



Lea County, NM (NAD 83 NME)

Ruby 2 State Com #707H

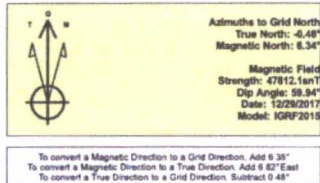
Plan #0.1

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: #707H

KB = 25' @ 3317.0usft  
Northing 393552.00 Easting 819254.00 32° 4' 43.587 N 103° 28' 9.751 W



#### SECTION DETAILS

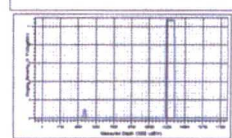
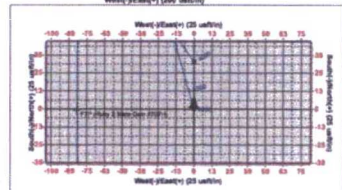
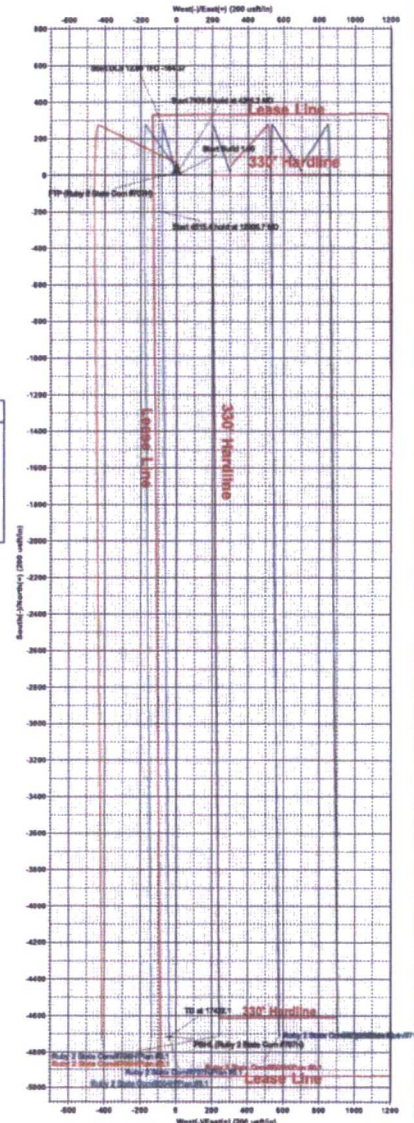
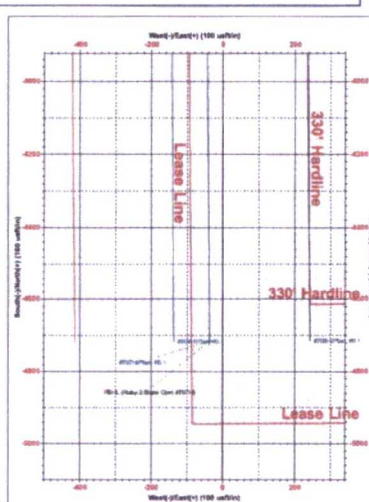
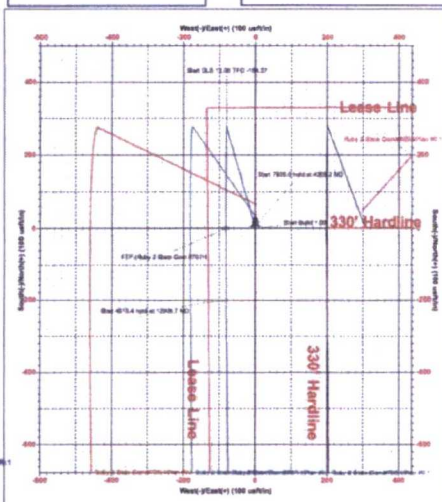
| Sec | MD      | Inc   | Azi    | TVD     | +N-S    | +E-W  | Dleg  | TFace   | VSec   | Target                        |
|-----|---------|-------|--------|---------|---------|-------|-------|---------|--------|-------------------------------|
| 1   | 0.0     | 0.00  | 0.00   | 0.0     | 0.0     | 0.0   | 0.00  | 0.00    | 0.0    |                               |
| 2   | 4000.0  | 0.00  | 0.00   | 4000.0  | 0.0     | 0.0   | 0.00  | 0.00    | 0.0    |                               |
| 3   | 4205.2  | 2.05  | 343.83 | 4205.1  | 3.5     | -1.0  | 1.00  | 343.83  | -3.5   |                               |
| 4   | 12140.2 | 2.05  | 343.83 | 12135.1 | 276.4   | -80.2 | 0.00  | 0.00    | -275.8 |                               |
| 5   | 12906.7 | 90.00 | 179.45 | 12629.0 | -200.8  | -80.3 | 12.00 | -164.37 | 201.4  |                               |
| 6   | 17422.1 | 90.00 | 179.45 | 12629.0 | -4716.0 | -37.0 | 0.00  | 0.00    | 4716.1 | PBHL (Ruby 2 State Com #707H) |

#### CASING DETAILS

No casing data is available

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

| Name                          | TVD     | +N-S    | +E-W  | Northing  | Easting   |
|-------------------------------|---------|---------|-------|-----------|-----------|
| PBHL (Ruby 2 State Com #707H) | 12629.0 | -4716.0 | -37.0 | 393552.00 | 819217.00 |
| FTP (Ruby 2 State Com #707H)  | 12629.0 | -1.0    | 42.0  | 393551.00 | 819172.00 |



