

WELL DETAILS: Land Fed 29N-29HZ

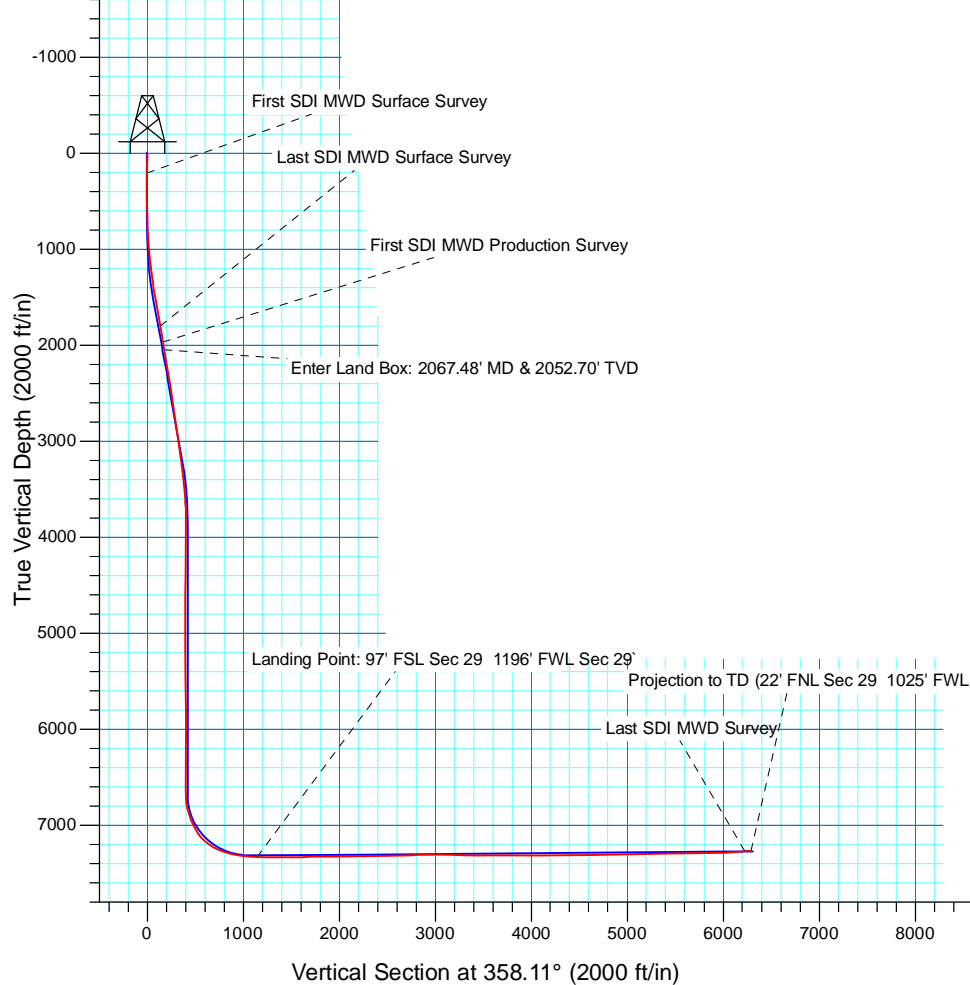
Northing: 14562852.90
 Easting: 1694772.31
 GL 4897' & KB 20' @ 4917.00ft (Precision 461)
 Latitude: 40.0990270
 Longitude: -104.8056270
 4899.00

Design: OH (Land Fed 29N-29HZ/OH)

Created By: Seth Burstad Date: 6-9-2016

ANNOTATIONS

| TVD | MD | Inc | Azi | +N/-S | +E/-W | Annotation |
|---------|----------|-------|--------|---------|---------|--|
| 213.00 | 213.00 | 0.40 | 226.22 | -0.51 | -0.54 | First SDI MWD Surface Survey |
| 1803.09 | 1814.00 | 10.69 | 336.74 | 136.54 | -60.86 | Last SDI MWD Surface Survey |
| 1970.40 | 1984.00 | 9.70 | 335.79 | 164.09 | -72.96 | First SDI MWD Production Survey |
| 2052.70 | 2067.48 | 9.61 | 333.92 | 176.76 | -78.91 | Enter Land Box: 2067.48' MD & 2052.70' TVD |
| 7335.17 | 7830.00 | 88.19 | 357.68 | 1135.93 | -182.79 | Landing Point: 97' FSL Sec 29 1196' FWL Sec 29 |
| 7272.18 | 12919.00 | 96.11 | 358.67 | 6218.48 | -364.74 | Last SDI MWD Survey |
| 7265.15 | 12985.00 | 96.11 | 358.67 | 6284.09 | -366.26 | Projection to TD (22' FNL Sec 29 1025' FWL Sec 29) |



