# PERMIAN

**NW DISTRICT - NM EZ NAD 83**
**PALMILLO 10 STATE COM PAD (234,335,336)**
**PALMILLO 10 STATE COM 335H**



**PALMILLO 10 STATE COM 335H**

30-015-45795

**Plan: Design #1**

# Standard Planning Report

**26 February, 2019**

| | | | |
|---|---|---|---|
| **Database:** | PEDM | **Local Co-ordinate Reference:** | Well PALMILLO 10 STATE COM 335H |
| **Company:** | PERMIAN | **TVD Reference:** | WELL @ 3520.0ft (Original Well Elev) |
| **Project:** | NW DISTRICT - NM EZ NAD 83 | **MD Reference:** | WELL @ 3520.0ft (Original Well Elev) |
| **Site:** | PALMILLO 10 STATE COM PAD (234,335,336) | **North Reference:** | Grid |
| **Well:** | PALMILLO 10 STATE COM 335H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | PALMILLO 10 STATE COM 335H | | |
| **Design:** | Design #1 | | |

**Project** NW DISTRICT - NM EZ NAD 83

| | | | |
|---|---|---|---|
| **Map System:** | US State Plane 1983 | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | North American Datum 1983 | | |
| **Map Zone:** | New Mexico Eastern Zone | | |

**Site** PALMILLO 10 STATE COM PAD (234,335,336)

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 611,241.00 ft | **Latitude:** | 32° 40' 48.784 N |
| **From:** | Map | **Easting:** | 595,797.60 ft | **Longitude:** | 104° 9' 22.801 W |
| **Position Uncertainty:** | 0.0 ft | **Slot Radius:** | 13.200 in | **Grid Convergence:** | 0.10 ° |

**Well** PALMILLO 10 STATE COM 335H

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | -39.9 ft | **Northing:** | 611,201.10 ft | **Latitude:** | 32° 40' 48.389 N |
| | **+E/-W** | 0.1 ft | **Easting:** | 595,797.70 ft | **Longitude:** | 104° 9' 22.801 W |
| **Position Uncertainty** | | 0.0 ft | **Wellhead Elevation:** | | **Ground Level:** | 3,494.0 ft |

**Wellbore** PALMILLO 10 STATE COM 335H

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | HDGM_FILE | 12/21/2018 | 7.30 | 60.45 | 48,003.80000000 |

**Design** Design #1

**Audit Notes:**

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

| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
|---|---|---|---|---|
| | 0.0 | 0.0 | 0.0 | 264.61 |

**Plan Survey Tool Program** **Date** 2/21/2019

| | Depth From (ft) | Depth To (ft) | Survey (Wellbore) | Tool Name | Remarks |
|---|---|---|---|---|---|
| 1 | 0.0 | 13,458.2 | Design #1 (PALMILLO 10 STATE | MWD+HDGM (MWD) | |
| | | | | OWSG MWD + HDGM | |

| | | | |
|---|---|---|---|
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| **Project:** | NW DISTRICT - NM EZ NAD 83 | **MD Reference:** | WELL @ 3520.0ft (Original Well Elev) |
| **Site:** | PALMILLO 10 STATE COM PAD (234,335,336) | **North Reference:** | Grid |
| **Well:** | PALMILLO 10 STATE COM 335H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | PALMILLO 10 STATE COM 335H | | |
| **Design:** | Design #1 | | |

**Plan Sections**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,666.7 | 10.00 | 161.97 | 1,663.3 | -55.2 | 18.0 | 1.50 | 1.50 | 0.00 | 161.97 | |
| 3,446.8 | 10.00 | 161.97 | 3,416.4 | -349.1 | 113.6 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4,113.5 | 0.00 | 0.00 | 4,079.7 | -404.3 | 131.6 | 1.50 | -1.50 | 0.00 | 180.00 | |
| 8,104.3 | 0.00 | 0.00 | 8,070.5 | -404.3 | 131.6 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 8,891.5 | 94.46 | 269.29 | 8,546.5 | -410.6 | -382.9 | 12.00 | 12.00 | -11.52 | 269.29 | |
| 9,978.5 | 94.46 | 269.29 | 8,462.0 | -424.0 | -1,466.6 | 0.00 | 0.00 | 0.00 | 0.00 | T2 PALMILLO 10 STA |
| 10,150.4 | 91.02 | 269.29 | 8,453.8 | -426.1 | -1,638.3 | 2.00 | -2.00 | 0.00 | -179.99 | |
| 11,484.0 | 91.02 | 269.29 | 8,430.0 | -442.5 | -2,971.6 | 0.00 | 0.00 | 0.00 | 0.00 | T3 PALMILLO 10 STA |
| 11,567.9 | 89.34 | 269.29 | 8,429.7 | -443.5 | -3,055.4 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 12,989.1 | 89.34 | 269.29 | 8,446.0 | -461.0 | -4,476.5 | 0.00 | 0.00 | 0.00 | 0.00 | T4 PALMILLO 10 STA |
| 13,023.2 | 90.02 | 269.30 | 8,446.2 | -461.4 | -4,510.5 | 2.00 | 2.00 | 0.00 | 0.05 | |
| 13,458.2 | 90.02 | 269.30 | 8,446.0 | -466.8 | -4,945.5 | 0.00 | 0.00 | 0.00 | 0.00 | BHL PALMILLO 10 S |

