

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

1N-66W-17 Burough 20-17HZ Pad

BURROUGH 1N-17HZ

Plan A

Plan: Permit Rev-2

Standard Planning Report

05 April, 2016



Azimuths to True North
Magnetic North: 8.21°

Magnetic Field
Strength: 52438.5snT
Dip Angle: 66.59°
Date: 3/24/2016
Model: IGRF2010

SITE: 1N-66W-17 Burough 20-17HZ Pad

Well: BUROUGH 1N-17HZ
Wellbore: Plan A
Design: Permit Rev-2

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---------|---------|----------------|
| 1402.00 | 1410.60 | Fox Hills |
| 4582.00 | 4760.24 | Sussex |
| 7172.00 | 7387.92 | Sharon Springs |
| 7193.00 | 7414.74 | Niobrara |
| 7339.00 | 7642.89 | Nio B |
| 7397.00 | 7790.97 | Nio C |

WELL DETAILS: BUROUGH 1N-17HZ

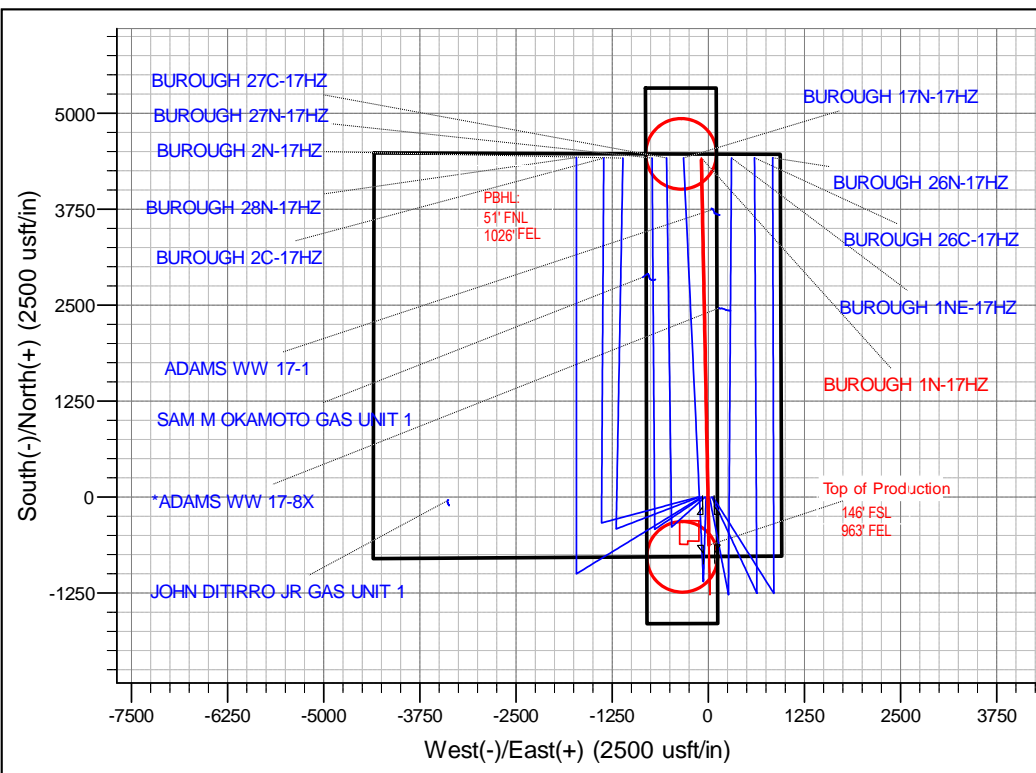
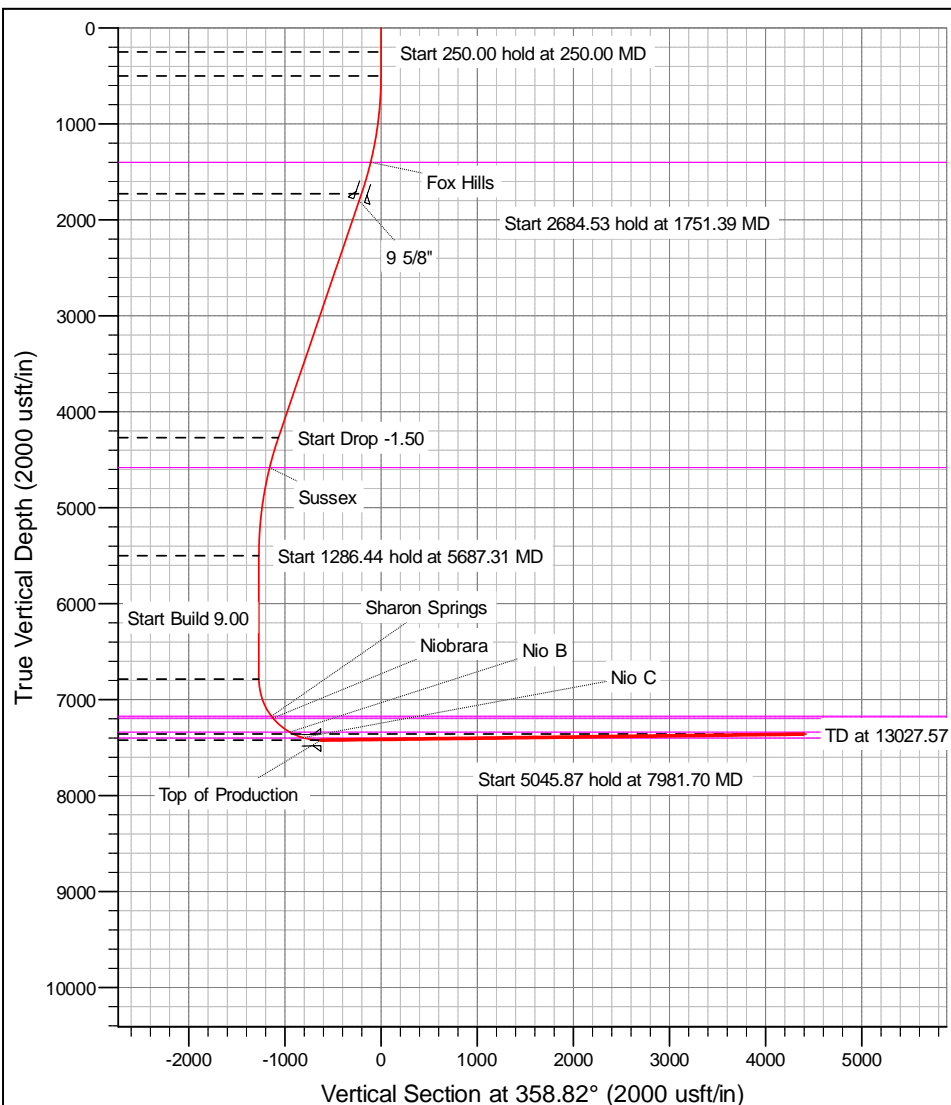
| +N/-S | +E/-W | GL: 4981.00 Northing | RKB = 17' @ 4998.00usft (D Rig) Easting | Latitude 40.046171 | Longitude -104.794923 | Slot |
|-------|-------|-------------------------|--|-----------------------|--------------------------|------|
| 0.00 | 0.00 | 14543612.36 | 1697810.00 | | | |