BHL
 22' FNL Sec 29
 1025' FWL Sec 29
 MD: 12,985
 TVD: 7,265.15
 Lat: 40.1162839
 Long: -104.8069370

South(-)/North(+) (1000 ft/in)

Landing Point
 97' FSL Sec 29
 1196' FWL Sec 29
 MD: 7,830'
 TVD: 7,335.17
 Lat: 40.1021464
 Long: -104.8062807

Projection to TD (22' FNL Sec 29 1025' FWL Sec 29)

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

Enter Land Box: 2067.48' MD & 2052.70' TVD

Surface Hole:
 1039' FNL 1379' FWL
 Sec 32 T2N R66W

West(-)/East(+) (1000 ft/in)



US ROCKIES REGION PLANNING

US Rockies Wattenberg Planning

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

Land Fed 29N-29HZ

OH

Design: OH

Standard Survey Report

14 June, 2016



| | | | |
|------------------|--------------------------------|-------------------------------------|---|
| Company: | US ROCKIES REGION PLANNING | Local Co-ordinate Reference: | Well Land Fed 29N-29HZ |
| Project: | US Rockies Wattenberg Planning | TVD Reference: | GL 4897' & KB 20' @ 4917.00ft (Precision 461) |
| Site: | Land 18-32HZ Pad 2N-66W-32 | MD Reference: | GL 4897' & KB 20' @ 4917.00ft (Precision 461) |
| Well: | Land Fed 29N-29HZ | 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 | Latitude: | 40.0990290 |
| From: | Lat/Long | Easting: | 1,694,712.19 usft | Longitude: | -104.8058420 |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 13.200 in | Grid Convergence: | 0.13 ° |

| | | | | | | |
|----------------------|--|---------|---------------------|--------------------|---------------|--------------|
| Well | Land Fed 29N-29HZ, 1039' FNL 1379' FWL Sec 32 T2N R66W | | | | | |
| Well Position | +N/-S | 0.00 ft | Northing: | 14,562,852.90 usft | Latitude: | 40.0990270 |
| | +E/-W | 0.00 ft | Easting: | 1,694,772.31 usft | Longitude: | -104.8056270 |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | 0.00 ft | Ground Level: | 4,899.00 ft |

| Wellbore | OH | | | | |
|-----------------|--------------|-------------|-----------------|---------------|---------------------|
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | User Defined | 5/15/2016 | 8.34 | 66.69 | 52,587 |
| | User Defined | 6/8/2016 | 8.33 | 66.69 | 52,564 |

| 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 | | 358.11 |

| Survey Program | Date | 6/14/2016 | | | |
|-----------------------|-------------|-----------------------------|--|-------------|--|
| 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 | | |
| 1,984.00 | 12,985.00 | 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 | 0.40 | 226.22 | 213.00 | -0.51 | -0.54 | -0.50 | 0.19 | 0.19 | 0.00 |
| First SDI MWD Surface Survey | | | | | | | | | |
| 307.00 | 0.65 | 223.20 | 306.99 | -1.13 | -1.14 | -1.09 | 0.27 | 0.27 | -3.21 |
| 495.00 | 1.39 | 309.35 | 494.97 | -0.46 | -3.63 | -0.34 | 0.79 | 0.39 | 45.82 |
| 589.00 | 2.24 | 324.01 | 588.92 | 1.75 | -5.59 | 1.93 | 1.02 | 0.90 | 15.60 |
| 683.00 | 2.05 | 330.58 | 682.86 | 4.70 | -7.50 | 4.94 | 0.33 | -0.20 | 6.99 |
| 777.00 | 2.06 | 334.88 | 776.80 | 7.69 | -9.04 | 7.99 | 0.16 | 0.01 | 4.57 |