| | | | |
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| **Wellbore:** | PALMILLO 10 STATE COM 335H | | |
| **Design:** | Design #1 | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 1.50 | 161.97 | 1,100.0 | -1.2 | 0.4 | -0.3 | 1.50 | 1.50 | 0.00 |
| 1,200.0 | 3.00 | 161.97 | 1,199.9 | -5.0 | 1.6 | -1.1 | 1.50 | 1.50 | 0.00 |
| 1,300.0 | 4.50 | 161.97 | 1,299.7 | -11.2 | 3.6 | -2.6 | 1.50 | 1.50 | 0.00 |
| 1,400.0 | 6.00 | 161.97 | 1,399.3 | -19.9 | 6.5 | -4.6 | 1.50 | 1.50 | 0.00 |
| 1,500.0 | 7.50 | 161.97 | 1,498.6 | -31.1 | 10.1 | -7.1 | 1.50 | 1.50 | 0.00 |
| 1,600.0 | 9.00 | 161.97 | 1,597.5 | -44.7 | 14.6 | -10.3 | 1.50 | 1.50 | 0.00 |
| 1,666.7 | 10.00 | 161.97 | 1,663.3 | -55.2 | 18.0 | -12.7 | 1.50 | 1.50 | 0.00 |
| 1,700.0 | 10.00 | 161.97 | 1,696.1 | -60.7 | 19.8 | -14.0 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 10.00 | 161.97 | 1,794.6 | -77.2 | 25.1 | -17.8 | 0.00 | 0.00 | 0.00 |
| 1,900.0 | 10.00 | 161.97 | 1,893.1 | -93.7 | 30.5 | -21.6 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 10.00 | 161.97 | 1,991.6 | -110.2 | 35.9 | -25.4 | 0.00 | 0.00 | 0.00 |
| 2,100.0 | 10.00 | 161.97 | 2,090.0 | -126.7 | 41.3 | -29.2 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 10.00 | 161.97 | 2,188.5 | -143.2 | 46.6 | -33.0 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 10.00 | 161.97 | 2,287.0 | -159.8 | 52.0 | -36.8 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 10.00 | 161.97 | 2,385.5 | -176.3 | 57.4 | -40.6 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 10.00 | 161.97 | 2,484.0 | -192.8 | 62.8 | -44.4 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 10.00 | 161.97 | 2,582.4 | -209.3 | 68.1 | -48.2 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 10.00 | 161.97 | 2,680.9 | -225.8 | 73.5 | -52.0 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 10.00 | 161.97 | 2,779.4 | -242.3 | 78.9 | -55.8 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 10.00 | 161.97 | 2,877.9 | -258.8 | 84.2 | -59.6 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 10.00 | 161.97 | 2,976.4 | -275.3 | 89.6 | -63.4 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 10.00 | 161.97 | 3,074.8 | -291.9 | 95.0 | -67.2 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 10.00 | 161.97 | 3,173.3 | -308.4 | 100.4 | -71.0 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 10.00 | 161.97 | 3,271.8 | -324.9 | 105.7 | -74.8 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 10.00 | 161.97 | 3,370.3 | -341.4 | 111.1 | -78.6 | 0.00 | 0.00 | 0.00 |
| 3,446.8 | 10.00 | 161.97 | 3,416.4 | -349.1 | 113.6 | -80.3 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 9.20 | 161.97 | 3,468.8 | -357.6 | 116.4 | -82.3 | 1.50 | -1.50 | 0.00 |
| 3,600.0 | 7.70 | 161.97 | 3,567.7 | -371.5 | 120.9 | -85.5 | 1.50 | -1.50 | 0.00 |
| 3,700.0 | 6.20 | 161.97 | 3,667.0 | -383.0 | 124.7 | -88.1 | 1.50 | -1.50 | 0.00 |
| 3,800.0 | 4.70 | 161.97 | 3,766.5 | -392.1 | 127.6 | -90.2 | 1.50 | -1.50 | 0.00 |
| 3,900.0 | 3.20 | 161.97 | 3,866.3 | -398.6 | 129.8 | -91.7 | 1.50 | -1.50 | 0.00 |
| 4,000.0 | 1.70 | 161.97 | 3,966.2 | -402.7 | 131.1 | -92.7 | 1.50 | -1.50 | 0.00 |
| 4,100.0 | 0.20 | 161.97 | 4,066.2 | -404.3 | 131.6 | -93.0 | 1.50 | -1.50 | 0.00 |
| 4,113.5 | 0.00 | 0.00 | 4,079.7 | -404.3 | 131.6 | -93.0 | 1.50 | -1.50 | 0.00 |
| 4,200.0 | 0.00 | 0.00 | 4,166.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 0.00 | 0.00 | 4,266.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 0.00 | 0.00 | 4,366.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 0.00 | 0.00 | 4,466.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 0.00 | 0.00 | 4,566.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 0.00 | 0.00 | 4,666.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 0.00 | 0.00 | 4,766.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 0.00 | 0.00 | 4,866.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
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| **Wellbore:** | PALMILLO 10 STATE COM 335H | | |