100' 200' 300' 400' 500' 600' 700' 800' 900' 1000' 1100' 1200'



## **EOG Resources - Midland**

**Lea County, NM (NAD 83 NME)**

**Ruby 2 State Com**

**#707H**

**OH**

**Plan: Plan #0.1**

## **Standard Planning Report**

**02 January, 2018**





## Planning Report

**Database:** EDM 5000.14  
**Company:** EOG Resources - Midland  
**Project:** Lea County, NM (NAD 83 NME)  
**Site:** Ruby 2 State Com  
**Well:** #707H  
**Wellbore:** OH  
**Design:** Plan #0.1

**Local Co-ordinate Reference:** Well #707H  
**TVD Reference:** KB = 25' @ 3317.0usft  
**MD Reference:** KB = 25' @ 3317.0usft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

|                    |                             |                      |                |
|--------------------|-----------------------------|----------------------|----------------|
| <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>                  | Ruby 2 State Com |                               |                                     |
| <b>Site Position:</b>        | <b>Northing:</b> | 393,589.99 usft               | <b>Latitude:</b> 32° 4' 47.315 N    |
| <b>From:</b> Map             | <b>Easting:</b>  | 775,148.00 usft               | <b>Longitude:</b> 103° 34' 42.355 W |
| <b>Position Uncertainty:</b> | 0.0 usft         | <b>Slot Radius:</b> 13-3/16 " | <b>Grid Convergence:</b> 0.40 °     |

|                             |              |                            |                                   |
|-----------------------------|--------------|----------------------------|-----------------------------------|
| <b>Well</b>                 | #707H        |                            |                                   |
| <b>Well Position</b>        | <b>+N/-S</b> | -38.0 usft                 | <b>Northing:</b> 393,552.00 usft  |
|                             | <b>+E/-W</b> | 44,106.0 usft              | <b>Easting:</b> 819,254.00 usft   |
| <b>Position Uncertainty</b> | 0.0 usft     | <b>Wellhead Elevation:</b> | <b>Ground Level:</b> 3,292.0 usft |

|                  |                   |                    |                    |                  |                       |
|------------------|-------------------|--------------------|--------------------|------------------|-----------------------|
| <b>Wellbore</b>  | OH                |                    |                    |                  |                       |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination</b> | <b>Dip Angle</b> | <b>Field Strength</b> |
|                  | IGRF2015          | 12/29/2017         | (°) 6.82           | (°) 59.94        | (nT) 47,812.05186651  |

|                          |                         |              |                      |                  |
|--------------------------|-------------------------|--------------|----------------------|------------------|
| <b>Design</b>            | Plan #0.1               |              |                      |                  |
| <b>Audit Notes:</b>      |                         |              |                      |                  |
| <b>Version:</b>          | <b>Phase:</b>           | PLAN         | <b>Tie On Depth:</b> | 0.0              |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b> | <b>+E/-W</b>         | <b>Direction</b> |
|                          | (usft)                  | (usft)       | (usft)               | (°)              |
|                          | 0.0                     | 0.0          | 0.0                  | 180.45           |

|                                 |                      |                          |                  |                |
|---------------------------------|----------------------|--------------------------|------------------|----------------|
| <b>Plan Survey Tool Program</b> | <b>Date</b> 1/2/2018 |                          |                  |                |
| <b>Depth From</b>               | <b>Depth To</b>      | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Remarks</b> |
| (usft)                          | (usft)               |                          |                  |                |
| 1                               | 0.0                  | 17,422.1 Plan #0.1 (OH)  | MWD              |                |
|                                 |                      |                          | MWD - Standard   |                |

|                      |                    |                |                 |              |              |               |              |             |            |                      |
|----------------------|--------------------|----------------|-----------------|--------------|--------------|---------------|--------------|-------------|------------|----------------------|
| <b>Plan Sections</b> |                    |                |                 |              |              |               |              |             |            |                      |
| <b>Measured</b>      | <b>Inclination</b> | <b>Azimuth</b> | <b>Vertical</b> | <b>+N/-S</b> | <b>+E/-W</b> | <b>Dogleg</b> | <b>Build</b> | <b>Turn</b> | <b>TFO</b> | <b>Target</b>        |
| <b>Depth</b>         | (°)                | (°)            | <b>Depth</b>    | (usft)       | (usft)       | <b>Rate</b>   | <b>Rate</b>  | <b>Rate</b> | (°)        |                      |
| (usft)               |                    |                | (usft)          |              |              | (°/100usft)   | (°/100usft)  | (°/100usft) |            |                      |
| 0.0                  | 0.00               | 0.00           | 0.0             | 0.0          | 0.0          | 0.00          | 0.00         | 0.00        | 0.00       |                      |
| 4,000.0              | 0.00               | 0.00           | 4,000.0         | 0.0          | 0.0          | 0.00          | 0.00         | 0.00        | 0.00       |                      |
| 4,205.2              | 2.05               | 343.83         | 4,205.1         | 3.5          | -1.0         | 1.00          | 1.00         | 0.00        | 343.83     |                      |
| 12,140.2             | 2.05               | 343.83         | 12,135.1        | 276.4        | -80.2        | 0.00          | 0.00         | 0.00        | 0.00       |                      |
| 12,906.7             | 90.00              | 179.45         | 12,629.0        | -200.8       | -80.3        | 12.00         | 11.47        | -21.45      | -164.37    |                      |
| 17,422.1             | 90.00              | 179.45         | 12,629.0        | -4,716.0     | -37.0        | 0.00          | 0.00         | 0.00        | 0.00       | PBHL (Ruby 2 State C |



