# EOG Resources - Midland

**Lea County, NM (NAD 27 NME)**
**Colgrove 35 Fed Com**
**#707H**

**OH**

**Plan: Plan #.01**

# Standard Planning Report

**14 July, 2016**

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.1 Single User Db | **Local Co-ordinate Reference:** | Well #707H |
| **Company:** | EOG Resources - Midland | **TVD Reference:** | KB @ 3360.0usft |
| **Project:** | Lea County, NM (NAD 27 NME) | **MD Reference:** | KB @ 3360.0usft |
| **Site:** | Colgrove 35 Fed Com | **North Reference:** | Grid |
| **Well:** | #707H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #.01 | | |

| | | | |
|---|---|---|---|
| **Project** | Lea County, NM (NAD 27 NME) | | |
| **Map System:** | US State Plane 1927 (Exact solution) | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | NAD 1927 (NADCON CONUS) | | |
| **Map Zone:** | New Mexico East 3001 | | |

**Site** Colgrove 35 Fed Com

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 365,015.00 usft | **Latitude:** | 32° 0' 4.048 N |
| **From:** | Map | **Easting:** | 742,682.00 usft | **Longitude:** | 103° 33' 1.713 W |
| **Position Uncertainty:** | 0.0 usft | **Slot Radius:** | 13-3/16 " | **Grid Convergence:** | 0.41 ° |

**Well** #707H

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | -26.0 usft | **Northing:** | 364,989.00 usft | **Latitude:** | 32° 0' 3.471 N |
| | **+E/-W** | 4,419.0 usft | **Easting:** | 747,101.00 usft | **Longitude:** | 103° 32' 10.402 W |
| **Position Uncertainty** | | 0.0 usft | **Wellhead Elevation:** | 0.0 usft | **Ground Level:** | 3,335.0 usft |

**Wellbore** OH

| **Magnetics** | **Model Name** | **Sample Date** | **Declination (°)** | **Dip Angle (°)** | **Field Strength (nT)** |
|---|---|---|---|---|---|
| | IGRF2015 | 7/13/2016 | 7.02 | 59.87 | 47,905 |

**Design** Plan #.01

**Audit Notes:**

| | | | | | |
|---|---|---|---|---|---|
| **Version:** | | **Phase:** | PLAN | **Tie On Depth:** | 0.0 |

| **Vertical Section:** | **Depth From (TVD) (usft)** | **+N/-S (usft)** | **+E/-W (usft)** | **Direction (°)** |
|---|---|---|---|---|
| | 0.0 | 0.0 | 0.0 | 356.88 |

**Plan Sections**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4,500.0 | 0.00 | 0.00 | 4,500.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4,816.4 | 3.16 | 231.30 | 4,816.3 | -5.5 | -6.8 | 1.00 | 1.00 | 0.00 | 231.30 | |
| 11,982.8 | 3.16 | 231.30 | 11,971.7 | -252.8 | -315.6 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 12,749.1 | 90.00 | 359.55 | 12,465.0 | 224.2 | -340.7 | 12.00 | 11.33 | 16.74 | 128.20 | |
| 19,787.1 | 90.00 | 359.55 | 12,465.0 | 7,262.0 | -396.0 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL (CG 35 Fed Co |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.1 Single User Db | **Local Co-ordinate Reference:** | Well #707H |
| **Company:** | EOG Resources - Midland | **TVD Reference:** | KB @ 3360.0usft |
| **Project:** | Lea County, NM (NAD 27 NME) | **MD Reference:** | KB @ 3360.0usft |
| **Site:** | Colgrove 35 Fed Com | **North Reference:** | Grid |
| **Well:** | #707H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #.01 | | |