| **Design:** | Design #1 | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 5,000.0 | 0.00 | 0.00 | 4,966.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 0.00 | 0.00 | 5,066.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 0.00 | 0.00 | 5,166.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 5,300.0 | 0.00 | 0.00 | 5,266.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 5,400.0 | 0.00 | 0.00 | 5,366.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 0.00 | 0.00 | 5,466.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 0.00 | 0.00 | 5,566.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 0.00 | 0.00 | 5,666.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 0.00 | 0.00 | 5,766.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 0.00 | 0.00 | 5,866.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 0.00 | 0.00 | 5,966.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 0.00 | 0.00 | 6,066.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 0.00 | 0.00 | 6,166.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 6,300.0 | 0.00 | 0.00 | 6,266.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 6,400.0 | 0.00 | 0.00 | 6,366.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 6,500.0 | 0.00 | 0.00 | 6,466.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 0.00 | 0.00 | 6,566.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 6,700.0 | 0.00 | 0.00 | 6,666.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 6,800.0 | 0.00 | 0.00 | 6,766.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 0.00 | 0.00 | 6,866.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 7,000.0 | 0.00 | 0.00 | 6,966.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 0.00 | 0.00 | 7,066.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 0.00 | 0.00 | 7,166.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 0.00 | 0.00 | 7,266.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 0.00 | 0.00 | 7,366.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 0.00 | 0.00 | 7,466.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 0.00 | 0.00 | 7,566.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 0.00 | 0.00 | 7,666.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 0.00 | 0.00 | 7,766.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 0.00 | 0.00 | 7,866.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 0.00 | 0.00 | 7,966.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 0.00 | 0.00 | 8,066.2 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 8,104.3 | 0.00 | 0.00 | 8,070.5 | -404.3 | 131.6 | -93.0 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 11.48 | 269.29 | 8,165.6 | -404.4 | 122.0 | -83.5 | 12.00 | 12.00 | 0.00 |
| 8,300.0 | 23.48 | 269.29 | 8,260.8 | -404.8 | 92.1 | -53.6 | 12.00 | 12.00 | 0.00 |
| 8,400.0 | 35.48 | 269.29 | 8,347.7 | -405.4 | 42.9 | -4.6 | 12.00 | 12.00 | 0.00 |
| 8,500.0 | 47.48 | 269.29 | 8,422.4 | -406.2 | -23.2 | 61.3 | 12.00 | 12.00 | 0.00 |
| 8,600.0 | 59.48 | 269.29 | 8,481.8 | -407.2 | -103.4 | 141.2 | 12.00 | 12.00 | 0.00 |
| 8,700.0 | 71.48 | 269.29 | 8,523.2 | -408.3 | -194.2 | 231.7 | 12.00 | 12.00 | 0.00 |
| 8,800.0 | 83.48 | 269.29 | 8,544.9 | -409.5 | -291.6 | 328.8 | 12.00 | 12.00 | 0.00 |
| 8,891.5 | 94.46 | 269.29 | 8,546.5 | -410.6 | -382.9 | 419.8 | 12.00 | 12.00 | 0.00 |
| 8,900.0 | 94.46 | 269.29 | 8,545.9 | -410.7 | -391.5 | 428.3 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 94.46 | 269.29 | 8,538.1 | -412.0 | -491.1 | 527.7 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 94.46 | 269.29 | 8,530.3 | -413.2 | -590.8 | 627.1 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 94.46 | 269.29 | 8,522.5 | -414.4 | -690.5 | 726.4 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 94.46 | 269.29 | 8,514.8 | -415.6 | -790.2 | 825.8 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 94.46 | 269.29 | 8,507.0 | -416.9 | -889.9 | 925.1 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 94.46 | 269.29 | 8,499.2 | -418.1 | -989.6 | 1,024.5 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 94.46 | 269.29 | 8,491.4 | -419.3 | -1,089.3 | 1,123.9 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 94.46 | 269.29 | 8,483.7 | -420.6 | -1,189.0 | 1,223.2 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 94.46 | 269.29 | 8,475.9 | -421.8 | -1,288.7 | 1,322.6 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 94.46 | 269.29 | 8,468.1 | -423.0 | -1,388.4 | 1,422.0 | 0.00 | 0.00 | 0.00 |
| 9,978.5 | 94.46 | 269.29 | 8,462.0 | -424.0 | -1,466.6 | 1,500.0 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
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| **Project:** | NW DISTRICT - NM EZ NAD 83 | **MD Reference:** | WELL @ 3520.0ft (Original Well Elev) |
| **Site:** | PALMILLO 10 STATE COM PAD (234,335,336) | **North Reference:** | Grid |
| **Well:** | PALMILLO 10 STATE COM 335H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | PALMILLO 10 STATE COM 335H | | |
| **Design:** | Design #1 | | |

