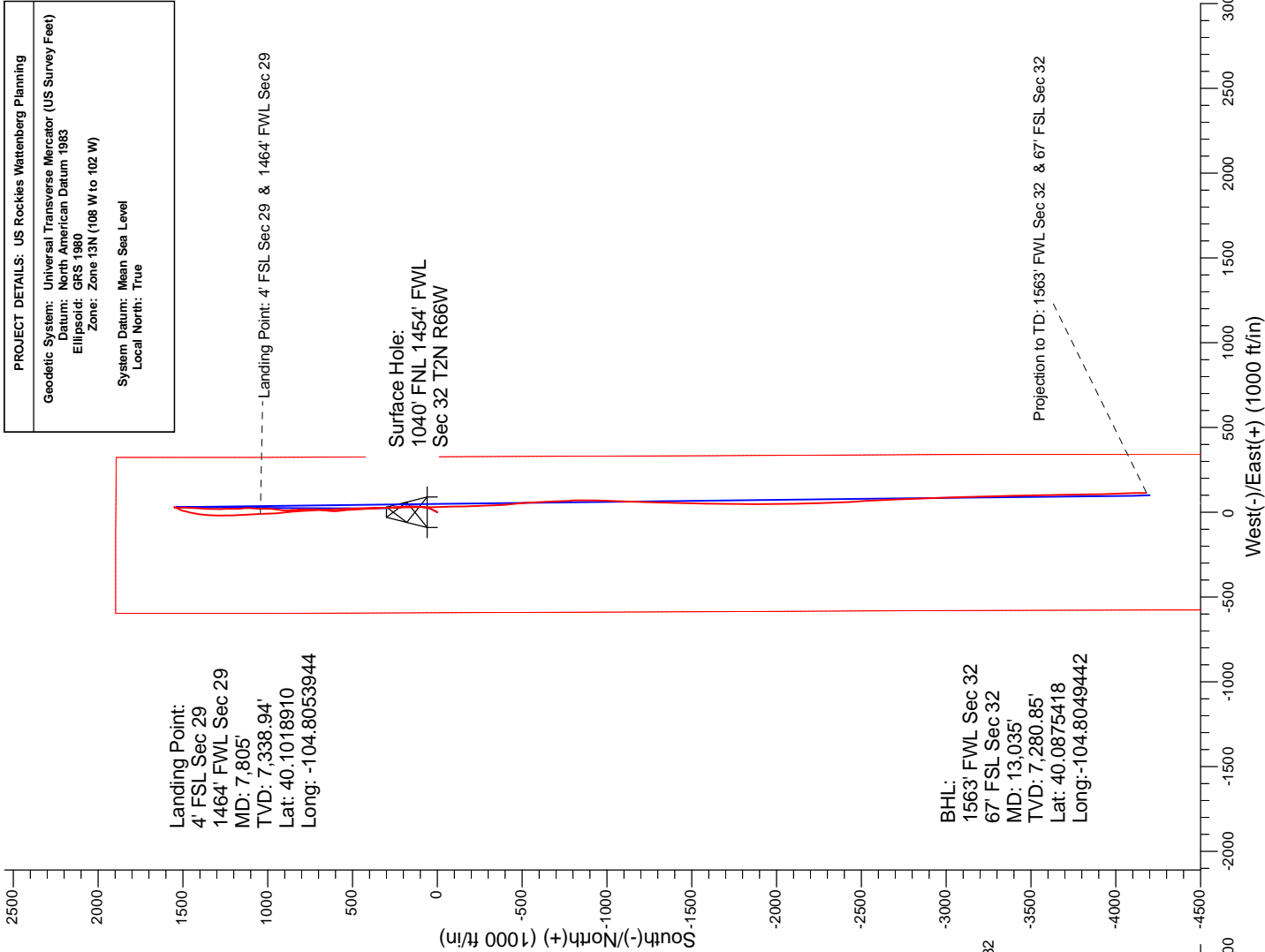
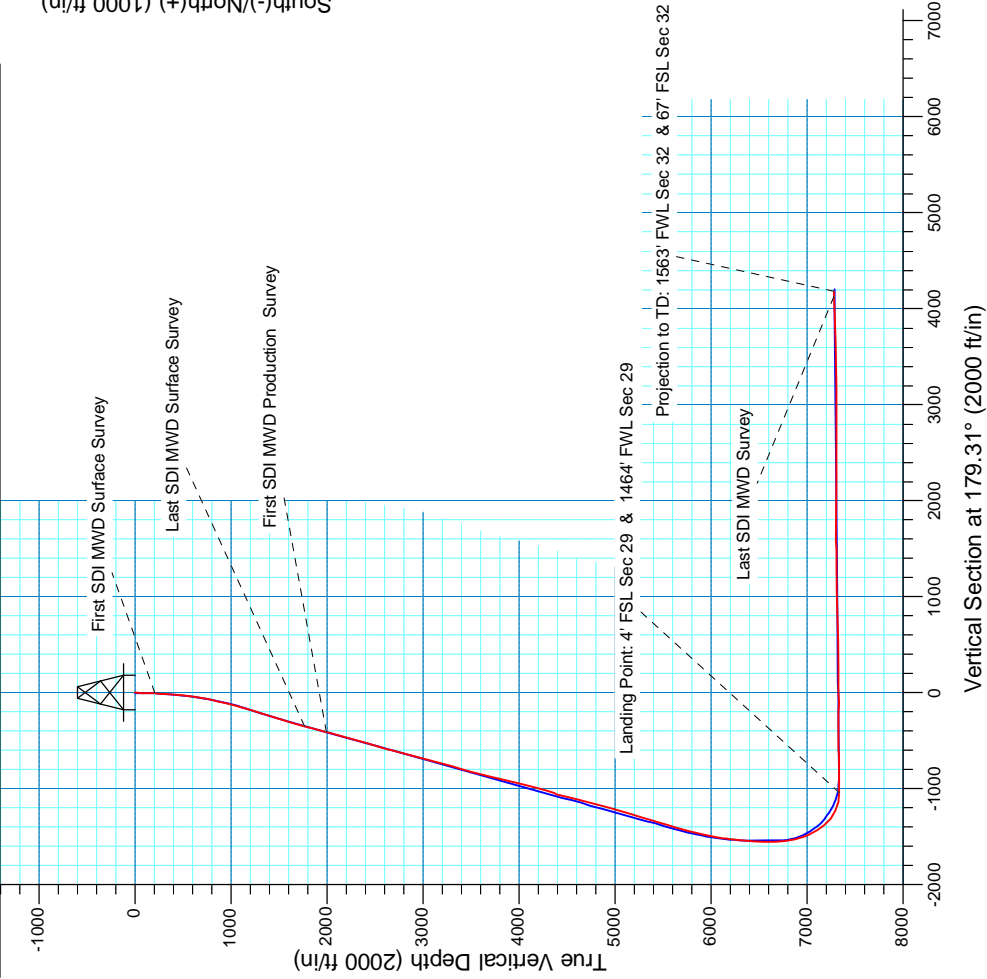