| | | | |
|------------------|--------------------------------|-------------------------------------|---|
| Company: | US ROCKIES REGION PLANNING | Local Co-ordinate Reference: | Well Land Fed 29N-29HZ |
| Project: | US Rockies Wattenberg Planning | TVD Reference: | GL 4897' & KB 20' @ 4917.00ft (Precision 461) |
| Site: | Land 18-32HZ Pad 2N-66W-32 | MD Reference: | GL 4897' & KB 20' @ 4917.00ft (Precision 461) |
| Well: | Land Fed 29N-29HZ | 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) |
| 871.00 | 3.40 | 327.92 | 870.69 | 11.58 | -11.24 | 11.95 | 1.47 | 1.43 | -7.40 |
| 1,059.00 | 6.07 | 341.22 | 1,058.04 | 25.72 | -17.40 | 26.28 | 1.53 | 1.42 | 7.07 |
| 1,153.00 | 6.32 | 339.56 | 1,151.49 | 35.27 | -20.81 | 35.94 | 0.33 | 0.27 | -1.77 |
| 1,247.00 | 6.53 | 339.43 | 1,244.90 | 45.13 | -24.49 | 45.91 | 0.22 | 0.22 | -0.14 |
| 1,341.00 | 7.66 | 337.51 | 1,338.18 | 55.92 | -28.77 | 56.84 | 1.23 | 1.20 | -2.04 |
| 1,434.00 | 10.26 | 338.34 | 1,430.03 | 69.35 | -34.20 | 70.44 | 2.80 | 2.80 | 0.89 |
| 1,528.00 | 11.18 | 338.67 | 1,522.39 | 85.62 | -40.60 | 86.91 | 0.98 | 0.98 | 0.35 |
| 1,624.00 | 10.98 | 338.73 | 1,616.60 | 102.81 | -47.30 | 104.31 | 0.21 | -0.21 | 0.06 |
| 1,719.00 | 11.23 | 338.45 | 1,709.82 | 119.84 | -53.98 | 121.56 | 0.27 | 0.26 | -0.29 |
| 1,814.00 | 10.69 | 336.74 | 1,803.09 | 136.54 | -60.86 | 138.47 | 0.66 | -0.57 | -1.80 |
| Last SDI MWD Surface Survey | | | | | | | | | |
| 1,984.00 | 9.70 | 335.79 | 1,970.40 | 164.09 | -72.96 | 166.40 | 0.59 | -0.58 | -0.56 |
| First SDI MWD Production Survey | | | | | | | | | |
| 2,067.48 | 9.61 | 333.92 | 2,052.70 | 176.76 | -78.91 | 179.27 | 0.39 | -0.11 | -2.24 |
| Enter Land Box: 2067.48' MD & 2052.70' TVD | | | | | | | | | |
| 2,078.00 | 9.60 | 333.68 | 2,063.07 | 178.34 | -79.68 | 180.87 | 0.39 | -0.10 | -2.26 |
| 2,172.00 | 9.05 | 331.06 | 2,155.83 | 191.83 | -86.74 | 194.59 | 0.74 | -0.59 | -2.79 |
| 2,268.00 | 10.59 | 334.86 | 2,250.42 | 206.42 | -94.14 | 209.42 | 1.74 | 1.60 | 3.96 |
| 2,363.00 | 10.19 | 330.95 | 2,343.87 | 221.67 | -101.93 | 224.92 | 0.85 | -0.42 | -4.12 |
| 2,458.00 | 10.67 | 328.85 | 2,437.30 | 236.55 | -110.56 | 240.06 | 0.64 | 0.51 | -2.21 |
| 2,553.00 | 11.55 | 326.01 | 2,530.52 | 251.96 | -120.42 | 255.79 | 1.09 | 0.93 | -2.99 |
| 2,648.00 | 10.78 | 323.32 | 2,623.72 | 266.97 | -131.05 | 271.15 | 0.98 | -0.81 | -2.83 |
| 2,742.00 | 10.33 | 324.73 | 2,716.13 | 280.90 | -141.16 | 285.40 | 0.55 | -0.48 | 1.50 |
| 2,837.00 | 9.62 | 326.92 | 2,809.69 | 294.51 | -150.42 | 299.31 | 0.85 | -0.75 | 2.31 |
| 2,931.00 | 9.14 | 331.86 | 2,902.44 | 307.67 | -158.22 | 312.72 | 1.00 | -0.51 | 5.26 |
| 3,025.00 | 8.89 | 338.49 | 2,995.28 | 321.01 | -164.41 | 326.26 | 1.14 | -0.27 | 7.05 |
| 3,119.00 | 8.52 | 340.83 | 3,088.19 | 334.35 | -169.36 | 339.75 | 0.54 | -0.39 | 2.49 |
| 3,214.00 | 7.32 | 350.76 | 3,182.29 | 346.97 | -172.64 | 352.47 | 1.91 | -1.26 | 10.45 |
| 3,308.00 | 7.14 | 347.40 | 3,275.54 | 358.58 | -174.88 | 364.15 | 0.49 | -0.19 | -3.57 |
| 3,404.00 | 6.59 | 358.65 | 3,370.86 | 369.91 | -176.31 | 375.53 | 1.51 | -0.57 | 11.72 |
| 3,498.00 | 5.21 | 1.55 | 3,464.36 | 379.57 | -176.32 | 385.18 | 1.50 | -1.47 | 3.09 |
| 3,593.00 | 4.67 | 352.34 | 3,559.01 | 387.72 | -176.72 | 393.33 | 1.01 | -0.57 | -9.69 |
| 3,685.00 | 3.35 | 349.83 | 3,650.78 | 394.07 | -177.69 | 399.72 | 1.45 | -1.43 | -2.73 |
| 3,780.00 | 1.89 | 339.76 | 3,745.68 | 398.28 | -178.72 | 403.95 | 1.61 | -1.54 | -10.60 |
| 3,874.00 | 0.59 | 42.91 | 3,839.66 | 400.08 | -178.93 | 405.77 | 1.82 | -1.38 | 67.18 |
| 3,969.00 | 1.60 | 116.82 | 3,934.64 | 399.84 | -177.41 | 405.48 | 1.63 | 1.06 | 77.80 |
| 4,063.00 | 1.22 | 120.90 | 4,028.61 | 398.74 | -175.39 | 404.31 | 0.42 | -0.40 | 4.34 |
| 4,158.00 | 0.77 | 133.63 | 4,123.60 | 397.78 | -174.06 | 403.30 | 0.52 | -0.47 | 13.40 |
| 4,251.00 | 0.54 | 102.96 | 4,216.59 | 397.25 | -173.18 | 402.74 | 0.44 | -0.25 | -32.98 |
| 4,346.00 | 0.55 | 145.60 | 4,311.59 | 396.77 | -172.48 | 402.25 | 0.42 | 0.01 | 44.88 |
| 4,442.00 | 0.77 | 135.16 | 4,407.58 | 395.93 | -171.77 | 401.38 | 0.26 | 0.23 | -10.88 |
| 4,535.00 | 0.50 | 152.94 | 4,500.58 | 395.13 | -171.14 | 400.56 | 0.36 | -0.29 | 19.12 |
| 4,630.00 | 0.39 | 161.52 | 4,595.58 | 394.45 | -170.85 | 399.87 | 0.14 | -0.12 | 9.03 |
| 4,725.00 | 0.47 | 152.21 | 4,690.57 | 393.80 | -170.57 | 399.21 | 0.11 | 0.08 | -9.80 |