**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 | 0.00 | 0.00 | 4,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 0.00 | 0.00 | 4,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 0.00 | 0.00 | 4,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 0.00 | 0.00 | 4,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 0.00 | 0.00 | 4,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 1.00 | 231.30 | 4,600.0 | -0.5 | -0.7 | -0.5 | 1.00 | 1.00 | 0.00 |
| 4,700.0 | 2.00 | 231.30 | 4,700.0 | -2.2 | -2.7 | -2.0 | 1.00 | 1.00 | 0.00 |
| 4,800.0 | 3.00 | 231.30 | 4,799.9 | -4.9 | -6.1 | -4.6 | 1.00 | 1.00 | 0.00 |
| 4,816.4 | 3.16 | 231.30 | 4,816.3 | -5.5 | -6.8 | -5.1 | 1.00 | 1.00 | 0.00 |
| 4,900.0 | 3.16 | 231.30 | 4,899.7 | -8.3 | -10.4 | -7.8 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 3.16 | 231.30 | 4,999.6 | -11.8 | -14.7 | -11.0 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 3.16 | 231.30 | 5,099.4 | -15.2 | -19.0 | -14.2 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 3.16 | 231.30 | 5,199.3 | -18.7 | -23.3 | -17.4 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.1 Single User Db | **Local Co-ordinate Reference:** | Well #707H |
| **Company:** | EOG Resources - Midland | **TVD Reference:** | KB @ 3360.0usft |
| **Project:** | Lea County, NM (NAD 27 NME) | **MD Reference:** | KB @ 3360.0usft |
| **Site:** | Colgrove 35 Fed Com | **North Reference:** | Grid |
| **Well:** | #707H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #.01 | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 5,300.0 | 3.16 | 231.30 | 5,299.1 | -22.2 | -27.7 | -20.6 | 0.00 | 0.00 | 0.00 |
| 5,400.0 | 3.16 | 231.30 | 5,398.9 | -25.6 | -32.0 | -23.8 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 3.16 | 231.30 | 5,498.8 | -29.1 | -36.3 | -27.0 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 3.16 | 231.30 | 5,598.6 | -32.5 | -40.6 | -30.2 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 3.16 | 231.30 | 5,698.5 | -36.0 | -44.9 | -33.5 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 3.16 | 231.30 | 5,798.3 | -39.4 | -49.2 | -36.7 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 3.16 | 231.30 | 5,898.2 | -42.9 | -53.5 | -39.9 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 3.16 | 231.30 | 5,998.0 | -46.3 | -57.8 | -43.1 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 3.16 | 231.30 | 6,097.9 | -49.8 | -62.1 | -46.3 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 3.16 | 231.30 | 6,197.7 | -53.2 | -66.4 | -49.5 | 0.00 | 0.00 | 0.00 |
| 6,300.0 | 3.16 | 231.30 | 6,297.6 | -56.7 | -70.7 | -52.7 | 0.00 | 0.00 | 0.00 |
| 6,400.0 | 3.16 | 231.30 | 6,397.4 | -60.1 | -75.0 | -55.9 | 0.00 | 0.00 | 0.00 |
| 6,500.0 | 3.16 | 231.30 | 6,497.3 | -63.6 | -79.3 | -59.1 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 3.16 | 231.30 | 6,597.1 | -67.0 | -83.7 | -62.4 | 0.00 | 0.00 | 0.00 |
| 6,700.0 | 3.16 | 231.30 | 6,697.0 | -70.5 | -88.0 | -65.6 | 0.00 | 0.00 | 0.00 |
| 6,800.0 | 3.16 | 231.30 | 6,796.8 | -73.9 | -92.3 | -68.8 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 3.16 | 231.30 | 6,896.7 | -77.4 | -96.6 | -72.0 | 0.00 | 0.00 | 0.00 |