| WELL DETAILS: Land Fed 3N-32HZ | | | |
|--------------------------------|---|-----------|--------------|
| Northing | GL 4899' & KB 20' @ 4919.00ft (Precision 461) | Longitude | 4899.00 |
| 14562852.70 | Eastings | Latitude | -104.8053590 |
| | 1694847.26 | | |

| Design: OH (Land Fed 3N-32HZ/OH) | | | | | |
|---|----------|-------|--------|----------|--------|
| Created By: Seth Burstad Date: 7-05-2016 | | | | | |
| ANNOTATIONS | | | | | |
| TVD | MD | Inc | Azi | +N/-S | +E/-W |
| 212.91 | 213.00 | 2.85 | 34.36 | 4.37 | 2.99 |
| 1770.23 | 1814.00 | 15.66 | 358.05 | 346.97 | 24.25 |
| 1998.27 | 2050.00 | 14.18 | 352.73 | 407.48 | 19.51 |
| 7338.94 | 7805.00 | 91.04 | 176.36 | 1043.26 | -9.91 |
| 7283.65 | 12980.00 | 92.92 | 178.34 | -4127.04 | 114.42 |
| 7280.85 | 13035.00 | 92.92 | 178.34 | -4181.95 | 116.01 |
| Annotation | | | | | |
| First SDI MWD Surface Survey | | | | | |
| Last SDI MWD Surface Survey | | | | | |
| First SDI MWD Production Survey | | | | | |
| Last SDI MWD Production Survey | | | | | |
| Landing Point: 4' FSL Sec 29 & 1464' FWL Sec 29 | | | | | |
| Last SDI MWD Survey | | | | | |
| Projection to TD: 1563' FWL Sec 32 & 67' FSL Sec 32 | | | | | |



| PROJECT DETAILS: US Rockies Wattenberg Planning | |
|---|--|
| Geodetic System: | Universal Transverse Mercator (US Survey Feet) |
| Datum: | North American Datum 1983 |
| Ellipsoid: | GRS 1980 |
| Zone: | Zone 13N (108 W to 102 W) |
| System Datum: | Mean Sea Level |
| Local North: | True |



