# Scientific Drilling

30-015-37879

## MARBOB ENERGY

**Field:** Hay Hollow
**Site:** Eddy County, NM
**Well:** F.U.N. State Com #1H
**Wellpath:** VH - Job #32K0610479
**Survey:** 06/27/10

**This survey is correct to the best of my knowledge and is supported by actual field data.**

**Company Representative**

**Notarized this date** 20th **of** July **, 2010.**

**Notary Signature**
**Couty of Midland**
**State of Texas**

NOTARY PUBLIC STATE OF TEXAS
CARRIE REED
My Commission Expires
October 4, 2011

Scientific Drilling

# Scientific Drilling International, Inc.

## Survey Report

| | | | | | |
|---|---|---|---|---|---|
| **Company:** | MARBOB ENERGY | **Date:** 6/30/2010 | **Time:** 09:43:51 | **Page:** | 1 |
| **Field:** | Hay Hollow | **Co-ordinate(NE) Reference:** | Site: Eddy County, NM, Grid North | | |
| **Site:** | Eddy County, NM | **Vertical (TVD) Reference:** | SITE 0.0 | | |
| **Well:** | F.U.N. State Com #1H | **Section (VS) Reference:** | Well (0.00N,0.00E,180.50Azi) | | |
| **Wellpath:** | VH - Job #32K0610479 | **Survey Calculation Method:** | Minimum Curvature | **Db:** | Sybase |

| | | | |
|---|---|---|---|
| **Survey:** | 06/27/10<br>KSRG 0'-5670' | **Start Date:** | 6/27/2010 |
| **Company:** | Scientific Drilling Internatio | **Engineer:** | Garza/Roew/Williams |
| **Tool:** | Keeper,Keeper Gyro | **Tied-to:** | From Surface |

