

HOBBS OCD
MAY 29 2019
RECEIVED



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Green Drake 16 Fed Com

#703H

OH

Design: OH

Final PVA Report

22 February, 2019





Final PVA Report

| | |
|---|---|
| Company: EOG Resources - Midland | Local Co-ordinate Reference: Well #703H |
| Project: Lea County, NM (NAD 83 NME) | TVD Reference: KB = 25 @ 3443.0usft (HP 444) |
| Site: Green Drake 16 Fed Com | MD Reference: KB = 25 @ 3443.0usft (HP 444) |
| Well: #703H | North Reference: Grid |
| Wellbore: OH | Survey Calculation Method: Minimum Curvature |
| Design: OH | Database: EDM 5000.14 |

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

| | | |
|---------------------------------------|----------------------------------|------------------------------------|
| Site Green Drake 16 Fed Com | | |
| Site Position: | Northing: 411,802.00 usft | Latitude: 32° 7' 47.652 N |
| From: Map | Easting: 773,380.00 usft | Longitude: 103° 35' 1.431 W |
| Position Uncertainty: 0.0 usft | Slot Radius: 13-3/16 " | Grid Convergence: 0.40 ° |

| | | |
|---------------------------------------|----------------------------------|------------------------------------|
| Well #703H | | |
| Well Position +N-S 0.0 usft | Northing: 411,803.00 usft | Latitude: 32° 7' 47.657 N |
| +E-W 0.0 usft | Easting: 773,446.00 usft | Longitude: 103° 35' 0.664 W |
| Position Uncertainty- 0.0 usft | Wellhead Elevation: usft | Ground Level: 3,418.0 usft |

| | | | | | |
|--------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore OH | | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2015 | 7/3/2018 | 6.84 | 59.96 | 47,773.76445873 |

| | | | | |
|--------------------------|--------------------------------|--------------------------|--------------------|----------------------|
| Design OH | | | | |
| Audit Notes: | | | | |
| Version: 1.0 | Phase: ACTUAL | Tie On Depth: 0.0 | | |
| Vertical Section: | Depth From (TVD) (usft) | +N-S (usft) | +E-W (usft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 175.39 |

| | | | | |
|-----------------------|-----------------------|--------------------------|------------------|---------------------|
| Survey Program | Date 2/22/2019 | | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
| 135.0 | 19,991.0 | Intrepid MWD #1 (OH) | MWD | OWSG MWD - Standard |



Final PVA Report

| | | | |
|-----------|-----------------------------|------------------------------|-------------------------------|
| Company: | EOG Resources - Midland | Local Co-ordinate Reference: | Well #703H |
| Project: | Lea County, NM (NAD 83 NME) | TVD Reference: | KB = 25 @ 3443.0usft (HP 444) |
| Site: | Green Drake 16 Fed Com | MD Reference: | KB = 25 @ 3443.0usft (HP 444) |
| Well: | #703H | North Reference: | Grid |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | EDM 5000.14 |

| MD (usft) | Inc (°) | Azi (grid_north_azim) | TVD (usft) | N/S (usft) | EW (usft) | DLeg (°/100usft) | BuBd (°/100usft) | Turn (°/100usft) | High to Plan (usft) | Right to Plan (usft) |
|-----------|---------|-----------------------|------------|------------|-----------|------------------|------------------|------------------|---------------------|----------------------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.0 | 0.0 |
| 135.0 | 0.30 | 326.30 | 135.0 | 0.3 | -0.2 | 0.22 | 0.22 | 0.00 | -0.4 | 0.0 |
| 328.0 | 0.40 | 15.30 | 328.0 | 1.4 | -0.3 | 0.16 | 0.05 | 25.39 | -1.2 | 0.6 |
| 512.0 | 0.40 | 4.60 | 512.0 | 2.6 | -0.1 | 0.04 | 0.00 | -5.82 | -2.6 | 0.3 |
| 690.0 | 0.70 | 246.00 | 690.0 | 2.8 | -1.0 | 0.54 | 0.17 | -66.63 | 0.2 | -3.0 |
| 878.0 | 0.80 | 229.50 | 878.0 | 1.5 | -3.1 | 0.13 | 0.05 | -8.78 | -1.4 | -3.1 |
| 1,065.0 | 0.60 | 237.30 | 1,065.0 | 0.1 | -4.9 | 0.12 | -0.11 | 4.17 | -4.1 | -2.7 |
| 1,178.0 | 0.60 | 233.50 | 1,178.0 | -0.6 | -5.9 | 0.04 | 0.00 | -3.36 | -5.0 | -3.0 |
| 1,247.0 | 0.40 | 250.70 | 1,246.9 | -0.9 | -6.4 | 0.36 | -0.29 | 24.93 | -6.3 | -1.3 |
| 1,435.0 | 0.20 | 251.80 | 1,434.9 | -1.2 | -7.3 | 0.11 | -0.11 | 0.59 | -7.3 | -1.2 |
| 1,623.0 | 0.30 | 311.10 | 1,622.9 | -1.0 | -8.0 | 0.14 | 0.05 | 31.54 | -5.4 | 6.0 |
| 1,811.0 | 0.20 | 317.40 | 1,810.9 | -0.4 | -8.6 | 0.08 | -0.05 | 3.35 | -5.5 | 6.6 |
| 1,999.0 | 2.70 | 54.20 | 1,998.9 | 2.4 | -5.2 | 1.45 | 1.33 | 51.49 | 2.8 | 5.0 |
| 2,187.0 | 5.80 | 61.80 | 2,186.3 | 9.5 | 8.8 | 1.67 | 1.65 | 4.04 | -10.4 | 5.2 |
| 2,375.0 | 7.20 | 62.50 | 2,373.1 | 19.4 | 25.6 | 0.75 | 0.74 | 0.37 | -26.4 | 6.2 |
| 2,563.0 | 9.30 | 63.90 | 2,559.2 | 31.6 | 49.7 | 1.12 | 1.12 | 0.74 | -35.8 | 9.0 |
| 2,751.0 | 10.10 | 74.40 | 2,744.5 | 42.7 | 79.2 | 1.03 | 0.43 | 5.59 | -42.2 | 16.4 |
| 2,938.0 | 8.20 | 80.70 | 2,929.1 | 49.3 | 108.1 | 1.15 | -1.02 | 3.37 | -47.5 | 18.6 |
| 3,126.0 | 9.00 | 77.10 | 3,115.0 | 54.7 | 135.7 | 0.51 | 0.43 | -1.91 | -53.9 | 12.0 |
| 3,314.0 | 7.30 | 77.50 | 3,301.1 | 60.6 | 161.7 | 0.90 | -0.90 | 0.21 | -57.8 | 9.5 |
| 3,502.0 | 7.70 | 76.30 | 3,487.5 | 66.1 | 185.6 | 0.23 | 0.21 | -0.64 | -59.8 | 5.6 |
| 3,690.0 | 7.40 | 77.70 | 3,673.8 | 71.7 | 209.7 | 0.19 | -0.16 | 0.74 | -61.6 | 4.4 |
| 3,877.0 | 6.90 | 77.90 | 3,859.4 | 76.6 | 232.4 | 0.27 | -0.27 | 0.11 | -62.3 | 1.6 |
| 4,065.0 | 6.70 | 75.60 | 4,046.1 | 81.7 | 254.1 | 0.18 | -0.11 | -1.22 | -61.8 | -3.6 |
| 4,253.0 | 6.00 | 74.90 | 4,232.9 | 87.0 | 274.2 | 0.37 | -0.37 | -0.37 | -59.7 | -6.3 |
| 4,440.0 | 8.70 | 70.50 | 4,418.4 | 94.3 | 297.0 | 1.47 | 1.44 | -2.35 | -60.1 | -11.7 |
| 4,629.0 | 9.70 | 67.30 | 4,604.9 | 105.2 | 325.1 | 0.59 | 0.53 | -1.69 | -66.7 | -14.7 |