| | | | |
|------------------|--------------------------------|-------------------------------------|---|
| Company: | US ROCKIES REGION PLANNING | Local Co-ordinate Reference: | Well Land Fed 29N-29HZ |
| Project: | US Rockies Wattenberg Planning | TVD Reference: | GL 4897' & KB 20' @ 4917.00ft (Precision 461) |
| Site: | Land 18-32HZ Pad 2N-66W-32 | MD Reference: | GL 4897' & KB 20' @ 4917.00ft (Precision 461) |
| Well: | Land Fed 29N-29HZ | 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) |
| 4,819.00 | 0.31 | 170.65 | 4,784.57 | 393.21 | -170.35 | 398.62 | 0.21 | -0.17 | 19.62 |
| 4,914.00 | 0.20 | 218.73 | 4,879.57 | 392.83 | -170.41 | 398.23 | 0.24 | -0.12 | 50.61 |
| 5,007.00 | 0.29 | 243.50 | 4,972.57 | 392.60 | -170.72 | 398.01 | 0.15 | 0.10 | 26.63 |
| 5,100.00 | 1.04 | 268.68 | 5,065.56 | 392.47 | -171.77 | 397.92 | 0.85 | 0.81 | 27.08 |
| 5,195.00 | 1.13 | 282.95 | 5,160.54 | 392.66 | -173.55 | 398.17 | 0.30 | 0.09 | 15.02 |
| 5,288.00 | 1.41 | 278.17 | 5,253.52 | 393.03 | -175.58 | 398.61 | 0.32 | 0.30 | -5.14 |
| 5,382.00 | 1.27 | 287.35 | 5,347.50 | 393.51 | -177.71 | 399.15 | 0.27 | -0.15 | 9.77 |
| 5,475.00 | 1.14 | 291.77 | 5,440.48 | 394.16 | -179.56 | 399.86 | 0.17 | -0.14 | 4.75 |
| 5,568.00 | 0.92 | 299.04 | 5,533.46 | 394.86 | -181.07 | 400.62 | 0.27 | -0.24 | 7.82 |
| 5,663.00 | 0.80 | 286.99 | 5,628.45 | 395.43 | -182.37 | 401.22 | 0.23 | -0.13 | -12.68 |
| 5,758.00 | 1.04 | 305.34 | 5,723.44 | 396.12 | -183.71 | 401.96 | 0.40 | 0.25 | 19.32 |
| 5,854.00 | 1.06 | 311.88 | 5,819.42 | 397.21 | -185.08 | 403.10 | 0.13 | 0.02 | 6.81 |
| 5,947.00 | 1.09 | 297.99 | 5,912.41 | 398.20 | -186.50 | 404.14 | 0.28 | 0.03 | -14.94 |
| 6,042.00 | 0.35 | 115.31 | 6,007.40 | 398.50 | -187.04 | 404.46 | 1.52 | -0.78 | 186.65 |
| 6,137.00 | 1.02 | 139.99 | 6,102.39 | 397.73 | -186.23 | 403.66 | 0.75 | 0.71 | 25.98 |
| 6,231.00 | 1.15 | 110.64 | 6,196.38 | 396.76 | -184.81 | 402.64 | 0.60 | 0.14 | -31.22 |
| 6,324.00 | 1.00 | 85.24 | 6,289.36 | 396.50 | -183.13 | 402.32 | 0.53 | -0.16 | -27.31 |
| 6,417.00 | 0.65 | 67.73 | 6,382.35 | 396.76 | -181.83 | 402.55 | 0.46 | -0.38 | -18.83 |
| 6,510.00 | 0.68 | 59.50 | 6,475.35 | 397.24 | -180.87 | 402.99 | 0.11 | 0.03 | -8.85 |