**Planned Survey**

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---|---|---|---|---|---|---|---|---|---|
| 10,000.0 | 94.03 | 269.29 | 8,460.4 | -424.2 | -1,488.1 | 1,521.3 | 2.00 | -2.00 | 0.00 |
| 10,100.0 | 92.03 | 269.29 | 8,455.1 | -425.5 | -1,587.9 | 1,620.9 | 2.00 | -2.00 | 0.00 |
| 10,150.4 | 91.02 | 269.29 | 8,453.8 | -426.1 | -1,638.3 | 1,671.1 | 2.00 | -2.00 | 0.00 |
| 10,200.0 | 91.02 | 269.29 | 8,452.9 | -426.7 | -1,687.9 | 1,720.5 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 91.02 | 269.29 | 8,451.1 | -427.9 | -1,787.8 | 1,820.1 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 91.02 | 269.29 | 8,449.3 | -429.2 | -1,887.8 | 1,919.8 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 91.02 | 269.29 | 8,447.5 | -430.4 | -1,987.8 | 2,019.4 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 91.02 | 269.29 | 8,445.8 | -431.6 | -2,087.8 | 2,119.1 | 0.00 | 0.00 | 0.00 |
| 10,700.0 | 91.02 | 269.29 | 8,444.0 | -432.8 | -2,187.7 | 2,218.7 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 91.02 | 269.29 | 8,442.2 | -434.1 | -2,287.7 | 2,318.4 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 91.02 | 269.29 | 8,440.4 | -435.3 | -2,387.7 | 2,418.0 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 91.02 | 269.29 | 8,438.6 | -436.5 | -2,487.7 | 2,517.7 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 91.02 | 269.29 | 8,436.8 | -437.8 | -2,587.7 | 2,617.3 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 91.02 | 269.29 | 8,435.1 | -439.0 | -2,687.6 | 2,717.0 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 91.02 | 269.29 | 8,433.3 | -440.2 | -2,787.6 | 2,816.6 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 91.02 | 269.29 | 8,431.5 | -441.5 | -2,887.6 | 2,916.3 | 0.00 | 0.00 | 0.00 |
| 11,484.0 | 91.02 | 269.29 | 8,430.0 | -442.5 | -2,971.6 | 3,000.0 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 90.70 | 269.29 | 8,429.8 | -442.7 | -2,987.6 | 3,015.9 | 2.00 | -2.00 | 0.00 |
| 11,567.9 | 89.34 | 269.29 | 8,429.7 | -443.5 | -3,055.4 | 3,083.6 | 2.00 | -2.00 | 0.00 |
| 11,600.0 | 89.34 | 269.29 | 8,430.1 | -443.9 | -3,087.5 | 3,115.6 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 89.34 | 269.29 | 8,431.2 | -445.2 | -3,187.5 | 3,215.3 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 89.34 | 269.29 | 8,432.4 | -446.4 | -3,287.5 | 3,314.9 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 89.34 | 269.29 | 8,433.5 | -447.6 | -3,387.5 | 3,414.6 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 89.34 | 269.29 | 8,434.7 | -448.9 | -3,487.5 | 3,514.2 | 0.00 | 0.00 | 0.00 |
| 12,100.0 | 89.34 | 269.29 | 8,435.8 | -450.1 | -3,587.5 | 3,613.9 | 0.00 | 0.00 | 0.00 |
| 12,200.0 | 89.34 | 269.29 | 8,437.0 | -451.3 | -3,687.5 | 3,713.6 | 0.00 | 0.00 | 0.00 |