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North Reference: Grid  
Survey Calculation Method: Minimum Curvature

## Planned Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 0.0                   | 0.00            | 0.00        | 0.0                   | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 100.0                 | 0.00            | 0.00        | 100.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 200.0                 | 0.00            | 0.00        | 200.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 300.0                 | 0.00            | 0.00        | 300.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 400.0                 | 0.00            | 0.00        | 400.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 500.0                 | 0.00            | 0.00        | 500.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 600.0                 | 0.00            | 0.00        | 600.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 700.0                 | 0.00            | 0.00        | 700.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 800.0                 | 0.00            | 0.00        | 800.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 900.0                 | 0.00            | 0.00        | 900.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 1,000.0               | 0.00            | 0.00        | 1,000.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 1,100.0               | 0.00            | 0.00        | 1,100.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 1,200.0               | 0.00            | 0.00        | 1,200.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 1,300.0               | 0.00            | 0.00        | 1,300.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 1,400.0               | 0.00            | 0.00        | 1,400.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 1,500.0               | 0.00            | 0.00        | 1,500.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 1,600.0               | 0.00            | 0.00        | 1,600.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 1,700.0               | 0.00            | 0.00        | 1,700.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 1,800.0               | 0.00            | 0.00        | 1,800.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 1,900.0               | 0.00            | 0.00        | 1,900.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 2,000.0               | 0.00            | 0.00        | 2,000.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 2,100.0               | 0.00            | 0.00        | 2,100.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 2,200.0               | 0.00            | 0.00        | 2,200.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 2,300.0               | 0.00            | 0.00        | 2,300.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 2,400.0               | 0.00            | 0.00        | 2,400.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 2,500.0               | 0.00            | 0.00        | 2,500.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 2,600.0               | 0.00            | 0.00        | 2,600.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 2,700.0               | 0.00            | 0.00        | 2,700.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 2,800.0               | 0.00            | 0.00        | 2,800.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 2,900.0               | 0.00            | 0.00        | 2,900.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 3,000.0               | 0.00            | 0.00        | 3,000.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 3,100.0               | 0.00            | 0.00        | 3,100.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 3,200.0               | 0.00            | 0.00        | 3,200.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 3,300.0               | 0.00            | 0.00        | 3,300.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 3,400.0               | 0.00            | 0.00        | 3,400.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 3,500.0               | 0.00            | 0.00        | 3,500.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 3,600.0               | 0.00            | 0.00        | 3,600.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 3,700.0               | 0.00            | 0.00        | 3,700.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 3,800.0               | 0.00            | 0.00        | 3,800.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 3,900.0               | 0.00            | 0.00        | 3,900.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 4,000.0               | 0.00            | 0.00        | 4,000.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 4,100.0               | 1.00            | 343.83      | 4,100.0               | 0.8          | -0.2         | -0.8                    | 1.00                    | 1.00                   | 0.00                  |
| 4,205.2               | 2.05            | 343.83      | 4,205.1               | 3.5          | -1.0         | -3.5                    | 1.00                    | 1.00                   | 0.00                  |
| 4,300.0               | 2.05            | 343.83      | 4,299.9               | 6.8          | -2.0         | -6.8                    | 0.00                    | 0.00                   | 0.00                  |
| 4,400.0               | 2.05            | 343.83      | 4,399.8               | 10.2         | -3.0         | -10.2                   | 0.00                    | 0.00                   | 0.00                  |
| 4,500.0               | 2.05            | 343.83      | 4,499.8               | 13.7         | -4.0         | -13.6                   | 0.00                    | 0.00                   | 0.00                  |
| 4,600.0               | 2.05            | 343.83      | 4,599.7               | 17.1         | -5.0         | -17.1                   | 0.00                    | 0.00                   | 0.00                  |
| 4,700.0               | 2.05            | 343.83      | 4,699.6               | 20.5         | -6.0         | -20.5                   | 0.00                    | 0.00                   | 0.00                  |
| 4,800.0               | 2.05            | 343.83      | 4,799.6               | 24.0         | -7.0         | -23.9                   | 0.00                    | 0.00                   | 0.00                  |
| 4,900.0               | 2.05            | 343.83      | 4,899.5               | 27.4         | -8.0         | -27.4                   | 0.00                    | 0.00                   | 0.00                  |
| 5,000.0               | 2.05            | 343.83      | 4,999.4               | 30.9         | -8.9         | -30.8                   | 0.00                    | 0.00                   | 0.00                  |
| 5,100.0               | 2.05            | 343.83      | 5,099.4               | 34.3         | -9.9         | -34.2                   | 0.00                    | 0.00                   | 0.00                  |
| 5,200.0               | 2.05            | 343.83      | 5,199.3               | 37.7         | -10.9        | -37.7                   | 0.00                    | 0.00                   | 0.00                  |
| 5,300.0               | 2.05            | 343.83      | 5,299.3               | 41.2         | -11.9        | -41.1                   | 0.00                    | 0.00                   | 0.00                  |