**Survey**

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | N/S<br>ft | E/W<br>ft | DLS<br>deg/100ft | ClsD<br>ft | ClsA<br>deg |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 359.89 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.0 | 0.00 |
| 100.0 | 0.83 | 245.11 | 100.0 | 0.3 | -0.3 | -0.7 | 0.83 | 0.7 | 245.11 |
| 200.0 | 1.13 | 244.84 | 200.0 | 1.0 | -1.0 | -2.2 | 0.30 | 2.4 | 245.00 |
| 300.0 | 1.41 | 240.38 | 300.0 | 2.1 | -2.1 | -4.2 | 0.30 | 4.6 | 243.74 |
| 400.0 | 1.49 | 241.74 | 399.9 | 3.3 | -3.3 | -6.4 | 0.09 | 7.2 | 242.81 |
| 500.0 | 1.51 | 242.86 | 499.9 | 4.6 | -4.5 | -8.7 | 0.04 | 9.8 | 242.67 |
| 600.0 | 1.40 | 241.29 | 599.9 | 5.8 | -5.7 | -10.9 | 0.12 | 12.3 | 242.55 |
| 700.0 | 1.21 | 243.95 | 699.8 | 6.8 | -6.7 | -13.0 | 0.20 | 14.6 | 242.55 |
| 800.0 | 1.08 | 252.15 | 799.8 | 7.6 | -7.5 | -14.8 | 0.21 | 16.6 | 243.18 |
| 900.0 | 1.03 | 255.20 | 899.8 | 8.2 | -8.0 | -16.6 | 0.08 | 18.4 | 244.22 |
| 1000.0 | 1.01 | 260.29 | 999.8 | 8.5 | -8.4 | -18.3 | 0.09 | 20.1 | 245.40 |
| 1100.0 | 1.22 | 289.16 | 1099.8 | 8.4 | -8.2 | -20.2 | 0.59 | 21.8 | 247.94 |
| 1200.0 | 1.79 | 315.52 | 1199.7 | 6.9 | -6.7 | -22.3 | 0.88 | 23.3 | 253.22 |
| 1300.0 | 2.33 | 332.72 | 1299.7 | 4.0 | -3.8 | -24.3 | 0.82 | 24.6 | 261.12 |
| 1400.0 | 2.60 | 335.04 | 1399.6 | 0.2 | 0.1 | -26.2 | 0.29 | 26.2 | 270.14 |
| 1500.0 | 2.71 | 336.17 | 1499.5 | -4.0 | 4.3 | -28.1 | 0.12 | 28.4 | 278.66 |
| 1600.0 | 2.53 | 342.69 | 1599.4 | -8.3 | 8.6 | -29.7 | 0.35 | 30.9 | 286.05 |
| 1700.0 | 2.34 | 357.50 | 1699.3 | -12.4 | 12.7 | -30.5 | 0.66 | 33.0 | 292.62 |
| 1800.0 | 2.67 | 10.42 | 1799.2 | -16.8 | 17.0 | -30.1 | 0.65 | 34.6 | 299.47 |
| 1900.0 | 2.54 | 27.42 | 1899.1 | -21.0 | 21.3 | -28.7 | 0.78 | 35.7 | 306.57 |
| 2000.0 | 2.20 | 40.15 | 1999.0 | -24.5 | 24.7 | -26.4 | 0.62 | 36.2 | 313.08 |
| 2100.0 | 1.43 | 42.61 | 2098.9 | -26.9 | 27.1 | -24.4 | 0.77 | 36.4 | 318.06 |
| 2200.0 | 0.82 | 32.20 | 2198.9 | -28.4 | 28.6 | -23.1 | 0.64 | 36.8 | 321.06 |
| 2300.0 | 0.52 | 353.15 | 2298.9 | -29.5 | 29.7 | -22.8 | 0.53 | 37.4 | 322.47 |
| 2400.0 | 0.45 | 0.68 | 2398.9 | -30.3 | 30.5 | -22.9 | 0.09 | 38.1 | 323.18 |
| 2500.0 | 0.60 | 351.79 | 2498.9 | -31.2 | 31.4 | -22.9 | 0.17 | 38.9 | 323.90 |
| 2600.0 | 0.49 | 349.58 | 2598.9 | -32.2 | 32.4 | -23.1 | 0.11 | 39.8 | 324.52 |
| 2700.0 | 0.52 | 338.28 | 2698.9 | -33.0 | 33.2 | -23.3 | 0.10 | 40.6 | 324.93 |
| 2800.0 | 0.36 | 333.68 | 2798.9 | -33.7 | 33.9 | -23.6 | 0.16 | 41.3 | 325.14 |
| 2900.0 | 0.22 | 270.70 | 2898.9 | -34.0 | 34.2 | -24.0 | 0.33 | 41.8 | 324.99 |
| 3000.0 | 0.27 | 303.11 | 2998.9 | -34.1 | 34.3 | -24.4 | 0.14 | 42.1 | 324.66 |
| 3100.0 | 0.30 | 252.52 | 3098.9 | -34.2 | 34.4 | -24.8 | 0.25 | 42.4 | 324.21 |
| 3200.0 | 0.48 | 258.69 | 3198.9 | -34.0 | 34.2 | -25.5 | 0.18 | 42.7 | 323.36 |
| 3300.0 | 0.40 | 258.93 | 3298.9 | -33.9 | 34.1 | -26.2 | 0.08 | 43.0 | 322.44 |
| 3400.0 | 0.55 | 251.72 | 3398.9 | -33.6 | 33.9 | -27.0 | 0.16 | 43.3 | 321.42 |
| 3500.0 | 0.48 | 261.47 | 3498.9 | -33.4 | 33.7 | -27.9 | 0.11 | 43.7 | 320.36 |
| 3600.0 | 0.50 | 253.84 | 3598.9 | -33.2 | 33.5 | -28.7 | 0.07 | 44.1 | 319.37 |
| 3700.0 | 0.58 | 253.22 | 3698.9 | -32.9 | 33.2 | -29.6 | 0.08 | 44.5 | 318.26 |
| 3800.0 | 0.47 | 252.79 | 3798.9 | -32.7 | 32.9 | -30.5 | 0.11 | 44.9 | 317.20 |
| 3900.0 | 0.47 | 238.91 | 3898.9 | -32.3 | 32.6 | -31.2 | 0.11 | 45.1 | 316.22 |
| 4000.0 | 0.50 | 237.07 | 3998.9 | -31.9 | 32.1 | -32.0 | 0.03 | 45.3 | 315.18 |
| 4100.0 | 0.41 | 240.05 | 4098.9 | -31.4 | 31.7 | -32.6 | 0.09 | 45.5 | 314.20 |
| 4200.0 | 0.41 | 228.69 | 4198.9 | -31.0 | 31.3 | -33.2 | 0.08 | 45.6 | 313.32 |
| 4300.0 | 0.54 | 230.08 | 4298.8 | -30.5 | 30.8 | -33.8 | 0.13 | 45.7 | 312.29 |
| 4400.0 | 0.53 | 231.85 | 4398.8 | -29.9 | 30.2 | -34.6 | 0.02 | 45.9 | 311.14 |
| 4500.0 | 0.82 | 217.43 | 4498.8 | -29.0 | 29.3 | -35.4 | 0.33 | 45.9 | 309.68 |
| 4600.0 | 1.08 | 211.58 | 4598.8 | -27.6 | 28.0 | -36.3 | 0.28 | 45.8 | 307.62 |
| 4700.0 | 1.02 | 208.77 | 4698.8 | -26.1 | 26.4 | -37.2 | 0.08 | 45.6 | 305.34 |
| 4800.0 | 1.06 | 204.33 | 4798.8 | -24.4 | 24.8 | -38.0 | 0.09 | 45.4 | 303.07 |

