---------------------|--------------------|------------------------|-------------------------|
| 16,862.0                           | 89.40      | 177.50                   | 12,475.4      | -4,123.3      | -116.8        | 2.02               | -1.58               | -1.26              | 0.1                    | 18.0                    |
| 16,957.0                           | 91.60      | 178.10                   | 12,474.6      | -4,218.2      | -113.2        | 2.40               | 2.32                | 0.63               | -1.0                   | 21.0                    |
| 17,052.0                           | 89.00      | 179.50                   | 12,474.1      | -4,313.1      | -111.2        | 3.11               | -2.74               | 1.47               | -1.7                   | 22.3                    |
| 17,147.0                           | 89.10      | 179.50                   | 12,475.7      | -4,408.1      | -110.3        | 0.11               | 0.11                | 0.00               | -0.4                   | 22.5                    |
| 17,242.0                           | 92.30      | 177.80                   | 12,474.5      | -4,503.1      | -108.1        | 3.81               | 3.37                | -1.79              | -1.7                   | 24.1                    |
| 17,337.0                           | 92.70      | 180.00                   | 12,470.4      | -4,598.0      | -106.3        | 2.35               | 0.42                | 2.32               | -6.1                   | 25.3                    |
| 17,432.0                           | 91.10      | 181.30                   | 12,467.2      | -4,692.9      | -107.4        | 2.17               | -1.68               | 1.37               | -9.5                   | 23.5                    |
| 17,527.0                           | 89.60      | 180.10                   | 12,466.6      | -4,787.9      | -108.5        | 2.02               | -1.58               | -1.26              | -10.4                  | 21.7                    |
| 17,623.0                           | 89.20      | 180.30                   | 12,467.6      | -4,883.9      | -108.8        | 0.47               | -0.42               | 0.21               | -9.6                   | 20.7                    |
| 17,718.0                           | 88.80      | 180.10                   | 12,469.3      | -4,978.9      | -109.2        | 0.47               | -0.42               | -0.21              | -8.2                   | 19.7                    |
| 17,813.0                           | 89.20      | 182.20                   | 12,470.9      | -5,073.8      | -111.1        | 2.25               | 0.42                | 2.21               | -8.7                   | 17.2                    |
| 17,908.0                           | 88.00      | 182.30                   | 12,473.3      | -5,168.7      | -114.8        | 1.27               | -1.26               | 0.11               | -4.6                   | 12.8                    |
| 18,003.0                           | 86.20      | 181.60                   | 12,478.1      | -5,263.5      | -118.0        | 2.03               | -1.89               | -0.74              | -0.1                   | 8.9                     |
| 18,098.0                           | 87.60      | 180.90                   | 12,483.2      | -5,358.4      | -120.1        | 1.65               | 1.47                | -0.74              | 4.8                    | 6.2                     |
| 18,193.0                           | 91.20      | 180.10                   | 12,484.2      | -5,453.4      | -120.9        | 3.88               | 3.79                | -0.84              | 5.6                    | 4.7                     |
| 18,288.0                           | 94.30      | 180.00                   | 12,479.6      | -5,548.2      | -121.0        | 3.26               | 3.26                | -0.11              | 0.8                    | 3.9                     |
| 18,383.0                           | 93.30      | 179.60                   | 12,473.4      | -5,643.0      | -120.7        | 1.13               | -1.05               | -0.42              | -5.8                   | 3.6                     |
| 18,478.0                           | 95.10      | 179.40                   | 12,466.4      | -5,737.8      | -119.9        | 1.91               | 1.89                | -0.21              | -12.9                  | 3.8                     |
| 18,573.0                           | 92.30      | 180.60                   | 12,460.3      | -5,832.5      | -119.9        | 3.21               | -2.95               | 1.26               | -19.3                  | 3.1                     |
| 18,668.0                           | 91.50      | 180.20                   | 12,457.1      | -5,927.5      | -120.5        | 0.94               | -0.84               | -0.42              | -22.7                  | 1.8                     |
| 18,739.0                           | 91.28      | 180.13                   | 12,455.4      | -5,998.5      | -120.7        | 0.33               | -0.32               | -0.11              | -24.6                  | 1.1                     |
| TGT 3 (Caravan 28 State Com #702H) |            |                          |               |               |               |                    |                     |                    |                        |                         |
| 18,763.0                           | 91.20      | 180.10                   | 12,454.9      | -6,022.5      | -120.8        | 0.33               | -0.32               | -0.11              | -25.2                  | 0.9                     |
| 18,858.0                           | 90.10      | 180.50                   | 12,453.8      | -6,117.5      | -121.3        | 1.23               | -1.16               | 0.42               | -26.5                  | -0.3                    |
| 18,954.0                           | 86.10      | 181.70                   | 12,457.0      | -6,213.4      | -123.1        | 4.35               | -4.17               | 1.25               | -23.6                  | -2.8                    |
| 19,049.0                           | 88.60      | 181.50                   | 12,461.4      | -6,308.2      | -125.8        | 2.64               | 2.63                | -0.21              | -19.4                  | -8.1                    |
| 19,171.0                           | 87.30      | 182.00                   | 12,465.7      | -6,430.1      | -129.5        | 1.14               | -1.07               | 0.41               | -15.4                  | -10.6                   |