| 12,300.0 | 89.34 | 269.29 | 8,438.1 | -452.5 | -3,787.5 | 3,813.2 | 0.00 | 0.00 | 0.00 |
| 12,400.0 | 89.34 | 269.29 | 8,439.3 | -453.8 | -3,887.4 | 3,912.9 | 0.00 | 0.00 | 0.00 |
| 12,500.0 | 89.34 | 269.29 | 8,440.4 | -455.0 | -3,987.4 | 4,012.5 | 0.00 | 0.00 | 0.00 |
| 12,600.0 | 89.34 | 269.29 | 8,441.5 | -456.2 | -4,087.4 | 4,112.2 | 0.00 | 0.00 | 0.00 |
| 12,700.0 | 89.34 | 269.29 | 8,442.7 | -457.5 | -4,187.4 | 4,211.9 | 0.00 | 0.00 | 0.00 |
| 12,800.0 | 89.34 | 269.29 | 8,443.8 | -458.7 | -4,287.4 | 4,311.5 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 89.34 | 269.29 | 8,445.0 | -459.9 | -4,387.4 | 4,411.2 | 0.00 | 0.00 | 0.00 |
| 12,989.1 | 89.34 | 269.29 | 8,446.0 | -461.0 | -4,476.5 | 4,500.0 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 89.56 | 269.29 | 8,446.1 | -461.2 | -4,487.4 | 4,510.8 | 2.00 | 2.00 | 0.00 |
| 13,023.2 | 90.02 | 269.30 | 8,446.2 | -461.4 | -4,510.5 | 4,533.9 | 2.00 | 2.00 | 0.00 |
| 13,100.0 | 90.02 | 269.30 | 8,446.2 | -462.4 | -4,587.3 | 4,610.5 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 90.02 | 269.30 | 8,446.1 | -463.6 | -4,687.3 | 4,710.2 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 90.02 | 269.30 | 8,446.1 | -464.9 | -4,787.3 | 4,809.8 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 90.02 | 269.30 | 8,446.0 | -466.1 | -4,887.3 | 4,909.5 | 0.00 | 0.00 | 0.00 |
| 13,458.2 | 90.02 | 269.30 | 8,446.0 | -466.8 | -4,945.5 | 4,967.5 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | PEDM | **Local Co-ordinate Reference:** | Well PALMILLO 10 STATE COM 335H |
| **Company:** | PERMIAN | **TVD Reference:** | WELL @ 3520.0ft (Original Well Elev) |
| **Project:** | NW DISTRICT - NM EZ NAD 83 | **MD Reference:** | WELL @ 3520.0ft (Original Well Elev) |
| **Site:** | PALMILLO 10 STATE COM PAD (234,335,336) | **North Reference:** | Grid |
| **Well:** | PALMILLO 10 STATE COM 335H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | PALMILLO 10 STATE COM 335H | | |
| **Design:** | Design #1 | | |

**Design Targets**

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| T3 PALMILLO 10 STATE - plan hits target center - Point | 0.00 | 0.00 | 8,430.0 | -442.5 | -2,971.6 | 610,758.60 | 592,826.13 | 32° 40' 44.058 N | 104° 9' 57.577 W |
| BHL PALMILLO 10 STAT - plan hits target center - Point | 0.00 | 0.00 | 8,446.0 | -466.8 | -4,945.5 | 610,734.30 | 590,852.20 | 32° 40' 43.848 N | 104° 10' 20.674 W |
| T4 PALMILLO 10 STATE - plan hits target center - Point | 0.00 | 0.00 | 8,446.0 | -461.0 | -4,476.5 | 610,740.07 | 591,321.21 | 32° 40' 43.898 N | 104° 10' 15.186 W |
| T2 PALMILLO 10 STATE - plan hits target center - Point | 0.00 | 0.00 | 8,462.0 | -424.0 | -1,466.6 | 610,777.13 | 594,331.05 | 32° 40' 44.218 N | 104° 9' 39.969 W |