Scientific Drilling

# Scientific Drilling International, Inc.

## Survey Report

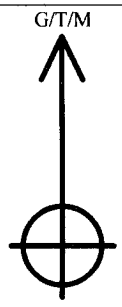
| | | | | | |
|---|---|---|---|---|---|
| **Company:** | MARBOB ENERGY | **Date:** 6/30/2010 | **Time:** 09:43:51 | **Page:** | 2 |
| **Field:** | Hay Hollow | **Co-ordinate(NE) Reference:** | Site: Eddy County, NM, Grid North | | |
| **Site:** | Eddy County, NM | **Vertical (TVD) Reference:** | SITE 0.0 | | |
| **Well:** | F.U.N. State Com #1H | **Section (VS) Reference:** | Well (0.00N,0.00E,180.50Azi) | | |
| **Wellpath:** | VH - Job #32K0610479 | **Survey Calculation Method:** | Minimum Curvature | **Db:** | Sybase |

**Survey**

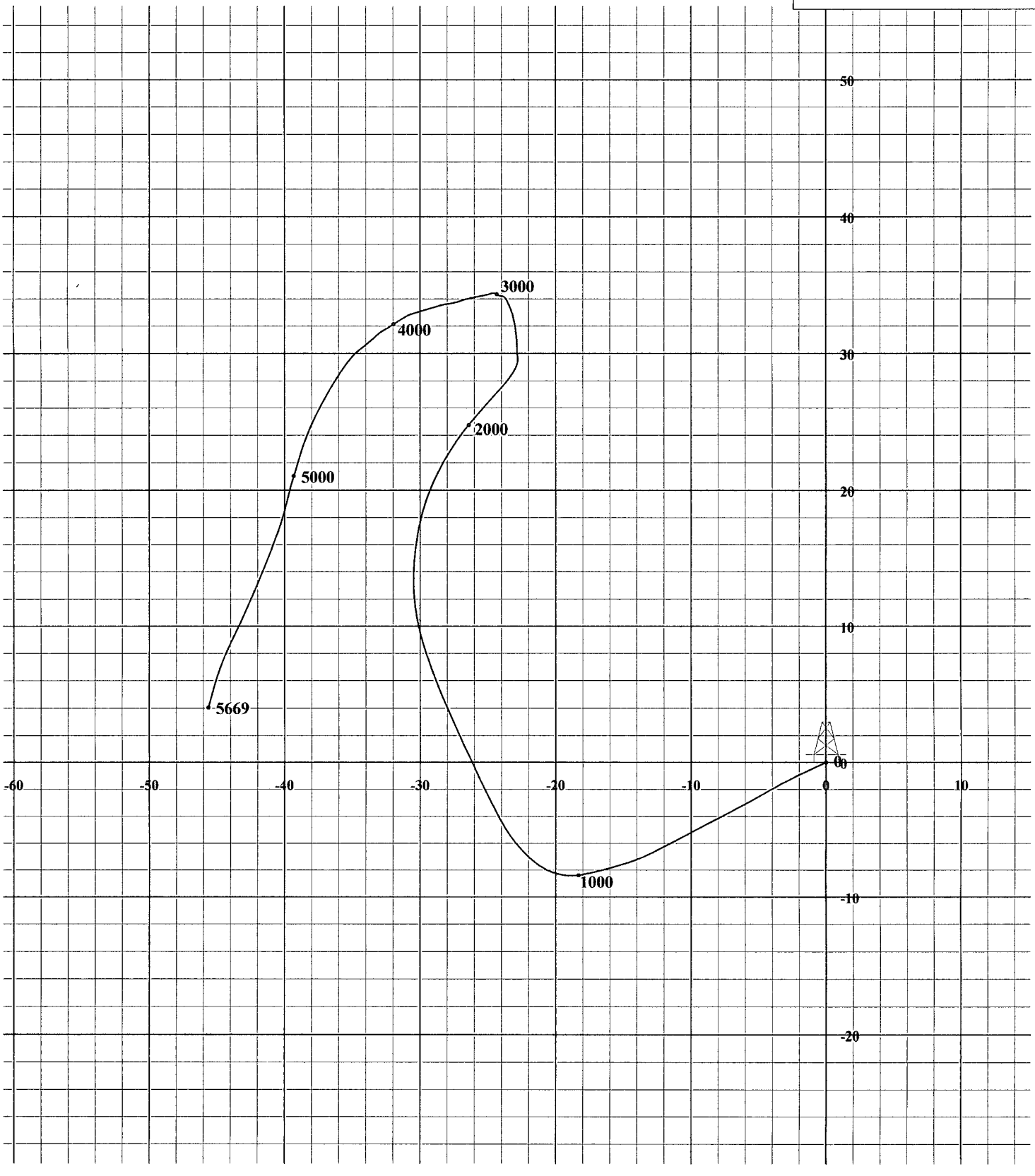
| MD ft | Incl deg | Azim deg | TVD ft | VS ft | N/S ft | E/W ft | DLS deg/100ft | ClsD ft | ClsA deg |
|---|---|---|---|---|---|---|---|---|---|
| 4900.0 | 1.11 | 198.37 | 4898.8 | -22.7 | 23.0 | -38.7 | 0.12 | 45.0 | 300.72 |
| 5000.0 | 1.21 | 196.74 | 4998.8 | -20.7 | 21.1 | -39.3 | 0.11 | 44.6 | 298.18 |
| 5100.0 | 1.34 | 193.79 | 5098.7 | -18.6 | 18.9 | -39.9 | 0.15 | 44.2 | 295.37 |
| 5200.0 | 1.46 | 200.40 | 5198.7 | -16.2 | 16.6 | -40.6 | 0.20 | 43.9 | 292.22 |
| 5300.0 | 1.60 | 202.30 | 5298.7 | -13.7 | 14.1 | -41.6 | 0.15 | 43.9 | 288.73 |
| 5400.0 | 1.68 | 204.28 | 5398.6 | -11.1 | 11.5 | -42.7 | 0.10 | 44.2 | 285.04 |
| 5500.0 | 1.58 | 205.65 | 5498.6 | -8.5 | 8.9 | -43.9 | 0.11 | 44.8 | 281.45 |
| 5600.0 | 1.79 | 198.13 | 5598.5 | -5.8 | 6.2 | -45.0 | 0.30 | 45.4 | 277.81 |
| 5670.0 | 1.83 | 194.35 | 5668.5 | -3.7 | 4.1 | -45.6 | 0.18 | 45.8 | 275.07 |