US ROCKIES REGION PLANNING

US Rockies Wattenberg Planning

Land 18-32HZ Pad 2N-66W-32

Land Fed 3N-32HZ

OH

Design: OH

Standard Survey Report

05 July, 2016



| | | | |
|------------------|--------------------------------|-------------------------------------|---|
| Company: | US ROCKIES REGION PLANNING | Local Co-ordinate Reference: | Well Land Fed 3N-32HZ |
| Project: | US Rockies Wattenberg Planning | TVD Reference: | GL 4899' & KB 20' @ 4919.00ft (Precision 461) |
| Site: | Land 18-32HZ Pad 2N-66W-32 | MD Reference: | GL 4899' & KB 20' @ 4919.00ft (Precision 461) |
| Well: | Land Fed 3N-32HZ | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Denver Sales Office |

| | | | |
|--------------------|--|----------------------|----------------|
| Project | US Rockies Wattenberg Planning | | |
| Map System: | Universal Transverse Mercator (US Survey Feet) | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Zone 13N (108 W to 102 W) | | |

| | | | |
|------------------------------|--|--------------------------|--------------------|
| Site | Land 18-32HZ Pad 2N-66W-32, Site Center: Land Fed 30C-29HZ | | |
| Site Position: | | Northing: | 14,562,853.50 usft |
| From: | Lat/Long | Easting: | 1,694,712.19 usft |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 13.200 in |
| | | Latitude: | 40.0990290 |
| | | Longitude: | -104.8058420 |
| | | Grid Convergence: | 0.13 ° |

| | | | |
|-----------------------------|---|----------------------------|-------------------------------------|
| Well | Land Fed 3N-32HZ, 1040' FNL 1454' FWL Sec 32 T2N R66W | | |
| Well Position | +N/-S | 0.00 ft | Northing: 14,562,852.70 usft |
| | +E/-W | 0.00 ft | Easting: 1,694,847.26 usft |
| Position Uncertainty | 0.00 ft | Wellhead Elevation: | 0.00 ft |
| | | Latitude: | 40.0990260 |
| | | Longitude: | -104.8053590 |
| | | Ground Level: | 4,899.00 ft |

| Wellbore | OH | | | | |
|-----------------|--------------|-------------|-----------------|---------------|---------------------|
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | User Defined | 5/18/2016 | 8.34 | 66.69 | 52,581 |
| | User Defined | 7/1/2016 | 8.34 | 66.71 | 52,602 |

| Design | OH | | | | |
|---------------------|-----------------------|---------------|------------|----------------------|--------|
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | | 179.31 |

| Survey Program | Date 7/5/2016 | | | | |
|-----------------------|---------------|-----------------------------|--|-------------|--|
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 213.00 | 1,814.00 | Survey #1 - Surface (OH) | APC_ISCWSA REV 2 MWD+ Fixed.v2:crustal field declination | | |
| 2,050.00 | 13,035.00 | Survey #2 - Production (OH) | APC_ISCWSA REV 2 MWD+ Fixed.v2:crustal field declination | | |

| Survey | | | | | | | | | | |
|-------------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 213.00 | 2.85 | 34.36 | 212.91 | 4.37 | 2.99 | -4.34 | 1.34 | 1.34 | 0.00 | |
| First SDI MWD Surface Survey | | | | | | | | | | |
| 307.00 | 4.44 | 31.17 | 306.72 | 9.41 | 6.19 | -9.34 | 1.70 | 1.69 | -3.39 | |
| 401.00 | 5.66 | 27.12 | 400.35 | 16.65 | 10.19 | -16.53 | 1.35 | 1.30 | -4.31 | |
| 495.00 | 6.59 | 27.05 | 493.82 | 25.58 | 14.75 | -25.40 | 0.99 | 0.99 | -0.07 | |
| 589.00 | 7.87 | 25.12 | 587.07 | 36.22 | 19.94 | -35.97 | 1.39 | 1.36 | -2.05 | |
| 683.00 | 10.09 | 14.78 | 679.91 | 50.01 | 24.77 | -49.70 | 2.91 | 2.36 | -11.00 | |

| | | | |
|------------------|--------------------------------|-------------------------------------|---|
| Company: | US ROCKIES REGION PLANNING | Local Co-ordinate Reference: | Well Land Fed 3N-32HZ |
| Project: | US Rockies Wattenberg Planning | TVD Reference: | GL 4899' & KB 20' @ 4919.00ft (Precision 461) |
| Site: | Land 18-32HZ Pad 2N-66W-32 | MD Reference: | GL 4899' & KB 20' @ 4919.00ft (Precision 461) |
| Well: | Land Fed 3N-32HZ | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Denver Sales Office |