# Final PVA Report

|           |                             |                              |                      |
|-----------|-----------------------------|------------------------------|----------------------|
| Company:  | EOG Resources - Midland     | Local Co-ordinate Reference: | Well #702H           |
| Project:  | Lea County, NM (NAD 83 NME) | TVD Reference:               | KB = 25 @ 3543.0usft |
| Site:     | Caravan 28 State Com        | MD Reference:                | KB = 25 @ 3543.0usft |
| Well:     | #702H                       | North Reference:             | Grid                 |
| Wellbore: | OH                          | Survey Calculation Method:   | Minimum Curvature    |
| Design:   | OH                          | Database:                    | EDM 5000.14          |

| Survey       |            |                          |               |               |              |                     |                      |                     |                        |                         |  |
|--------------|------------|--------------------------|---------------|---------------|--------------|---------------------|----------------------|---------------------|------------------------|-------------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi<br>(grid_north_azim) | 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) |  |
| 19,266.0     | 88.50      | 182.80                   | 12,469.2      | -8,524.8      | -133.5       | 1.58                | 1.26                 | 0.95                | -12.2                  | -15.3                   |  |
| 19,361.0     | 88.20      | 180.80                   | 12,472.0      | -8,619.8      | -136.8       | 2.23                | -0.32                | -2.21               | -9.7                   | -19.1                   |  |
| 19,456.0     | 89.60      | 179.60                   | 12,473.8      | -6,714.8      | -136.9       | 1.94                | 1.47                 | -1.26               | -8.1                   | -20.1                   |  |
| 19,551.0     | 90.00      | 179.90                   | 12,474.1      | -6,809.8      | -136.5       | 0.53                | 0.42                 | 0.32                | -8.0                   | -20.3                   |  |
| 19,646.0     | 91.30      | 180.40                   | 12,473.0      | -6,904.8      | -136.8       | 1.47                | 1.37                 | 0.53                | -9.3                   | -21.2                   |  |
| 19,740.0     | 89.60      | 178.70                   | 12,472.3      | -6,998.8      | -136.0       | 2.56                | -1.81                | -1.81               | -10.3                  | -21.1                   |  |
| 19,835.0     | 89.60      | 179.30                   | 12,473.0      | -7,093.8      | -134.4       | 0.63                | 0.00                 | 0.63                | -9.9                   | -20.1                   |  |
| 19,930.0     | 88.60      | 178.40                   | 12,474.5      | -7,188.7      | -132.5       | 1.42                | -1.05                | -0.95               | -8.6                   | -18.9                   |  |
| 20,025.0     | 89.50      | 178.70                   | 12,476.0      | -7,283.7      | -130.1       | 1.00                | 0.95                 | 0.32                | -7.3                   | -17.1                   |  |
| 20,120.0     | 91.70      | 180.00                   | 12,475.0      | -7,378.7      | -129.0       | 2.69                | 2.32                 | 1.37                | -8.5                   | -16.7                   |  |
| 20,215.0     | 88.80      | 178.60                   | 12,476.4      | -7,473.8      | -127.8       | 5.57                | -5.37                | -1.47               | -7.3                   | -16.2                   |  |
| 20,309.0     | 87.30      | 176.70                   | 12,481.4      | -7,567.4      | -124.0       | 2.15                | 0.74                 | -2.02               | -2.6                   | -13.0                   |  |