| 7,000.0 | 3.16 | 231.30 | 6,996.5 | -80.8 | -100.9 | -75.2 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 3.16 | 231.30 | 7,096.4 | -84.3 | -105.2 | -78.4 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 3.16 | 231.30 | 7,196.2 | -87.7 | -109.5 | -81.6 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 3.16 | 231.30 | 7,296.1 | -91.2 | -113.8 | -84.8 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 3.16 | 231.30 | 7,395.9 | -94.6 | -118.1 | -88.1 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 3.16 | 231.30 | 7,495.7 | -98.1 | -122.4 | -91.3 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 3.16 | 231.30 | 7,595.6 | -101.5 | -126.7 | -94.5 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 3.16 | 231.30 | 7,695.4 | -105.0 | -131.0 | -97.7 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 3.16 | 231.30 | 7,795.3 | -108.4 | -135.4 | -100.9 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 3.16 | 231.30 | 7,895.1 | -111.9 | -139.7 | -104.1 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 3.16 | 231.30 | 7,995.0 | -115.3 | -144.0 | -107.3 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 3.16 | 231.30 | 8,094.8 | -118.8 | -148.3 | -110.5 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 3.16 | 231.30 | 8,194.7 | -122.2 | -152.6 | -113.7 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 3.16 | 231.30 | 8,294.5 | -125.7 | -156.9 | -117.0 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 3.16 | 231.30 | 8,394.4 | -129.1 | -161.2 | -120.2 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 3.16 | 231.30 | 8,494.2 | -132.6 | -165.5 | -123.4 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 3.16 | 231.30 | 8,594.1 | -136.0 | -169.8 | -126.6 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 3.16 | 231.30 | 8,693.9 | -139.5 | -174.1 | -129.8 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 3.16 | 231.30 | 8,793.8 | -142.9 | -178.4 | -133.0 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 3.16 | 231.30 | 8,893.6 | -146.4 | -182.7 | -136.2 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 3.16 | 231.30 | 8,993.5 | -149.8 | -187.1 | -139.4 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 3.16 | 231.30 | 9,093.3 | -153.3 | -191.4 | -142.6 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 3.16 | 231.30 | 9,193.2 | -156.7 | -195.7 | -145.9 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 3.16 | 231.30 | 9,293.0 | -160.2 | -200.0 | -149.1 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 3.16 | 231.30 | 9,392.9 | -163.6 | -204.3 | -152.3 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 3.16 | 231.30 | 9,492.7 | -167.1 | -208.6 | -155.5 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 3.16 | 231.30 | 9,592.5 | -170.6 | -212.9 | -158.7 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 3.16 | 231.30 | 9,692.4 | -174.0 | -217.2 | -161.9 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 3.16 | 231.30 | 9,792.2 | -177.5 | -221.5 | -165.1 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 3.16 | 231.30 | 9,892.1 | -180.9 | -225.8 | -168.3 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 3.16 | 231.30 | 9,991.9 | -184.4 | -230.1 | -171.6 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 3.16 | 231.30 | 10,091.8 | -187.8 | -234.4 | -174.8 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 3.16 | 231.30 | 10,191.6 | -191.3 | -238.8 | -178.0 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 3.16 | 231.30 | 10,291.5 | -194.7 | -243.1 | -181.2 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 3.16 | 231.30 | 10,391.3 | -198.2 | -247.4 | -184.4 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 3.16 | 231.30 | 10,491.2 | -201.6 | -251.7 | -187.6 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 3.16 | 231.30 | 10,591.0 | -205.1 | -256.0 | -190.8 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.1 Single User Db | **Local Co-ordinate Reference:** | Well #707H |
| **Company:** | EOG Resources - Midland | **TVD Reference:** | KB @ 3360.0usft |
| **Project:** | Lea County, NM (NAD 27 NME) | **MD Reference:** | KB @ 3360.0usft |
| **Site:** | Colgrove 35 Fed Com | **North Reference:** | Grid |
| **Well:** | #707H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #.01 | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 10,700.0 | 3.16 | 231.30 | 10,690.9 | -208.5 | -260.3 | -194.0 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 3.16 | 231.30 | 10,790.7 | -212.0 | -264.6 | -197.2 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 3.16 | 231.30 | 10,890.6 | -215.4 | -268.9 | -200.5 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 3.16 | 231.30 | 10,990.4 | -218.9 | -273.2 | -203.7 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 3.16 | 231.30 | 11,090.3 | -222.3 | -277.5 | -206.9 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 3.16 | 231.30 | 11,190.1 | -225.8 | -281.8 | -210.1 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 3.16 | 231.30 | 11,290.0 | -229.2 | -286.1 | -213.3 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 3.16 | 231.30 | 11,389.8 | -232.7 | -290.5 | -216.5 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 3.16 | 231.30 | 11,489.6 | -236.1 | -294.8 | -219.7 | 0.00 | 0.00 | 0.00 |
| 11,600.0 | 3.16 | 231.30 | 11,589.5 | -239.6 | -299.1 | -222.9 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 3.16 | 231.30 | 11,689.3 | -243.0 | -303.4 | -226.1 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 3.16 | 231.30 | 11,789.2 | -246.5 | -307.7 | -229.4 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 3.16 | 231.30 | 11,889.0 | -249.9 | -312.0 | -232.6 | 0.00 | 0.00 | 0.00 |
| 11,982.8 | 3.16 | 231.30 | 11,971.7 | -252.8 | -315.6 | -235.2 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 2.49 | 272.06 | 11,988.9 | -253.1 | -316.3 | -235.5 | 12.00 | -3.92 | 236.59 |
| 12,025.0 | 3.98 | 320.94 | 12,013.9 | -252.4 | -317.4 | -234.7 | 12.00 | 5.97 | 195.50 |
| 12,050.0 | 6.59 | 337.49 | 12,038.7 | -250.4 | -318.5 | -232.7 | 12.00 | 10.45 | 66.19 |
| 12,075.0 | 9.44 | 344.41 | 12,063.5 | -247.1 | -319.6 | -229.3 | 12.00 | 11.38 | 27.69 |
| 12,100.0 | 12.36 | 348.12 | 12,088.0 | -242.5 | -320.7 | -224.7 | 12.00 | 11.67 | 14.83 |
| 12,125.0 | 15.31 | 350.42 | 12,112.3 | -236.6 | -321.8 | -218.7 | 12.00 | 11.80 | 9.21 |
| 12,150.0 | 18.27 | 351.99 | 12,136.3 | -229.5 | -322.9 | -211.5 | 12.00 | 11.86 | 6.29 |
| 12,175.0 | 21.25 | 353.14 | 12,159.8 | -221.1 | -324.0 | -203.1 | 12.00 | 11.90 | 4.58 |