| Survey | | | | | | | | | |
|---------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 777.00 | 11.68 | 9.41 | 772.22 | 67.36 | 28.43 | -67.01 | 2.00 | 1.69 | -5.71 |
| 871.00 | 13.00 | 5.68 | 864.05 | 87.27 | 31.03 | -86.89 | 1.64 | 1.40 | -3.97 |
| 965.00 | 13.54 | 3.59 | 955.54 | 108.77 | 32.77 | -108.37 | 0.77 | 0.57 | -2.22 |
| 1,059.00 | 14.68 | 359.89 | 1,046.70 | 131.66 | 33.43 | -131.25 | 1.55 | 1.21 | -3.94 |
| 1,153.00 | 17.35 | 0.74 | 1,137.05 | 157.59 | 33.59 | -157.18 | 2.85 | 2.84 | 0.90 |
| 1,247.00 | 17.63 | 357.80 | 1,226.70 | 185.83 | 33.23 | -185.42 | 0.99 | 0.30 | -3.13 |
| 1,341.00 | 16.69 | 356.04 | 1,316.52 | 213.52 | 31.75 | -213.13 | 1.14 | -1.00 | -1.87 |
| 1,434.00 | 16.59 | 356.09 | 1,405.62 | 240.09 | 29.92 | -239.71 | 0.11 | -0.11 | 0.05 |
| 1,528.00 | 16.83 | 355.47 | 1,495.66 | 267.05 | 27.93 | -266.69 | 0.32 | 0.26 | -0.66 |
| 1,624.00 | 16.77 | 357.97 | 1,587.56 | 294.74 | 26.34 | -294.40 | 0.76 | -0.06 | 2.60 |
| 1,719.00 | 15.72 | 357.39 | 1,678.77 | 321.29 | 25.27 | -320.97 | 1.12 | -1.11 | -0.61 |
| 1,814.00 | 15.66 | 358.05 | 1,770.23 | 346.97 | 24.25 | -346.65 | 0.20 | -0.06 | 0.69 |
| Last SDI MWD Surface Survey | | | | | | | | | |
| 2,050.00 | 14.18 | 352.73 | 1,998.27 | 407.48 | 19.51 | -407.21 | 0.85 | -0.63 | -2.25 |
| First SDI MWD Production Survey | | | | | | | | | |
| 2,145.00 | 15.78 | 358.90 | 2,090.05 | 431.94 | 17.78 | -431.69 | 2.38 | 1.68 | 6.49 |
| 2,240.00 | 14.71 | 359.79 | 2,181.70 | 456.92 | 17.49 | -456.67 | 1.15 | -1.13 | 0.94 |
| 2,335.00 | 16.26 | 357.69 | 2,273.25 | 482.27 | 16.91 | -482.03 | 1.73 | 1.63 | -2.21 |
| 2,430.00 | 15.12 | 357.45 | 2,364.71 | 507.94 | 15.83 | -507.71 | 1.20 | -1.20 | -0.25 |
| 2,525.00 | 16.68 | 353.77 | 2,456.08 | 533.87 | 13.79 | -533.66 | 1.95 | 1.64 | -3.87 |
| 2,620.00 | 18.03 | 354.02 | 2,546.75 | 562.05 | 10.78 | -561.87 | 1.42 | 1.42 | 0.26 |
| 2,714.00 | 16.16 | 353.26 | 2,636.59 | 589.51 | 7.73 | -589.37 | 2.00 | -1.99 | -0.81 |
| 2,903.00 | 13.28 | 10.27 | 2,819.46 | 637.02 | 8.52 | -636.87 | 2.73 | -1.52 | 9.00 |
| 2,997.00 | 14.38 | 8.53 | 2,910.73 | 659.19 | 12.17 | -658.99 | 1.25 | 1.17 | -1.85 |
| 3,092.00 | 16.03 | 5.95 | 3,002.40 | 683.90 | 15.28 | -683.67 | 1.88 | 1.74 | -2.72 |
| 3,186.00 | 14.51 | 4.10 | 3,093.08 | 708.56 | 17.47 | -708.29 | 1.70 | -1.62 | -1.97 |
| 3,281.00 | 15.04 | 2.93 | 3,184.94 | 732.74 | 18.95 | -732.46 | 0.64 | 0.56 | -1.23 |
| 3,376.00 | 14.25 | 358.70 | 3,276.86 | 756.74 | 19.31 | -756.45 | 1.40 | -0.83 | -4.45 |
| 3,470.00 | 15.95 | 357.09 | 3,367.61 | 781.20 | 18.40 | -780.93 | 1.86 | 1.81 | -1.71 |
| 3,565.00 | 17.28 | 358.87 | 3,458.64 | 808.35 | 17.46 | -808.08 | 1.50 | 1.40 | 1.87 |
| 3,657.00 | 13.74 | 355.07 | 3,547.28 | 832.90 | 16.25 | -832.65 | 4.00 | -3.85 | -4.13 |
| 3,752.00 | 14.47 | 353.79 | 3,639.41 | 855.94 | 13.99 | -855.71 | 0.84 | 0.77 | -1.35 |
| 3,846.00 | 13.25 | 352.98 | 3,730.67 | 878.31 | 11.41 | -878.11 | 1.31 | -1.30 | -0.86 |
| 3,941.00 | 13.47 | 8.84 | 3,823.13 | 900.06 | 11.78 | -899.85 | 3.85 | 0.23 | 16.69 |
| 4,035.00 | 13.34 | 6.99 | 3,914.57 | 921.64 | 14.78 | -921.39 | 0.48 | -0.14 | -1.97 |
| 4,130.00 | 14.05 | 4.54 | 4,006.87 | 944.01 | 17.02 | -943.74 | 0.96 | 0.75 | -2.58 |
| 4,223.00 | 14.61 | 4.98 | 4,096.98 | 966.95 | 18.94 | -966.65 | 0.61 | 0.60 | 0.47 |
| 4,319.00 | 16.09 | 2.47 | 4,189.55 | 992.30 | 20.56 | -991.99 | 1.69 | 1.54 | -2.61 |
| 4,414.00 | 16.35 | 358.88 | 4,280.77 | 1,018.83 | 20.87 | -1,018.50 | 1.09 | 0.27 | -3.78 |
| 4,507.00 | 17.26 | 2.72 | 4,369.80 | 1,045.70 | 21.27 | -1,045.36 | 1.54 | 0.98 | 4.13 |
| 4,602.00 | 13.50 | 2.26 | 4,461.39 | 1,070.86 | 22.37 | -1,070.52 | 3.96 | -3.96 | -0.48 |
| 4,697.00 | 14.26 | 7.15 | 4,553.61 | 1,093.55 | 24.27 | -1,093.18 | 1.47 | 0.80 | 5.15 |
| 4,791.00 | 14.28 | 2.75 | 4,644.72 | 1,116.62 | 26.26 | -1,116.22 | 1.15 | 0.02 | -4.68 |
| 4,886.00 | 14.41 | 349.87 | 4,736.78 | 1,139.97 | 24.75 | -1,139.59 | 3.36 | 0.14 | -13.56 |