## Planning Report

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| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 5,400.0               | 2.05            | 343.83      | 5,399.2               | 44.6         | -12.9        | -44.5                   | 0.00                    | 0.00                   | 0.00                  |
| 5,500.0               | 2.05            | 343.83      | 5,499.1               | 48.1         | -13.9        | -47.9                   | 0.00                    | 0.00                   | 0.00                  |
| 5,600.0               | 2.05            | 343.83      | 5,599.1               | 51.5         | -14.9        | -51.4                   | 0.00                    | 0.00                   | 0.00                  |
| 5,700.0               | 2.05            | 343.83      | 5,699.0               | 54.9         | -15.9        | -54.8                   | 0.00                    | 0.00                   | 0.00                  |
| 5,800.0               | 2.05            | 343.83      | 5,798.9               | 58.4         | -16.9        | -58.2                   | 0.00                    | 0.00                   | 0.00                  |
| 5,900.0               | 2.05            | 343.83      | 5,898.9               | 61.8         | -17.9        | -61.7                   | 0.00                    | 0.00                   | 0.00                  |
| 6,000.0               | 2.05            | 343.83      | 5,998.8               | 65.2         | -18.9        | -65.1                   | 0.00                    | 0.00                   | 0.00                  |
| 6,100.0               | 2.05            | 343.83      | 6,098.7               | 68.7         | -19.9        | -68.5                   | 0.00                    | 0.00                   | 0.00                  |
| 6,200.0               | 2.05            | 343.83      | 6,198.7               | 72.1         | -20.9        | -72.0                   | 0.00                    | 0.00                   | 0.00                  |
| 6,300.0               | 2.05            | 343.83      | 6,298.6               | 75.6         | -21.9        | -75.4                   | 0.00                    | 0.00                   | 0.00                  |
| 6,400.0               | 2.05            | 343.83      | 6,398.5               | 79.0         | -22.9        | -78.8                   | 0.00                    | 0.00                   | 0.00                  |
| 6,500.0               | 2.05            | 343.83      | 6,498.5               | 82.4         | -23.9        | -82.3                   | 0.00                    | 0.00                   | 0.00                  |
| 6,600.0               | 2.05            | 343.83      | 6,598.4               | 85.9         | -24.9        | -85.7                   | 0.00                    | 0.00                   | 0.00                  |
| 6,700.0               | 2.05            | 343.83      | 6,698.4               | 89.3         | -25.9        | -89.1                   | 0.00                    | 0.00                   | 0.00                  |
| 6,800.0               | 2.05            | 343.83      | 6,798.3               | 92.8         | -26.9        | -92.5                   | 0.00                    | 0.00                   | 0.00                  |
| 6,900.0               | 2.05            | 343.83      | 6,898.2               | 96.2         | -27.9        | -96.0                   | 0.00                    | 0.00                   | 0.00                  |
| 7,000.0               | 2.05            | 343.83      | 6,998.2               | 99.6         | -28.9        | -99.4                   | 0.00                    | 0.00                   | 0.00                  |
| 7,100.0               | 2.05            | 343.83      | 7,098.1               | 103.1        | -29.9        | -102.8                  | 0.00                    | 0.00                   | 0.00                  |
| 7,200.0               | 2.05            | 343.83      | 7,198.0               | 106.5        | -30.9        | -106.3                  | 0.00                    | 0.00                   | 0.00                  |
| 7,300.0               | 2.05            | 343.83      | 7,298.0               | 110.0        | -31.9        | -109.7                  | 0.00                    | 0.00                   | 0.00                  |
| 7,400.0               | 2.05            | 343.83      | 7,397.9               | 113.4        | -32.9        | -113.1                  | 0.00                    | 0.00                   | 0.00                  |
| 7,500.0               | 2.05            | 343.83      | 7,497.8               | 116.8        | -33.9        | -116.6                  | 0.00                    | 0.00                   | 0.00                  |
| 7,600.0               | 2.05            | 343.83      | 7,597.8               | 120.3        | -34.9        | -120.0                  | 0.00                    | 0.00                   | 0.00                  |
| 7,700.0               | 2.05            | 343.83      | 7,697.7               | 123.7        | -35.9        | -123.4                  | 0.00                    | 0.00                   | 0.00                  |
| 7,800.0               | 2.05            | 343.83      | 7,797.7               | 127.1        | -36.9        | -126.9                  | 0.00                    | 0.00                   | 0.00                  |
| 7,900.0               | 2.05            | 343.83      | 7,897.6               | 130.6        | -37.9        | -130.3                  | 0.00                    | 0.00                   | 0.00                  |
| 8,000.0               | 2.05            | 343.83      | 7,997.5               | 134.0        | -38.9        | -133.7                  | 0.00                    | 0.00                   | 0.00                  |