| 12,200.0 | 24.23 | 354.01 | 12,182.8 | -211.5 | -325.1 | -193.5 | 12.00 | 11.92 | 3.50 |
| 12,225.0 | 27.21 | 354.71 | 12,205.4 | -200.7 | -326.1 | -182.6 | 12.00 | 11.94 | 2.77 |
| 12,250.0 | 30.20 | 355.27 | 12,227.3 | -188.7 | -327.2 | -170.6 | 12.00 | 11.95 | 2.26 |
| 12,275.0 | 33.19 | 355.74 | 12,248.5 | -175.6 | -328.2 | -157.5 | 12.00 | 11.96 | 1.89 |
| 12,300.0 | 36.18 | 356.15 | 12,269.1 | -161.4 | -329.2 | -143.3 | 12.00 | 11.97 | 1.61 |
| 12,325.0 | 39.18 | 356.50 | 12,288.9 | -146.2 | -330.2 | -128.0 | 12.00 | 11.97 | 1.40 |
| 12,350.0 | 42.17 | 356.80 | 12,307.8 | -129.9 | -331.1 | -111.7 | 12.00 | 11.97 | 1.23 |
| 12,375.0 | 45.16 | 357.08 | 12,325.9 | -112.7 | -332.0 | -94.5 | 12.00 | 11.98 | 1.09 |
| 12,400.0 | 48.16 | 357.32 | 12,343.1 | -94.5 | -332.9 | -76.3 | 12.00 | 11.98 | 0.98 |
| 12,425.0 | 51.15 | 357.55 | 12,359.3 | -75.5 | -333.8 | -57.2 | 12.00 | 11.98 | 0.90 |
| 12,450.0 | 54.15 | 357.75 | 12,374.4 | -55.7 | -334.6 | -37.4 | 12.00 | 11.98 | 0.82 |
| 12,475.0 | 57.14 | 357.94 | 12,388.5 | -35.0 | -335.4 | -16.7 | 12.00 | 11.98 | 0.76 |
| 12,500.0 | 60.14 | 358.12 | 12,401.5 | -13.7 | -336.1 | 4.6 | 12.00 | 11.98 | 0.71 |
| 12,525.0 | 63.14 | 358.29 | 12,413.4 | 8.3 | -336.8 | 26.6 | 12.00 | 11.99 | 0.67 |
| 12,550.0 | 66.13 | 358.45 | 12,424.1 | 30.9 | -337.4 | 49.2 | 12.00 | 11.99 | 0.64 |
| 12,561.1 | 67.46 | 358.52 | 12,428.5 | 41.1 | -337.7 | 59.4 | 12.00 | 11.99 | 0.62 |
| **FTP (CG 35 Fed Com 707H)** | | | | | | | | | |
| 12,575.0 | 69.13 | 358.60 | 12,433.6 | 54.0 | -338.0 | 72.3 | 12.00 | 11.99 | 0.60 |
| 12,600.0 | 72.13 | 358.75 | 12,441.9 | 77.5 | -338.6 | 95.9 | 12.00 | 11.99 | 0.59 |
| 12,625.0 | 75.12 | 358.89 | 12,449.0 | 101.5 | -339.1 | 119.8 | 12.00 | 11.99 | 0.57 |
| 12,650.0 | 78.12 | 359.03 | 12,454.8 | 125.8 | -339.5 | 144.1 | 12.00 | 11.99 | 0.55 |
| 12,675.0 | 81.12 | 359.16 | 12,459.3 | 150.4 | -339.9 | 168.7 | 12.00 | 11.99 | 0.54 |
| 12,700.0 | 84.11 | 359.29 | 12,462.5 | 175.2 | -340.2 | 193.5 | 12.00 | 11.99 | 0.53 |
| 12,725.0 | 87.11 | 359.42 | 12,464.4 | 200.1 | -340.5 | 218.4 | 12.00 | 11.99 | 0.52 |
| 12,749.1 | 90.00 | 359.55 | 12,465.0 | 224.2 | -340.7 | 242.4 | 12.00 | 11.99 | 0.52 |
| 12,800.0 | 90.00 | 359.55 | 12,465.0 | 275.1 | -341.1 | 293.3 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 90.00 | 359.55 | 12,465.0 | 375.1 | -341.9 | 393.2 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 90.00 | 359.55 | 12,465.0 | 475.1 | -342.7 | 493.1 | 0.00 | 0.00 | 0.00 |
| 13,100.0 | 90.00 | 359.55 | 12,465.0 | 575.1 | -343.5 | 593.0 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 90.00 | 359.55 | 12,465.0 | 675.1 | -344.3 | 692.9 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 90.00 | 359.55 | 12,465.0 | 775.1 | -345.1 | 792.7 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.1 Single User Db | **Local Co-ordinate Reference:** | Well #707H |
| **Company:** | EOG Resources - Midland | **TVD Reference:** | KB @ 3360.0usft |
| **Project:** | Lea County, NM (NAD 27 NME) | **MD Reference:** | KB @ 3360.0usft |
| **Site:** | Colgrove 35 Fed Com | **North Reference:** | Grid |
| **Well:** | #707H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #.01 | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 13,400.0 | 90.00 | 359.55 | 12,465.0 | 875.1 | -345.8 | 892.6 | 0.00 | 0.00 | 0.00 |