Scientific Drilling

**Field:** Hay Hollow
**Site:** Eddy County, NM
**Well:** F.U.N. State Com #1H
**Survey:** 06/27/10




Azimuths to Grid North
True North: 0.00°
Magnetic North: 0.00°
Magnetic Field
Dip Angle: 0.00°
Date: 6/29/2010
Model: igrf2000



| | | | |
|---|---|---|---|
| **Company:** | Marbob Energy Corporation | **Local Co-ordinate Reference:** | Well F.U.N. State Com #1H |
| **Project:** | Eddy,NM | **TVD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Site:** | T-26-S, R-28-E | **MD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Well:** | F.U.N. State Com #1H | **North Reference:** | Grid |
| **Wellbore:** | Wellbore #1 | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | Wellbore #1 | **Database:** | EDM 5000.1 Single User Db |

**Project** Eddy,NM

| | | | |
|---|---|---|---|
| **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** T-26-S, R-28-E

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 370,532.40 usft | **Latitude:** | 32° 1' 6.693 N |
| **From:** | Map | **Easting:** | 566,532.20 usft | **Longitude:** | 104° 7' 7.200 W |
| **Position Uncertainty:** | 0.0 usft | **Slot Radius:** | 13-3/16 " | **Grid Convergence:** | 0.11 ° |

**Well** F.U.N. State Com #1H

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 0.0 usft | **Northing:** | 370,532.40 usft | **Latitude:** | 32° 1' 6.693 N |
| | **+E/-W** | 0.0 usft | **Easting:** | 566,532.20 usft | **Longitude:** | 104° 7' 7.200 W |
| **Position Uncertainty** | | 0.0 usft | **Wellhead Elevation:** | usft | **Ground Level:** | 0.0 usft |

**Wellbore** Wellbore #1

| **Magnetics** | **Model Name** | **Sample Date** | **Declination (°)** | **Dip Angle (°)** | **Field Strength (nT)** |
|---|---|---|---|---|---|
| | IGRF2010 | 6/21/2010 | 7.94 | 59.92 | 48,553 |

**Design** Wellbore #1

**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 | 180.51 |

**Survey Program** **Date** 7/12/2010

| **From (usft)** | **To (usft)** | **Survey (Wellbore)** | **Tool Name** | **Description** |
|---|---|---|---|---|
| 100.0 | 5,670.0 | Gyro Surveys (Wellbore #1) | Good_gyro | Good Gyro |
| 5,804.0 | 12,649.0 | MWD Surveys (Wellbore #1) | | |