| 8,100.0               | 2.05            | 343.83      | 8,097.5               | 137.5        | -39.9        | -137.1                  | 0.00                    | 0.00                   | 0.00                  |
| 8,200.0               | 2.05            | 343.83      | 8,197.4               | 140.9        | -40.9        | -140.6                  | 0.00                    | 0.00                   | 0.00                  |
| 8,300.0               | 2.05            | 343.83      | 8,297.3               | 144.3        | -41.9        | -144.0                  | 0.00                    | 0.00                   | 0.00                  |
| 8,400.0               | 2.05            | 343.83      | 8,397.3               | 147.8        | -42.9        | -147.4                  | 0.00                    | 0.00                   | 0.00                  |
| 8,500.0               | 2.05            | 343.83      | 8,497.2               | 151.2        | -43.9        | -150.9                  | 0.00                    | 0.00                   | 0.00                  |
| 8,600.0               | 2.05            | 343.83      | 8,597.1               | 154.7        | -44.9        | -154.3                  | 0.00                    | 0.00                   | 0.00                  |
| 8,700.0               | 2.05            | 343.83      | 8,697.1               | 158.1        | -45.8        | -157.7                  | 0.00                    | 0.00                   | 0.00                  |
| 8,800.0               | 2.05            | 343.83      | 8,797.0               | 161.5        | -46.8        | -161.2                  | 0.00                    | 0.00                   | 0.00                  |
| 8,900.0               | 2.05            | 343.83      | 8,896.9               | 165.0        | -47.8        | -164.6                  | 0.00                    | 0.00                   | 0.00                  |
| 9,000.0               | 2.05            | 343.83      | 8,996.9               | 168.4        | -48.8        | -168.0                  | 0.00                    | 0.00                   | 0.00                  |
| 9,100.0               | 2.05            | 343.83      | 9,096.8               | 171.9        | -49.8        | -171.5                  | 0.00                    | 0.00                   | 0.00                  |
| 9,200.0               | 2.05            | 343.83      | 9,196.8               | 175.3        | -50.8        | -174.9                  | 0.00                    | 0.00                   | 0.00                  |
| 9,300.0               | 2.05            | 343.83      | 9,296.7               | 178.7        | -51.8        | -178.3                  | 0.00                    | 0.00                   | 0.00                  |
| 9,400.0               | 2.05            | 343.83      | 9,396.6               | 182.2        | -52.8        | -181.7                  | 0.00                    | 0.00                   | 0.00                  |
| 9,500.0               | 2.05            | 343.83      | 9,496.6               | 185.6        | -53.8        | -185.2                  | 0.00                    | 0.00                   | 0.00                  |
| 9,600.0               | 2.05            | 343.83      | 9,596.5               | 189.0        | -54.8        | -188.6                  | 0.00                    | 0.00                   | 0.00                  |
| 9,700.0               | 2.05            | 343.83      | 9,696.4               | 192.5        | -55.8        | -192.0                  | 0.00                    | 0.00                   | 0.00                  |
| 9,800.0               | 2.05            | 343.83      | 9,796.4               | 195.9        | -56.8        | -195.5                  | 0.00                    | 0.00                   | 0.00                  |
| 9,900.0               | 2.05            | 343.83      | 9,896.3               | 199.4        | -57.8        | -198.9                  | 0.00                    | 0.00                   | 0.00                  |
| 10,000.0              | 2.05            | 343.83      | 9,996.2               | 202.8        | -58.8        | -202.3                  | 0.00                    | 0.00                   | 0.00                  |
| 10,100.0              | 2.05            | 343.83      | 10,096.2              | 206.2        | -59.8        | -205.8                  | 0.00                    | 0.00                   | 0.00                  |
| 10,200.0              | 2.05            | 343.83      | 10,196.1              | 209.7        | -60.8        | -209.2                  | 0.00                    | 0.00                   | 0.00                  |
| 10,300.0              | 2.05            | 343.83      | 10,296.0              | 213.1        | -61.8        | -212.6                  | 0.00                    | 0.00                   | 0.00                  |
| 10,400.0              | 2.05            | 343.83      | 10,396.0              | 216.6        | -62.8        | -216.1                  | 0.00                    | 0.00                   | 0.00                  |
| 10,500.0              | 2.05            | 343.83      | 10,495.9              | 220.0        | -63.8        | -219.5                  | 0.00                    | 0.00                   | 0.00                  |
| 10,600.0              | 2.05            | 343.83      | 10,595.9              | 223.4        | -64.8        | -222.9                  | 0.00                    | 0.00                   | 0.00                  |
| 10,700.0              | 2.05            | 343.83      | 10,695.8              | 226.9        | -65.8        | -226.3                  | 0.00                    | 0.00                   | 0.00                  |