| 6,604.00 | 0.92 | 18.24 | 6,569.34 | 398.24 | -180.15 | 403.97 | 0.65 | 0.26 | -43.89 |
| 6,696.00 | 1.25 | 12.25 | 6,661.32 | 399.93 | -179.71 | 405.64 | 0.38 | 0.36 | -6.51 |
| 6,791.00 | 4.40 | 7.25 | 6,756.19 | 404.56 | -179.03 | 410.24 | 3.32 | 3.32 | -5.26 |
| 6,885.00 | 14.43 | 1.86 | 6,848.81 | 419.88 | -178.19 | 425.53 | 10.70 | 10.67 | -5.73 |
| 6,978.00 | 21.30 | 6.02 | 6,937.28 | 448.29 | -176.04 | 453.85 | 7.51 | 7.39 | 4.47 |
| 7,072.00 | 27.56 | 4.37 | 7,022.82 | 486.99 | -172.59 | 492.42 | 6.70 | 6.66 | -1.76 |
| 7,166.00 | 37.78 | 0.82 | 7,101.85 | 537.60 | -170.51 | 542.94 | 11.06 | 10.87 | -3.78 |
| 7,261.00 | 49.46 | 1.23 | 7,170.50 | 603.02 | -169.32 | 608.27 | 12.30 | 12.29 | 0.43 |
| 7,357.00 | 58.91 | 1.98 | 7,226.62 | 680.75 | -167.11 | 685.89 | 9.86 | 9.84 | 0.78 |
| 7,451.00 | 69.61 | 0.73 | 7,267.38 | 765.27 | -165.15 | 770.30 | 11.45 | 11.38 | -1.33 |
| 7,546.00 | 75.53 | 356.08 | 7,295.84 | 855.80 | -167.73 | 860.87 | 7.79 | 6.23 | -4.89 |
| 7,640.00 | 79.10 | 355.93 | 7,316.48 | 947.27 | -174.12 | 952.50 | 3.80 | 3.80 | -0.16 |
| 7,736.00 | 85.10 | 357.93 | 7,329.67 | 1,042.17 | -179.20 | 1,047.52 | 6.58 | 6.25 | 2.08 |
| 7,830.00 | 88.19 | 357.68 | 7,335.17 | 1,135.93 | -182.79 | 1,141.34 | 3.30 | 3.29 | -0.27 |
| Landing Point: 97' FSL Sec 29 1196' FWL Sec 29' | | | | | | | | | |
| 7,924.00 | 88.96 | 357.52 | 7,337.51 | 1,229.82 | -186.73 | 1,235.31 | 0.84 | 0.82 | -0.17 |
| 8,019.00 | 89.90 | 357.06 | 7,338.45 | 1,324.71 | -191.22 | 1,330.29 | 1.10 | 0.99 | -0.48 |
| 8,112.00 | 90.50 | 356.62 | 7,338.13 | 1,417.57 | -196.35 | 1,423.27 | 0.80 | 0.65 | -0.47 |
| 8,206.00 | 90.77 | 356.61 | 7,337.09 | 1,511.40 | -201.90 | 1,517.23 | 0.29 | 0.29 | -0.01 |
| 8,300.00 | 90.97 | 356.40 | 7,335.66 | 1,605.21 | -207.63 | 1,611.18 | 0.31 | 0.21 | -0.22 |
| 8,394.00 | 91.38 | 355.60 | 7,333.73 | 1,698.96 | -214.18 | 1,705.10 | 0.96 | 0.44 | -0.85 |
| 8,489.00 | 90.71 | 356.22 | 7,332.00 | 1,793.70 | -220.96 | 1,800.01 | 0.96 | -0.71 | 0.65 |
| 8,583.00 | 90.97 | 355.36 | 7,330.62 | 1,887.44 | -227.86 | 1,893.93 | 0.96 | 0.28 | -0.91 |
| 8,676.00 | 90.23 | 357.16 | 7,329.65 | 1,980.23 | -233.92 | 1,986.87 | 2.09 | -0.80 | 1.94 |