**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)** |
|---|---|---|---|---|---|---|---|---|---|
| **Tie-In to Gyro** | | | | | | | | | |
| 5,670.0 | 1.83 | 194.35 | 5,668.5 | 4.1 | -45.6 | -3.6 | 0.00 | 0.00 | 0.00 |
| 5,804.0 | 2.10 | 194.60 | 5,802.4 | -0.4 | -46.8 | 0.8 | 0.20 | 0.20 | 0.19 |
| 5,835.0 | 3.00 | 191.10 | 5,833.4 | -1.7 | -47.1 | 2.2 | 2.95 | 2.90 | -11.29 |
| 5,866.0 | 6.60 | 184.10 | 5,864.3 | -4.3 | -47.4 | 4.7 | 11.74 | 11.61 | -22.58 |
| 5,898.0 | 11.60 | 179.90 | 5,895.9 | -9.4 | -47.5 | 9.8 | 15.75 | 15.63 | -13.13 |
| 5,928.0 | 16.40 | 179.50 | 5,925.0 | -16.6 | -47.4 | 17.0 | 16.00 | 16.00 | -1.33 |
| 5,959.0 | 20.00 | 178.30 | 5,954.4 | -26.3 | -47.2 | 26.7 | 11.68 | 11.61 | -3.87 |
| 5,990.0 | 22.30 | 176.50 | 5,983.3 | -37.5 | -46.7 | 37.9 | 7.71 | 7.42 | -5.81 |
| 6,021.0 | 24.60 | 176.10 | 6,011.8 | -49.8 | -45.9 | 50.2 | 7.44 | 7.42 | -1.29 |