| | | | |
|------------------|--------------------------------|-------------------------------------|---|
| Company: | US ROCKIES REGION PLANNING | Local Co-ordinate Reference: | Well Land Fed 3N-32HZ |
| Project: | US Rockies Wattenberg Planning | TVD Reference: | GL 4899' & KB 20' @ 4919.00ft (Precision 461) |
| Site: | Land 18-32HZ Pad 2N-66W-32 | MD Reference: | GL 4899' & KB 20' @ 4919.00ft (Precision 461) |
| Well: | Land Fed 3N-32HZ | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Denver Sales Office |

| Survey | | | | | | | | | | |
|---|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | |
| 4,979.00 | 15.29 | 356.31 | 4,826.68 | 1,163.60 | 21.92 | -1,163.25 | 2.01 | 0.95 | 6.92 | |
| 5,072.00 | 16.02 | 359.04 | 4,916.23 | 1,188.67 | 20.92 | -1,188.33 | 1.11 | 0.78 | 2.94 | |
| 5,167.00 | 16.35 | 1.53 | 5,007.46 | 1,215.14 | 21.05 | -1,214.80 | 0.81 | 0.35 | 2.62 | |
| 5,261.00 | 16.05 | 0.09 | 5,097.73 | 1,241.36 | 21.43 | -1,241.01 | 0.53 | -0.32 | -1.53 | |
| 5,355.00 | 17.42 | 358.80 | 5,187.75 | 1,268.42 | 21.15 | -1,268.08 | 1.51 | 1.46 | -1.37 | |
| 5,449.00 | 17.71 | 0.34 | 5,277.37 | 1,296.79 | 20.94 | -1,296.44 | 0.58 | 0.31 | 1.64 | |
| 5,542.00 | 16.14 | 356.73 | 5,366.34 | 1,323.84 | 20.29 | -1,323.50 | 2.03 | -1.69 | -3.88 | |
| 5,637.00 | 16.03 | 0.42 | 5,457.62 | 1,350.14 | 19.63 | -1,349.81 | 1.08 | -0.12 | 3.88 | |
| 5,733.00 | 16.49 | 5.21 | 5,549.79 | 1,376.97 | 20.97 | -1,376.61 | 1.48 | 0.48 | 4.99 | |
| 5,828.00 | 16.92 | 5.36 | 5,640.78 | 1,404.16 | 23.48 | -1,403.77 | 0.45 | 0.45 | 0.16 | |
| 5,922.00 | 13.36 | 3.55 | 5,731.50 | 1,428.62 | 25.43 | -1,428.21 | 3.82 | -3.79 | -1.93 | |
| 6,017.00 | 13.50 | 0.89 | 5,823.90 | 1,450.66 | 26.29 | -1,450.24 | 0.67 | 0.15 | -2.80 | |
| 6,111.00 | 12.38 | 2.26 | 5,915.51 | 1,471.70 | 26.85 | -1,471.27 | 1.24 | -1.19 | 1.46 | |
| 6,205.00 | 11.89 | 2.95 | 6,007.41 | 1,491.44 | 27.75 | -1,491.00 | 0.54 | -0.52 | 0.73 | |
| 6,298.00 | 9.41 | 2.96 | 6,098.80 | 1,508.61 | 28.64 | -1,508.15 | 2.67 | -2.67 | 0.01 | |
| 6,392.00 | 7.27 | 0.82 | 6,191.80 | 1,522.23 | 29.12 | -1,521.77 | 2.30 | -2.28 | -2.28 | |
| 6,484.00 | 5.33 | 359.05 | 6,283.24 | 1,532.32 | 29.13 | -1,531.86 | 2.12 | -2.11 | -1.92 | |
| 6,578.00 | 4.40 | 353.26 | 6,376.91 | 1,540.27 | 28.63 | -1,539.81 | 1.12 | -0.99 | -6.16 | |
| 6,671.00 | 2.34 | 10.21 | 6,469.74 | 1,545.68 | 28.55 | -1,545.23 | 2.44 | -2.22 | 18.23 | |
| 6,765.00 | 0.40 | 358.36 | 6,563.71 | 1,547.90 | 28.88 | -1,547.44 | 2.07 | -2.06 | -12.61 | |
| 6,859.00 | 0.84 | 21.48 | 6,657.71 | 1,548.87 | 29.13 | -1,548.41 | 0.53 | 0.47 | 24.60 | |