Final PVA Report

| | |
|---|---|
| Company: EOG Resources - Midland | Local Co-ordinate Reference: Well #703H |
| Project: Lea County, NM (NAD 83 NME) | TVD Reference: KB = 25 @ 3443.0usft (HP 444) |
| Site: Green Drake 16 Fed Com | MD Reference: KB = 25 @ 3443.0usft (HP 444) |
| Well: #703H | North Reference: Grid |
| Wellbore: OH | Survey Calculation Method: Minimum Curvature |
| Design: OH | Database: EDM 5000.14 |

| MD (usft) | Inc (") | Azi (grid_north_azim) | TVD (usft) | NIS (usft) | EAW (usft) | DLeg ("/100usft) | Build ("/100usft) | Turn ("/100usft) | High to Plan (usft) | Right to Plan (usft) |
|-----------|---------|-----------------------|------------|------------|------------|------------------|-------------------|------------------|---------------------|----------------------|
| 4,816.0 | 10.00 | 77.70 | 4,789.2 | 114.7 | 355.5 | 0.98 | 0.16 | 5.56 | -77.5 | -2.7 |
| 5,003.0 | 6.20 | 73.00 | 4,974.3 | 121.1 | 381.1 | 2.06 | -2.03 | -2.51 | -80.6 | -11.4 |
| 5,191.0 | 5.00 | 52.20 | 5,161.4 | 129.1 | 397.2 | 1.24 | -0.84 | -11.06 | -87.2 | -35.6 |
| 5,378.0 | 5.50 | 50.20 | 5,347.6 | 139.9 | 410.6 | 0.28 | 0.27 | -1.07 | -61.6 | -30.4 |
| 5,566.0 | 6.20 | 54.00 | 5,534.6 | 151.6 | 425.7 | 0.43 | 0.37 | 2.02 | -60.6 | -19.3 |
| 5,753.0 | 5.20 | 70.60 | 5,720.7 | 160.3 | 441.9 | 1.03 | -0.53 | 8.88 | -58.9 | 1.3 |
| 5,940.0 | 6.70 | 81.20 | 5,906.7 | 164.8 | 460.6 | 0.99 | 0.80 | 5.67 | -54.5 | 9.3 |
| 6,128.0 | 6.20 | 71.80 | 6,093.5 | 169.7 | 481.1 | 0.62 | -0.27 | -5.00 | -53.4 | -2.1 |
| 6,316.0 | 6.10 | 69.30 | 6,280.5 | 178.4 | 500.1 | 0.15 | -0.05 | -1.33 | -50.5 | -4.5 |
| 6,503.0 | 5.90 | 67.10 | 6,468.4 | 183.6 | 518.3 | 0.16 | -0.11 | -1.18 | -47.0 | -5.6 |
| 6,690.0 | 5.80 | 65.80 | 6,652.5 | 191.2 | 535.7 | 0.09 | -0.05 | -0.70 | -43.2 | -5.2 |
| 6,878.0 | 5.60 | 64.60 | 6,839.5 | 199.1 | 552.7 | 0.12 | -0.11 | -0.64 | -38.9 | -4.0 |
| 7,066.0 | 5.70 | 60.10 | 7,026.6 | 207.7 | 569.1 | 0.24 | 0.05 | -2.39 | -34.4 | -3.8 |
| 7,253.0 | 4.80 | 92.30 | 7,212.9 | 212.0 | 584.9 | 1.62 | -0.48 | 17.22 | -30.1 | 13.2 |
| 7,441.0 | 2.00 | 165.00 | 7,400.6 | 208.5 | 593.7 | 2.46 | -1.49 | 38.67 | -2.4 | 34.2 |
| 7,629.0 | 1.70 | 238.80 | 7,588.5 | 203.9 | 592.1 | 1.19 | -0.16 | 39.31 | 28.5 | 15.0 |
| 7,817.0 | 1.60 | 229.40 | 7,776.4 | 200.7 | 587.7 | 0.15 | -0.05 | -5.05 | 20.2 | 19.0 |
| 8,004.0 | 1.70 | 224.90 | 7,963.4 | 197.1 | 583.8 | 0.09 | 0.05 | -2.41 | 13.3 | 20.3 |
| 8,191.0 | 1.60 | 218.90 | 8,150.3 | 193.1 | 580.2 | 0.11 | -0.05 | -3.21 | 5.7 | 21.3 |
| 8,378.0 | 1.50 | 258.60 | 8,337.2 | 190.6 | 576.2 | 0.57 | -0.05 | 21.23 | 13.6 | 14.4 |
| 8,566.0 | 1.50 | 278.70 | 8,525.2 | 190.4 | 571.3 | 0.28 | 0.00 | 10.69 | 12.9 | 9.7 |
| 8,754.0 | 1.50 | 269.20 | 8,713.1 | 190.8 | 566.4 | 0.13 | 0.00 | -5.05 | 6.3 | 11.3 |
| 8,942.0 | 1.60 | 253.50 | 8,901.0 | 190.0 | 561.4 | 0.23 | 0.05 | -8.35 | -2.0 | 11.9 |
| 9,130.0 | 1.30 | 322.00 | 9,089.0 | 190.9 | 557.6 | 0.88 | -0.16 | 36.44 | 7.2 | 8.7 |
| 9,318.0 | 1.00 | 283.80 | 9,276.9 | 193.0 | 554.7 | 0.43 | -0.16 | -20.32 | -3.0 | 10.0 |
| 9,506.0 | 1.10 | 279.00 | 9,464.9 | 193.7 | 551.3 | 0.07 | 0.05 | -2.55 | -7.3 | 9.6 |
| 9,693.0 | 1.70 | 270.30 | 9,651.9 | 194.0 | 546.8 | 0.34 | 0.32 | -4.65 | -13.2 | 8.1 |