| | | | |
|------------------|--------------------------------|-------------------------------------|---|
| Company: | US ROCKIES REGION PLANNING | Local Co-ordinate Reference: | Well Land Fed 29N-29HZ |
| Project: | US Rockies Wattenberg Planning | TVD Reference: | GL 4897' & KB 20' @ 4917.00ft (Precision 461) |
| Site: | Land 18-32HZ Pad 2N-66W-32 | MD Reference: | GL 4897' & KB 20' @ 4917.00ft (Precision 461) |
| Well: | Land Fed 29N-29HZ | 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) |
| 8,770.00 | 90.47 | 356.47 | 7,329.07 | 2,074.08 | -239.14 | 2,080.84 | 0.78 | 0.26 | -0.73 |
| 8,864.00 | 91.11 | 357.99 | 7,327.78 | 2,167.96 | -243.69 | 2,174.82 | 1.75 | 0.68 | 1.62 |
| 8,959.00 | 92.25 | 358.80 | 7,324.99 | 2,262.88 | -246.35 | 2,269.77 | 1.47 | 1.20 | 0.85 |
| 9,054.00 | 91.44 | 358.24 | 7,321.93 | 2,357.80 | -248.80 | 2,364.72 | 1.04 | -0.85 | -0.59 |
| 9,147.00 | 90.00 | 358.51 | 7,320.76 | 2,450.75 | -251.44 | 2,457.71 | 1.58 | -1.55 | 0.29 |
| 9,242.00 | 90.47 | 357.81 | 7,320.37 | 2,545.70 | -254.49 | 2,552.71 | 0.89 | 0.49 | -0.74 |
| 9,336.00 | 92.14 | 356.84 | 7,318.23 | 2,639.57 | -258.87 | 2,646.67 | 2.05 | 1.78 | -1.03 |
| 9,430.00 | 92.02 | 357.53 | 7,314.82 | 2,733.39 | -263.48 | 2,740.60 | 0.74 | -0.13 | 0.73 |
| 9,525.00 | 90.37 | 357.95 | 7,312.84 | 2,828.29 | -267.23 | 2,835.57 | 1.79 | -1.74 | 0.44 |
| 9,619.00 | 90.00 | 0.16 | 7,312.54 | 2,922.28 | -268.78 | 2,929.55 | 2.38 | -0.39 | 2.35 |
| 9,711.00 | 91.58 | 1.01 | 7,311.27 | 3,014.26 | -267.84 | 3,021.45 | 1.95 | 1.72 | 0.92 |
| 9,806.00 | 90.47 | 359.22 | 7,309.57 | 3,109.24 | -267.65 | 3,116.37 | 2.22 | -1.17 | -1.88 |
| 9,900.00 | 87.85 | 358.76 | 7,310.95 | 3,203.20 | -269.31 | 3,210.34 | 2.83 | -2.79 | -0.49 |
| 9,994.00 | 87.65 | 358.16 | 7,314.64 | 3,297.10 | -271.83 | 3,304.27 | 0.67 | -0.21 | -0.64 |
| 10,087.00 | 89.23 | 0.37 | 7,317.17 | 3,390.05 | -273.02 | 3,397.21 | 2.92 | 1.70 | 2.38 |
| 10,181.00 | 90.27 | 0.04 | 7,317.58 | 3,484.04 | -272.69 | 3,491.14 | 1.16 | 1.11 | -0.35 |
| 10,275.00 | 89.16 | 0.14 | 7,318.05 | 3,578.04 | -272.54 | 3,585.08 | 1.19 | -1.18 | 0.11 |
| 10,368.00 | 90.34 | 1.32 | 7,318.45 | 3,671.03 | -271.35 | 3,677.98 | 1.79 | 1.27 | 1.27 |
| 10,463.00 | 91.71 | 0.94 | 7,316.75 | 3,765.99 | -269.48 | 3,772.83 | 1.50 | 1.44 | -0.40 |
| 10,556.00 | 90.34 | 359.91 | 7,315.09 | 3,858.97 | -268.79 | 3,865.74 | 1.84 | -1.47 | -1.11 |