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 |
| 1751.39 | 18.77 | 179.10 | 1729.12 | -203.13 | 3.20 | 1.50 | -203.16 |
| 4435.92 | 18.77 | 179.10 | 4270.88 | -1066.87 | 16.80 | 0.00 | -1066.99 |
| 5687.31 | 0.00 | 0.00 | 5500.00 | -1270.00 | 20.00 | 1.50 | -1270.14 |
| 6973.75 | 0.00 | 0.00 | 6786.44 | -1270.00 | 20.00 | 0.00 | -1270.14 |
| 7981.70 | 90.72 | 358.88 | 7423.01 | -625.55 | 7.44 | 9.00 | -625.57 |
| 13027.57 | 90.72 | 358.88 | 7360.00 | 4418.97 | -90.92 | 0.00 | 4418.90 |

DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Shape |
|----------------------|---------|---------|--------|-------------|------------|-----------|-------------|-------|
| Borough 1N-17HZ PBHL | 7360.00 | 4418.97 | -90.92 | 14548031.10 | 1697708.90 | 40.058306 | -104.795248 | Point |



Anadarko

Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|---------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well BURGESS 1N-17HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 4998.00usft (D Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 4998.00usft (D Rig) |
| Site: | 1N-66W-17 Burough 20-17HZ Pad | North Reference: | True |
| Well: | BURGESS 1N-17HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-2 | | |

| | | | |
|--------------------|--|----------------------|----------------|
| 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-66W-17 Burough 20-17HZ Pad | | | |
| Site Position: | | Northing: | 14,543,611.68 usft | Latitude: | 40.046170 |
| From: | Lat/Long | Easting: | 1,697,675.10 usft | Longitude: | -104.795405 |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.13 |

| Well | BUROUGH 1N-17HZ | | | | | |
|----------------------|-----------------|-------------|---------------------|--------------------|---------------|---------------|
| Well Position | +N/-S | 0.36 usft | Northing: | 14,543,612.35 usft | Latitude: | 40.046171 |
| | +E/-W | 134.89 usft | Easting: | 1,697,809.99 usft | Longitude: | -104.794923 |
| Position Uncertainty | | 3.28 usft | Wellhead Elevation: | 0.00 usft | Ground Level: | 4,981.00 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Plan A | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 3/24/2016 | 8.21 | 66.59 | 52,438 |

| | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| Design | Permit Rev-2 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
| | 0.00 | 0.00 | 0.00 | 358.82 |

| 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 | |
| 1,751.39 | 18.77 | 179.10 | 1,729.12 | -203.13 | 3.20 | 1.50 | 1.50 | 0.00 | 179.10 | |
| 4,435.92 | 18.77 | 179.10 | 4,270.88 | -1,066.87 | 16.80 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,687.31 | 0.00 | 0.00 | 5,500.00 | -1,270.00 | 20.00 | 1.50 | -1.50 | 0.00 | 180.00 | |
| 6,973.75 | 0.00 | 0.00 | 6,786.44 | -1,270.00 | 20.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,981.70 | 90.72 | 358.88 | 7,423.01 | -625.55 | 7.44 | 9.00 | 9.00 | 0.00 | 358.88 | |
| 13,027.57 | 90.72 | 358.88 | 7,360.00 | 4,418.97 | -90.92 | 0.00 | 0.00 | 0.00 | 0.00 | Burrough 1N-27HZ F |

Anadarko

Planning Report

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|------------------|--------------------------------|-------------------------------------|---------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well BURGESS 1N-17HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 4998.00usft (D Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 4998.00usft (D Rig) |
| Site: | 1N-66W-17 Burough 20-17HZ Pad | North Reference: | True |
| Well: | BURGESS 1N-17HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-2 | | |