Final PVA Report

| | | | |
|------------------|-----------------------------|-------------------------------------|-------------------------------|
| Company: | EOG Resources - Midland | Local Co-ordinate Reference: | Well #703H |
| Project: | Lea County, NM (NAD 83 NME) | TVD Reference: | KB = 25 @ 3443.0usft (HP 444) |
| Site: | Green Drake 16 Fed Com | MD Reference: | KB = 25 @ 3443.0usft (HP 444) |
| Well: | #703H | North Reference: | Grid |
| Wellbore: | :OH | Survey Calculation Method: | Minimum Curvature |
| Design: | :OH | Database: | EDM 5000.14 |

| Survey | | | | | | | | | | | | |
|---|------------|--------------------------|---------------|---------------|--------------|---------------------|----------------------|---------------------|------------------------|-------------------------|--|--|
| MD (usft) | Inc (°) | Azi (grid_north_azim) | TVD (usft) | N/S (usft) | EW (usft) | DLeg (°/100usft) | Build (°/100usft) | Turn (°/100usft) | High to Plan (usft) | Right to Plan (usft) | | |
| 9,881.0 | 1.70 | 290.30 | 9,839.8 | 195.0 | 541.4 | 0.31 | 0.00 | 10.64 | -15.0 | 13.1 | | |
| 10,068.0 | 1.80 | 260.10 | 10,026.7 | 195.4 | 535.9 | 0.49 | 0.05 | -16.15 | -24.9 | 2.3 | | |
| 10,256.0 | 0.40 | 214.50 | 10,214.6 | 194.4 | 532.6 | 0.82 | -0.74 | -24.26 | -21.8 | -18.3 | | |
| 10,443.0 | 0.30 | 281.90 | 10,401.6 | 193.9 | 531.8 | 0.21 | -0.05 | 38.04 | -28.0 | 13.7 | | |
| 10,631.0 | 0.70 | 302.70 | 10,589.6 | 194.7 | 530.3 | 0.23 | 0.21 | 11.06 | -21.0 | 22.2 | | |
| 10,817.0 | 0.80 | 102.80 | 10,775.6 | 195.0 | 530.6 | 0.78 | 0.05 | 86.08 | 27.1 | -13.4 | | |
| 11,005.0 | 1.10 | 241.40 | 10,963.6 | 193.8 | 530.3 | 0.95 | 0.16 | 73.72 | -30.0 | -7.0 | | |
| 11,193.0 | 1.30 | 36.70 | 11,151.6 | 194.7 | 530.0 | 1.25 | 0.11 | 82.61 | 23.8 | 19.7 | | |
| 11,381.0 | 0.60 | 5.10 | 11,339.6 | 197.4 | 531.4 | 0.45 | -0.37 | -16.81 | 7.2 | 28.1 | | |
| 11,568.0 | 1.40 | 297.80 | 11,528.6 | 199.4 | 529.4 | 0.69 | 0.43 | -35.99 | -25.8 | 16.6 | | |
| 11,755.0 | 1.20 | 80.20 | 11,713.5 | 200.8 | 529.3 | 1.32 | -0.11 | 76.15 | 30.4 | 4.0 | | |
| 11,871.0 | 1.30 | 69.90 | 11,829.5 | 201.5 | 531.8 | 0.21 | 0.09 | -8.88 | 26.7 | 9.2 | | |
| 11,965.0 | 1.50 | 55.10 | 11,923.5 | 202.5 | 533.8 | 0.44 | 0.21 | -15.74 | 21.2 | 15.4 | | |
| 12,009.8 | 6.28 | 162.13 | 11,968.2 | 200.5 | 535.0 | 15.34 | 10.67 | 238.90 | 6.2 | -24.2 | | |
| KOP (GD 16 FC #703H) | | | | | | | | | | | | |
| 12,058.0 | 13.60 | 168.70 | 12,015.6 | 192.5 | 536.9 | 15.34 | 15.18 | 13.64 | -2.5 | -24.0 | | |
| 12,090.0 | 20.40 | 167.10 | 12,048.2 | 183.3 | 538.9 | 21.30 | 21.25 | -5.00 | -7.1 | -23.2 | | |
| 12,121.0 | 27.00 | 166.70 | 12,074.6 | 171.2 | 541.8 | 21.30 | 21.29 | -1.29 | -13.5 | -22.0 | | |
| 12,152.0 | 33.50 | 167.60 | 12,101.4 | 156.0 | 545.2 | 21.02 | 20.97 | 2.90 | -21.9 | -20.2 | | |
| 12,159.1 | 34.27 | 167.78 | 12,107.2 | 152.1 | 546.1 | 10.94 | 10.84 | 2.60 | -24.0 | -18.7 | | |
| HL Crossing, MD:12159.1, TVD:12107.2, N/S:162.1, EW:546.1, INC:34.27 | | | | | | | | | | | | |
| 12,199.0 | 38.60 | 168.70 | 12,139.3 | 128.9 | 550.9 | 10.94 | 10.85 | 2.29 | -35.6 | -16.5 | | |
| 12,245.0 | 42.20 | 168.90 | 12,174.4 | 99.7 | 556.7 | 7.83 | 7.83 | 0.43 | -47.7 | -12.2 | | |
| 12,339.0 | 48.60 | 175.50 | 12,240.4 | 33.4 | 565.5 | 8.44 | 6.81 | 7.02 | -85.5 | 0.9 | | |
| 12,386.0 | 48.30 | 174.80 | 12,271.5 | -1.6 | 568.5 | 1.15 | -0.64 | -1.28 | -68.6 | 3.4 | | |
| FTP (GD 16 FC #703H) | | | | | | | | | | | | |
| 12,433.0 | 52.60 | 174.60 | 12,301.5 | -37.7 | 571.8 | 9.15 | 9.14 | -0.64 | -68.0 | 6.8 | | |