# Planning Report

Database: EDM 5000.14  
Company: EOG Resources - Midland  
Project: Lea County, NM (NAD 83 NME)  
Site: Ruby 2 State Com  
Well: #707H  
Wellbore: OH  
Design: Plan #0.1

Local Co-ordinate Reference: Well #707H  
TVD Reference: KB = 25' @ 3317.0usft  
MD Reference: KB = 25' @ 3317.0usft  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature

## Planned Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 10,800.0              | 2.05            | 343.83      | 10,795.7              | 230.3        | -66.8        | -229.8                  | 0.00                    | 0.00                   | 0.00                  |
| 10,900.0              | 2.05            | 343.83      | 10,895.7              | 233.7        | -67.8        | -233.2                  | 0.00                    | 0.00                   | 0.00                  |
| 11,000.0              | 2.05            | 343.83      | 10,995.6              | 237.2        | -68.8        | -236.6                  | 0.00                    | 0.00                   | 0.00                  |
| 11,100.0              | 2.05            | 343.83      | 11,095.5              | 240.6        | -69.8        | -240.1                  | 0.00                    | 0.00                   | 0.00                  |
| 11,200.0              | 2.05            | 343.83      | 11,195.5              | 244.1        | -70.8        | -243.5                  | 0.00                    | 0.00                   | 0.00                  |
| 11,300.0              | 2.05            | 343.83      | 11,295.4              | 247.5        | -71.8        | -246.9                  | 0.00                    | 0.00                   | 0.00                  |
| 11,400.0              | 2.05            | 343.83      | 11,395.3              | 250.9        | -72.8        | -250.4                  | 0.00                    | 0.00                   | 0.00                  |
| 11,500.0              | 2.05            | 343.83      | 11,495.3              | 254.4        | -73.8        | -253.8                  | 0.00                    | 0.00                   | 0.00                  |
| 11,600.0              | 2.05            | 343.83      | 11,595.2              | 257.8        | -74.8        | -257.2                  | 0.00                    | 0.00                   | 0.00                  |
| 11,700.0              | 2.05            | 343.83      | 11,695.2              | 261.3        | -75.8        | -260.7                  | 0.00                    | 0.00                   | 0.00                  |
| 11,800.0              | 2.05            | 343.83      | 11,795.1              | 264.7        | -76.8        | -264.1                  | 0.00                    | 0.00                   | 0.00                  |
| 11,900.0              | 2.05            | 343.83      | 11,895.0              | 268.1        | -77.8        | -267.5                  | 0.00                    | 0.00                   | 0.00                  |
| 12,000.0              | 2.05            | 343.83      | 11,995.0              | 271.6        | -78.8        | -270.9                  | 0.00                    | 0.00                   | 0.00                  |
| 12,100.0              | 2.05            | 343.83      | 12,094.9              | 275.0        | -79.8        | -274.4                  | 0.00                    | 0.00                   | 0.00                  |
| 12,140.2              | 2.05            | 343.83      | 12,135.1              | 276.4        | -80.2        | -275.8                  | 0.00                    | 0.00                   | 0.00                  |
| 12,150.0              | 0.98            | 324.91      | 12,144.9              | 276.6        | -80.3        | -276.0                  | 12.00                   | -11.02                 | -193.51               |
| 12,175.0              | 2.27            | 193.57      | 12,169.9              | 276.3        | -80.5        | -275.7                  | 12.00                   | 5.16                   | -525.38               |
| 12,200.0              | 5.23            | 185.51      | 12,194.8              | 274.7        | -80.7        | -274.1                  | 12.00                   | 11.84                  | -32.25                |
| 12,225.0              | 8.22            | 183.28      | 12,219.6              | 271.8        | -80.9        | -271.2                  | 12.00                   | 11.96                  | -8.89                 |
| 12,250.0              | 11.21           | 182.24      | 12,244.3              | 267.6        | -81.1        | -266.9                  | 12.00                   | 11.98                  | -4.17                 |
| 12,275.0              | 14.21           | 181.63      | 12,268.7              | 262.1        | -81.3        | -261.4                  | 12.00                   | 11.99                  | -2.43                 |
| 12,300.0              | 17.21           | 181.24      | 12,292.7              | 255.3        | -81.5        | -254.7                  | 12.00                   | 11.99                  | -1.59                 |
| 12,325.0              | 20.20           | 180.95      | 12,316.4              | 247.3        | -81.6        | -246.7                  | 12.00                   | 11.99                  | -1.13                 |
| 12,350.0              | 23.20           | 180.74      | 12,339.6              | 238.1        | -81.8        | -237.4                  | 12.00                   | 12.00                  | -0.85                 |
| 12,375.0              | 26.20           | 180.57      | 12,362.3              | 227.6        | -81.9        | -227.0                  | 12.00                   | 12.00                  | -0.67                 |
| 12,400.0              | 29.20           | 180.44      | 12,384.5              | 216.0        | -82.0        | -215.3                  | 12.00                   | 12.00                  | -0.54                 |