| 6,952.00 | 5.03 | 192.42 | 6,750.60 | 1,545.52 | 28.50 | -1,545.06 | 6.30 | 4.51 | 183.81 | |
| 7,046.00 | 14.04 | 207.28 | 6,843.22 | 1,531.33 | 22.37 | -1,530.95 | 9.86 | 9.59 | 15.81 | |
| 7,140.00 | 17.95 | 198.97 | 6,933.57 | 1,507.48 | 12.43 | -1,507.23 | 4.81 | 4.16 | -8.84 | |
| 7,236.00 | 23.48 | 195.08 | 7,023.34 | 1,475.00 | 2.64 | -1,474.86 | 5.93 | 5.76 | -4.05 | |
| 7,331.00 | 33.33 | 191.59 | 7,106.80 | 1,431.05 | -7.55 | -1,431.04 | 10.51 | 10.37 | -3.67 | |
| 7,426.00 | 40.67 | 183.82 | 7,182.66 | 1,374.49 | -14.87 | -1,374.57 | 9.15 | 7.73 | -8.18 | |
| 7,520.00 | 51.04 | 180.63 | 7,248.05 | 1,307.19 | -17.32 | -1,307.30 | 11.29 | 11.03 | -3.39 | |
| 7,615.00 | 64.46 | 179.29 | 7,298.63 | 1,227.03 | -17.20 | -1,227.15 | 14.18 | 14.13 | -1.41 | |
| 7,710.00 | 77.53 | 177.71 | 7,329.50 | 1,137.44 | -14.80 | -1,137.54 | 13.85 | 13.76 | -1.66 | |
| 7,805.00 | 91.04 | 176.36 | 7,338.94 | 1,043.26 | -9.91 | -1,043.30 | 14.29 | 14.22 | -1.42 | |
| Landing Point: 4' FSL Sec 29 & 1464' FWL Sec 29 | | | | | | | | | | |
| 7,899.00 | 90.81 | 175.54 | 7,337.42 | 949.51 | -3.27 | -949.48 | 0.91 | -0.24 | -0.87 | |
| 7,993.00 | 90.20 | 175.51 | 7,336.59 | 855.80 | 4.06 | -855.69 | 0.65 | -0.65 | -0.03 | |
| 8,086.00 | 89.80 | 176.57 | 7,336.59 | 763.02 | 10.48 | -762.84 | 1.22 | -0.43 | 1.14 | |
| 8,180.00 | 92.56 | 177.53 | 7,334.66 | 669.18 | 15.32 | -668.94 | 3.11 | 2.94 | 1.02 | |
| 8,274.00 | 91.71 | 176.88 | 7,331.16 | 575.35 | 19.90 | -575.07 | 1.14 | -0.90 | -0.69 | |
| 8,368.00 | 91.24 | 177.85 | 7,328.74 | 481.49 | 24.22 | -481.16 | 1.15 | -0.50 | 1.03 | |
| 8,463.00 | 89.30 | 179.05 | 7,328.29 | 386.53 | 26.79 | -386.18 | 2.40 | -2.04 | 1.26 | |
| 8,557.00 | 88.02 | 179.23 | 7,330.49 | 292.57 | 28.20 | -292.21 | 1.38 | -1.36 | 0.19 | |
| 8,650.00 | 88.76 | 179.38 | 7,333.10 | 199.61 | 29.33 | -199.24 | 0.81 | 0.80 | 0.16 | |
| 8,744.00 | 89.76 | 179.39 | 7,334.31 | 105.63 | 30.34 | -105.25 | 1.06 | 1.06 | 0.01 | |
| 8,838.00 | 90.87 | 178.51 | 7,333.80 | 11.65 | 32.06 | -11.26 | 1.51 | 1.18 | -0.94 | |

| | | | |
|------------------|--------------------------------|-------------------------------------|---|
| Company: | US ROCKIES REGION PLANNING | Local Co-ordinate Reference: | Well Land Fed 3N-32HZ |
| Project: | US Rockies Wattenberg Planning | TVD Reference: | GL 4899' & KB 20' @ 4919.00ft (Precision 461) |
| Site: | Land 18-32HZ Pad 2N-66W-32 | MD Reference: | GL 4899' & KB 20' @ 4919.00ft (Precision 461) |
| Well: | Land Fed 3N-32HZ | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Denver Sales Office |

| Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 8,933.00 | 91.78 | 179.30 | 7,331.60 | -83.31 | 33.87 | 83.71 | 1.27 | 0.96 | 0.83 |
| 9,028.00 | 90.20 | 179.01 | 7,329.96 | -178.28 | 35.28 | 178.69 | 1.69 | -1.66 | -0.31 |
| 9,121.00 | 90.94 | 176.98 | 7,329.03 | -271.22 | 38.53 | 271.66 | 2.32 | 0.80 | -2.18 |
| 9,216.00 | 90.57 | 176.54 | 7,327.78 | -366.06 | 43.90 | 366.56 | 0.61 | -0.39 | -0.46 |
| 9,310.00 | 90.77 | 174.22 | 7,326.68 | -459.74 | 51.47 | 460.32 | 2.48 | 0.21 | -2.47 |
| 9,404.00 | 91.68 | 177.15 | 7,324.67 | -553.44 | 58.54 | 554.10 | 3.26 | 0.97 | 3.12 |
| 9,499.00 | 91.58 | 177.07 | 7,321.97 | -648.28 | 63.33 | 648.99 | 0.13 | -0.11 | -0.08 |
| 9,593.00 | 91.91 | 177.73 | 7,319.11 | -742.14 | 67.59 | 742.90 | 0.78 | 0.35 | 0.70 |
| 9,686.00 | 91.41 | 180.12 | 7,316.41 | -835.08 | 69.33 | 835.85 | 2.62 | -0.54 | 2.57 |
| 9,780.00 | 91.85 | 180.17 | 7,313.74 | -929.04 | 69.09 | 929.80 | 0.47 | 0.47 | 0.05 |
| 9,874.00 | 89.93 | 181.18 | 7,312.28 | -1,023.01 | 67.99 | 1,023.76 | 2.31 | -2.04 | 1.07 |
| 9,968.00 | 90.13 | 181.99 | 7,312.23 | -1,116.98 | 65.39 | 1,117.68 | 0.89 | 0.21 | 0.86 |
| 10,061.00 | 89.53 | 182.25 | 7,312.51 | -1,209.91 | 61.95 | 1,210.57 | 0.70 | -0.65 | 0.28 |
| 10,155.00 | 90.94 | 181.44 | 7,312.12 | -1,303.86 | 58.92 | 1,304.47 | 1.73 | 1.50 | -0.86 |
| 10,249.00 | 91.08 | 181.43 | 7,310.46 | -1,397.82 | 56.57 | 1,398.39 | 0.15 | 0.15 | -0.01 |
| 10,343.00 | 91.38 | 181.45 | 7,308.45 | -1,491.76 | 54.20 | 1,492.31 | 0.32 | 0.32 | 0.02 |
| 10,437.00 | 91.95 | 180.71 | 7,305.72 | -1,585.71 | 52.43 | 1,586.22 | 0.99 | 0.61 | -0.79 |
| 10,530.00 | 90.03 | 180.28 | 7,304.11 | -1,678.68 | 51.63 | 1,679.18 | 2.12 | -2.06 | -0.46 |
| 10,626.00 | 89.76 | 180.55 | 7,304.28 | -1,774.68 | 50.94 | 1,775.17 | 0.40 | -0.28 | 0.28 |
| 10,720.00 | 89.39 | 179.77 | 7,304.98 | -1,868.68 | 50.67 | 1,869.15 | 0.92 | -0.39 | -0.83 |
| 10,814.00 | 89.33 | 181.01 | 7,306.03 | -1,962.67 | 50.03 | 1,963.13 | 1.32 | -0.06 | 1.32 |
| 10,907.00 | 89.29 | 178.30 | 7,307.15 | -2,055.65 | 50.59 | 2,056.11 | 2.91 | -0.04 | -2.91 |
| 11,001.00 | 89.33 | 179.01 | 7,308.28 | -2,149.62 | 52.80 | 2,150.10 | 0.76 | 0.04 | 0.76 |
| 11,093.00 | 88.49 | 178.94 | 7,310.03 | -2,241.59 | 54.44 | 2,242.08 | 0.92 | -0.91 | -0.08 |
| 11,187.00 | 90.00 | 177.69 | 7,311.27 | -2,335.53 | 57.21 | 2,336.05 | 2.09 | 1.61 | -1.33 |
| 11,279.00 | 89.29 | 177.20 | 7,311.84 | -2,427.44 | 61.31 | 2,428.00 | 0.94 | -0.77 | -0.53 |
| 11,372.00 | 90.67 | 176.76 | 7,311.88 | -2,520.31 | 66.21 | 2,520.92 | 1.56 | 1.48 | -0.47 |
| 11,466.00 | 90.34 | 177.45 | 7,311.05 | -2,614.18 | 70.96 | 2,614.85 | 0.81 | -0.35 | 0.73 |
| 11,559.00 | 90.23 | 176.64 | 7,310.58 | -2,707.06 | 75.75 | 2,707.77 | 0.88 | -0.12 | -0.87 |
| 11,652.00 | 90.44 | 177.95 | 7,310.04 | -2,799.95 | 80.14 | 2,800.71 | 1.43 | 0.23 | 1.41 |
| 11,746.00 | 90.74 | 177.58 | 7,309.07 | -2,893.87 | 83.81 | 2,894.67 | 0.51 | 0.32 | -0.39 |
| 11,839.00 | 90.47 | 178.05 | 7,308.09 | -2,986.80 | 87.35 | 2,987.63 | 0.58 | -0.29 | 0.51 |
| 12,027.00 | 90.54 | 178.64 | 7,306.43 | -3,174.71 | 92.78 | 3,175.60 | 0.32 | 0.04 | 0.31 |
| 12,121.00 | 90.37 | 177.72 | 7,305.69 | -3,268.66 | 95.77 | 3,269.58 | 1.00 | -0.18 | -0.98 |
| 12,214.00 | 90.50 | 178.79 | 7,304.98 | -3,361.61 | 98.60 | 3,362.56 | 1.16 | 0.14 | 1.15 |
| 12,307.00 | 90.47 | 179.03 | 7,304.19 | -3,454.59 | 100.37 | 3,455.55 | 0.26 | -0.03 | 0.26 |
| 12,400.00 | 90.13 | 178.40 | 7,303.71 | -3,547.57 | 102.45 | 3,548.54 | 0.77 | -0.37 | -0.68 |
| 12,495.00 | 91.58 | 179.60 | 7,302.29 | -3,642.54 | 104.11 | 3,643.53 | 1.98 | 1.53 | 1.26 |
| 12,590.00 | 91.68 | 179.41 | 7,299.59 | -3,737.50 | 104.93 | 3,738.49 | 0.23 | 0.11 | -0.20 |
| 12,685.00 | 92.01 | 178.98 | 7,296.53 | -3,832.44 | 106.26 | 3,833.44 | 0.57 | 0.35 | -0.45 |
| 12,779.00 | 92.49 | 178.21 | 7,292.84 | -3,926.34 | 108.57 | 3,927.36 | 0.96 | 0.51 | -0.82 |
| 12,967.00 | 92.72 | 178.44 | 7,284.29 | -4,114.06 | 114.06 | 4,115.14 | 0.17 | 0.12 | 0.12 |
| 12,980.00 | 92.92 | 178.34 | 7,283.65 | -4,127.04 | 114.42 | 4,128.12 | 1.72 | 1.54 | -0.77 |
| Last SDI MWD Survey | | | | | | | | | |