| 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 | 179.10 | 599.99 | -1.31 | 0.02 | -1.31 | 1.50 | 1.50 | 0.00 |
| 700.00 | 3.00 | 179.10 | 699.91 | -5.23 | 0.08 | -5.23 | 1.50 | 1.50 | 0.00 |
| 800.00 | 4.50 | 179.10 | 799.69 | -11.77 | 0.19 | -11.77 | 1.50 | 1.50 | 0.00 |
| 900.00 | 6.00 | 179.10 | 899.27 | -20.92 | 0.33 | -20.92 | 1.50 | 1.50 | 0.00 |
| 1,000.00 | 7.50 | 179.10 | 998.57 | -32.67 | 0.51 | -32.68 | 1.50 | 1.50 | 0.00 |
| 1,100.00 | 9.00 | 179.10 | 1,097.54 | -47.02 | 0.74 | -47.03 | 1.50 | 1.50 | 0.00 |
| 1,200.00 | 10.50 | 179.10 | 1,196.09 | -63.95 | 1.01 | -63.96 | 1.50 | 1.50 | 0.00 |
| 1,300.00 | 12.00 | 179.10 | 1,294.16 | -83.46 | 1.31 | -83.47 | 1.50 | 1.50 | 0.00 |
| 1,400.00 | 13.50 | 179.10 | 1,391.70 | -105.53 | 1.66 | -105.54 | 1.50 | 1.50 | 0.00 |
| 1,410.60 | 13.66 | 179.10 | 1,402.00 | -108.01 | 1.70 | -108.03 | 1.50 | 1.50 | 0.00 |
| Fox Hills | | | | | | | | | |
| 1,500.00 | 15.00 | 179.10 | 1,488.62 | -130.14 | 2.05 | -130.15 | 1.50 | 1.50 | 0.00 |
| 1,600.00 | 16.50 | 179.10 | 1,584.86 | -157.28 | 2.48 | -157.30 | 1.50 | 1.50 | 0.00 |
| 1,700.00 | 18.00 | 179.10 | 1,680.36 | -186.93 | 2.94 | -186.95 | 1.50 | 1.50 | 0.00 |
| 1,751.39 | 18.77 | 179.10 | 1,729.12 | -203.13 | 3.20 | -203.16 | 1.50 | 1.50 | 0.00 |
| 1,800.00 | 18.77 | 179.10 | 1,775.15 | -218.77 | 3.45 | -218.80 | 0.00 | 0.00 | 0.00 |
| 1,826.25 | 18.77 | 179.10 | 1,800.00 | -227.22 | 3.58 | -227.24 | 0.00 | 0.00 | 0.00 |
| 9 5/8" | | | | | | | | | |
| 1,900.00 | 18.77 | 179.10 | 1,869.83 | -250.95 | 3.95 | -250.98 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 18.77 | 179.10 | 1,964.51 | -283.12 | 4.46 | -283.15 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 18.77 | 179.10 | 2,059.19 | -315.30 | 4.97 | -315.33 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 18.77 | 179.10 | 2,153.87 | -347.47 | 5.47 | -347.51 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 18.77 | 179.10 | 2,248.56 | -379.65 | 5.98 | -379.69 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 18.77 | 179.10 | 2,343.24 | -411.82 | 6.49 | -411.87 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 18.77 | 179.10 | 2,437.92 | -443.99 | 6.99 | -444.04 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 18.77 | 179.10 | 2,532.60 | -476.17 | 7.50 | -476.22 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 18.77 | 179.10 | 2,627.28 | -508.34 | 8.01 | -508.40 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 18.77 | 179.10 | 2,721.96 | -540.52 | 8.51 | -540.58 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 18.77 | 179.10 | 2,816.64 | -572.69 | 9.02 | -572.76 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 18.77 | 179.10 | 2,911.32 | -604.87 | 9.53 | -604.93 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 18.77 | 179.10 | 3,006.01 | -637.04 | 10.03 | -637.11 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 18.77 | 179.10 | 3,100.69 | -669.22 | 10.54 | -669.29 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 18.77 | 179.10 | 3,195.37 | -701.39 | 11.05 | -701.47 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 18.77 | 179.10 | 3,290.05 | -733.56 | 11.55 | -733.65 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 18.77 | 179.10 | 3,384.73 | -765.74 | 12.06 | -765.82 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 18.77 | 179.10 | 3,479.41 | -797.91 | 12.57 | -798.00 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 18.77 | 179.10 | 3,574.09 | -830.09 | 13.07 | -830.18 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 18.77 | 179.10 | 3,668.78 | -862.26 | 13.58 | -862.36 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 18.77 | 179.10 | 3,763.46 | -894.44 | 14.09 | -894.54 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 18.77 | 179.10 | 3,858.14 | -926.61 | 14.59 | -926.71 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 18.77 | 179.10 | 3,952.82 | -958.79 | 15.10 | -958.89 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 18.77 | 179.10 | 4,047.50 | -990.96 | 15.61 | -991.07 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 18.77 | 179.10 | 4,142.18 | -1,023.13 | 16.11 | -1,023.25 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 18.77 | 179.10 | 4,236.86 | -1,055.31 | 16.62 | -1,055.43 | 0.00 | 0.00 | 0.00 |
| 4,435.92 | 18.77 | 179.10 | 4,270.88 | -1,066.87 | 16.80 | -1,066.99 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 17.81 | 179.10 | 4,331.71 | -1,086.97 | 17.12 | -1,087.09 | 1.50 | -1.50 | 0.00 |
| 4,600.00 | 16.31 | 179.10 | 4,427.31 | -1,116.31 | 17.58 | -1,116.43 | 1.50 | -1.50 | 0.00 |