Final PVA Report

| | |
|---|---|
| Company: EOG Resources - Midland | Local Co-ordinate Reference: Well #703H |
| Project: Lea County, NM (NAD 83 NME) | TVD Reference: KB = 25 @ 3443.0usft (HP 444) |
| Site: Green Drake 16 Fed Com | MD Reference: KB = 25 @ 3443.0usft (HP 444) |
| Well: #703H | North Reference: Grid |
| Wellbore: OH | Survey Calculation Method: Minimum Curvature |
| Design: OH | Database: EDM 5000.14 |

| MD (usft) | Inc (°) | Azi (grid_north_azim) | TVD (usft) | N/S (usft) | E/W (usft) | DLeg (*100usft) | Build (*100usft) | Turn (*100usft) | High to Plan (usft) | Right to Plan (usft) |
|--------------|------------|--------------------------|---------------|---------------|---------------|--------------------|---------------------|--------------------|------------------------|-------------------------|
| 12,480.0 | 58.70 | 174.90 | 12,328.0 | -78.3 | 575.3 | 12.99 | 12.98 | 0.64 | -66.2 | 10.9 |
| 12,527.0 | 64.00 | 177.60 | 12,350.5 | -117.5 | 578.0 | 12.35 | 11.28 | 5.74 | -63.4 | 15.1 |
| 12,574.0 | 66.20 | 179.60 | 12,370.3 | -160.1 | 579.0 | 6.07 | 4.68 | 4.26 | -58.5 | 16.8 |
| 12,621.0 | 70.00 | 180.50 | 12,387.8 | -203.7 | 579.0 | 8.28 | 8.09 | 1.91 | -50.9 | 16.8 |
| 12,668.0 | 73.40 | 181.10 | 12,402.6 | -248.3 | 578.4 | 7.33 | 7.23 | 1.28 | -41.4 | 15.9 |
| 12,715.0 | 76.40 | 181.60 | 12,414.8 | -293.6 | 577.3 | 6.47 | 6.38 | 1.06 | -30.0 | 14.5 |
| 12,762.0 | 77.50 | 181.50 | 12,425.4 | -339.4 | 576.1 | 2.35 | 2.34 | -0.21 | -19.4 | 12.8 |
| 12,809.0 | 78.90 | 180.70 | 12,435.0 | -385.4 | 575.2 | 3.41 | 2.98 | -1.70 | -9.8 | 11.5 |
| 12,856.0 | 81.40 | 180.20 | 12,443.1 | -431.7 | 574.8 | 5.42 | 5.32 | -1.06 | -1.8 | 10.7 |
| 12,903.0 | 84.60 | 181.20 | 12,448.8 | -478.3 | 574.2 | 7.13 | 6.81 | 2.13 | 3.8 | 9.6 |
| 12,950.0 | 85.30 | 179.40 | 12,452.9 | -525.2 | 574.0 | 4.10 | 1.49 | -3.83 | 8.0 | 9.3 |
| 12,997.0 | 85.10 | 179.80 | 12,456.9 | -572.0 | 574.3 | 0.95 | -0.43 | 0.85 | 11.9 | 9.4 |
| 13,044.0 | 89.60 | 180.10 | 12,459.1 | -618.9 | 574.4 | 9.60 | 9.57 | 0.64 | 14.1 | 9.1 |
| 13,091.0 | 91.50 | 179.60 | 12,458.6 | -665.9 | 574.5 | 4.18 | 4.04 | -1.06 | 13.6 | 8.9 |
| 13,185.0 | 88.60 | 179.10 | 12,458.5 | -759.9 | 575.6 | 3.13 | -3.09 | -0.53 | 13.5 | 9.4 |
| 13,205.0 | 87.70 | 179.30 | 12,459.2 | -779.9 | 575.8 | 4.61 | -4.50 | 1.00 | 14.2 | 9.5 |
| 13,298.0 | 88.40 | 179.10 | 12,462.3 | -872.8 | 577.1 | 0.78 | 0.75 | -0.22 | 17.3 | 10.2 |
| 13,391.0 | 89.80 | 180.00 | 12,463.8 | -965.8 | 577.9 | 1.78 | 1.51 | 0.97 | 18.8 | 10.3 |
| 13,484.0 | 89.00 | 179.80 | 12,464.8 | -1,058.8 | 578.0 | 0.89 | -0.88 | -0.22 | 19.8 | 9.9 |
| 13,578.0 | 89.90 | 180.30 | 12,465.7 | -1,152.8 | 577.9 | 1.10 | 0.98 | 0.53 | 20.7 | 9.2 |
| 13,671.0 | 91.50 | 180.60 | 12,464.5 | -1,245.8 | 577.2 | 1.75 | 1.72 | 0.32 | 19.5 | 7.9 |
| 13,765.0 | 93.50 | 180.90 | 12,460.4 | -1,339.7 | 576.0 | 2.15 | 2.13 | 0.32 | 15.4 | 6.1 |
| 13,858.0 | 94.70 | 181.50 | 12,453.8 | -1,432.4 | 574.0 | 1.44 | 1.29 | 0.65 | 8.8 | 3.5 |
| 13,952.0 | 93.60 | 182.00 | 12,446.8 | -1,526.1 | 571.2 | 1.09 | -0.98 | 0.53 | 1.8 | 0.1 |
| 14,045.0 | 90.30 | 180.30 | 12,443.5 | -1,619.0 | 569.3 | 4.18 | -3.78 | -1.83 | -1.5 | -2.4 |
| 14,139.0 | 87.00 | 180.00 | 12,445.7 | -1,713.0 | 569.1 | 3.53 | -3.51 | -0.32 | 0.7 | -3.3 |
| 14,233.0 | 86.20 | 180.70 | 12,451.3 | -1,806.8 | 568.5 | 1.13 | -0.85 | 0.74 | 6.3 | -4.4 |