| 13,500.0 | 90.00 | 359.55 | 12,465.0 | 975.1 | -346.6 | 992.5 | 0.00 | 0.00 | 0.00 |
| 13,600.0 | 90.00 | 359.55 | 12,465.0 | 1,075.1 | -347.4 | 1,092.4 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 90.00 | 359.55 | 12,465.0 | 1,175.1 | -348.2 | 1,192.3 | 0.00 | 0.00 | 0.00 |
| 13,800.0 | 90.00 | 359.55 | 12,465.0 | 1,275.1 | -349.0 | 1,292.2 | 0.00 | 0.00 | 0.00 |
| 13,900.0 | 90.00 | 359.55 | 12,465.0 | 1,375.1 | -349.8 | 1,392.1 | 0.00 | 0.00 | 0.00 |
| 14,000.0 | 90.00 | 359.55 | 12,465.0 | 1,475.1 | -350.5 | 1,492.0 | 0.00 | 0.00 | 0.00 |
| 14,100.0 | 90.00 | 359.55 | 12,465.0 | 1,575.1 | -351.3 | 1,591.9 | 0.00 | 0.00 | 0.00 |
| 14,200.0 | 90.00 | 359.55 | 12,465.0 | 1,675.1 | -352.1 | 1,691.8 | 0.00 | 0.00 | 0.00 |
| 14,300.0 | 90.00 | 359.55 | 12,465.0 | 1,775.1 | -352.9 | 1,791.7 | 0.00 | 0.00 | 0.00 |
| 14,400.0 | 90.00 | 359.55 | 12,465.0 | 1,875.1 | -353.7 | 1,891.6 | 0.00 | 0.00 | 0.00 |
| 14,500.0 | 90.00 | 359.55 | 12,465.0 | 1,975.1 | -354.5 | 1,991.4 | 0.00 | 0.00 | 0.00 |
| 14,600.0 | 90.00 | 359.55 | 12,465.0 | 2,075.1 | -355.3 | 2,091.3 | 0.00 | 0.00 | 0.00 |
| 14,700.0 | 90.00 | 359.55 | 12,465.0 | 2,175.1 | -356.0 | 2,191.2 | 0.00 | 0.00 | 0.00 |
| 14,800.0 | 90.00 | 359.55 | 12,465.0 | 2,275.1 | -356.8 | 2,291.1 | 0.00 | 0.00 | 0.00 |
| 14,900.0 | 90.00 | 359.55 | 12,465.0 | 2,375.1 | -357.6 | 2,391.0 | 0.00 | 0.00 | 0.00 |
| 15,000.0 | 90.00 | 359.55 | 12,465.0 | 2,475.1 | -358.4 | 2,490.9 | 0.00 | 0.00 | 0.00 |
| 15,100.0 | 90.00 | 359.55 | 12,465.0 | 2,575.1 | -359.2 | 2,590.8 | 0.00 | 0.00 | 0.00 |
| 15,200.0 | 90.00 | 359.55 | 12,465.0 | 2,675.1 | -360.0 | 2,690.7 | 0.00 | 0.00 | 0.00 |
| 15,300.0 | 90.00 | 359.55 | 12,465.0 | 2,775.0 | -360.8 | 2,790.6 | 0.00 | 0.00 | 0.00 |
| 15,400.0 | 90.00 | 359.55 | 12,465.0 | 2,875.0 | -361.5 | 2,890.5 | 0.00 | 0.00 | 0.00 |
| 15,500.0 | 90.00 | 359.55 | 12,465.0 | 2,975.0 | -362.3 | 2,990.4 | 0.00 | 0.00 | 0.00 |
| 15,600.0 | 90.00 | 359.55 | 12,465.0 | 3,075.0 | -363.1 | 3,090.2 | 0.00 | 0.00 | 0.00 |
| 15,700.0 | 90.00 | 359.55 | 12,465.0 | 3,175.0 | -363.9 | 3,190.1 | 0.00 | 0.00 | 0.00 |
| 15,800.0 | 90.00 | 359.55 | 12,465.0 | 3,275.0 | -364.7 | 3,290.0 | 0.00 | 0.00 | 0.00 |
| 15,900.0 | 90.00 | 359.55 | 12,465.0 | 3,375.0 | -365.5 | 3,389.9 | 0.00 | 0.00 | 0.00 |
| 16,000.0 | 90.00 | 359.55 | 12,465.0 | 3,475.0 | -366.3 | 3,489.8 | 0.00 | 0.00 | 0.00 |
| 16,100.0 | 90.00 | 359.55 | 12,465.0 | 3,575.0 | -367.0 | 3,589.7 | 0.00 | 0.00 | 0.00 |
| 16,200.0 | 90.00 | 359.55 | 12,465.0 | 3,675.0 | -367.8 | 3,689.6 | 0.00 | 0.00 | 0.00 |
| 16,300.0 | 90.00 | 359.55 | 12,465.0 | 3,775.0 | -368.6 | 3,789.5 | 0.00 | 0.00 | 0.00 |
| 16,400.0 | 90.00 | 359.55 | 12,465.0 | 3,875.0 | -369.4 | 3,889.4 | 0.00 | 0.00 | 0.00 |
| 16,500.0 | 90.00 | 359.55 | 12,465.0 | 3,975.0 | -370.2 | 3,989.3 | 0.00 | 0.00 | 0.00 |
| 16,600.0 | 90.00 | 359.55 | 12,465.0 | 4,075.0 | -371.0 | 4,089.2 | 0.00 | 0.00 | 0.00 |
| 16,700.0 | 90.00 | 359.55 | 12,465.0 | 4,175.0 | -371.8 | 4,189.1 | 0.00 | 0.00 | 0.00 |
| 16,800.0 | 90.00 | 359.55 | 12,465.0 | 4,275.0 | -372.5 | 4,288.9 | 0.00 | 0.00 | 0.00 |