| 12,425.0              | 32.20           | 180.33      | 12,406.0              | 203.2        | -82.1        | -202.6                  | 12.00                   | 12.00                  | -0.45                 |
| 12,450.0              | 35.20           | 180.23      | 12,426.7              | 189.4        | -82.1        | -188.7                  | 12.00                   | 12.00                  | -0.38                 |
| 12,475.0              | 38.20           | 180.15      | 12,446.8              | 174.4        | -82.2        | -173.8                  | 12.00                   | 12.00                  | -0.32                 |
| 12,500.0              | 41.20           | 180.08      | 12,466.0              | 158.5        | -82.2        | -157.8                  | 12.00                   | 12.00                  | -0.28                 |
| 12,525.0              | 44.20           | 180.02      | 12,484.4              | 141.5        | -82.2        | -140.9                  | 12.00                   | 12.00                  | -0.25                 |
| 12,550.0              | 47.20           | 179.96      | 12,501.9              | 123.6        | -82.2        | -123.0                  | 12.00                   | 12.00                  | -0.23                 |
| 12,575.0              | 50.20           | 179.91      | 12,518.4              | 104.8        | -82.2        | -104.2                  | 12.00                   | 12.00                  | -0.21                 |
| 12,600.0              | 53.20           | 179.86      | 12,533.8              | 85.2         | -82.2        | -84.6                   | 12.00                   | 12.00                  | -0.19                 |
| 12,625.0              | 56.20           | 179.82      | 12,548.3              | 64.8         | -82.1        | -64.2                   | 12.00                   | 12.00                  | -0.17                 |
| 12,650.0              | 59.20           | 179.78      | 12,561.6              | 43.7         | -82.0        | -43.0                   | 12.00                   | 12.00                  | -0.16                 |
| 12,675.0              | 62.20           | 179.74      | 12,573.9              | 21.9         | -82.0        | -21.2                   | 12.00                   | 12.00                  | -0.15                 |
| 12,700.0              | 65.20           | 179.71      | 12,585.0              | -0.5         | -81.8        | 1.2                     | 12.00                   | 12.00                  | -0.14                 |
| 12,725.0              | 68.20           | 179.67      | 12,594.8              | -23.5        | -81.7        | 24.1                    | 12.00                   | 12.00                  | -0.14                 |
| 12,750.0              | 71.20           | 179.64      | 12,603.5              | -46.9        | -81.6        | 47.6                    | 12.00                   | 12.00                  | -0.13                 |
| 12,775.0              | 74.20           | 179.61      | 12,611.0              | -70.8        | -81.4        | 71.4                    | 12.00                   | 12.00                  | -0.13                 |
| 12,800.0              | 77.20           | 179.58      | 12,617.1              | -95.0        | -81.2        | 95.6                    | 12.00                   | 12.00                  | -0.12                 |
| 12,825.0              | 80.20           | 179.55      | 12,622.0              | -119.5       | -81.1        | 120.1                   | 12.00                   | 12.00                  | -0.12                 |
| 12,850.0              | 83.20           | 179.52      | 12,625.6              | -144.3       | -80.9        | 144.9                   | 12.00                   | 12.00                  | -0.12                 |
| 12,875.0              | 86.20           | 179.49      | 12,627.9              | -169.1       | -80.6        | 169.8                   | 12.00                   | 12.00                  | -0.12                 |
| 12,900.0              | 89.20           | 179.46      | 12,629.0              | -194.1       | -80.4        | 194.7                   | 12.00                   | 12.00                  | -0.12                 |
| 12,906.7              | 90.00           | 179.45      | 12,629.0              | -200.8       | -80.3        | 201.4                   | 12.00                   | 12.00                  | -0.12                 |
| 13,000.0              | 90.00           | 179.45      | 12,629.0              | -294.1       | -79.4        | 294.7                   | 0.00                    | 0.00                   | 0.00                  |
| 13,100.0              | 90.00           | 179.45      | 12,629.0              | -394.1       | -78.5        | 394.7                   | 0.00                    | 0.00                   | 0.00                  |
| 13,200.0              | 90.00           | 179.45      | 12,629.0              | -494.1       | -77.5        | 494.7                   | 0.00                    | 0.00                   | 0.00                  |
| 13,300.0              | 90.00           | 179.45      | 12,629.0              | -594.1       | -76.6        | 594.7                   | 0.00                    | 0.00                   | 0.00                  |
| 13,400.0              | 90.00           | 179.45      | 12,629.0              | -694.1       | -75.6        | 694.7                   | 0.00                    | 0.00                   | 0.00                  |
| 13,500.0              | 90.00           | 179.45      | 12,629.0              | -794.1       | -74.6        | 794.6                   | 0.00                    | 0.00                   | 0.00                  |
| 13,600.0              | 90.00           | 179.45      | 12,629.0              | -894.1       | -73.7        | 894.6                   | 0.00                    | 0.00                   | 0.00                  |