Final PVA Report

| | |
|---|---|
| Company: EOG Resources - Midland | Local Co-ordinate Reference: Well #703H |
| Project: Lea County, NM (NAD 83 NME) | TVD Reference: KB = 25 @ 3443.0usft (HP 444) |
| Site: Green Drake 16 Fed Com | MD Reference: KB = 25 @ 3443.0usft (HP 444) |
| Well: #703H | North Reference: Grid |
| Wellbore: OH | Survey Calculation Method: Minimum Curvature |
| Design: OH | Database: EDM 5000.14 |

| MD (usft) | Inc (") | Azi (grid_north_azim) | TVD (usft) | N/S (usft) | EW (usft) | DLeg (*100usft) | Build (*100usft) | Turn (*100usft) | High to Plan (usft) | Right to Plan (usft) |
|-------------------------------|---------|-----------------------|------------|------------|-----------|-----------------|------------------|-----------------|---------------------|----------------------|
| 14,327.0 | 86.00 | 181.50 | 12,457.7 | -1,800.6 | 566.7 | 0.88 | -0.21 | 0.85 | 12.7 | -6.9 |
| 14,385.4 | 86.31 | 181.69 | 12,461.6 | -1,858.9 | 565.1 | 0.63 | 0.54 | 0.32 | 16.6 | -8.9 |
| TGT 1 (GD 16 FC #703H) | | | | | | | | | | |
| 14,420.0 | 86.50 | 181.80 | 12,463.8 | -1,993.3 | 564.0 | 0.63 | 0.54 | 0.32 | 18.9 | -10.1 |
| 14,514.0 | 89.90 | 181.50 | 12,468.7 | -2,087.2 | 581.3 | 3.63 | 3.62 | -0.32 | 22.3 | -13.4 |
| 14,608.0 | 91.90 | 179.70 | 12,465.2 | -2,181.2 | 560.3 | 2.86 | 2.13 | -1.91 | 21.3 | -15.0 |
| 14,702.0 | 92.10 | 179.50 | 12,461.9 | -2,275.2 | 561.0 | 0.30 | 0.21 | -0.21 | 18.5 | -15.0 |
| 14,795.0 | 93.30 | 179.50 | 12,457.6 | -2,368.1 | 561.8 | 1.29 | 1.29 | 0.00 | 14.6 | -14.8 |
| 14,889.0 | 93.10 | 178.80 | 12,452.3 | -2,461.9 | 563.2 | 0.77 | -0.21 | -0.74 | 9.8 | -14.0 |
| 14,983.0 | 93.60 | 179.50 | 12,448.8 | -2,555.7 | 564.6 | 0.91 | 0.53 | 0.74 | 4.8 | -13.2 |
| 15,077.0 | 91.20 | 178.40 | 12,442.9 | -2,648.6 | 566.3 | 2.81 | -2.55 | -1.17 | 1.3 | -12.0 |
| 15,171.0 | 88.80 | 178.40 | 12,442.9 | -2,743.6 | 588.9 | 2.55 | -2.55 | 0.00 | 1.8 | -10.0 |
| 15,264.0 | 89.70 | 178.80 | 12,444.1 | -2,838.5 | 571.2 | 1.06 | 0.97 | 0.43 | 3.5 | -8.4 |
| 15,358.0 | 88.80 | 179.60 | 12,445.3 | -2,930.5 | 572.5 | 1.28 | -0.96 | 0.85 | 5.2 | -7.6 |
| 15,452.0 | 88.40 | 180.30 | 12,447.6 | -3,024.5 | 572.8 | 0.86 | -0.43 | 0.74 | 7.9 | -8.2 |
| 15,544.0 | 89.00 | 178.60 | 12,449.7 | -3,118.5 | 573.5 | 1.96 | 0.65 | -1.85 | 10.5 | -7.9 |
| 15,637.0 | 94.60 | 178.00 | 12,448.8 | -3,209.3 | 576.2 | 6.06 | 6.02 | -0.85 | 8.0 | -5.7 |
| 15,732.0 | 95.60 | 178.90 | 12,438.4 | -3,303.9 | 578.8 | 1.41 | 1.05 | 0.95 | 0.0 | -3.8 |
| 15,825.0 | 92.60 | 180.00 | 12,431.7 | -3,398.7 | 579.7 | 3.43 | -3.23 | 1.18 | -6.1 | -3.5 |
| 15,920.0 | 90.50 | 180.80 | 12,429.1 | -3,491.6 | 579.0 | 2.37 | -2.21 | 0.84 | -8.2 | -4.7 |
| 16,013.0 | 89.70 | 181.20 | 12,429.0 | -3,584.6 | 577.4 | 0.98 | -0.86 | 0.43 | -7.9 | -7.0 |
| 16,108.0 | 90.10 | 180.90 | 12,429.1 | -3,679.6 | 575.7 | 0.53 | 0.42 | -0.32 | -7.3 | -9.3 |
| 16,202.0 | 87.90 | 179.70 | 12,430.8 | -3,773.6 | 575.2 | 2.67 | -2.34 | -1.28 | -5.2 | -10.4 |
| 16,295.0 | 87.60 | 179.30 | 12,434.4 | -3,866.5 | 576.0 | 0.54 | -0.32 | -0.43 | -1.1 | -10.2 |
| 16,388.0 | 94.50 | 179.50 | 12,432.7 | -3,959.4 | 576.9 | 7.42 | 7.42 | 0.22 | -2.3 | -9.8 |
| 16,394.4 | 94.26 | 179.39 | 12,432.2 | -3,965.8 | 577.0 | 4.09 | -3.72 | -1.71 | -2.8 | -9.8 |
| TGT 2 (GD 16 FC #703H) | | | | | | | | | | |