| | | | |
|---|---|---|---|
| **Company:** | Marbob Energy Corporation | **Local Co-ordinate Reference:** | Well F.U.N. State Com #1H |
| **Project:** | Eddy,NM | **TVD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Site:** | T-26-S, R-28-E | **MD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Well:** | F.U.N. State Com #1H | **North Reference:** | Grid |
| **Wellbore:** | Wellbore #1 | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | Wellbore #1 | **Database:** | EDM 5000.1 Single User Db |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 6,052.0 | 26.50 | 177.40 | 6,039.7 | -63.1 | -45.2 | 63.5 | 6.39 | 6.13 | 4.19 |
| 6,083.0 | 28.10 | 179.20 | 6,067.3 | -77.3 | -44.8 | 77.7 | 5.81 | 5.16 | 5.81 |
| 6,114.0 | 30.60 | 180.40 | 6,094.3 | -92.5 | -44.7 | 92.9 | 8.28 | 8.06 | 3.87 |
| 6,145.0 | 31.60 | 179.30 | 6,120.8 | -108.5 | -44.7 | 108.9 | 3.71 | 3.23 | -3.55 |
| 6,176.0 | 33.30 | 177.80 | 6,147.0 | -125.2 | -44.2 | 125.6 | 6.07 | 5.48 | -4.84 |
| 6,207.0 | 34.80 | 177.60 | 6,172.7 | -142.5 | -43.6 | 142.9 | 4.85 | 4.84 | -0.65 |
| 6,238.0 | 36.50 | 178.70 | 6,197.9 | -160.6 | -43.0 | 161.0 | 5.86 | 5.48 | 3.55 |
| 6,268.0 | 38.20 | 179.80 | 6,221.7 | -178.8 | -42.7 | 179.1 | 6.09 | 5.67 | 3.67 |
| 6,300.0 | 40.00 | 181.00 | 6,246.5 | -199.0 | -42.9 | 199.3 | 6.10 | 5.63 | 3.75 |
| 6,330.0 | 42.00 | 181.10 | 6,269.2 | -218.6 | -43.2 | 219.0 | 6.67 | 6.67 | 0.33 |
| 6,361.0 | 44.20 | 181.00 | 6,291.8 | -239.8 | -43.6 | 240.2 | 7.10 | 7.10 | -0.32 |
| 6,392.0 | 46.50 | 179.50 | 6,313.6 | -261.9 | -43.7 | 262.2 | 8.18 | 7.42 | -4.84 |
| 6,423.0 | 49.70 | 177.50 | 6,334.3 | -284.9 | -43.1 | 285.3 | 11.38 | 10.32 | -6.45 |
| 6,455.0 | 52.40 | 176.20 | 6,354.4 | -309.8 | -41.7 | 310.1 | 9.01 | 8.44 | -4.06 |
| 6,485.0 | 55.20 | 176.10 | 6,372.1 | -333.9 | -40.1 | 334.3 | 9.34 | 9.33 | -0.33 |
| 6,517.0 | 58.50 | 176.70 | 6,389.6 | -360.6 | -38.4 | 361.0 | 10.43 | 10.31 | 1.88 |
| 6,548.0 | 61.90 | 176.90 | 6,405.0 | -387.5 | -36.9 | 387.8 | 10.98 | 10.97 | 0.65 |
| 6,579.0 | 65.60 | 177.00 | 6,418.7 | -415.3 | -35.5 | 415.6 | 11.94 | 11.94 | 0.32 |
| 6,610.0 | 69.70 | 177.60 | 6,430.5 | -443.9 | -34.1 | 444.2 | 13.35 | 13.23 | 1.94 |
| 6,641.0 | 73.70 | 177.70 | 6,440.3 | -473.3 | -32.9 | 473.6 | 12.91 | 12.90 | 0.32 |
| 6,672.0 | 77.50 | 179.10 | 6,448.0 | -503.3 | -32.1 | 503.6 | 13.01 | 12.26 | 4.52 |
| 6,703.0 | 82.30 | 180.70 | 6,453.4 | -533.8 | -32.0 | 534.1 | 16.30 | 15.48 | 5.16 |
| 6,736.0 | 87.30 | 181.80 | 6,456.4 | -566.7 | -32.7 | 566.9 | 15.51 | 15.15 | 3.33 |
| 6,767.0 | 88.60 | 182.00 | 6,457.5 | -597.6 | -33.8 | 597.9 | 4.24 | 4.19 | 0.65 |
| 6,798.0 | 89.60 | 182.90 | 6,458.0 | -628.6 | -35.1 | 628.9 | 4.34 | 3.23 | 2.90 |
| 6,830.0 | 91.30 | 183.90 | 6,457.7 | -660.5 | -37.0 | 660.8 | 6.16 | 5.31 | 3.13 |
| 6,893.0 | 90.60 | 183.90 | 6,456.7 | -723.4 | -41.3 | 723.7 | 1.11 | -1.11 | 0.00 |
| 6,925.0 | 90.20 | 183.70 | 6,456.5 | -755.3 | -43.4 | 755.7 | 1.40 | -1.25 | -0.63 |
| 6,989.0 | 89.80 | 181.90 | 6,456.5 | -819.2 | -46.5 | 819.6 | 2.88 | -0.63 | -2.81 |
| 7,084.0 | 89.10 | 180.80 | 6,457.4 | -914.2 | -48.7 | 914.6 | 1.37 | -0.74 | -1.16 |
| 7,179.0 | 88.80 | 181.50 | 6,459.1 | -1,009.2 | -50.7 | 1,009.6 | 0.80 | -0.32 | 0.74 |
| 7,275.0 | 89.60 | 181.00 | 6,460.5 | -1,105.1 | -52.7 | 1,105.6 | 0.98 | 0.83 | -0.52 |
| 7,307.0 | 89.20 | 181.30 | 6,460.8 | -1,137.1 | -53.4 | 1,137.5 | 1.56 | -1.25 | 0.94 |
| 7,434.0 | 89.80 | 180.40 | 6,461.9 | -1,264.1 | -55.3 | 1,264.5 | 0.85 | 0.47 | -0.71 |
| 7,529.0 | 90.30 | 179.50 | 6,461.8 | -1,359.1 | -55.2 | 1,359.5 | 1.08 | 0.53 | -0.95 |
| 7,624.0 | 90.50 | 179.60 | 6,461.2 | -1,454.1 | -54.4 | 1,454.5 | 0.24 | 0.21 | 0.11 |
| 7,720.0 | 90.90 | 178.90 | 6,460.0 | -1,550.1 | -53.2 | 1,550.5 | 0.84 | 0.42 | -0.73 |
| 7,815.0 | 90.00 | 179.20 | 6,459.2 | -1,645.1 | -51.6 | 1,645.4 | 1.00 | -0.95 | 0.32 |
| 7,910.0 | 90.70 | 178.90 | 6,458.7 | -1,740.0 | -50.0 | 1,740.4 | 0.80 | 0.74 | -0.32 |
| 8,006.0 | 89.80 | 178.60 | 6,458.2 | -1,836.0 | -47.9 | 1,836.4 | 0.99 | -0.94 | -0.31 |
| 8,101.0 | 90.60 | 178.50 | 6,457.9 | -1,931.0 | -45.5 | 1,931.3 | 0.85 | 0.84 | -0.11 |
| 8,196.0 | 90.20 | 178.60 | 6,457.3 | -2,026.0 | -43.1 | 2,026.3 | 0.43 | -0.42 | 0.11 |
| 8,291.0 | 90.30 | 179.20 | 6,456.8 | -2,120.9 | -41.3 | 2,121.2 | 0.64 | 0.11 | 0.63 |