| 16,900.0 | 90.00 | 359.55 | 12,465.0 | 4,375.0 | -373.3 | 4,388.8 | 0.00 | 0.00 | 0.00 |
| 17,000.0 | 90.00 | 359.55 | 12,465.0 | 4,475.0 | -374.1 | 4,488.7 | 0.00 | 0.00 | 0.00 |
| 17,100.0 | 90.00 | 359.55 | 12,465.0 | 4,575.0 | -374.9 | 4,588.6 | 0.00 | 0.00 | 0.00 |
| 17,200.0 | 90.00 | 359.55 | 12,465.0 | 4,675.0 | -375.7 | 4,688.5 | 0.00 | 0.00 | 0.00 |
| 17,300.0 | 90.00 | 359.55 | 12,465.0 | 4,775.0 | -376.5 | 4,788.4 | 0.00 | 0.00 | 0.00 |
| 17,400.0 | 90.00 | 359.55 | 12,465.0 | 4,875.0 | -377.3 | 4,888.3 | 0.00 | 0.00 | 0.00 |
| 17,500.0 | 90.00 | 359.55 | 12,465.0 | 4,975.0 | -378.0 | 4,988.2 | 0.00 | 0.00 | 0.00 |
| 17,600.0 | 90.00 | 359.55 | 12,465.0 | 5,075.0 | -378.8 | 5,088.1 | 0.00 | 0.00 | 0.00 |
| 17,700.0 | 90.00 | 359.55 | 12,465.0 | 5,175.0 | -379.6 | 5,188.0 | 0.00 | 0.00 | 0.00 |
| 17,800.0 | 90.00 | 359.55 | 12,465.0 | 5,275.0 | -380.4 | 5,287.9 | 0.00 | 0.00 | 0.00 |
| 17,900.0 | 90.00 | 359.55 | 12,465.0 | 5,375.0 | -381.2 | 5,387.7 | 0.00 | 0.00 | 0.00 |
| 18,000.0 | 90.00 | 359.55 | 12,465.0 | 5,475.0 | -382.0 | 5,487.6 | 0.00 | 0.00 | 0.00 |
| 18,100.0 | 90.00 | 359.55 | 12,465.0 | 5,575.0 | -382.7 | 5,587.5 | 0.00 | 0.00 | 0.00 |
| 18,200.0 | 90.00 | 359.55 | 12,465.0 | 5,675.0 | -383.5 | 5,687.4 | 0.00 | 0.00 | 0.00 |
| 18,300.0 | 90.00 | 359.55 | 12,465.0 | 5,775.0 | -384.3 | 5,787.3 | 0.00 | 0.00 | 0.00 |
| 18,400.0 | 90.00 | 359.55 | 12,465.0 | 5,875.0 | -385.1 | 5,887.2 | 0.00 | 0.00 | 0.00 |
| 18,500.0 | 90.00 | 359.55 | 12,465.0 | 5,974.9 | -385.9 | 5,987.1 | 0.00 | 0.00 | 0.00 |
| 18,600.0 | 90.00 | 359.55 | 12,465.0 | 6,074.9 | -386.7 | 6,087.0 | 0.00 | 0.00 | 0.00 |
| 18,700.0 | 90.00 | 359.55 | 12,465.0 | 6,174.9 | -387.5 | 6,186.9 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.1 Single User Db | **Local Co-ordinate Reference:** | Well #707H |
| **Company:** | EOG Resources - Midland | **TVD Reference:** | KB @ 3360.0usft |
| **Project:** | Lea County, NM (NAD 27 NME) | **MD Reference:** | KB @ 3360.0usft |
| **Site:** | Colgrove 35 Fed Com | **North Reference:** | Grid |
| **Well:** | #707H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #.01 | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 18,800.0 | 90.00 | 359.55 | 12,465.0 | 6,274.9 | -388.2 | 6,286.8 | 0.00 | 0.00 | 0.00 |
| 18,900.0 | 90.00 | 359.55 | 12,465.0 | 6,374.9 | -389.0 | 6,386.7 | 0.00 | 0.00 | 0.00 |
| 19,000.0 | 90.00 | 359.55 | 12,465.0 | 6,474.9 | -389.8 | 6,486.6 | 0.00 | 0.00 | 0.00 |
| 19,100.0 | 90.00 | 359.55 | 12,465.0 | 6,574.9 | -390.6 | 6,586.4 | 0.00 | 0.00 | 0.00 |
| 19,200.0 | 90.00 | 359.55 | 12,465.0 | 6,674.9 | -391.4 | 6,686.3 | 0.00 | 0.00 | 0.00 |
| 19,300.0 | 90.00 | 359.55 | 12,465.0 | 6,774.9 | -392.2 | 6,786.2 | 0.00 | 0.00 | 0.00 |
| 19,400.0 | 90.00 | 359.55 | 12,465.0 | 6,874.9 | -393.0 | 6,886.1 | 0.00 | 0.00 | 0.00 |
| 19,500.0 | 90.00 | 359.55 | 12,465.0 | 6,974.9 | -393.7 | 6,986.0 | 0.00 | 0.00 | 0.00 |
| 19,600.0 | 90.00 | 359.55 | 12,465.0 | 7,074.9 | -394.5 | 7,085.9 | 0.00 | 0.00 | 0.00 |
| 19,700.0 | 90.00 | 359.55 | 12,465.0 | 7,174.9 | -395.3 | 7,185.8 | 0.00 | 0.00 | 0.00 |
| 19,787.1 | 90.00 | 359.55 | 12,465.0 | 7,262.0 | -396.0 | 7,272.8 | 0.00 | 0.00 | 0.00 |
| **PBHL (CG 35 Fed Com 707H)** | | | | | | | | | |