Final PVA Report

| | |
|---|---|
| Company: EOG Resources - Midland | Local Co-ordinate Reference: Well #703H |
| Project: Lea County, NM (MAD 83 NME) | TVD Reference: KB = 25 @ 3443.0usft (HP 444) |
| Site: Green Drake 16 Fed Com | MD Reference: KB = 25 @ 3443.0usft (HP 444) |
| Well: #703H | North Reference: Grid |
| Wellbore: OH | Survey Calculation Method: Minimum Curvature |
| Designer: OH | Database: EDM 5000.14 |

| MD (usft) | Inc (") | Azi (grid_north_azim) | TVD (usft) | NIS (usft) | EW (usft) | DLeg ("/100usft) | Build ("/100usft) | Turn ("/100usft) | High to Plan (usft) | Right to Plan (usft) |
|-------------------------------|------------|--------------------------|---------------|---------------|--------------|---------------------|----------------------|---------------------|------------------------|-------------------------|
| 16,482.0 | 91.00 | 177.90 | 12,428.2 | -4,053.3 | 579.1 | 4.09 | -3.72 | -1.70 | -5.9 | -8.3 |
| 16,591.0 | 91.30 | 177.90 | 12,428.0 | -4,182.2 | 583.1 | 0.28 | 0.28 | 0.00 | -7.0 | -5.0 |
| 16,669.0 | 89.10 | 177.20 | 12,425.8 | -4,240.1 | 588.4 | 2.98 | -2.82 | -0.80 | -6.5 | -2.2 |
| 16,763.0 | 91.10 | 178.60 | 12,425.6 | -4,334.0 | 589.8 | 2.60 | 2.13 | 1.49 | -5.8 | 0.7 |
| 16,856.0 | 87.20 | 178.40 | 12,427.0 | -4,427.0 | 592.3 | 4.20 | -4.19 | -0.22 | -3.4 | 2.5 |
| 16,949.0 | 87.80 | 178.70 | 12,431.0 | -4,519.8 | 594.6 | 0.72 | 0.65 | 0.32 | 1.5 | 4.3 |
| 17,043.0 | 88.00 | 179.30 | 12,434.5 | -4,613.8 | 596.3 | 0.67 | 0.21 | 0.84 | 5.9 | 5.3 |
| 17,138.0 | 88.70 | 179.50 | 12,437.2 | -4,708.7 | 597.2 | 0.78 | 0.75 | 0.22 | 9.5 | 5.7 |
| 17,230.0 | 93.00 | 181.80 | 12,435.8 | -4,800.7 | 598.2 | 5.19 | 4.57 | 2.45 | 9.1 | 4.0 |
| 17,324.0 | 88.20 | 182.10 | 12,434.8 | -4,894.6 | 593.0 | 5.12 | -5.11 | 0.32 | 9.0 | 0.2 |
| 17,418.0 | 88.80 | 181.20 | 12,437.2 | -4,988.5 | 590.3 | 1.15 | 0.64 | -0.88 | 12.4 | -3.1 |
| 17,511.0 | 87.70 | 179.70 | 12,440.1 | -5,081.5 | 589.5 | 2.00 | -1.18 | -1.61 | 16.2 | -4.5 |
| 17,605.0 | 88.40 | 175.70 | 12,443.3 | -5,175.3 | 593.3 | 4.32 | 0.74 | -4.28 | 20.3 | -1.3 |
| 17,699.0 | 91.40 | 179.10 | 12,443.4 | -5,269.2 | 597.6 | 4.82 | 3.19 | 3.62 | 21.4 | 2.4 |
| 17,793.0 | 87.50 | 176.90 | 12,444.3 | -5,363.1 | 600.9 | 4.76 | -4.15 | -2.34 | 23.3 | 5.0 |
| 17,887.0 | 90.00 | 176.50 | 12,446.4 | -5,456.9 | 606.3 | 2.69 | 2.66 | -0.43 | 26.3 | 9.8 |
| 17,980.0 | 90.20 | 176.40 | 12,446.2 | -5,549.7 | 612.0 | 0.24 | 0.22 | -0.11 | 27.0 | 15.0 |
| 18,074.0 | 92.50 | 176.50 | 12,444.0 | -5,643.5 | 617.8 | 2.45 | 2.45 | 0.11 | 25.8 | 20.2 |
| 18,168.0 | 93.10 | 176.50 | 12,439.4 | -5,737.2 | 623.6 | 0.64 | 0.64 | 0.00 | 22.1 | 25.3 |
| 18,263.0 | 91.30 | 178.70 | 12,435.8 | -5,832.1 | 627.6 | 2.99 | -1.89 | 2.32 | 19.4 | 28.7 |
| 18,356.0 | 92.00 | 179.60 | 12,433.1 | -5,925.0 | 628.9 | 1.23 | 0.75 | 0.97 | 17.6 | 29.5 |
| 18,403.0 | 92.35 | 180.55 | 12,431.3 | -5,972.0 | 628.9 | 2.15 | 0.75 | 2.02 | 16.3 | 29.2 |
| TOT 3 (GD 16 FC #703H) | | | | | | | | | | |
| 18,450.0 | 92.70 | 181.50 | 12,429.2 | -6,018.9 | 628.0 | 2.15 | 0.74 | 2.02 | 14.8 | 28.0 |
| 18,543.0 | 93.20 | 181.80 | 12,424.5 | -6,111.8 | 625.4 | 0.83 | 0.54 | 0.32 | 11.2 | 24.8 |
| 18,637.0 | 94.00 | 182.90 | 12,418.6 | -6,205.5 | 621.5 | 1.45 | 0.85 | 1.17 | 6.4 | 20.3 |
| 18,731.0 | 92.00 | 183.20 | 12,413.6 | -6,299.3 | 616.5 | 2.15 | -2.13 | 0.32 | 2.7 | 14.7 |