| 10,652.00 | 88.62 | 359.63 | 7,315.96 | 3,954.96 | -269.18 | 3,961.69 | 1.82 | -1.79 | -0.29 |
| 10,746.00 | 88.76 | 358.16 | 7,318.11 | 4,048.92 | -270.99 | 4,055.65 | 1.57 | 0.15 | -1.56 |
| 10,840.00 | 89.97 | 357.62 | 7,319.15 | 4,142.85 | -274.45 | 4,149.64 | 1.41 | 1.29 | -0.57 |
| 10,933.00 | 91.34 | 357.18 | 7,318.09 | 4,235.74 | -278.67 | 4,242.63 | 1.55 | 1.47 | -0.47 |
| 11,027.00 | 91.04 | 356.63 | 7,316.14 | 4,329.59 | -283.74 | 4,336.59 | 0.67 | -0.32 | -0.59 |
| 11,119.00 | 91.18 | 356.24 | 7,314.35 | 4,421.39 | -289.46 | 4,428.53 | 0.45 | 0.15 | -0.42 |
| 11,213.00 | 91.11 | 355.64 | 7,312.48 | 4,515.13 | -296.12 | 4,522.44 | 0.64 | -0.07 | -0.64 |
| 11,305.00 | 90.77 | 356.29 | 7,310.97 | 4,606.89 | -302.59 | 4,614.37 | 0.80 | -0.37 | 0.71 |
| 11,398.00 | 91.24 | 357.90 | 7,309.34 | 4,699.76 | -307.30 | 4,707.33 | 1.80 | 0.51 | 1.73 |
| 11,491.00 | 89.56 | 357.35 | 7,308.69 | 4,792.67 | -311.15 | 4,800.33 | 1.90 | -1.81 | -0.59 |
| 11,585.00 | 89.26 | 357.34 | 7,309.65 | 4,886.56 | -315.51 | 4,894.31 | 0.32 | -0.32 | -0.01 |
| 11,678.00 | 90.97 | 358.11 | 7,309.47 | 4,979.49 | -319.20 | 4,987.31 | 2.02 | 1.84 | 0.83 |
| 11,772.00 | 91.75 | 356.82 | 7,307.24 | 5,073.37 | -323.36 | 5,081.27 | 1.60 | 0.83 | -1.37 |
| 11,865.00 | 92.69 | 356.91 | 7,303.63 | 5,166.16 | -328.44 | 5,174.18 | 1.02 | 1.01 | 0.10 |
| 11,958.00 | 91.91 | 356.80 | 7,299.90 | 5,258.94 | -333.54 | 5,267.08 | 0.85 | -0.84 | -0.12 |
| 12,053.00 | 90.03 | 355.42 | 7,298.29 | 5,353.70 | -339.98 | 5,362.00 | 2.45 | -1.98 | -1.45 |
| 12,147.00 | 90.64 | 356.09 | 7,297.74 | 5,447.44 | -346.94 | 5,455.92 | 0.96 | 0.65 | 0.71 |
| 12,240.00 | 91.34 | 358.79 | 7,296.14 | 5,540.32 | -351.09 | 5,548.89 | 3.00 | 0.75 | 2.90 |
| 12,332.00 | 92.12 | 359.55 | 7,293.36 | 5,632.27 | -352.42 | 5,640.83 | 1.18 | 0.85 | 0.83 |
| 12,426.00 | 92.29 | 359.26 | 7,289.74 | 5,726.20 | -353.40 | 5,734.74 | 0.36 | 0.18 | -0.31 |
| 12,521.00 | 89.87 | 358.93 | 7,287.95 | 5,821.16 | -354.90 | 5,829.70 | 2.57 | -2.55 | -0.35 |
| 12,616.00 | 90.07 | 358.31 | 7,288.00 | 5,916.13 | -357.19 | 5,924.69 | 0.69 | 0.21 | -0.65 |
| 12,711.00 | 91.84 | 358.62 | 7,286.42 | 6,011.08 | -359.73 | 6,019.68 | 1.89 | 1.86 | 0.33 |
| 12,805.00 | 93.67 | 358.55 | 7,281.90 | 6,104.94 | -362.05 | 6,113.56 | 1.95 | 1.95 | -0.07 |

| | | | |
|------------------|--------------------------------|-------------------------------------|---|
| Company: | US ROCKIES REGION PLANNING | Local Co-ordinate Reference: | Well Land Fed 29N-29HZ |
| Project: | US Rockies Wattenberg Planning | TVD Reference: | GL 4897' & KB 20' @ 4917.00ft (Precision 461) |
| Site: | Land 18-32HZ Pad 2N-66W-32 | MD Reference: | GL 4897' & KB 20' @ 4917.00ft (Precision 461) |
| Well: | Land Fed 29N-29HZ | 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) | |
| 12,900.00 | 95.71 | 358.72 | 7,274.13 | 6,199.59 | -364.31 | 6,208.23 | 2.15 | 2.15 | 0.18 | |
| 12,919.00 | 96.11 | 358.67 | 7,272.18 | 6,218.48 | -364.74 | 6,227.13 | 2.12 | 2.11 | -0.26 | |
| Last SDI MWD Survey | | | | | | | | | | |
| 12,985.00 | 96.11 | 358.67 | 7,265.15 | 6,284.09 | -366.26 | 6,292.75 | 0.00 | 0.00 | 0.00 | |
| Projection to TD (22' FNL Sec 29 1025' FWL Sec 29) | | | | | | | | | | |

| Design Annotations | | | | | |
|---------------------|---------------------|-------------------|------------|--|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | | |
| | | +N/-S (ft) | +E/-W (ft) | Comment | |
| 213.00 | 213.00 | -0.51 | -0.54 | First SDI MWD Surface Survey | |
| 1,814.00 | 1,803.09 | 136.54 | -60.86 | Last SDI MWD Surface Survey | |
| 1,984.00 | 1,970.40 | 164.09 | -72.96 | First SDI MWD Production Survey | |
| 2,067.48 | 2,052.70 | 176.76 | -78.91 | Enter Land Box: 2067.48' MD & 2052.70' TVD | |
| 7,830.00 | 7,335.17 | 1,135.93 | -182.79 | Landing Point: 97' FSL Sec 29 1196' FWL Sec 29' | |
| 12,919.00 | 7,272.18 | 6,218.48 | -364.74 | Last SDI MWD Survey | |
| 12,985.00 | 7,265.15 | 6,284.09 | -366.26 | Projection to TD (22' FNL Sec 29 1025' FWL Sec 29) | |

Checked By: _____ Approved By: _____ Date: _____