| | | | |
|---|---|---|---|
| **Company:** | Marbob Energy Corporation | **Local Co-ordinate Reference:** | Well F.U.N. State Com #1H |
| **Project:** | Eddy,NM | **TVD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Site:** | T-26-S, R-28-E | **MD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Well:** | F.U.N. State Com #1H | **North Reference:** | Grid |
| **Wellbore:** | Wellbore #1 | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | Wellbore #1 | **Database:** | EDM 5000.1 Single User Db |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 8,387.0 | 91.00 | 180.00 | 6,455.8 | -2,216.9 | -40.6 | 2,217.2 | 1.11 | 0.73 | 0.83 |
| 8,482.0 | 90.20 | 179.60 | 6,454.8 | -2,311.9 | -40.3 | 2,312.2 | 0.94 | -0.84 | -0.42 |
| 8,577.0 | 90.60 | 180.40 | 6,454.1 | -2,406.9 | -40.3 | 2,407.2 | 0.94 | 0.42 | 0.84 |
| 8,673.0 | 90.20 | 180.30 | 6,453.4 | -2,502.9 | -40.9 | 2,503.2 | 0.43 | -0.42 | -0.10 |
| 8,768.0 | 89.80 | 180.40 | 6,453.4 | -2,597.9 | -41.5 | 2,598.2 | 0.43 | -0.42 | 0.11 |
| 8,863.0 | 90.10 | 180.10 | 6,453.5 | -2,692.9 | -41.9 | 2,693.2 | 0.45 | 0.32 | -0.32 |
| 8,958.0 | 90.40 | 180.70 | 6,453.1 | -2,787.9 | -42.6 | 2,788.2 | 0.71 | 0.32 | 0.63 |
| 9,054.0 | 90.30 | 180.60 | 6,452.5 | -2,883.9 | -43.6 | 2,884.2 | 0.15 | -0.10 | -0.10 |
| 9,149.0 | 90.40 | 179.70 | 6,451.9 | -2,978.9 | -43.9 | 2,979.2 | 0.95 | 0.11 | -0.95 |
| 9,244.0 | 89.70 | 178.70 | 6,451.8 | -3,073.9 | -42.6 | 3,074.1 | 1.28 | -0.74 | -1.05 |
| 9,308.0 | 89.10 | 178.10 | 6,452.5 | -3,137.8 | -40.8 | 3,138.1 | 1.33 | -0.94 | -0.94 |
| 9,403.0 | 89.20 | 178.90 | 6,453.9 | -3,232.8 | -38.3 | 3,233.0 | 0.85 | 0.11 | 0.84 |
| 9,498.0 | 90.10 | 179.70 | 6,454.5 | -3,327.8 | -37.1 | 3,328.0 | 1.27 | 0.95 | 0.84 |
| 9,594.0 | 90.00 | 181.40 | 6,454.4 | -3,423.8 | -38.1 | 3,424.0 | 1.77 | -0.10 | 1.77 |
| 9,689.0 | 89.40 | 179.90 | 6,454.9 | -3,518.8 | -39.1 | 3,519.0 | 1.70 | -0.63 | -1.58 |
| 9,784.0 | 89.90 | 181.00 | 6,455.5 | -3,613.8 | -39.9 | 3,614.0 | 1.27 | 0.53 | 1.16 |
| 9,880.0 | 88.90 | 180.50 | 6,456.5 | -3,709.8 | -41.1 | 3,710.0 | 1.16 | -1.04 | -0.52 |
| 9,975.0 | 89.30 | 182.50 | 6,458.0 | -3,804.7 | -43.6 | 3,804.9 | 2.15 | 0.42 | 2.11 |
| 10,071.0 | 88.70 | 182.20 | 6,459.7 | -3,900.6 | -47.6 | 3,900.9 | 0.70 | -0.63 | -0.31 |
| 10,166.0 | 90.70 | 182.60 | 6,460.2 | -3,995.5 | -51.5 | 3,995.8 | 2.15 | 2.11 | 0.42 |
| 10,261.0 | 90.40 | 182.20 | 6,459.3 | -4,090.4 | -55.5 | 4,090.8 | 0.53 | -0.32 | -0.42 |
| 10,357.0 | 90.40 | 182.30 | 6,458.6 | -4,186.4 | -59.3 | 4,186.7 | 0.10 | 0.00 | 0.10 |
| 10,421.0 | 90.40 | 181.90 | 6,458.1 | -4,250.3 | -61.6 | 4,250.7 | 0.62 | 0.00 | -0.63 |
| 10,484.0 | 90.30 | 182.10 | 6,457.8 | -4,313.3 | -63.8 | 4,313.7 | 0.35 | -0.16 | 0.32 |
| 10,548.0 | 90.60 | 182.30 | 6,457.2 | -4,377.2 | -66.3 | 4,377.6 | 0.56 | 0.47 | 0.31 |
| 10,611.0 | 90.90 | 182.30 | 6,456.4 | -4,440.2 | -68.8 | 4,440.6 | 0.48 | 0.48 | 0.00 |
| 10,677.0 | 91.70 | 182.80 | 6,454.9 | -4,506.1 | -71.7 | 4,506.5 | 1.43 | 1.21 | 0.76 |
| 10,739.0 | 90.70 | 181.60 | 6,453.6 | -4,568.0 | -74.1 | 4,568.5 | 2.52 | -1.61 | -1.94 |
| 10,802.0 | 90.60 | 181.50 | 6,452.9 | -4,631.0 | -75.8 | 4,631.5 | 0.22 | -0.16 | -0.16 |
| 10,897.0 | 90.90 | 182.00 | 6,451.7 | -4,725.9 | -78.7 | 4,726.5 | 0.61 | 0.32 | 0.53 |
| 10,993.0 | 91.40 | 182.40 | 6,449.7 | -4,821.9 | -82.4 | 4,822.4 | 0.67 | 0.52 | 0.42 |
| 11,088.0 | 90.60 | 181.70 | 6,448.1 | -4,916.8 | -85.8 | 4,917.3 | 1.12 | -0.84 | -0.74 |
| 11,182.0 | 91.70 | 182.60 | 6,446.2 | -5,010.7 | -89.3 | 5,011.3 | 1.51 | 1.17 | 0.96 |
| 11,246.0 | 90.90 | 182.20 | 6,444.7 | -5,074.6 | -92.0 | 5,075.2 | 1.40 | -1.25 | -0.63 |
| 11,309.0 | 89.90 | 180.50 | 6,444.3 | -5,137.6 | -93.5 | 5,138.2 | 3.13 | -1.59 | -2.70 |
| 11,373.0 | 89.90 | 180.40 | 6,444.4 | -5,201.6 | -94.0 | 5,202.2 | 0.16 | 0.00 | -0.16 |
| 11,437.0 | 90.10 | 180.40 | 6,444.4 | -5,265.6 | -94.5 | 5,266.2 | 0.31 | 0.31 | 0.00 |
| 11,500.0 | 90.60 | 181.00 | 6,444.0 | -5,328.6 | -95.2 | 5,329.2 | 1.24 | 0.79 | 0.95 |
| 11,597.0 | 89.90 | 179.90 | 6,443.6 | -5,425.6 | -96.0 | 5,426.2 | 1.34 | -0.72 | -1.13 |
| 11,690.0 | 90.00 | 179.70 | 6,443.7 | -5,518.6 | -95.7 | 5,519.2 | 0.24 | 0.11 | -0.22 |
| 11,786.0 | 91.20 | 180.70 | 6,442.7 | -5,614.6 | -96.0 | 5,615.2 | 1.63 | 1.25 | 1.04 |
| 11,881.0 | 88.50 | 180.40 | 6,442.9 | -5,709.6 | -96.9 | 5,710.2 | 2.86 | -2.84 | -0.32 |
| 11,977.0 | 89.30 | 180.50 | 6,444.8 | -5,805.5 | -97.7 | 5,806.2 | 0.84 | 0.83 | 0.10 |