Final PVA Report

| | | | |
|------------------|-----------------------------|-------------------------------------|-------------------------------|
| Company: | EOG Resources - Midland | Local Co-ordinate Reference: | Well #703H |
| Project: | Lea County, NM (NAD 83 NME) | TVD Reference: | KB = 25 @ 3443.0usft (HP 444) |
| Site: | Green Drake 16 Fed Com | MD Reference: | KB = 25 @ 3443.0usft (HP 444) |
| Well: | #703H | North Reference: | Grid |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | EDM 5000.14 |

| ED (usft) | Inc (") | Asl (grid_north_usft) | TVD (usft) | N/S (usft) | E/W (usft) | DLag ("/100usft) | Solid ("/100usft) | Turn ("/100usft) | High to Plan (usft) | Right to Plan (usft) |
|-------------------------------------|---------|-----------------------|------------|------------|------------|------------------|-------------------|------------------|---------------------|----------------------|
| 18,825.0 | 89.90 | 181.40 | 12,412.1 | -8,393.2 | 612.7 | 2.94 | -2.23 | -1.81 | 2.4 | 10.3 |
| 18,919.0 | 90.50 | 180.10 | 12,411.8 | -8,487.1 | 611.5 | 1.52 | 0.64 | -1.38 | 3.2 | 8.5 |
| 19,013.0 | 93.60 | 179.80 | 12,408.4 | -8,581.1 | 611.6 | 3.31 | 3.30 | -0.32 | 1.1 | 8.0 |
| 19,107.0 | 93.90 | 179.80 | 12,402.2 | -8,674.9 | 611.9 | 0.32 | 0.32 | 0.00 | -3.9 | 7.7 |
| 19,201.0 | 88.30 | 179.30 | 12,400.4 | -8,768.8 | 612.7 | 5.88 | -5.98 | -0.53 | -4.5 | 7.8 |
| 19,295.0 | 86.00 | 179.30 | 12,405.1 | -8,862.7 | 613.8 | 2.45 | -2.45 | 0.00 | 1.3 | 8.4 |
| 19,388.0 | 87.90 | 179.40 | 12,410.1 | -8,955.5 | 614.9 | 2.05 | 2.04 | 0.11 | 7.5 | 8.8 |
| 19,482.0 | 90.40 | 180.10 | 12,411.5 | -7,048.5 | 615.3 | 2.78 | 2.66 | 0.74 | 10.0 | 8.8 |
| 19,576.0 | 90.80 | 179.50 | 12,410.5 | -7,143.5 | 615.6 | 0.77 | 0.43 | -0.84 | 10.2 | 8.3 |
| 19,670.0 | 90.40 | 178.70 | 12,409.5 | -7,237.5 | 617.1 | 0.95 | -0.43 | -0.85 | 10.4 | 9.2 |
| 19,764.0 | 89.10 | 177.40 | 12,409.9 | -7,331.4 | 620.3 | 1.98 | -1.38 | -1.38 | 12.0 | 11.8 |
| 19,858.0 | 92.00 | 177.40 | 12,409.0 | -7,425.3 | 624.5 | 3.09 | 3.09 | 0.00 | 12.3 | 15.4 |
| 19,932.0 | 90.10 | 176.40 | 12,407.6 | -7,499.2 | 628.5 | 2.90 | -2.57 | -1.35 | 11.9 | 19.0 |
| Final MWD Survey (MD=18932.0) | | | | | | | | | | |
| 19,990.5 | 90.10 | 176.40 | 12,407.5 | -7,557.6 | 632.2 | 0.00 | 0.00 | 0.00 | 12.5 | 22.3 |
| PBH (GD 16 FC #703H) | | | | | | | | | | |
| 19,991.0 | 90.10 | 176.40 | 12,407.5 | -7,558.1 | 632.2 | 0.00 | 0.00 | 0.00 | 12.5 | 22.3 |
| Final Projection to BH (MD=18991.0) | | | | | | | | | | |

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
|-----------------------|-----------------------|-------------------|-------------|---|
| | | +N/S (usft) | +E/W (usft) | |
| 12,159.1 | 12,107.2 | 152.1 | 546.1 | HL Crossing, MD:12159.1', TVD:12107.2', N/S:152.1', E/W:546.1', INC:34.27 |
| 19,932.0 | 12,407.6 | -7,499.2 | 628.5 | Final MWD Survey (MD=18932.0') |
| 19,991.0 | 12,407.5 | -7,558.1 | 632.2 | Final Projection to BH (MD=18991.0') |

Checked By: _____ Approved By: _____ Date: _____



Lea County, NM (NAD 83 NME)
 Green Drake 16 Fed Com #703H
 HP 444
 Plan #1

PROJECT DETAILS: Lea County, NM (NAD 83 NME)
 Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level

WELL DETAILS: #703H
 KB = 25 @ 3443.0ust (HP 444) 3418.0
 Northing 411803.00 Easting 773446.00 Latitude 32° 7' 47.637" N Longitude 103° 33' 0.864" W