Anadarko

Planning Report

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|------------------|--------------------------------|-------------------------------------|---------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well BURGESS 1N-17HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 4998.00usft (D Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 4998.00usft (D Rig) |
| Site: | 1N-66W-17 Burough 20-17HZ Pad | North Reference: | True |
| Well: | BURGESS 1N-17HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-2 | | |

| 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) |
| 4,700.00 | 14.81 | 179.10 | 4,523.64 | -1,143.13 | 18.00 | -1,143.25 | 1.50 | -1.50 | 0.00 |
| 4,760.24 | 13.91 | 179.10 | 4,582.00 | -1,158.06 | 18.24 | -1,158.19 | 1.50 | -1.50 | 0.00 |
| Sussex | | | | | | | | | |
| 4,800.00 | 13.31 | 179.10 | 4,620.65 | -1,167.41 | 18.38 | -1,167.55 | 1.50 | -1.50 | 0.00 |
| 4,900.00 | 11.81 | 179.10 | 4,718.25 | -1,189.16 | 18.73 | -1,189.29 | 1.50 | -1.50 | 0.00 |
| 5,000.00 | 10.31 | 179.10 | 4,816.39 | -1,208.34 | 19.03 | -1,208.47 | 1.50 | -1.50 | 0.00 |
| 5,100.00 | 8.81 | 179.10 | 4,915.00 | -1,224.94 | 19.29 | -1,225.08 | 1.50 | -1.50 | 0.00 |
| 5,200.00 | 7.31 | 179.10 | 5,014.01 | -1,238.96 | 19.51 | -1,239.10 | 1.50 | -1.50 | 0.00 |
| 5,300.00 | 5.81 | 179.10 | 5,113.35 | -1,250.38 | 19.69 | -1,250.52 | 1.50 | -1.50 | 0.00 |
| 5,400.00 | 4.31 | 179.10 | 5,212.96 | -1,259.20 | 19.83 | -1,259.34 | 1.50 | -1.50 | 0.00 |
| 5,500.00 | 2.81 | 179.10 | 5,312.76 | -1,265.41 | 19.93 | -1,265.55 | 1.50 | -1.50 | 0.00 |
| 5,600.00 | 1.31 | 179.10 | 5,412.69 | -1,269.00 | 19.98 | -1,269.14 | 1.50 | -1.50 | 0.00 |
| 5,687.31 | 0.00 | 0.00 | 5,500.00 | -1,270.00 | 20.00 | -1,270.14 | 1.50 | -1.50 | 0.00 |
| 5,700.00 | 0.00 | 0.00 | 5,512.69 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 0.00 | 0.00 | 5,612.69 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 0.00 | 0.00 | 5,712.69 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 0.00 | 0.00 | 5,812.69 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 0.00 | 0.00 | 5,912.69 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 0.00 | 0.00 | 6,012.69 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 0.00 | 0.00 | 6,112.69 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 0.00 | 0.00 | 6,212.69 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 0.00 | 0.00 | 6,312.69 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 0.00 | 0.00 | 6,412.69 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 0.00 | 0.00 | 6,512.69 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 0.00 | 0.00 | 6,612.69 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 0.00 | 0.00 | 6,712.69 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 6,973.75 | 0.00 | 0.00 | 6,786.44 | -1,270.00 | 20.00 | -1,270.14 | 0.00 | 0.00 | 0.00 |
