

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

1N-67W-11 Leinweber 27-11 Pad

LEINWEBER 36N-11HZ

Plan A

Plan: Permit Rev-1

Standard Planning Report

20 May, 2016



Azimuths to True North
Magnetic North: 8.22°

Magnetic Field
Strength: 52430.2snT
Dip Angle: 66.60°
Date: 5/19/2016
Model: IGRF2010

SITE: 1N-67W-11 Leinweber 27-11 Pad

Well: LEINWEBER 36N-11HZ
Wellbore: Plan A
Design: Permit Rev-1

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---------|---------|----------------|
| 1333.00 | 1339.75 | Fox Hills |
| 4217.00 | 4443.36 | Parkman |
| 4522.00 | 4773.80 | Sussex |
| 7220.00 | 7627.83 | Sharon Springs |
| 7255.00 | 7675.60 | Niobrara |
| 7359.00 | 7848.04 | Nio B |

WELL DETAILS: LEINWEBER 36N-11HZ

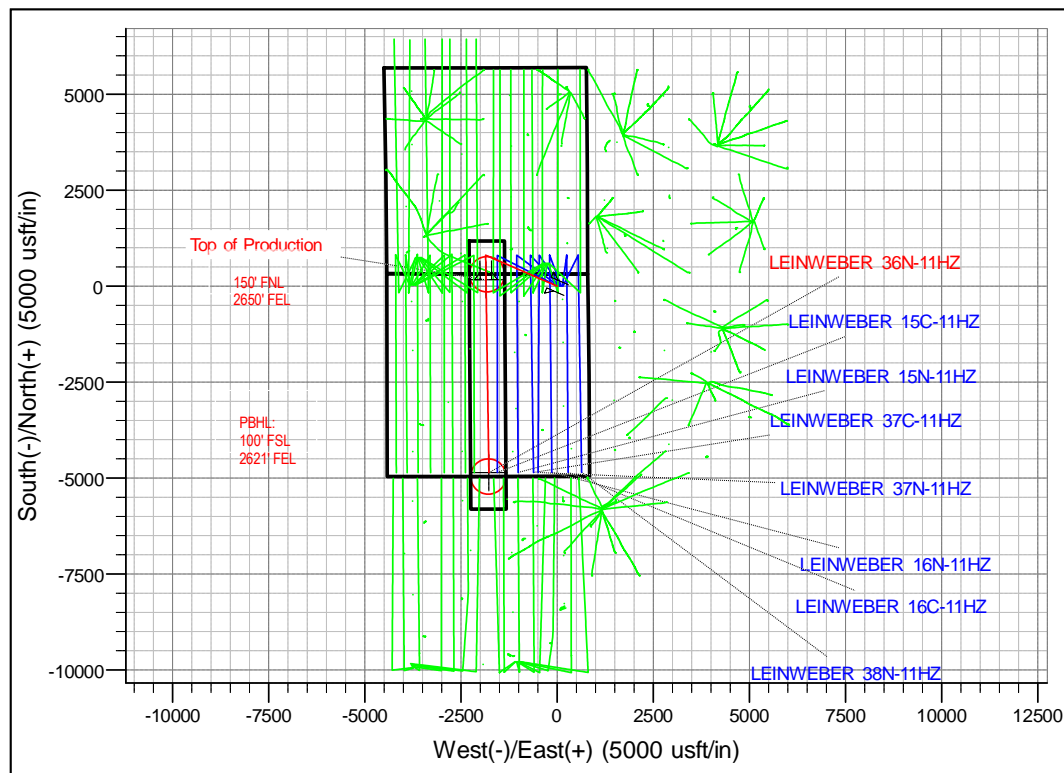
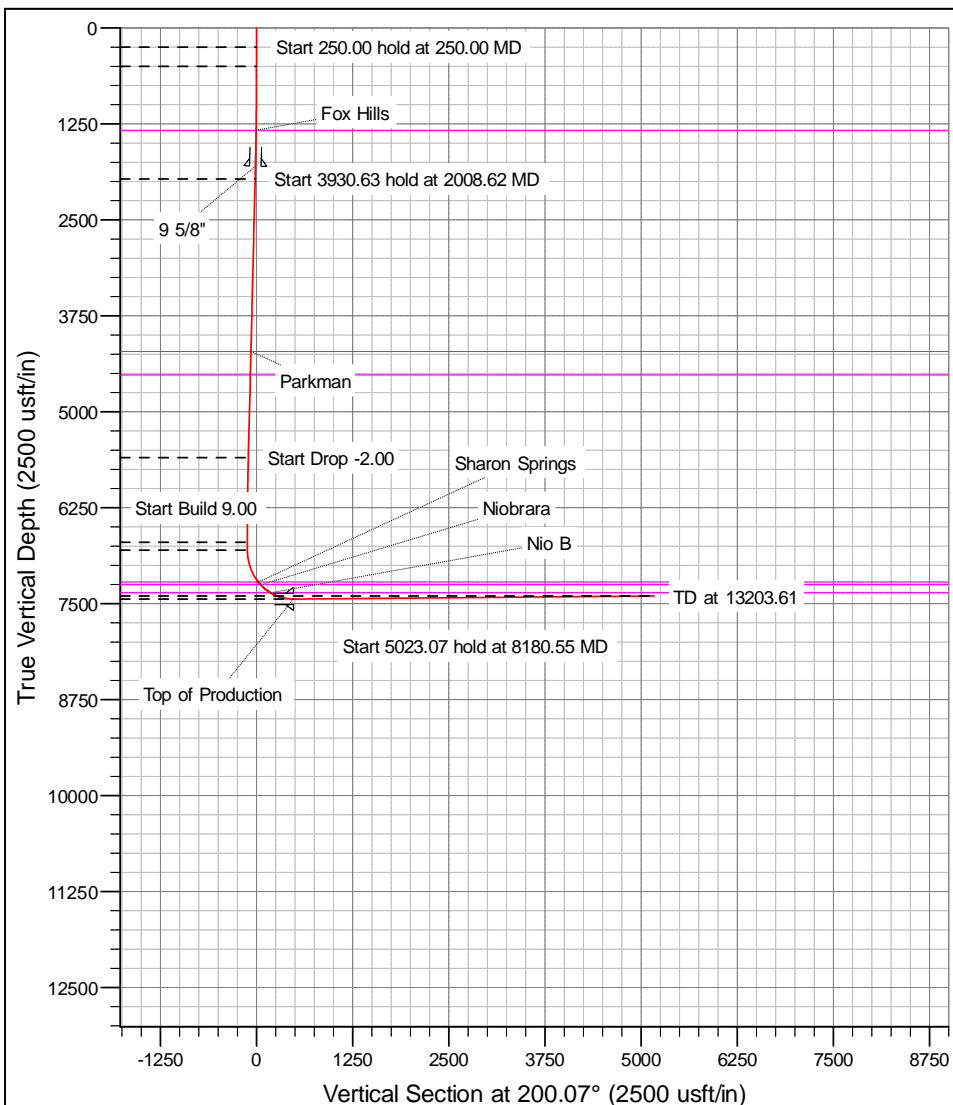
| +N/-S | +E/-W | GL: 4965.00 | RKB @ 4982.00ust (RKB) | Longitude | Slot |
|-------|-------|-------------------------|------------------------|-----------------------|--------------------------|
| 0.00 | 0.00 | Northing 14552949.24 | Easting 1681944.92 | Latitude 40.071898 | Longitude -104.851556 |

SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | Vsect |
|----------|-------|--------|---------|----------|----------|------|---------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 250.00 | 0.00 | 0.00 | 250.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2008.62 | 22.63 | 293.43 | 1969.70 | 116.93 | -269.82 | 1.50 | -17.24 |
| 5939.25 | 22.63 | 293.43 | 5597.73 | 718.30 | -1657.49 | 0.00 | -105.90 |
| 7070.71 | 0.00 | 0.00 | 6700.00 | 806.00 | -1859.85 | 2.00 | -118.83 |
| 7175.44 | 0.00 | 0.00 | 6804.73 | 806.00 | -1859.85 | 0.00 | -118.83 |
| 8180.55 | 90.46 | 179.14 | 7441.33 | 164.34 | -1850.22 | 9.00 | 480.56 |
| 13203.61 | 90.46 | 179.14 | 7401.00 | -4858.00 | -1774.85 | 0.00 | 5172.06 |

DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|-------------------------|---------|----------|----------|-------------|------------|-----------|-------------|
| LEINWEBER 36N-11HZ_PBHL | 7401.00 | -4858.00 | -1774.85 | 14548088.29 | 1680178.18 | 40.058557 | -104.857899 |



Anadarko

Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well LEINWEBER 36N-11HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB @ 4982.00usft (RKB) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB @ 4982.00usft (RKB) |
| Site: | 1N-67W-11 Leinweber 27-11 Pad | North Reference: | True |
| Well: | LEINWEBER 36N-11HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| | | | |
|--------------------|--|----------------------|----------------|
| Project | WELD-NAD83-UTMFT13N | | |
| 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 | | 1N-67W-11 Leinweber 27-11 Pad | | | |
| Site Position: | | Northing: | 14,552,949.23 usft | Latitude: | 40.071898 |
| From: | Lat/Long | Easting: | 1,681,944.92 usft | Longitude: | -104.851556 |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.10 ° |

| Well | LEINWEBER 36N-11HZ | | | | | |
|----------------------|--------------------|-----------|---------------------|--------------------|---------------|---------------|
| Well Position | +N/-S | 0.00 usft | Northing: | 14,552,949.23 usft | Latitude: | 40.071898 |
| | +E/-W | 0.00 usft | Easting: | 1,681,944.92 usft | Longitude: | -104.851556 |
| Position Uncertainty | | 3.28 usft | Wellhead Elevation: | 0.00 usft | Ground Level: | 4,965.00 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Plan A | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 5/19/2016 | 8.22 | 66.60 | 52,430 |

| | | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|--|
| Design | Permit Rev-1 | | | | |
| Audit Notes: | | | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: | 0.00 | |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | 200.07 | |

| Plan Sections | | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|-----------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 250.00 | 0.00 | 0.00 | 250.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,008.62 | 22.63 | 293.43 | 1,969.70 | 116.93 | -269.82 | 1.50 | 1.50 | 0.00 | 293.43 | |
| 5,939.25 | 22.63 | 293.43 | 5,597.73 | 718.30 | -1,657.49 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,070.71 | 0.00 | 0.00 | 6,700.00 | 806.00 | -1,859.85 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 7,175.44 | 0.00 | 0.00 | 6,804.73 | 806.00 | -1,859.85 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 8,180.55 | 90.46 | 179.14 | 7,441.33 | 164.34 | -1,850.22 | 9.00 | 9.00 | 0.00 | 179.14 | |
| 13,203.61 | 90.46 | 179.14 | 7,401.00 | -4,858.00 | -1,774.85 | 0.00 | 0.00 | 0.00 | 0.00 | LEINWEBER 36N-1 |

Anadarko

Planning Report

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|------------------|--------------------------------|-------------------------------------|-------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well LEINWEBER 36N-11HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB @ 4982.00usft (RKB) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB @ 4982.00usft (RKB) |
| Site: | 1N-67W-11 Leinweber 27-11 Pad | North Reference: | True |
| Well: | LEINWEBER 36N-11HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| Planned 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) |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 250.00 | 0.00 | 0.00 | 250.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 400.00 | 0.00 | 0.00 | 400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 600.00 | 1.50 | 293.43 | 599.99 | 0.52 | -1.20 | -0.08 | 1.50 | 1.50 | 0.00 |
| 700.00 | 3.00 | 293.43 | 699.91 | 2.08 | -4.80 | -0.31 | 1.50 | 1.50 | 0.00 |
| 800.00 | 4.50 | 293.43 | 799.69 | 4.68 | -10.80 | -0.69 | 1.50 | 1.50 | 0.00 |
| 900.00 | 6.00 | 293.43 | 899.27 | 8.32 | -19.20 | -1.23 | 1.50 | 1.50 | 0.00 |
| 1,000.00 | 7.50 | 293.43 | 998.57 | 12.99 | -29.98 | -1.92 | 1.50 | 1.50 | 0.00 |
| 1,100.00 | 9.00 | 293.43 | 1,097.54 | 18.70 | -43.15 | -2.76 | 1.50 | 1.50 | 0.00 |
| 1,200.00 | 10.50 | 293.43 | 1,196.09 | 25.43 | -58.69 | -3.75 | 1.50 | 1.50 | 0.00 |
| 1,300.00 | 12.00 | 293.43 | 1,294.16 | 33.19 | -76.59 | -4.89 | 1.50 | 1.50 | 0.00 |
| 1,339.75 | 12.60 | 293.43 | 1,333.00 | 36.56 | -84.36 | -5.39 | 1.50 | 1.50 | 0.00 |
| Fox Hills | | | | | | | | | |
| 1,400.00 | 13.50 | 293.43 | 1,391.70 | 41.97 | -96.84 | -6.19 | 1.50 | 1.50 | 0.00 |
| 1,500.00 | 15.00 | 293.43 | 1,488.62 | 51.75 | -119.42 | -7.63 | 1.50 | 1.50 | 0.00 |
| 1,600.00 | 16.50 | 293.43 | 1,584.86 | 62.55 | -144.33 | -9.22 | 1.50 | 1.50 | 0.00 |
| 1,700.00 | 18.00 | 293.43 | 1,680.36 | 74.34 | -171.54 | -10.96 | 1.50 | 1.50 | 0.00 |
| 1,800.00 | 19.50 | 293.43 | 1,775.05 | 87.12 | -201.03 | -12.84 | 1.50 | 1.50 | 0.00 |
| 1,826.50 | 19.90 | 293.43 | 1,800.00 | 90.67 | -209.22 | -13.37 | 1.50 | 1.50 | 0.00 |
| 9 5/8" | | | | | | | | | |
| 1,900.00 | 21.00 | 293.43 | 1,868.86 | 100.88 | -232.78 | -14.87 | 1.50 | 1.50 | 0.00 |
| 2,000.00 | 22.50 | 293.43 | 1,961.74 | 115.62 | -266.78 | -17.05 | 1.50 | 1.50 | 0.00 |
| 2,008.62 | 22.63 | 293.43 | 1,969.70 | 116.93 | -269.82 | -17.24 | 1.50 | 1.50 | 0.00 |
| 2,100.00 | 22.63 | 293.43 | 2,054.05 | 130.91 | -302.08 | -19.30 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 22.63 | 293.43 | 2,146.35 | 146.21 | -337.38 | -21.56 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 22.63 | 293.43 | 2,238.65 | 161.51 | -372.69 | -23.81 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 22.63 | 293.43 | 2,330.95 | 176.81 | -407.99 | -26.07 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 22.63 | 293.43 | 2,423.25 | 192.11 | -443.30 | -28.32 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 22.63 | 293.43 | 2,515.56 | 207.41 | -478.60 | -30.58 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 22.63 | 293.43 | 2,607.86 | 222.71 | -513.90 | -32.83 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 22.63 | 293.43 | 2,700.16 | 238.01 | -549.21 | -35.09 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 22.63 | 293.43 | 2,792.46 | 253.31 | -584.51 | -37.35 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 22.63 | 293.43 | 2,884.76 | 268.61 | -619.82 | -39.60 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 22.63 | 293.43 | 2,977.06 | 283.91 | -655.12 | -41.86 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 22.63 | 293.43 | 3,069.36 | 299.21 | -690.42 | -44.11 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 22.63 | 293.43 | 3,161.67 | 314.51 | -725.73 | -46.37 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 22.63 | 293.43 | 3,253.97 | 329.81 | -761.03 | -48.62 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 22.63 | 293.43 | 3,346.27 | 345.11 | -796.34 | -50.88 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 22.63 | 293.43 | 3,438.57 | 360.41 | -831.64 | -53.13 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 22.63 | 293.43 | 3,530.87 | 375.71 | -866.94 | -55.39 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 22.63 | 293.43 | 3,623.17 | 391.01 | -902.25 | -57.65 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 22.63 | 293.43 | 3,715.47 | 406.31 | -937.55 | -59.90 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 22.63 | 293.43 | 3,807.77 | 421.60 | -972.86 | -62.16 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 22.63 | 293.43 | 3,900.08 | 436.90 | -1,008.16 | -64.41 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 22.63 | 293.43 | 3,992.38 | 452.20 | -1,043.46 | -66.67 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 22.63 | 293.43 | 4,084.68 | 467.50 | -1,078.77 | -68.92 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 22.63 | 293.43 | 4,176.98 | 482.80 | -1,114.07 | -71.18 | 0.00 | 0.00 | 0.00 |
| 4,443.36 | 22.63 | 293.43 | 4,217.00 | 489.44 | -1,129.38 | -72.16 | 0.00 | 0.00 | 0.00 |
| Parkman | | | | | | | | | |

Anadarko

Planning Report

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|------------------|--------------------------------|-------------------------------------|-------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well LEINWEBER 36N-11HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB @ 4982.00usft (RKB) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB @ 4982.00usft (RKB) |
| Site: | 1N-67W-11 Leinweber 27-11 Pad | North Reference: | True |
| Well: | LEINWEBER 36N-11HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| Planned 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) |
| 4,500.00 | 22.63 | 293.43 | 4,269.28 | 498.10 | -1,149.38 | -73.44 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 22.63 | 293.43 | 4,361.58 | 513.40 | -1,184.68 | -75.69 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 22.63 | 293.43 | 4,453.88 | 528.70 | -1,219.98 | -77.95 | 0.00 | 0.00 | 0.00 |
| 4,773.80 | 22.63 | 293.43 | 4,522.00 | 539.99 | -1,246.04 | -79.61 | 0.00 | 0.00 | 0.00 |
| Sussex | | | | | | | | | |
| 4,800.00 | 22.63 | 293.43 | 4,546.19 | 544.00 | -1,255.29 | -80.20 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 22.63 | 293.43 | 4,638.49 | 559.30 | -1,290.59 | -82.46 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 22.63 | 293.43 | 4,730.79 | 574.60 | -1,325.90 | -84.71 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 22.63 | 293.43 | 4,823.09 | 589.90 | -1,361.20 | -86.97 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 22.63 | 293.43 | 4,915.39 | 605.20 | -1,396.50 | -89.23 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 22.63 | 293.43 | 5,007.69 | 620.50 | -1,431.81 | -91.48 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 22.63 | 293.43 | 5,099.99 | 635.80 | -1,467.11 | -93.74 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 22.63 | 293.43 | 5,192.30 | 651.10 | -1,502.42 | -95.99 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 22.63 | 293.43 | 5,284.60 | 666.40 | -1,537.72 | -98.25 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 22.63 | 293.43 | 5,376.90 | 681.70 | -1,573.02 | -100.50 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 22.63 | 293.43 | 5,469.20 | 697.00 | -1,608.33 | -102.76 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 22.63 | 293.43 | 5,561.50 | 712.30 | -1,643.63 | -105.01 | 0.00 | 0.00 | 0.00 |
| 5,939.25 | 22.63 | 293.43 | 5,597.73 | 718.30 | -1,657.49 | -105.90 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 21.41 | 293.43 | 5,654.05 | 727.36 | -1,678.39 | -107.24 | 2.00 | -2.00 | 0.00 |
| 6,100.00 | 19.41 | 293.43 | 5,747.76 | 741.23 | -1,710.39 | -109.28 | 2.00 | -2.00 | 0.00 |
| 6,200.00 | 17.41 | 293.43 | 5,842.64 | 753.79 | -1,739.37 | -111.13 | 2.00 | -2.00 | 0.00 |
| 6,300.00 | 15.41 | 293.43 | 5,938.56 | 765.02 | -1,765.30 | -112.79 | 2.00 | -2.00 | 0.00 |
| 6,400.00 | 13.41 | 293.43 | 6,035.40 | 774.92 | -1,788.14 | -114.25 | 2.00 | -2.00 | 0.00 |
| 6,500.00 | 11.41 | 293.43 | 6,133.06 | 783.47 | -1,807.86 | -115.51 | 2.00 | -2.00 | 0.00 |
| 6,600.00 | 9.41 | 293.43 | 6,231.41 | 790.66 | -1,824.45 | -116.57 | 2.00 | -2.00 | 0.00 |
| 6,700.00 | 7.41 | 293.43 | 6,330.33 | 796.48 | -1,837.87 | -117.42 | 2.00 | -2.00 | 0.00 |
| 6,800.00 | 5.41 | 293.43 | 6,429.70 | 800.92 | -1,848.12 | -118.08 | 2.00 | -2.00 | 0.00 |
| 6,900.00 | 3.41 | 293.43 | 6,529.39 | 803.98 | -1,855.18 | -118.53 | 2.00 | -2.00 | 0.00 |
| 7,000.00 | 1.41 | 293.43 | 6,629.30 | 805.65 | -1,859.05 | -118.78 | 2.00 | -2.00 | 0.00 |
| 7,070.71 | 0.00 | 0.00 | 6,700.00 | 806.00 | -1,859.85 | -118.83 | 2.00 | -2.00 | 0.00 |
| 7,100.00 | 0.00 | 0.00 | 6,729.29 | 806.00 | -1,859.85 | -118.83 | 0.00 | 0.00 | 0.00 |
| 7,175.44 | 0.00 | 0.00 | 6,804.73 | 806.00 | -1,859.85 | -118.83 | 0.00 | 0.00 | 0.00 |
| 7,200.00 | 2.21 | 179.14 | 6,829.29 | 805.53 | -1,859.84 | -118.39 | 9.00 | 9.00 | 0.00 |
| 7,300.00 | 11.21 | 179.14 | 6,928.50 | 793.85 | -1,859.67 | -107.48 | 9.00 | 9.00 | 0.00 |
| 7,400.00 | 20.21 | 179.14 | 7,024.66 | 766.81 | -1,859.26 | -82.22 | 9.00 | 9.00 | 0.00 |
| 7,500.00 | 29.21 | 179.14 | 7,115.41 | 725.05 | -1,858.64 | -43.21 | 9.00 | 9.00 | 0.00 |
| 7,600.00 | 38.21 | 179.14 | 7,198.51 | 669.61 | -1,857.80 | 8.57 | 9.00 | 9.00 | 0.00 |
| 7,627.83 | 40.72 | 179.14 | 7,220.00 | 651.93 | -1,857.54 | 25.10 | 9.00 | 9.00 | 0.00 |
| Sharon Springs | | | | | | | | | |
| 7,675.60 | 45.01 | 179.14 | 7,255.00 | 619.45 | -1,857.05 | 55.44 | 9.00 | 9.00 | 0.00 |
| Niobrara | | | | | | | | | |
| 7,700.00 | 47.21 | 179.14 | 7,271.92 | 601.86 | -1,856.79 | 71.86 | 9.00 | 9.00 | 0.00 |
| 7,800.00 | 56.21 | 179.14 | 7,333.82 | 523.46 | -1,855.61 | 145.10 | 9.00 | 9.00 | 0.00 |
| 7,848.04 | 60.53 | 179.14 | 7,359.00 | 482.57 | -1,855.00 | 183.29 | 9.00 | 9.00 | 0.00 |
| Nio B | | | | | | | | | |
| 7,900.00 | 65.21 | 179.14 | 7,382.69 | 436.34 | -1,854.30 | 226.48 | 9.00 | 9.00 | 0.00 |
| 8,000.00 | 74.21 | 179.14 | 7,417.33 | 342.66 | -1,852.90 | 313.99 | 9.00 | 9.00 | 0.00 |
| 8,100.00 | 83.21 | 179.14 | 7,436.88 | 244.70 | -1,851.43 | 405.49 | 9.00 | 9.00 | 0.00 |
| 8,180.55 | 90.46 | 179.14 | 7,441.33 | 164.34 | -1,850.22 | 480.56 | 9.00 | 9.00 | 0.00 |
| Top of Production - LEINWEBER 36N-11HZ_PHL | | | | | | | | | |
| 8,200.00 | 90.46 | 179.14 | 7,441.17 | 144.89 | -1,849.93 | 498.73 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 90.46 | 179.14 | 7,440.37 | 44.91 | -1,848.43 | 592.13 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 90.46 | 179.14 | 7,439.57 | -55.08 | -1,846.93 | 685.53 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 90.46 | 179.14 | 7,438.76 | -155.07 | -1,845.43 | 778.93 | 0.00 | 0.00 | 0.00 |

Anadarko

Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well LEINWEBER 36N-11HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB @ 4982.00usft (RKB) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB @ 4982.00usft (RKB) |
| Site: | 1N-67W-11 Leinweber 27-11 Pad | North Reference: | True |
| Well: | LEINWEBER 36N-11HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| Planned 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) |
| 8,600.00 | 90.46 | 179.14 | 7,437.96 | -255.05 | -1,843.93 | 872.33 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 90.46 | 179.14 | 7,437.16 | -355.04 | -1,842.43 | 965.73 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 90.46 | 179.14 | 7,436.35 | -455.02 | -1,840.93 | 1,059.13 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 90.46 | 179.14 | 7,435.55 | -555.01 | -1,839.43 | 1,152.52 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 90.46 | 179.14 | 7,434.75 | -654.99 | -1,837.92 | 1,245.92 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 90.46 | 179.14 | 7,433.95 | -754.98 | -1,836.42 | 1,339.32 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 90.46 | 179.14 | 7,433.14 | -854.96 | -1,834.92 | 1,432.72 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 90.46 | 179.14 | 7,432.34 | -954.95 | -1,833.42 | 1,526.12 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 90.46 | 179.14 | 7,431.54 | -1,054.94 | -1,831.92 | 1,619.52 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 90.46 | 179.14 | 7,430.73 | -1,154.92 | -1,830.42 | 1,712.92 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 90.46 | 179.14 | 7,429.93 | -1,254.91 | -1,828.92 | 1,806.32 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 90.46 | 179.14 | 7,429.13 | -1,354.89 | -1,827.42 | 1,899.72 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 90.46 | 179.14 | 7,428.33 | -1,454.88 | -1,825.92 | 1,993.12 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 90.46 | 179.14 | 7,427.52 | -1,554.86 | -1,824.42 | 2,086.52 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 90.46 | 179.14 | 7,426.72 | -1,654.85 | -1,822.92 | 2,179.92 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 90.46 | 179.14 | 7,425.92 | -1,754.83 | -1,821.42 | 2,273.31 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 90.46 | 179.14 | 7,425.11 | -1,854.82 | -1,819.92 | 2,366.71 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 90.46 | 179.14 | 7,424.31 | -1,954.81 | -1,818.42 | 2,460.11 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 90.46 | 179.14 | 7,423.51 | -2,054.79 | -1,816.92 | 2,553.51 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 90.46 | 179.14 | 7,422.71 | -2,154.78 | -1,815.42 | 2,646.91 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 90.46 | 179.14 | 7,421.90 | -2,254.76 | -1,813.92 | 2,740.31 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 90.46 | 179.14 | 7,421.10 | -2,354.75 | -1,812.42 | 2,833.71 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 90.46 | 179.14 | 7,420.30 | -2,454.73 | -1,810.92 | 2,927.11 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 90.46 | 179.14 | 7,419.49 | -2,554.72 | -1,809.42 | 3,020.51 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 90.46 | 179.14 | 7,418.69 | -2,654.70 | -1,807.91 | 3,113.91 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 90.46 | 179.14 | 7,417.89 | -2,754.69 | -1,806.41 | 3,207.31 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 90.46 | 179.14 | 7,417.09 | -2,854.67 | -1,804.91 | 3,300.71 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 90.46 | 179.14 | 7,416.28 | -2,954.66 | -1,803.41 | 3,394.10 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 90.46 | 179.14 | 7,415.48 | -3,054.65 | -1,801.91 | 3,487.50 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 90.46 | 179.14 | 7,414.68 | -3,154.63 | -1,800.41 | 3,580.90 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 90.46 | 179.14 | 7,413.87 | -3,254.62 | -1,798.91 | 3,674.30 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 90.46 | 179.14 | 7,413.07 | -3,354.60 | -1,797.41 | 3,767.70 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 90.46 | 179.14 | 7,412.27 | -3,454.59 | -1,795.91 | 3,861.10 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 90.46 | 179.14 | 7,411.47 | -3,554.57 | -1,794.41 | 3,954.50 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 90.46 | 179.14 | 7,410.66 | -3,654.56 | -1,792.91 | 4,047.90 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 90.46 | 179.14 | 7,409.86 | -3,754.54 | -1,791.41 | 4,141.30 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 90.46 | 179.14 | 7,409.06 | -3,854.53 | -1,789.91 | 4,234.70 | 0.00 | 0.00 | 0.00 |
| 12,300.00 | 90.46 | 179.14 | 7,408.25 | -3,954.52 | -1,788.41 | 4,328.10 | 0.00 | 0.00 | 0.00 |
| 12,400.00 | 90.46 | 179.14 | 7,407.45 | -4,054.50 | -1,786.91 | 4,421.50 | 0.00 | 0.00 | 0.00 |
| 12,500.00 | 90.46 | 179.14 | 7,406.65 | -4,154.49 | -1,785.41 | 4,514.89 | 0.00 | 0.00 | 0.00 |
| 12,600.00 | 90.46 | 179.14 | 7,405.85 | -4,254.47 | -1,783.91 | 4,608.29 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 90.46 | 179.14 | 7,405.04 | -4,354.46 | -1,782.41 | 4,701.69 | 0.00 | 0.00 | 0.00 |
| 12,800.00 | 90.46 | 179.14 | 7,404.24 | -4,454.44 | -1,780.91 | 4,795.09 | 0.00 | 0.00 | 0.00 |
| 12,900.00 | 90.46 | 179.14 | 7,403.44 | -4,554.43 | -1,779.41 | 4,888.49 | 0.00 | 0.00 | 0.00 |
| 13,000.00 | 90.46 | 179.14 | 7,402.63 | -4,654.41 | -1,777.91 | 4,981.89 | 0.00 | 0.00 | 0.00 |
| 13,100.00 | 90.46 | 179.14 | 7,401.83 | -4,754.40 | -1,776.40 | 5,075.29 | 0.00 | 0.00 | 0.00 |
| 13,200.00 | 90.46 | 179.14 | 7,401.03 | -4,854.39 | -1,774.90 | 5,168.69 | 0.00 | 0.00 | 0.00 |
| 13,203.61 | 90.46 | 179.14 | 7,401.00 | -4,858.00 | -1,774.85 | 5,172.06 | 0.00 | 0.00 | 0.00 |
| LEINWEBER 36N-11HZ_PBHL | | | | | | | | | |

Anadarko

Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|-------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well LEINWEBER 36N-11HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB @ 4982.00usft (RKB) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB @ 4982.00usft (RKB) |
| Site: | 1N-67W-11 Leinweber 27-11 Pad | North Reference: | True |
| Well: | LEINWEBER 36N-11HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-1 | | |

| Design Targets | | | | | | | | | |
|---|-----------|----------|----------|-----------|-----------|---------------|--------------|-----------|-------------|
| Target Name | | | | | | | | | |
| - hit/miss target | Dip Angle | Dip Dir. | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| - Shape | (°) | (°) | (usft) | (usft) | (usft) | (usft) | (usft) | | |
| LEINWEBER 36N-11H - plan hits target center - Point | 0.00 | 0.00 | 7,401.00 | -4,858.00 | -1,774.85 | 14,548,088.28 | 1,680,178.18 | 40.058557 | -104.857899 |
| LEINWEBER 36N-11H - plan hits target center - Point | 0.00 | 0.00 | 7,441.33 | 164.34 | -1,850.22 | 14,553,110.48 | 1,680,094.43 | 40.072349 | -104.858170 |

| Casing Points | | | | | |
|---------------|-----------------------|-----------------------|-------------------|---------------------|-------------------|
| | Measured Depth (usft) | Vertical Depth (usft) | Name | Casing Diameter (") | Hole Diameter (") |
| | 1,826.50 | 1,800.00 | 9 5/8" | 9-5/8 | 13-1/2 |
| | 8,180.55 | 7,441.33 | Top of Production | 5-1/2 | 8-1/2 |

| Formations | | | | | | |
|------------|-----------------------|-----------------------|----------------|-----------|---------|-------------------|
| | Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) |
| | 1,339.75 | 1,333.00 | Fox Hills | | | |
| | 4,443.36 | 4,217.00 | Parkman | | | |
| | 4,773.80 | 4,522.00 | Sussex | | | |
| | 7,627.83 | 7,220.00 | Sharon Springs | | | |
| | 7,675.60 | 7,255.00 | Niobrara | | | |
| | 7,848.04 | 7,359.00 | Nio B | | | |