| | | | |
|------------------|--------------------------------|-------------------------------------|---|
| Company: | US ROCKIES REGION PLANNING | Local Co-ordinate Reference: | Well Land Fed 3N-32HZ |
| Project: | US Rockies Wattenberg Planning | TVD Reference: | GL 4899' & KB 20' @ 4919.00ft (Precision 461) |
| Site: | Land 18-32HZ Pad 2N-66W-32 | MD Reference: | GL 4899' & KB 20' @ 4919.00ft (Precision 461) |
| Well: | Land Fed 3N-32HZ | North Reference: | True |
| Wellbore: | OH | Survey Calculation Method: | Minimum Curvature |
| Design: | OH | Database: | Denver Sales Office |

| Survey | | | | | | | | | |
|---|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 13,035.00 | 92.92 | 178.34 | 7,280.85 | -4,181.95 | 116.01 | 4,183.04 | 0.00 | 0.00 | 0.00 |
| Projection to TD: 1563' FWL Sec 32 & 67' FSL Sec 32 | | | | | | | | | |

| Design Annotations | | | | | |
|---------------------|---------------------|-------------------|------------|---|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | | |
| | | +N/-S (ft) | +E/-W (ft) | Comment | |
| 213.00 | 212.91 | 4.37 | 2.99 | First SDI MWD Surface Survey | |
| 1,814.00 | 1,770.23 | 346.97 | 24.25 | Last SDI MWD Surface Survey | |
| 2,050.00 | 1,998.27 | 407.48 | 19.51 | First SDI MWD Production Survey | |
| 7,805.00 | 7,338.94 | 1,043.26 | -9.91 | Landing Point: 4' FSL Sec 29 & 1464' FWL Sec 29 | |
| 12,980.00 | 7,283.65 | -4,127.04 | 114.42 | Last SDI MWD Survey | |
| 13,035.00 | 7,280.85 | -4,181.95 | 116.01 | Projection to TD: 1563' FWL Sec 32 & 67' FSL Sec 32 | |

Checked By: _____ Approved By: _____ Date: _____