## Planning Report

Database: EDM 5000.14  
 Company: EOG Resources - Midland  
 Project: Lea County, NM (NAD 83 NME)  
 Site: Ruby 2 State Com  
 Well: #707H  
 Wellbore: OH  
 Design: Plan #0.1

Local Co-ordinate Reference: Well #707H  
 TVD Reference: KB = 25' @ 3317.0usft  
 MD Reference: KB = 25' @ 3317.0usft  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

### Planned Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 13,700.0              | 90.00           | 179.45      | 12,629.0              | -994.1       | -72.7        | 994.6                   | 0.00                    | 0.00                   | 0.00                  |
| 13,800.0              | 90.00           | 179.45      | 12,629.0              | -1,094.1     | -71.8        | 1,094.6                 | 0.00                    | 0.00                   | 0.00                  |
| 13,900.0              | 90.00           | 179.45      | 12,629.0              | -1,194.1     | -70.8        | 1,194.6                 | 0.00                    | 0.00                   | 0.00                  |
| 14,000.0              | 90.00           | 179.45      | 12,629.0              | -1,294.1     | -69.8        | 1,294.6                 | 0.00                    | 0.00                   | 0.00                  |
| 14,100.0              | 90.00           | 179.45      | 12,629.0              | -1,394.1     | -68.9        | 1,394.6                 | 0.00                    | 0.00                   | 0.00                  |
| 14,200.0              | 90.00           | 179.45      | 12,629.0              | -1,494.1     | -67.9        | 1,494.5                 | 0.00                    | 0.00                   | 0.00                  |
| 14,300.0              | 90.00           | 179.45      | 12,629.0              | -1,594.1     | -67.0        | 1,594.5                 | 0.00                    | 0.00                   | 0.00                  |
| 14,400.0              | 90.00           | 179.45      | 12,629.0              | -1,694.0     | -66.0        | 1,694.5                 | 0.00                    | 0.00                   | 0.00                  |
| 14,500.0              | 90.00           | 179.45      | 12,629.0              | -1,794.0     | -65.0        | 1,794.5                 | 0.00                    | 0.00                   | 0.00                  |
| 14,600.0              | 90.00           | 179.45      | 12,629.0              | -1,894.0     | -64.1        | 1,894.5                 | 0.00                    | 0.00                   | 0.00                  |
| 14,700.0              | 90.00           | 179.45      | 12,629.0              | -1,994.0     | -63.1        | 1,994.5                 | 0.00                    | 0.00                   | 0.00                  |
| 14,800.0              | 90.00           | 179.45      | 12,629.0              | -2,094.0     | -62.2        | 2,094.5                 | 0.00                    | 0.00                   | 0.00                  |
| 14,900.0              | 90.00           | 179.45      | 12,629.0              | -2,194.0     | -61.2        | 2,194.4                 | 0.00                    | 0.00                   | 0.00                  |
| 15,000.0              | 90.00           | 179.45      | 12,629.0              | -2,294.0     | -60.3        | 2,294.4                 | 0.00                    | 0.00                   | 0.00                  |
| 15,100.0              | 90.00           | 179.45      | 12,629.0              | -2,394.0     | -59.3        | 2,394.4                 | 0.00                    | 0.00                   | 0.00                  |
| 15,200.0              | 90.00           | 179.45      | 12,629.0              | -2,494.0     | -58.3        | 2,494.4                 | 0.00                    | 0.00                   | 0.00                  |
| 15,300.0              | 90.00           | 179.45      | 12,629.0              | -2,594.0     | -57.4        | 2,594.4                 | 0.00                    | 0.00                   | 0.00                  |
| 15,400.0              | 90.00           | 179.45      | 12,629.0              | -2,694.0     | -56.4        | 2,694.4                 | 0.00                    | 0.00                   | 0.00                  |
| 15,500.0              | 90.00           | 179.45      | 12,629.0              | -2,794.0     | -55.5        | 2,794.3                 | 0.00                    | 0.00                   | 0.00                  |
| 15,600.0              | 90.00           | 179.45      | 12,629.0              | -2,894.0     | -54.5        | 2,894.3                 | 0.00                    | 0.00                   | 0.00                  |
| 15,700.0              | 90.00           | 179.45      | 12,629.0              | -2,994.0     | -53.5        | 2,994.3                 | 0.00                    | 0.00                   | 0.00                  |
| 15,800.0              | 90.00           | 179.45      | 12,629.0              | -3,094.0     | -52.6        | 3,094.3                 | 0.00                    | 0.00                   | 0.00                  |
| 15,900.0              | 90.00           | 179.45      | 12,629.0              | -3,194.0     | -51.6        | 3,194.3                 | 0.00                    | 0.00                   | 0.00                  |
| 16,000.0              | 90.00           | 179.45      | 12,629.0              | -3,294.0     | -50.7        | 3,294.3                 | 0.00                    | 0.00                   | 0.00                  |
| 16,100.0              | 90.00           | 179.45      | 12,629.0              | -3,394.0     | -49.7        | 3,394.3                 | 0.00                    | 0.00                   | 0.00                  |
| 16,200.0              | 90.00           | 179.45      | 12,629.0              | -3,494.0     | -48.7        | 3,494.2                 | 0.00                    | 0.00                   | 0.00                  |
| 16,300.0              | 90.00           | 179.45      | 12,629.0              | -3,594.0     | -47.8        | 3,594.2                 | 0.00                    | 0.00                   | 0.00                  |
| 16,400.0              | 90.00           | 179.45      | 12,629.0              | -3,694.0     | -46.8        | 3,694.2                 | 0.00                    | 0.00                   | 0.00                  |
| 16,500.0              | 90.00           | 179.45      | 12,629.0              | -3,793.9     | -45.9        | 3,794.2                 | 0.00                    | 0.00                   | 0.00                  |
| 16,600.0              | 90.00           | 179.45      | 12,629.0              | -3,893.9     | -44.9        | 3,894.2                 | 0.00                    | 0.00                   | 0.00                  |
| 16,700.0              | 90.00           | 179.45      | 12,629.0              | -3,993.9     | -43.9        | 3,994.2                 | 0.00                    | 0.00                   | 0.00                  |
| 16,800.0              | 90.00           | 179.45      | 12,629.0              | -4,093.9     | -43.0        | 4,094.1                 | 0.00                    | 0.00                   | 0.00                  |
| 16,900.0              | 90.00           | 179.45      | 12,629.0              | -4,193.9     | -42.0        | 4,194.1                 | 0.00                    | 0.00                   | 0.00                  |
| 17,000.0              | 90.00           | 179.45      | 12,629.0              | -4,293.9     | -41.1        | 4,294.1                 | 0.00                    | 0.00                   | 0.00                  |
| 17,100.0              | 90.00           | 179.45      | 12,629.0              | -4,393.9     | -40.1        | 4,394.1                 | 0.00                    | 0.00                   | 0.00                  |
| 17,200.0              | 90.00           | 179.45      | 12,629.0              | -4,493.9     | -39.1        | 4,494.1                 | 0.00                    | 0.00                   | 0.00                  |
| 17,300.0              | 90.00           | 179.45      | 12,629.0              | -4,593.9     | -38.2        | 4,594.1                 | 0.00                    | 0.00                   | 0.00                  |
| 17,400.0              | 90.00           | 179.45      | 12,629.0              | -4,693.9     | -37.2        | 4,694.1                 | 0.00                    | 0.00                   | 0.00                  |
| 17,422.1              | 90.00           | 179.45      | 12,629.0              | -4,716.0     | -37.0        | 4,716.1                 | 0.00                    | 0.00                   | 0.00                  |

### Design Targets

| Target Name<br>- hit/miss target<br>- Shape                                                                                   | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude        | Longitude         |
|-------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-----------------|-------------------|
| PBHL (Ruby 2 State Cor<br>- plan hits target center<br>- Point                                                                | 0.00          | 0.00         | 12,629.0   | -4,716.0     | -37.0        | 388,836.00      | 819,217.00     | 32° 3' 56.934 N | 103° 26' 10.637 W |
| FTP (Ruby 2 State Com<br>- plan misses target center by 40.1usft at 12717.9usft MD (12592.1 TVD, -16.9 N, -81.8 E)<br>- Point | 0.00          | 0.00         | 12,629.0   | -1.0         | -82.0        | 393,551.00      | 819,172.00     | 32° 4' 43.593 N | 103° 26' 10.704 W |



## Planning Report

**Database:** EDM 5000.14  
**Company:** EOG Resources - Midland  
**Project:** Lea County, NM (NAD 83 NME)  
**Site:** Ruby 2 State Com  
**Well:** #707H  
**Wellbore:** OH  
**Design:** Plan #0.1

**Local Co-ordinate Reference:** Well #707H  
**TVD Reference:** KB = 25' @ 3317.0usft  
**MD Reference:** KB = 25' @ 3317.0usft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature