

# **Denver Division- Colorado**

**DJ - Hereford Ranch**

**Dutch Lake 16-24H**

**Dutch Lake 16-24H**

**Original Wellbore**

**Plan: APD Directional Plan**

## **Standard Planning Report**

**23 February, 2011**

# EOG Resources Inc

## Planning Report

|                  |                           |                                     |                        |
|------------------|---------------------------|-------------------------------------|------------------------|
| <b>Database:</b> | EDM                       | <b>Local Co-ordinate Reference:</b> | Site Dutch Lake 16-24H |
| <b>Company:</b>  | Denver Division- Colorado | <b>TVD Reference:</b>               | RIG @ 4691.00ft (TBD)  |
| <b>Project:</b>  | DJ - Hereford Ranch       | <b>MD Reference:</b>                | RIG @ 4691.00ft (TBD)  |
| <b>Site:</b>     | Dutch Lake 16-24H         | <b>North Reference:</b>             | True                   |
| <b>Well:</b>     | Dutch Lake 16-24H         | <b>Survey Calculation Method:</b>   | Minimum Curvature      |
| <b>Wellbore:</b> | Original Wellbore         |                                     |                        |
| <b>Design:</b>   | APD Directional Plan      |                                     |                        |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | DJ - Hereford Ranch, Weld County     |                      |                |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                |
| <b>Map Zone:</b>   | Colorado North 501                   |                      |                |

|                              |                   |                          |                   |
|------------------------------|-------------------|--------------------------|-------------------|
| <b>Site</b>                  | Dutch Lake 16-24H |                          |                   |
| <b>Site Position:</b>        |                   | <b>Northing:</b>         | 419,715.96 ft     |
| <b>From:</b>                 | Lat/Long          | <b>Easting:</b>          | 2,339,980.82 ft   |
| <b>Position Uncertainty:</b> | 0.00 ft           | <b>Slot Radius:</b>      | "                 |
|                              |                   | <b>Latitude:</b>         | 40° 28' 44.800 N  |
|                              |                   | <b>Longitude:</b>        | 104° 16' 40.282 W |
|                              |                   | <b>Grid Convergence:</b> | 0.79 deg          |

|                             |                   |                            |                                 |
|-----------------------------|-------------------|----------------------------|---------------------------------|
| <b>Well</b>                 | Dutch Lake 16-24H |                            |                                 |
| <b>Well Position</b>        | <b>+N/-S</b>      | 0.00 ft                    | <b>Northing:</b> 419,715.96 ft  |
|                             | <b>+E/-W</b>      | 0.00 ft                    | <b>Easting:</b> 2,339,980.82 ft |
| <b>Position Uncertainty</b> | 0.00 ft           | <b>Wellhead Elevation:</b> | ft                              |
|                             |                   | <b>Latitude:</b>           | 40° 28' 44.800 N                |
|                             |                   | <b>Longitude:</b>          | 104° 16' 40.282 W               |
|                             |                   | <b>Ground Level:</b>       | 4,669.00 ft                     |

|                  |                   |                    |                          |                        |                            |
|------------------|-------------------|--------------------|--------------------------|------------------------|----------------------------|
| <b>Wellbore</b>  | Original Wellbore |                    |                          |                        |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (deg)</b> | <b>Dip Angle (deg)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF200510        | 2/23/2011          | 8.61                     | 67.21                  | 53,278                     |

|                          |                              |                   |                      |                        |
|--------------------------|------------------------------|-------------------|----------------------|------------------------|
| <b>Design</b>            | APD Directional Plan         |                   |                      |                        |
| <b>Audit Notes:</b>      |                              |                   |                      |                        |
| <b>Version:</b>          | <b>Phase:</b>                | PROTOTYPE         | <b>Tie On Depth:</b> | 0.00                   |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b>    | <b>Direction (deg)</b> |
|                          | 0.00                         | 0.00              | 0.00                 | 154.04                 |

| <b>Plan Sections</b> |                   |               |                     |            |            |                       |                      |                     |           |                   |
|----------------------|-------------------|---------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|-----------|-------------------|
| Measured Depth (ft)  | Inclination (deg) | Azimuth (deg) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (?/100ft) | Build Rate (?/100ft) | Turn Rate (?/100ft) | TFO (deg) | Target            |
| 0.00                 | 0.00              | 0.00          | 0.00                | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00      |                   |
| 5,833.53             | 0.00              | 0.00          | 5,833.53            | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00      |                   |
| 6,583.54             | 90.00             | 154.04        | 6,311.00            | -429.29    | 209.00     | 12.00                 | 12.00                | 0.00                | 154.04    |                   |
| 10,702.33            | 90.00             | 154.04        | 6,311.00            | -4,132.51  | 2,011.95   | 0.00                  | 0.00                 | 0.00                | 0.00      | Dutch Lake 16-24H |

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## Planning Report

|                  |                           |                                     |                        |
|------------------|---------------------------|-------------------------------------|------------------------|
| <b>Database:</b> | EDM                       | <b>Local Co-ordinate Reference:</b> | Site Dutch Lake 16-24H |
| <b>Company:</b>  | Denver Division- Colorado | <b>TVD Reference:</b>               | RIG @ 4691.00ft (TBD)  |
| <b>Project:</b>  | DJ - Hereford Ranch       | <b>MD Reference:</b>                | RIG @ 4691.00ft (TBD)  |
| <b>Site:</b>     | Dutch Lake 16-24H         | <b>North Reference:</b>             | True                   |
| <b>Well:</b>     | Dutch Lake 16-24H         | <b>Survey Calculation Method:</b>   | Minimum Curvature      |
| <b>Wellbore:</b> | Original Wellbore         |                                     |                        |
| <b>Design:</b>   | APD Directional Plan      |                                     |                        |

### Planned Survey

| Measured Depth (ft) | Inclination (deg) | Azimuth (deg) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (?/100ft) | Build Rate (?/100ft) | Turn Rate (?/100ft) |
|---------------------|-------------------|---------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 0.00                | 0.00              | 0.00          | 0.00                | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 100.00              | 0.00              | 0.00          | 100.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 200.00              | 0.00              | 0.00          | 200.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 300.00              | 0.00              | 0.00          | 300.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 400.00              | 0.00              | 0.00          | 400.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 500.00              | 0.00              | 0.00          | 500.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 600.00              | 0.00              | 0.00          | 600.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 700.00              | 0.00              | 0.00          | 700.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 800.00              | 0.00              | 0.00          | 800.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| <b>9-5/8"</b>       |                   |               |                     |            |            |                       |                       |                      |                     |
| 900.00              | 0.00              | 0.00          | 900.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,000.00            | 0.00              | 0.00          | 1,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,100.00            | 0.00              | 0.00          | 1,100.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,200.00            | 0.00              | 0.00          | 1,200.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,300.00            | 0.00              | 0.00          | 1,300.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,400.00            | 0.00              | 0.00          | 1,400.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,500.00            | 0.00              | 0.00          | 1,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,600.00            | 0.00              | 0.00          | 1,600.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,700.00            | 0.00              | 0.00          | 1,700.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,800.00            | 0.00              | 0.00          | 1,800.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,900.00            | 0.00              | 0.00          | 1,900.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,000.00            | 0.00              | 0.00          | 2,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,100.00            | 0.00              | 0.00          | 2,100.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,200.00            | 0.00              | 0.00          | 2,200.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,300.00            | 0.00              | 0.00          | 2,300.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,400.00            | 0.00              | 0.00          | 2,400.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,500.00            | 0.00              | 0.00          | 2,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,600.00            | 0.00              | 0.00          | 2,600.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,700.00            | 0.00              | 0.00          | 2,700.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,800.00            | 0.00              | 0.00          | 2,800.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,900.00            | 0.00              | 0.00          | 2,900.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,000.00            | 0.00              | 0.00          | 3,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,100.00            | 0.00              | 0.00          | 3,100.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,200.00            | 0.00              | 0.00          | 3,200.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,300.00            | 0.00              | 0.00          | 3,300.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,400.00            | 0.00              | 0.00          | 3,400.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,500.00            | 0.00              | 0.00          | 3,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,600.00            | 0.00              | 0.00          | 3,600.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,700.00            | 0.00              | 0.00          | 3,700.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,800.00            | 0.00              | 0.00          | 3,800.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,900.00            | 0.00              | 0.00          | 3,900.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,000.00            | 0.00              | 0.00          | 4,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,100.00            | 0.00              | 0.00          | 4,100.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,200.00            | 0.00              | 0.00          | 4,200.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,300.00            | 0.00              | 0.00          | 4,300.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,400.00            | 0.00              | 0.00          | 4,400.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,500.00            | 0.00              | 0.00          | 4,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,600.00            | 0.00              | 0.00          | 4,600.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,700.00            | 0.00              | 0.00          | 4,700.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,800.00            | 0.00              | 0.00          | 4,800.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 4,900.00            | 0.00              | 0.00          | 4,900.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,000.00            | 0.00              | 0.00          | 5,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,100.00            | 0.00              | 0.00          | 5,100.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |

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## Planning Report

|                  |                           |                                     |                        |
|------------------|---------------------------|-------------------------------------|------------------------|
| <b>Database:</b> | EDM                       | <b>Local Co-ordinate Reference:</b> | Site Dutch Lake 16-24H |
| <b>Company:</b>  | Denver Division- Colorado | <b>TVD Reference:</b>               | RIG @ 4691.00ft (TBD)  |
| <b>Project:</b>  | DJ - Hereford Ranch       | <b>MD Reference:</b>                | RIG @ 4691.00ft (TBD)  |
| <b>Site:</b>     | Dutch Lake 16-24H         | <b>North Reference:</b>             | True                   |
| <b>Well:</b>     | Dutch Lake 16-24H         | <b>Survey Calculation Method:</b>   | Minimum Curvature      |
| <b>Wellbore:</b> | Original Wellbore         |                                     |                        |
| <b>Design:</b>   | APD Directional Plan      |                                     |                        |

| Planned Survey      |                   |               |                     |            |            |                       |                       |                      |                     |
|---------------------|-------------------|---------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (deg) | Azimuth (deg) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (?/100ft) | Build Rate (?/100ft) | Turn Rate (?/100ft) |
| 5,200.00            | 0.00              | 0.00          | 5,200.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,300.00            | 0.00              | 0.00          | 5,300.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,400.00            | 0.00              | 0.00          | 5,400.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,500.00            | 0.00              | 0.00          | 5,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,600.00            | 0.00              | 0.00          | 5,600.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,700.00            | 0.00              | 0.00          | 5,700.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,800.00            | 0.00              | 0.00          | 5,800.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,833.53            | 0.00              | 0.00          | 5,833.53            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 5,900.00            | 7.98              | 154.04        | 5,899.79            | -4.15      | 2.02       | 4.62                  | 12.00                 | 12.00                | 0.00                |
| 6,000.00            | 19.98             | 154.04        | 5,996.65            | -25.83     | 12.57      | 28.73                 | 12.00                 | 12.00                | 0.00                |
| 6,100.00            | 31.98             | 154.04        | 6,086.38            | -65.14     | 31.71      | 72.45                 | 12.00                 | 12.00                | 0.00                |
| 6,200.00            | 43.98             | 154.04        | 6,165.06            | -120.36    | 58.60      | 133.87                | 12.00                 | 12.00                | 0.00                |
| 6,300.00            | 55.98             | 154.04        | 6,229.26            | -189.08    | 92.06      | 210.30                | 12.00                 | 12.00                | 0.00                |
| 6,400.00            | 67.98             | 154.04        | 6,276.16            | -268.31    | 130.63     | 298.42                | 12.00                 | 12.00                | 0.00                |
| 6,500.00            | 79.98             | 154.04        | 6,303.71            | -354.57    | 172.62     | 394.36                | 12.00                 | 12.00                | 0.00                |
| 6,583.54            | 90.00             | 154.04        | 6,311.00            | -429.29    | 209.01     | 477.47                | 12.00                 | 12.00                | 0.00                |
| 7"                  |                   |               |                     |            |            |                       |                       |                      |                     |
| 6,600.00            | 90.00             | 154.04        | 6,311.00            | -444.09    | 216.21     | 493.93                | 0.00                  | 0.00                 | 0.00                |
| 6,700.00            | 90.00             | 154.04        | 6,311.00            | -534.00    | 259.99     | 593.93                | 0.00                  | 0.00                 | 0.00                |
| 6,800.00            | 90.00             | 154.04        | 6,311.00            | -623.91    | 303.76     | 693.93                | 0.00                  | 0.00                 | 0.00                |
| 6,900.00            | 90.00             | 154.04        | 6,311.00            | -713.82    | 347.53     | 793.93                | 0.00                  | 0.00                 | 0.00                |
| 7,000.00            | 90.00             | 154.04        | 6,311.00            | -803.74    | 391.31     | 893.93                | 0.00                  | 0.00                 | 0.00                |
| 7,100.00            | 90.00             | 154.04        | 6,311.00            | -893.65    | 435.08     | 993.93                | 0.00                  | 0.00                 | 0.00                |
| 7,200.00            | 90.00             | 154.04        | 6,311.00            | -983.56    | 478.85     | 1,093.93              | 0.00                  | 0.00                 | 0.00                |
| 7,300.00            | 90.00             | 154.04        | 6,311.00            | -1,073.47  | 522.63     | 1,193.93              | 0.00                  | 0.00                 | 0.00                |
| 7,400.00            | 90.00             | 154.04        | 6,311.00            | -1,163.38  | 566.40     | 1,293.93              | 0.00                  | 0.00                 | 0.00                |
| 7,500.00            | 90.00             | 154.04        | 6,311.00            | -1,253.29  | 610.17     | 1,393.93              | 0.00                  | 0.00                 | 0.00                |
| 7,600.00            | 90.00             | 154.04        | 6,311.00            | -1,343.20  | 653.95     | 1,493.93              | 0.00                  | 0.00                 | 0.00                |
| 7,700.00            | 90.00             | 154.04        | 6,311.00            | -1,433.11  | 697.72     | 1,593.93              | 0.00                  | 0.00                 | 0.00                |
| 7,800.00            | 90.00             | 154.04        | 6,311.00            | -1,523.02  | 741.50     | 1,693.93              | 0.00                  | 0.00                 | 0.00                |
| 7,900.00            | 90.00             | 154.04        | 6,311.00            | -1,612.93  | 785.27     | 1,793.93              | 0.00                  | 0.00                 | 0.00                |
| 8,000.00            | 90.00             | 154.04        | 6,311.00            | -1,702.84  | 829.04     | 1,893.93              | 0.00                  | 0.00                 | 0.00                |
| 8,100.00            | 90.00             | 154.04        | 6,311.00            | -1,792.75  | 872.82     | 1,993.93              | 0.00                  | 0.00                 | 0.00                |
| 8,200.00            | 90.00             | 154.04        | 6,311.00            | -1,882.66  | 916.59     | 2,093.93              | 0.00                  | 0.00                 | 0.00                |
| 8,300.00            | 90.00             | 154.04        | 6,311.00            | -1,972.57  | 960.36     | 2,193.93              | 0.00                  | 0.00                 | 0.00                |
| 8,400.00            | 90.00             | 154.04        | 6,311.00            | -2,062.48  | 1,004.14   | 2,293.93              | 0.00                  | 0.00                 | 0.00                |
| 8,500.00            | 90.00             | 154.04        | 6,311.00            | -2,152.39  | 1,047.91   | 2,393.93              | 0.00                  | 0.00                 | 0.00                |
| 8,600.00            | 90.00             | 154.04        | 6,311.00            | -2,242.30  | 1,091.69   | 2,493.93              | 0.00                  | 0.00                 | 0.00                |
| 8,700.00            | 90.00             | 154.04        | 6,311.00            | -2,332.21  | 1,135.46   | 2,593.93              | 0.00                  | 0.00                 | 0.00                |
| 8,800.00            | 90.00             | 154.04        | 6,311.00            | -2,422.12  | 1,179.23   | 2,693.93              | 0.00                  | 0.00                 | 0.00                |
| 8,900.00            | 90.00             | 154.04        | 6,311.00            | -2,512.03  | 1,223.01   | 2,793.93              | 0.00                  | 0.00                 | 0.00                |
| 9,000.00            | 90.00             | 154.04        | 6,311.00            | -2,601.94  | 1,266.78   | 2,893.93              | 0.00                  | 0.00                 | 0.00                |
| 9,100.00            | 90.00             | 154.04        | 6,311.00            | -2,691.85  | 1,310.55   | 2,993.93              | 0.00                  | 0.00                 | 0.00                |
| 9,200.00            | 90.00             | 154.04        | 6,311.00            | -2,781.76  | 1,354.33   | 3,093.93              | 0.00                  | 0.00                 | 0.00                |
| 9,300.00            | 90.00             | 154.04        | 6,311.00            | -2,871.67  | 1,398.10   | 3,193.93              | 0.00                  | 0.00                 | 0.00                |
| 9,400.00            | 90.00             | 154.04        | 6,311.00            | -2,961.58  | 1,441.88   | 3,293.93              | 0.00                  | 0.00                 | 0.00                |
| 9,500.00            | 90.00             | 154.04        | 6,311.00            | -3,051.49  | 1,485.65   | 3,393.93              | 0.00                  | 0.00                 | 0.00                |
| 9,600.00            | 90.00             | 154.04        | 6,311.00            | -3,141.40  | 1,529.42   | 3,493.93              | 0.00                  | 0.00                 | 0.00                |
| 9,700.00            | 90.00             | 154.04        | 6,311.00            | -3,231.31  | 1,573.20   | 3,593.93              | 0.00                  | 0.00                 | 0.00                |
| 9,800.00            | 90.00             | 154.04        | 6,311.00            | -3,321.22  | 1,616.97   | 3,693.93              | 0.00                  | 0.00                 | 0.00                |
| 9,900.00            | 90.00             | 154.04        | 6,311.00            | -3,411.13  | 1,660.74   | 3,793.93              | 0.00                  | 0.00                 | 0.00                |
| 10,000.00           | 90.00             | 154.04        | 6,311.00            | -3,501.04  | 1,704.52   | 3,893.93              | 0.00                  | 0.00                 | 0.00                |
| 10,100.00           | 90.00             | 154.04        | 6,311.00            | -3,590.95  | 1,748.29   | 3,993.93              | 0.00                  | 0.00                 | 0.00                |

# EOG Resources Inc

## Planning Report

|                  |                           |                                     |                        |
|------------------|---------------------------|-------------------------------------|------------------------|
| <b>Database:</b> | EDM                       | <b>Local Co-ordinate Reference:</b> | Site Dutch Lake 16-24H |
| <b>Company:</b>  | Denver Division- Colorado | <b>TVD Reference:</b>               | RIG @ 4691.00ft (TBD)  |
| <b>Project:</b>  | DJ - Hereford Ranch       | <b>MD Reference:</b>                | RIG @ 4691.00ft (TBD)  |
| <b>Site:</b>     | Dutch Lake 16-24H         | <b>North Reference:</b>             | True                   |
| <b>Well:</b>     | Dutch Lake 16-24H         | <b>Survey Calculation Method:</b>   | Minimum Curvature      |
| <b>Wellbore:</b> | Original Wellbore         |                                     |                        |
| <b>Design:</b>   | APD Directional Plan      |                                     |                        |

| Planned Survey          |                   |               |                     |            |            |                       |                       |                      |                     |
|-------------------------|-------------------|---------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft)     | Inclination (deg) | Azimuth (deg) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (?/100ft) | Build Rate (?/100ft) | Turn Rate (?/100ft) |
| 10,200.00               | 90.00             | 154.04        | 6,311.00            | -3,680.87  | 1,792.06   | 4,093.93              | 0.00                  | 0.00                 | 0.00                |
| 10,300.00               | 90.00             | 154.04        | 6,311.00            | -3,770.78  | 1,835.84   | 4,193.93              | 0.00                  | 0.00                 | 0.00                |
| 10,400.00               | 90.00             | 154.04        | 6,311.00            | -3,860.69  | 1,879.61   | 4,293.93              | 0.00                  | 0.00                 | 0.00                |
| 10,500.00               | 90.00             | 154.04        | 6,311.00            | -3,950.60  | 1,923.39   | 4,393.93              | 0.00                  | 0.00                 | 0.00                |
| 10,600.00               | 90.00             | 154.04        | 6,311.00            | -4,040.51  | 1,967.16   | 4,493.93              | 0.00                  | 0.00                 | 0.00                |
| 10,700.00               | 90.00             | 154.04        | 6,311.00            | -4,130.42  | 2,010.93   | 4,593.93              | 0.00                  | 0.00                 | 0.00                |
| 10,702.33               | 90.00             | 154.04        | 6,311.00            | -4,132.51  | 2,011.95   | 4,596.26              | 0.00                  | 0.00                 | 0.00                |
| Dutch Lake 16-24H (BHL) |                   |               |                     |            |            |                       |                       |                      |                     |

| Targets                   |                 |                |          |            |            |               |              |                 |                   |
|---------------------------|-----------------|----------------|----------|------------|------------|---------------|--------------|-----------------|-------------------|
| Target Name               | Dip Angle (deg) | Dip Dir. (deg) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude        | Longitude         |
| - hit/miss target         |                 |                |          |            |            |               |              |                 |                   |
| - Shape                   |                 |                |          |            |            |               |              |                 |                   |
| Dutch Lake 16-24H (E      | 0.00            | 0.00           | 6,311.00 | -4,132.51  | 2,011.95   | 415,611.58    | 2,342,049.54 | 40° 28' 3.961 N | 104° 16' 14.250 W |
| - plan hits target center |                 |                |          |            |            |               |              |                 |                   |
| - Point                   |                 |                |          |            |            |               |              |                 |                   |

| Casing Points       |                     |        |                     |                   |  |
|---------------------|---------------------|--------|---------------------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name   | Casing Diameter (") | Hole Diameter (") |  |
| 800.00              | 800.00              | 9-5/8" | 9-5/8               | 13-1/2            |  |
| 6,583.54            | 6,311.00            | 7"     | 7                   | 8-3/4             |  |
| 10,702.33           | 6,311.00            | 4 1/2" | 4-1/2               | 6                 |  |

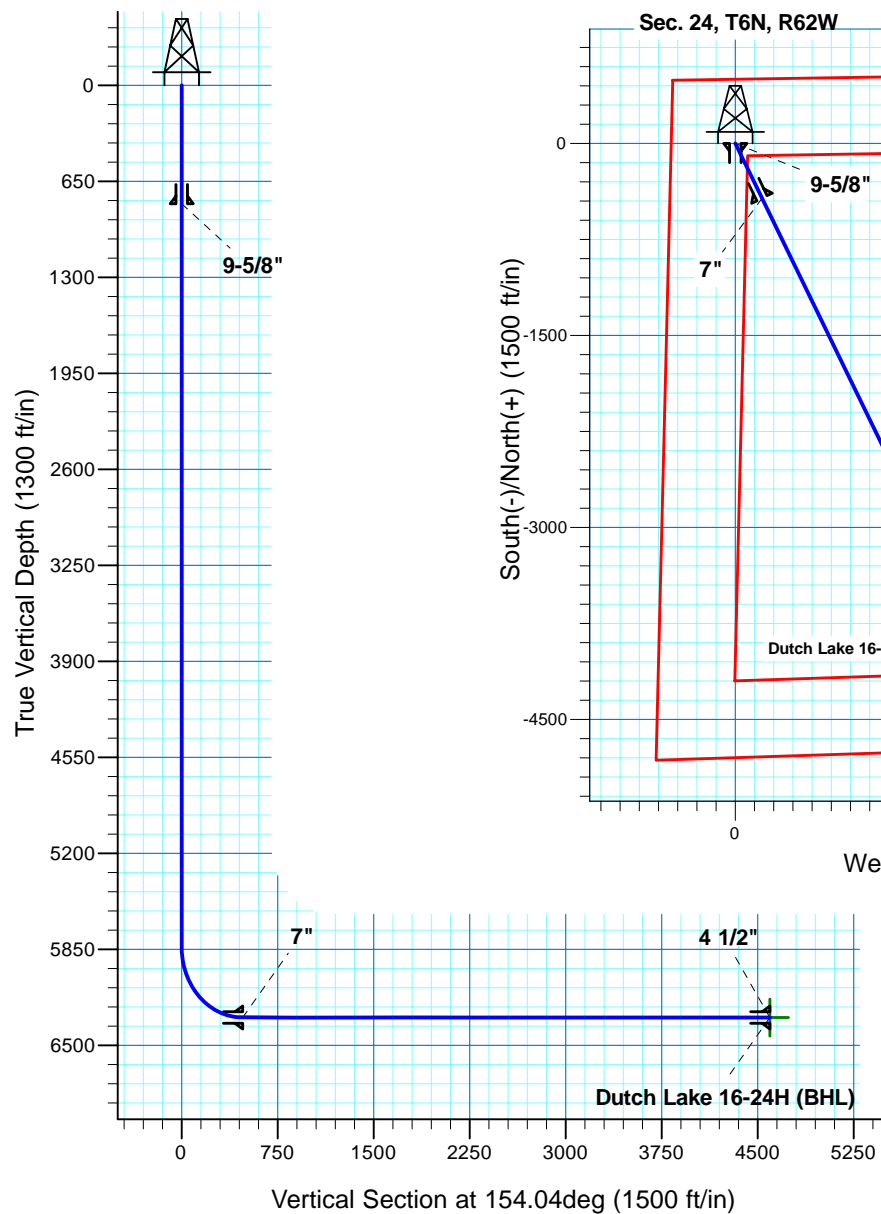
# Dutch Lake 16-24H

## Section 24 T6N R62W

### Weld County, CO

#### Surface Location

NAD 1927 (NADCON CONUS) Colorado North 501  
 Ground Elevation: 4669.00 RIG @ 4691.00ft (TBD)  
 Northing Easting Latitude Longitude  
 419715.96 2339980.82 40° 28' 44.800 N 104° 16' 40.282 W



**T M**  
 Azimuths to True North  
 Magnetic North: 8.61°  
 Magnetic Field  
 Strength: 53278.4snT  
 Dip Angle: 67.21°  
 Date: 2/23/2011  
 Model: IGRF200510

Project: DJ - Hereford Ranch  
 Site: Dutch Lake 16-24H  
 Well: Dutch Lake 16-24H  
 Plan: APD Directional Plan

#### SECTION DETAILS

| Sec | MD       | Inc   | Azi    | TVD     | +N/-S    | +E/-W   | DLeg  | TFace  | VSec    | Target                  |
|-----|----------|-------|--------|---------|----------|---------|-------|--------|---------|-------------------------|
| 1   | 0.00     | 0.00  | 0.00   | 0.00    | 0.00     | 0.00    | 0.00  | 0.00   | 0.00    |                         |
| 2   | 5833.53  | 0.00  | 0.00   | 5833.53 | 0.00     | 0.00    | 0.00  | 0.00   | 0.00    |                         |
| 3   | 6583.54  | 90.00 | 154.04 | 6311.00 | -429.29  | 209.00  | 12.00 | 154.04 | 477.47  |                         |
| 4   | 10702.33 | 90.00 | 154.04 | 6311.00 | -4132.51 | 2011.95 | 0.00  | 0.00   | 4596.26 | Dutch Lake 16-24H (BHL) |

#### TARGET DETAILS

| Name                    | TVD     | +N/-S    | +E/-W   | Northing  | Easting    | Latitude        | Longitude         | Shape Point |
|-------------------------|---------|----------|---------|-----------|------------|-----------------|-------------------|-------------|
| Dutch Lake 16-24H (BHL) | 6311.00 | -4132.51 | 2011.95 | 415611.58 | 2342049.54 | 40° 28' 3.961 N | 104° 16' 14.250 W |             |