**Design Targets**

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| FTP (CG 35 Fed Com 7( | 0.00 | 0.00 | 12,465.0 | 26.0 | -339.0 | 365,015.00 | 746,762.00 | 32° 0' 3.753 N | 103° 32' 14.336 W |
| - plan misses target center by 39.5usft at 12561.1usft MD (12428.5 TVD, 41.1 N, -337.7 E) | | | | | | | | | |
| - Point | | | | | | | | | |
| PBHL (CG 35 Fed Com | 0.00 | 0.01 | 12,465.0 | 7,262.0 | -396.0 | 372,251.00 | 746,705.00 | 32° 1' 15.363 N | 103° 32' 14.379 W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

Midwest Hose & Specialty, Inc.

# Internal Hydrostatic Test Graph

**Customer:** CACTUS

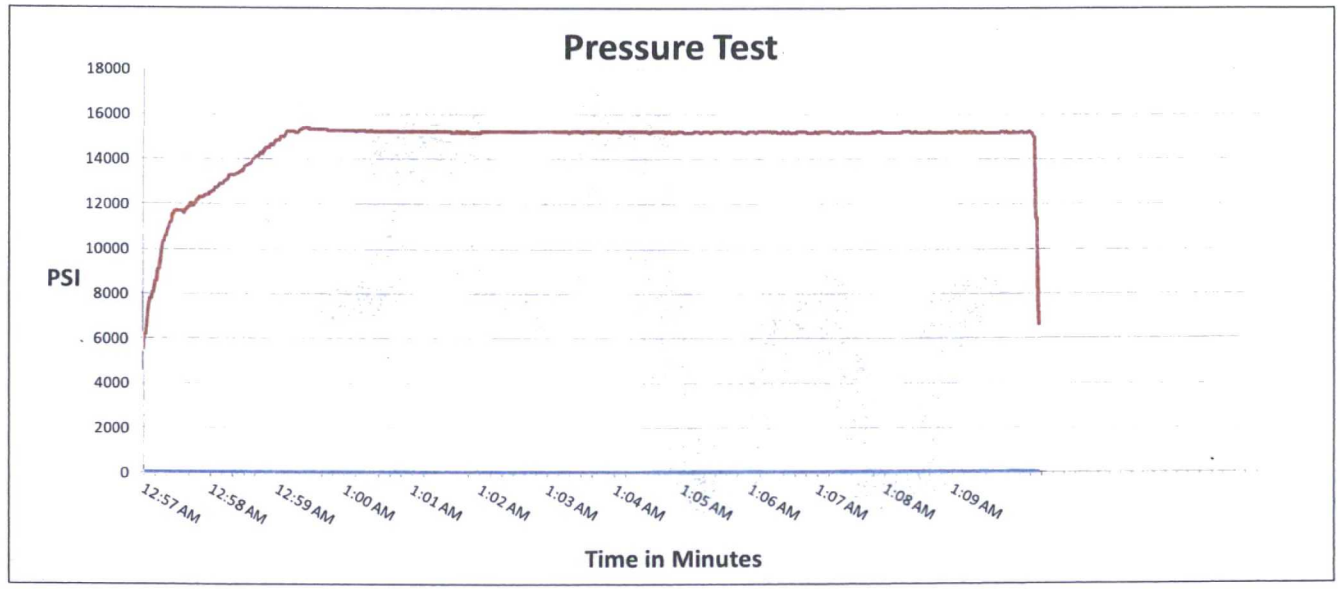
**SALES ORDER#** 90067

## Hose Specifications

| Hose Type | Length |
|---|---|
| C & K | 35' |
| **I.D.** | **O.D.** |
| 4" | 8" |
| **Working Pressure** | **Burst Pressure** |
| 10000 PSI | Standard Safety Multiplier Applies |

## Verification

| Type of Fitting | Coupling Method |
|---|---|
| 4 1/16 10K | Swage |
| **Die Size** | **Final O.D.** |
| 6.62" | 6.68" |
| **Hose Serial #** | **Hose Assembly Serial #** |
| | 90067 |




| Test Pressure | Time Held at Test Pressure | Actual Burst Pressure | Peak Pressure |
|---|---|---|---|
| 15000 PSI | 11 1/4 Minutes | | 15439 PSI |

**Comments:** Hose assembly pressure tested with water at ambient temperature.

**Tested By:** *Bobby Fink*

**Approved By:** *Mendi Jackson*

x Mendi Jackson