| 20,404.0     | 90.10      | 176.80                   | 12,483.6      | -7,662.2      | -118.6       | 2.85                | 2.85                 | 0.11                | -0.7                   | -8.3                    |  |
| 20,499.0     | 89.10      | 176.50                   | 12,484.3      | -7,757.1      | -113.0       | 1.10                | -1.05                | -0.32               | -0.3                   | -3.4                    |  |
| 20,594.0     | 89.20      | 177.40                   | 12,485.7      | -7,851.9      | -108.0       | 0.95                | 0.11                 | 0.95                | 0.9                    | 1.0                     |  |
| 20,689.0     | 92.80      | 179.40                   | 12,484.0      | -7,946.8      | -105.3       | 4.33                | 3.79                 | 2.11                | -1.0                   | 3.0                     |  |
| 20,784.0     | 93.00      | 179.40                   | 12,479.2      | -8,041.7      | -104.3       | 0.21                | 0.21                 | 0.00                | -6.1                   | 3.4                     |  |
| 20,879.0     | 89.90      | 179.90                   | 12,478.8      | -8,136.7      | -103.8       | 3.31                | -3.26                | 0.53                | -8.7                   | 3.3                     |  |
| 20,974.0     | 88.90      | 180.40                   | 12,477.8      | -8,231.7      | -104.0       | 1.18                | -1.05                | 0.53                | -8.0                   | 2.4                     |  |
| 21,069.0     | 92.70      | 180.50                   | 12,476.5      | -8,326.6      | -104.8       | 4.00                | 4.00                 | 0.11                | -9.5                   | 1.0                     |  |
| 21,164.0     | 91.70      | 180.20                   | 12,472.8      | -8,421.6      | -105.3       | 1.10                | -1.05                | -0.32               | -13.4                  | -0.3                    |  |
| 21,259.0     | 93.50      | 181.40                   | 12,468.5      | -8,516.4      | -106.7       | 2.28                | 1.89                 | 1.26                | -18.0                  | -2.2                    |  |
| 21,354.0     | 92.30      | 181.90                   | 12,463.7      | -8,611.3      | -109.4       | 1.37                | -1.26                | 0.53                | -23.0                  | -5.6                    |  |
| 21,449.0     | 91.10      | 180.90                   | 12,460.9      | -8,706.2      | -111.7       | 1.64                | -1.26                | -1.05               | -26.1                  | -8.6                    |  |
| 21,544.0     | 90.70      | 180.60                   | 12,459.4      | -8,801.2      | -113.0       | 0.53                | -0.42                | -0.32               | -27.8                  | -10.5                   |  |
| 21,639.0     | 88.80      | 180.00                   | 12,459.8      | -8,896.2      | -113.5       | 2.10                | -2.00                | -0.63               | -27.7                  | -11.7                   |  |
| 21,734.0     | 88.80      | 180.50                   | 12,461.8      | -8,991.2      | -113.9       | 0.53                | 0.00                 | 0.53                | -25.9                  | -12.7                   |  |



# Final PVA Report

|           |                             |                              |                      |
|-----------|-----------------------------|------------------------------|----------------------|
| Company:  | EOG Resources - Midland     | Local Co-ordinate Reference: | Well #702H           |
| Project:  | Lea County, NM (NAD 83 NME) | TVD Reference:               | KB = 25 @ 3543.0usft |
| Site:     | Caravan 28 State Com        | MD Reference:                | KB = 25 @ 3543.0usft |
| Well:     | #702H                       | North Reference:             | Grid                 |
| Wellbore: | OH                          | Survey Calculation Method:   | Minimum Curvature    |
| Design:   | OH                          | Database:                    | EDM 5000.14          |