| | | | |
|---|---|---|---|
| **Company:** | Marbob Energy Corporation | **Local Co-ordinate Reference:** | Well F.U.N. State Com #1H |
| **Project:** | Eddy,NM | **TVD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Site:** | T-26-S, R-28-E | **MD Reference:** | WELL @ 0.0usft (Original Well Elev) |
| **Well:** | F.U.N. State Com #1H | **North Reference:** | Grid |
| **Wellbore:** | Wellbore #1 | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | Wellbore #1 | **Database:** | EDM 5000.1 Single User Db |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 12,072.0 | 91.20 | 182.10 | 6,444.4 | -5,900.5 | -99.8 | 5,901.2 | 2.61 | 2.00 | 1.68 |
| 12,167.0 | 89.20 | 182.00 | 6,444.0 | -5,995.4 | -103.2 | 5,996.1 | 2.11 | -2.11 | -0.11 |
| 12,261.0 | 88.80 | 181.90 | 6,445.7 | -6,089.4 | -106.4 | 6,090.1 | 0.44 | -0.43 | -0.11 |
| 12,356.0 | 88.00 | 181.90 | 6,448.3 | -6,184.3 | -109.6 | 6,185.0 | 0.84 | -0.84 | 0.00 |
| 12,451.0 | 88.00 | 181.80 | 6,451.6 | -6,279.2 | -112.6 | 6,279.9 | 0.11 | 0.00 | -0.11 |
| 12,547.0 | 87.10 | 181.20 | 6,455.7 | -6,375.0 | -115.1 | 6,375.8 | 1.13 | -0.94 | -0.63 |
| 12,600.0 | 86.80 | 181.10 | 6,458.6 | -6,428.0 | -116.2 | 6,428.7 | 0.60 | -0.57 | -0.19 |
| **TD @ 12649' MD / 6461' TVD** | | | | | | | | | |
| 12,649.0 | 86.80 | 181.10 | 6,461.3 | -6,476.9 | -117.1 | 6,477.7 | 0.00 | 0.00 | 0.00 |

**Survey Annotations**

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Comment |
|---|---|---|---|---|
| 5,670.0 | 5,668.5 | 4.1 | -45.6 | Tie-In to Gyro |
| 12,649.0 | 6,461.3 | -6,476.9 | -117.1 | TD @ 12649' MD / 6461' TVD |

Checked By: _____ Approved By: _____ Date: _____

SURF: 800' FNL, 330' FEL, Sec. 30

EOL: 320' FSL, 447' FEL, Sec. 31