| 7,000.00 | 2.36 | 358.88 | 6,812.68 | -1,269.46 | 19.99 | -1,269.60 | 9.00 | 9.00 | 0.00 |
| 7,100.00 | 11.36 | 358.88 | 6,911.86 | -1,257.53 | 19.76 | -1,257.67 | 9.00 | 9.00 | 0.00 |
| 7,200.00 | 20.36 | 358.88 | 7,007.95 | -1,230.23 | 19.22 | -1,230.36 | 9.00 | 9.00 | 0.00 |
| 7,300.00 | 29.36 | 358.88 | 7,098.59 | -1,188.23 | 18.41 | -1,188.36 | 9.00 | 9.00 | 0.00 |
| 7,387.92 | 37.27 | 358.88 | 7,172.00 | -1,139.99 | 17.47 | -1,140.11 | 9.00 | 9.00 | 0.00 |
| Sharon Springs | | | | | | | | | |
| 7,400.00 | 38.36 | 358.88 | 7,181.55 | -1,132.58 | 17.32 | -1,132.70 | 9.00 | 9.00 | 0.00 |
| 7,414.74 | 39.69 | 358.88 | 7,193.00 | -1,123.30 | 17.14 | -1,123.41 | 9.00 | 9.00 | 0.00 |
| Niobrara | | | | | | | | | |
| 7,500.00 | 47.36 | 358.88 | 7,254.77 | -1,064.64 | 16.00 | -1,064.74 | 9.00 | 9.00 | 0.00 |
| 7,600.00 | 56.36 | 358.88 | 7,316.46 | -986.08 | 14.46 | -986.17 | 9.00 | 9.00 | 0.00 |
| 7,642.89 | 60.22 | 358.88 | 7,339.00 | -949.61 | 13.75 | -949.69 | 9.00 | 9.00 | 0.00 |
| Nio B | | | | | | | | | |
| 7,700.00 | 65.36 | 358.88 | 7,365.10 | -898.85 | 12.76 | -898.92 | 9.00 | 9.00 | 0.00 |
| 7,790.97 | 73.55 | 358.88 | 7,397.00 | -813.75 | 11.10 | -813.80 | 9.00 | 9.00 | 0.00 |
| Nio C | | | | | | | | | |
| 7,800.00 | 74.36 | 358.88 | 7,399.50 | -805.07 | 10.94 | -805.13 | 9.00 | 9.00 | 0.00 |
| 7,900.00 | 83.36 | 358.88 | 7,418.79 | -707.08 | 9.02 | -707.11 | 9.00 | 9.00 | 0.00 |
| 7,981.70 | 90.72 | 358.88 | 7,423.01 | -625.56 | 7.44 | -625.58 | 9.00 | 9.00 | 0.00 |
| Top of Production | | | | | | | | | |
| 8,000.00 | 90.72 | 358.88 | 7,422.78 | -607.26 | 7.08 | -607.28 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 90.72 | 358.88 | 7,421.53 | -507.29 | 5.13 | -507.29 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 90.72 | 358.88 | 7,420.28 | -407.31 | 3.18 | -407.29 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 90.72 | 358.88 | 7,419.04 | -307.34 | 1.23 | -307.30 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 90.72 | 358.88 | 7,417.79 | -207.37 | -0.72 | -207.31 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 90.72 | 358.88 | 7,416.54 | -107.39 | -2.67 | -107.32 | 0.00 | 0.00 | 0.00 |

Anadarko

Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|---------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well BURGESS 1N-17HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 4998.00usft (D Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 4998.00usft (D Rig) |
| Site: | 1N-66W-17 Burough 20-17HZ Pad | North Reference: | True |
| Well: | BURGESS 1N-17HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-2 | | |

| 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 | 90.72 | 358.88 | 7,415.29 | -7.42 | -4.62 | -7.33 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 90.72 | 358.88 | 7,414.04 | 92.55 | -6.57 | 92.67 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 90.72 | 358.88 | 7,412.79 | 192.52 | -8.52 | 192.66 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 90.72 | 358.88 | 7,411.54 | 292.50 | -10.46 | 292.65 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 90.72 | 358.88 | 7,410.29 | 392.47 | -12.41 | 392.64 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 90.72 | 358.88 | 7,409.05 | 492.44 | -14.36 | 492.64 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 90.72 | 358.88 | 7,407.80 | 592.42 | -16.31 | 592.63 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 90.72 | 358.88 | 7,406.55 | 692.39 | -18.26 | 692.62 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 90.72 | 358.88 | 7,405.30 | 792.36 | -20.21 | 792.61 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 90.72 | 358.88 | 7,404.05 | 892.34 | -22.16 | 892.60 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 90.72 | 358.88 | 7,402.80 | 992.31 | -24.11 | 992.60 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 90.72 | 358.88 | 7,401.55 | 1,092.28 | -26.06 | 1,092.59 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 90.72 | 358.88 | 7,400.30 | 1,192.26 | -28.01 | 1,192.58 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 90.72 | 358.88 | 7,399.06 | 1,292.23 | -29.96 | 1,292.57 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 90.72 | 358.88 | 7,397.81 | 1,392.20 | -31.91 | 1,392.56 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 90.72 | 358.88 | 7,396.56 | 1,492.18 | -33.85 | 1,492.56 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 90.72 | 358.88 | 7,395.31 | 1,592.15 | -35.80 | 1,592.55 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 90.72 | 358.88 | 7,394.06 | 1,692.12 | -37.75 | 1,692.54 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 90.72 | 358.88 | 7,392.81 | 1,792.10 | -39.70 | 1,792.53 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 90.72 | 358.88 | 7,391.56 | 1,892.07 | -41.65 | 1,892.53 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 90.72 | 358.88 | 7,390.31 | 1,992.04 | -43.60 | 1,992.52 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 90.72 | 358.88 | 7,389.07 | 2,092.02 | -45.55 | 2,092.51 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 90.72 | 358.88 | 7,387.82 | 2,191.99 | -47.50 | 2,192.50 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 90.72 | 358.88 | 7,386.57 | 2,291.96 | -49.45 | 2,292.49 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 90.72 | 358.88 | 7,385.32 | 2,391.94 | -51.40 | 2,392.49 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 90.72 | 358.88 | 7,384.07 | 2,491.91 | -53.35 | 2,492.48 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 90.72 | 358.88 | 7,382.82 | 2,591.88 | -55.30 | 2,592.47 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 90.72 | 358.88 | 7,381.57 | 2,691.85 | -57.25 | 2,692.46 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 90.72 | 358.88 | 7,380.32 | 2,791.83 | -59.19 | 2,792.45 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 90.72 | 358.88 | 7,379.08 | 2,891.80 | -61.14 | 2,892.45 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 90.72 | 358.88 | 7,377.83 | 2,991.77 | -63.09 | 2,992.44 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 90.72 | 358.88 | 7,376.58 | 3,091.75 | -65.04 | 3,092.43 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 90.72 | 358.88 | 7,375.33 | 3,191.72 | -66.99 | 3,192.42 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 90.72 | 358.88 | 7,374.08 | 3,291.69 | -68.94 | 3,292.42 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 90.72 | 358.88 | 7,372.83 | 3,391.67 | -70.89 | 3,392.41 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 90.72 | 358.88 | 7,371.58 | 3,491.64 | -72.84 | 3,492.40 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 90.72 | 358.88 | 7,370.33 | 3,591.61 | -74.79 | 3,592.39 | 0.00 | 0.00 | 0.00 |
| 12,300.00 | 90.72 | 358.88 | 7,369.09 | 3,691.59 | -76.74 | 3,692.38 | 0.00 | 0.00 | 0.00 |
| 12,400.00 | 90.72 | 358.88 | 7,367.84 | 3,791.56 | -78.69 | 3,792.38 | 0.00 | 0.00 | 0.00 |
| 12,500.00 | 90.72 | 358.88 | 7,366.59 | 3,891.53 | -80.64 | 3,892.37 | 0.00 | 0.00 | 0.00 |
| 12,600.00 | 90.72 | 358.88 | 7,365.34 | 3,991.51 | -82.58 | 3,992.36 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 90.72 | 358.88 | 7,364.09 | 4,091.48 | -84.53 | 4,092.35 | 0.00 | 0.00 | 0.00 |
| 12,800.00 | 90.72 | 358.88 | 7,362.84 | 4,191.45 | -86.48 | 4,192.34 | 0.00 | 0.00 | 0.00 |
| 12,900.00 | 90.72 | 358.88 | 7,361.59 | 4,291.43 | -88.43 | 4,292.34 | 0.00 | 0.00 | 0.00 |
| 13,000.00 | 90.72 | 358.88 | 7,360.34 | 4,391.40 | -90.38 | 4,392.33 | 0.00 | 0.00 | 0.00 |
| 13,027.57 | 90.72 | 358.88 | 7,360.00 | 4,418.97 | -90.92 | 4,419.90 | 0.00 | 0.00 | 0.00 |
| Burrough 1N-17HZ PBHL | | | | | | | | | |

Anadarko

Planning Report

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|------------------|--------------------------------|-------------------------------------|---------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well BURGESS 1N-17HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 4998.00usft (D Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 4998.00usft (D Rig) |
| Site: | 1N-66W-17 Burrough 20-17HZ Pad | North Reference: | True |
| Well: | BURGESS 1N-17HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-2 | | |

| 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) | | |
| Burrough 1N-17HZ PBH | 0.00 | 0.00 | 7,360.00 | 4,418.97 | -90.92 | 14,548,031.10 | 1,697,708.90 | 40.058306 | -104.795248 |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

| Casing Points | | | | | |
|---------------|----------------|----------------|-------------------|-----------------|---------------|
| | Measured Depth | Vertical Depth | | Casing Diameter | Hole Diameter |
| | (usft) | (usft) | Name | (") | (") |
| | 1,826.25 | 1,800.00 | 9 5/8" | 9-5/8 | 13-1/2 |
| | 7,981.70 | 7,423.01 | Top of Production | 5-1/2 | 7-7/8 |

| Formations | | | | | | |
|------------|----------------|----------------|----------------|-----------|------|---------------|
| | Measured Depth | Vertical Depth | | | Dip | Dip Direction |
| | (usft) | (usft) | Name | Lithology | (°) | (°) |
| | 1,410.60 | 1,402.00 | Fox Hills | | 0.00 | |
| | 4,760.24 | 4,582.00 | Sussex | | 0.00 | |
| | 7,387.92 | 7,172.00 | Sharon Springs | | | |
| | 7,414.74 | 7,193.00 | Niobrara | | | |
| | 7,642.89 | 7,339.00 | Nio B | | | |
| | 7,790.97 | 7,397.00 | Nio C | | 0.00 | |