| Survey                                |            |                          |               |               |               |                     |                      |                     |                        |                         |  |
|---------------------------------------|------------|--------------------------|---------------|---------------|---------------|---------------------|----------------------|---------------------|------------------------|-------------------------|--|
| MD<br>(usft)                          | Inc<br>(°) | Azi<br>(grid_north_azim) | 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) |  |
| 21,801.0                              | 89.20      | 179.30                   | 12,463.0      | -8,058.1      | -113.8        | 1.89                | 0.60                 | -1.79               | -24.9                  | -13.1                   |  |
| 21,896.0                              | 88.20      | 178.00                   | 12,465.1      | -8,153.1      | -111.5        | 1.73                | -1.05                | -1.37               | -23.0                  | -11.5                   |  |
| 21,992.0                              | 89.10      | 178.60                   | 12,467.4      | -8,249.0      | -108.7        | 1.13                | 0.94                 | 0.62                | -21.0                  | -9.3                    |  |
| 22,087.0                              | 89.10      | 178.60                   | 12,468.9      | -8,344.0      | -106.4        | 0.00                | 0.00                 | 0.00                | -19.8                  | -7.7                    |  |
| 22,182.0                              | 89.10      | 179.20                   | 12,470.4      | -8,439.0      | -104.5        | 0.63                | 0.00                 | 0.63                | -18.5                  | -6.5                    |  |
| 22,277.0                              | 88.90      | 178.90                   | 12,472.0      | -8,533.9      | -103.0        | 0.38                | -0.21                | -0.32               | -17.1                  | -5.6                    |  |
| 22,372.0                              | 89.90      | 179.40                   | 12,473.0      | -8,628.9      | -101.5        | 1.18                | 1.05                 | 0.53                | -16.4                  | -4.8                    |  |
| 22,467.0                              | 91.00      | 178.70                   | 12,472.3      | -8,723.9      | -100.0        | 1.37                | 1.16                 | -0.74               | -17.3                  | -3.9                    |  |
| 22,553.0                              | 92.10      | 179.30                   | 12,470.0      | -8,809.8      | -98.5         | 1.46                | 1.28                 | 0.70                | -19.9                  | -3.0                    |  |
| Final MWD Survey (MD=22553.0')        |            |                          |               |               |               |                     |                      |                     |                        |                         |  |
| 22,610.4                              | 92.10      | 179.30                   | 12,467.8      | -8,867.2      | -97.8         | 0.00                | 0.00                 | 0.00                | -22.1                  | -2.7                    |  |
| PBHL (Caravan 28 State Com #702H)     |            |                          |               |               |               |                     |                      |                     |                        |                         |  |
| 22,611.0                              | 92.10      | 179.30                   | 12,467.8      | -8,867.8      | -97.8         | 0.00                | 0.00                 | 0.00                | -22.2                  | -2.7                    |  |
| Final Projection to Bit (MD=22611.0') |            |                          |               |               |               |                     |                      |                     |                        |                         |  |

| Design Annotations          |                             |                   |                |                                                                            |
|-----------------------------|-----------------------------|-------------------|----------------|----------------------------------------------------------------------------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                | Comment                                                                    |
|                             |                             | +N-S<br>(usft)    | +E-W<br>(usft) |                                                                            |
| 12,088.1                    | 12,050.8                    | 478.2             | -192.0         | HL Crossing, MD:12088.1', TVD:12050.8', N/S:478.2', E/W:-192.0', INC:17.02 |
| 22,553.0                    | 12,470.0                    | -8,809.8          | -98.5          | Final MWD Survey (MD=22553.0')                                             |
| 22,611.0                    | 12,467.8                    | -8,867.8          | -97.8          | Final Projection to Bit (MD=22611.0')                                      |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



Lea County, NM (NAD 83 NME)

Caravan 28 State Com #702H

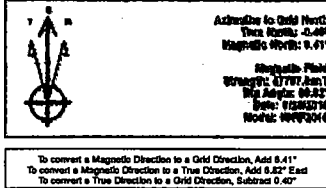
Plan #1

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: #702H

KB = 25 @ 3543.00ft 3518.0  
Northing 435235.00 Easting 774738.00 Latitude 32° 11' 39.435 N Longitude 103° 34' 43.729 W



SECTION DETAILS

| Sec | MD      | Inc   | Azi    | TVD     | +N-S    | +E-W   | Dlog  | TFace  | VSect  | Target                             |
|-----|---------|-------|--------|---------|---------|--------|-------|--------|--------|------------------------------------|
| 1   | 0.0     | 0.00  | 0.00   | 0.0     | 0.0     | 0.0    | 0.00  | 0.00   | 0.0    |                                    |
| 2   | 3205.0  | 0.00  | 0.00   | 3205.0  | 0.0     | 0.0    | 0.00  | 0.00   | 0.0    |                                    |
| 3   | 3805.2  | 8.00  | 342.45 | 3803.9  | 28.6    | -8.4   | 2.00  | 342.45 | -28.5  |                                    |
| 4   | 7181.2  | 8.00  | 342.45 | 7145.1  | 501.4   | -158.8 | 0.00  | 0.00   | -499.8 |                                    |
| 5   | 7581.4  | 0.00  | 0.00   | 7544.0  | 528.0   | -187.0 | 2.00  | 180.00 | -528.4 | KOP (Caravan 28 State Com #702H)   |
| 6   | 12009.0 | 0.00  | 0.00   | 11972.5 | 528.0   | -187.0 | 0.00  | 0.00   | -528.4 |                                    |
| 7   | 12758.4 | 89.58 | 179.80 | 12450.0 | 54.0    | -183.7 | 12.00 | 179.80 | -52.5  |                                    |
| 8   | 14809.3 | 89.58 | 179.80 | 12485.0 | -1988.7 | -149.5 | 0.00  | 0.00   | 2000.0 | TGT 1 (Caravan 28 State Com #702H) |
| 9   | 14816.0 | 89.71 | 179.60 | 12485.0 | -2005.4 | -149.5 | 2.00  | 0.00   | 2006.7 |                                    |
| 10  | 16809.8 | 89.71 | 179.60 | 12475.0 | -3998.9 | -135.7 | 0.00  | 0.00   | 4000.0 | TGT 2 (Caravan 28 State Com #702H) |
| 11  | 16816.7 | 89.88 | 179.60 | 12475.0 | -4006.1 | -135.8 | 2.00  | 0.00   | 4007.2 |                                    |
| 12  | 18809.8 | 89.88 | 179.60 | 12480.0 | -5999.1 | -121.8 | 0.00  | 0.00   | 6000.0 | TGT 3 (Caravan 28 State Com #702H) |
| 13  | 18810.1 | 89.85 | 179.60 | 12480.0 | -5999.4 | -121.8 | 2.00  | 179.88 | 6000.3 |                                    |
| 14  | 22678.8 | 89.85 | 179.60 | 12490.0 | -9868.0 | -95.1  | 0.00  | 0.00   | 9868.4 | PBHL (Caravan 28 State Com #702H)  |

WELLBORE TARGET DETAILS (MAP COORDINATES)

| Name                               | TVD     | +N-S    | +E-W   | Northing  | Easting   |
|------------------------------------|---------|---------|--------|-----------|-----------|
| KOP (Caravan 28 State Com #702H)   | 11972.5 | 528.0   | -187.0 | 435783.00 | 774571.00 |
| FTP (Caravan 28 State Com #702H)   | 12450.0 | 478.0   | -187.0 | 435713.00 | 774571.00 |
| TGT 1 (Caravan 28 State Com #702H) | 12480.0 | -1988.7 | -149.5 | 435235.00 | 774585.00 |
| TGT 2 (Caravan 28 State Com #702H) | 12475.0 | -3998.9 | -135.7 | 431228.19 | 774602.32 |
| TGT 3 (Caravan 28 State Com #702H) | 12480.0 | -5999.1 | -121.8 | 429235.80 | 774616.16 |
| PBHL (Caravan 28 State Com #702H)  | 12490.0 | -9868.0 | -95.1  | 425347.01 | 774842.93 |