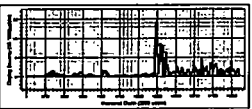
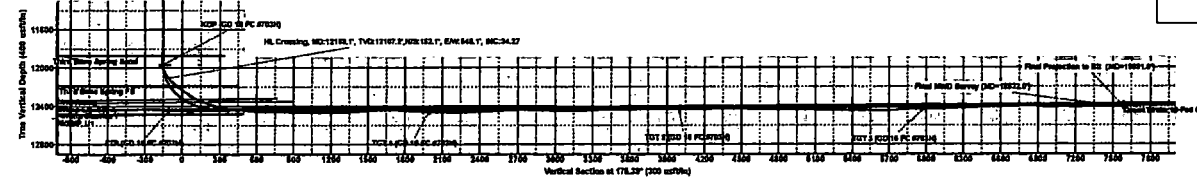
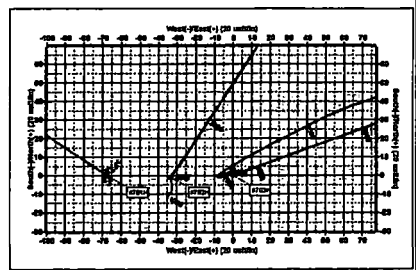
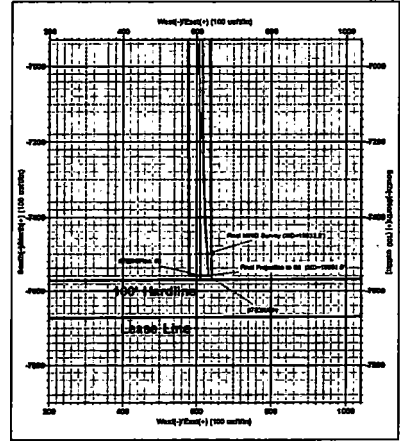
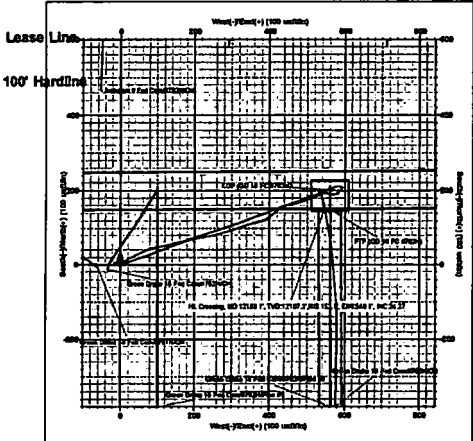
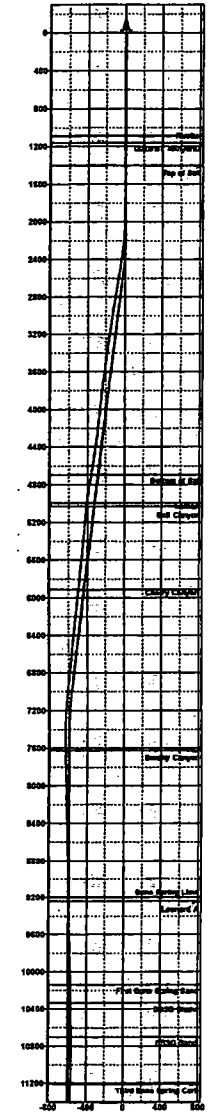
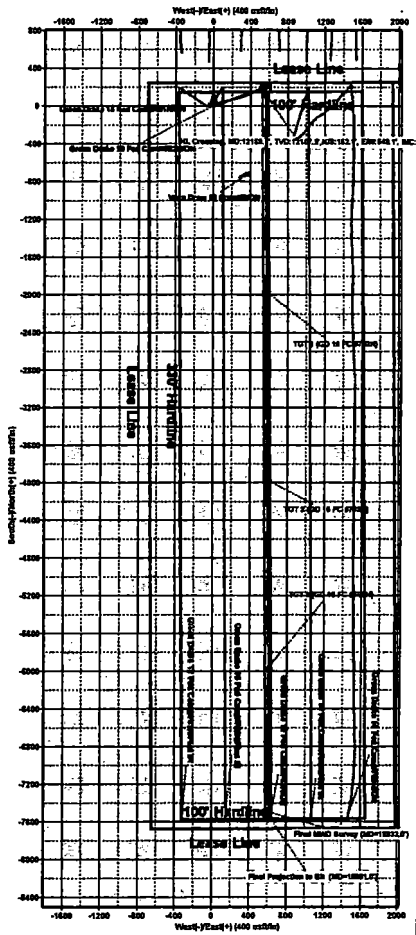


To convert a Magnetic Direction to a Grid Direction, Add 6.44°
 To convert a Magnetic Direction to a True Direction, Add 9.84° East
 To convert a True Direction to a Grid Direction, Subtract 0.40°

| Sec | MD | Inc | Azi | TVD | +N-S | +E-W | Dleg | TFace | VSect | Target |
|-----|---------|-------|--------|---------|---------|-------|-------|--------|--------|------------------------|
| 1 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2 | 2200.0 | 0.00 | 0.00 | 2200.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 3 | 2549.9 | 7.00 | 70.16 | 2549.0 | 7.2 | 20.1 | 2.00 | 70.16 | -5.6 | |
| 4 | 7085.6 | 7.00 | 70.16 | 7051.0 | 194.8 | 539.9 | 0.00 | 0.00 | -150.7 | |
| 5 | 7435.5 | 0.00 | 0.00 | 7400.0 | 202.0 | 560.0 | 2.00 | 180.00 | -156.3 | |
| 6 | 12003.0 | 0.00 | 0.00 | 11967.5 | 202.0 | 560.0 | 0.00 | 0.00 | -156.3 | KOP (GD 16 FC #703H) |
| 7 | 12753.0 | 90.00 | 179.63 | 12445.0 | -275.4 | 563.1 | 12.00 | 179.63 | 319.8 | |
| 8 | 14437.8 | 90.00 | 179.63 | 12445.0 | -1960.2 | 573.9 | 0.00 | 0.00 | 2000.0 | TGT 1 (GD 16 FC #703H) |
| 9 | 14452.2 | 90.29 | 179.63 | 12445.0 | -1974.6 | 574.0 | 2.00 | 0.00 | 2014.4 | |
| 10 | 16443.4 | 90.29 | 179.63 | 12435.0 | -3965.7 | 588.6 | 0.00 | 0.00 | 4000.0 | TGT 2 (GD 16 FC #703H) |
| 11 | 16457.7 | 90.57 | 179.63 | 12434.9 | -3980.0 | 588.9 | 2.00 | 0.00 | 4014.3 | |
| 12 | 18448.9 | 90.57 | 179.63 | 12415.0 | -5971.1 | 599.7 | 0.00 | 0.00 | 6000.0 | TGT 3 (GD 16 FC #703H) |
| 13 | 18456.4 | 90.72 | 179.63 | 12414.9 | -5978.6 | 599.8 | 2.00 | 0.00 | 6007.4 | |
| 14 | 20037.0 | 90.72 | 179.63 | 12395.0 | -7559.0 | 609.9 | 0.00 | 0.00 | 7583.6 | PBHL (GD 16 FC #703H) |

CASING DETAILS
 No casing data is available

| Name | TVD | +N-S | +E-W | Northing | Easting |
|------------------------|---------|---------|-------|-----------|-----------|
| KOP (GD 16 FC #703H) | 11967.5 | 202.0 | 560.0 | 412905.00 | 774038.00 |
| PBHL (GD 16 FC #703H) | 12395.0 | -7559.0 | 609.9 | 404244.00 | 774055.94 |
| TGT 1 (GD 16 FC #703H) | 12415.0 | -5971.1 | 599.7 | 405831.90 | 774048.72 |
| TGT 2 (GD 16 FC #703H) | 12435.0 | -3965.7 | 588.6 | 407837.90 | 774032.82 |
| FTP (GD 16 FC #703H) | 12445.0 | 182.0 | 560.0 | 411855.00 | 774008.00 |
| TGT 1 (GD 16 FC #703H) | 12445.0 | -1960.2 | 573.9 | 409842.80 | 774019.91 |



Scale: 1" = 100' (Vertical)
 1" = 100' (Horizontal)