

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

4N-67W-33 CAMENISCH 10-33HZ PAD

CAMENISCH 33-7HZ

Plan B

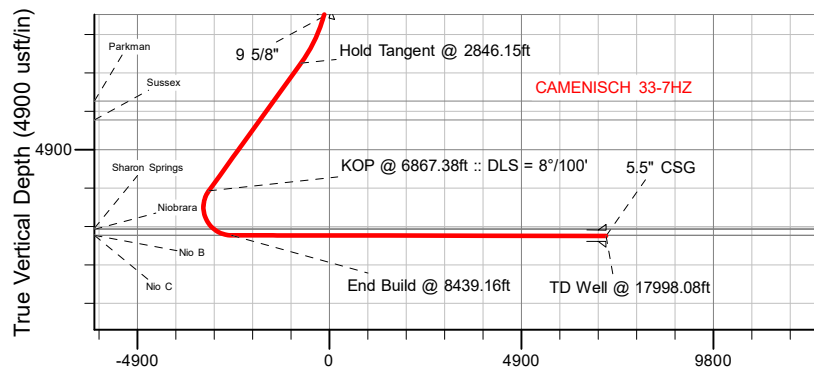
Plan: Permit Rev-1

Standard Planning Report

22 June, 2023

US ROCKIES WATTENBERG PLANNING

| CASING DETAILS | | | |
|----------------|----------|----------|-------|
| TVD | MD | Name | Size |
| 1500.00 | 1513.45 | 9 5/8" | 9-5/8 |
| 7104.00 | 17998.08 | 5.5" CSG | 5-1/2 |



Vertical Section at 91.18° (4900 usft/in)

| SECTION DETAILS | | | | | | | | | |
|-----------------|-------|--------|---------|---------|----------|------|---------|----------|----------------------|
| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | Target |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 456.15 | 0.00 | 0.00 | 456.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2846.15 | 35.85 | 269.80 | 2693.23 | -2.53 | -723.63 | 1.50 | 269.80 | -723.42 | |
| 6867.38 | 35.85 | 269.80 | 5952.65 | -10.75 | -3078.71 | 0.00 | 0.00 | -3077.84 | |
| 8439.16 | 89.90 | 91.18 | 7088.00 | -42.43 | -2499.83 | 8.00 | -178.30 | -2498.43 | |
| 17998.08 | 89.90 | 91.18 | 7104.00 | -239.58 | 7057.04 | 0.00 | 0.00 | 7060.48 | CAMENISCH 33-7HZ BHL |

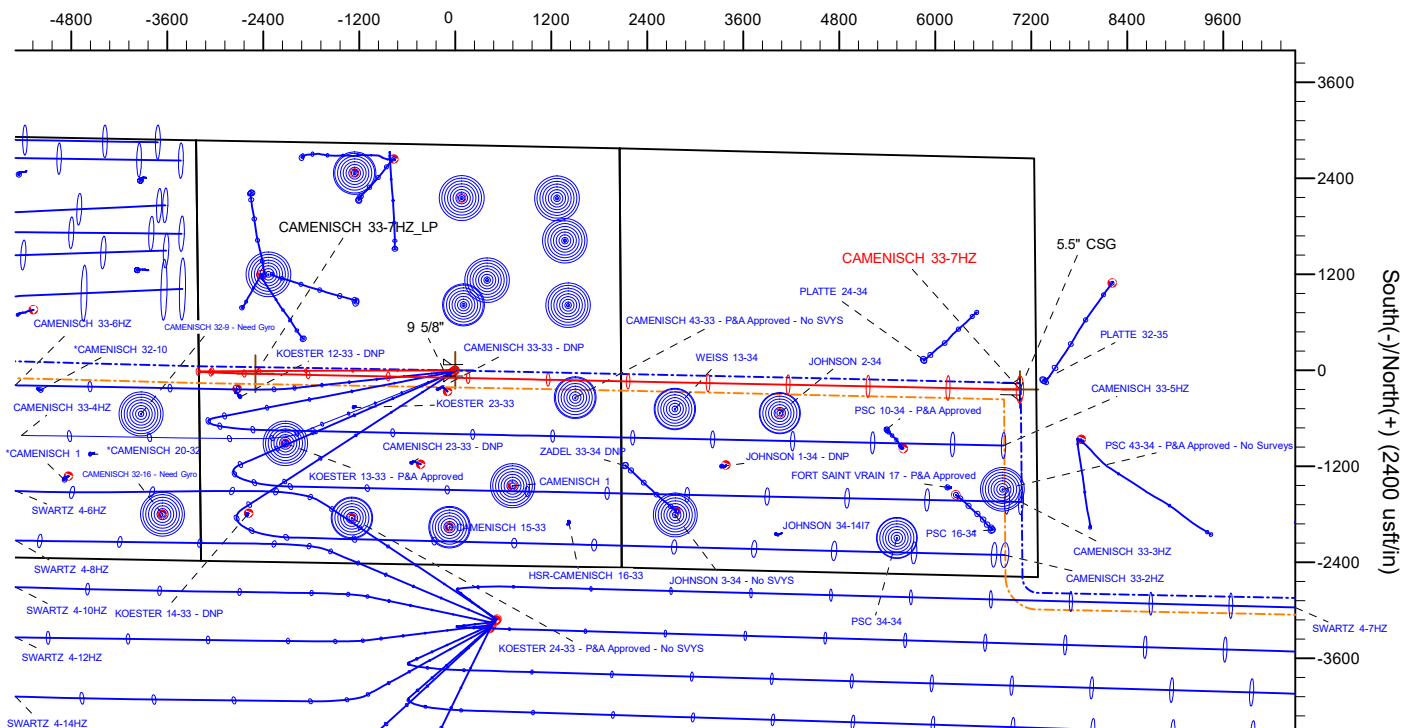
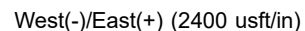
WELLBORE TARGET DETAILS (LAT/LONG)

| Name | TVD | Northing | Easting | Latitude | Longitude |
|----------------------|---------|-------------|------------|-----------|-------------|
| CAMENISCH 33-7HZ_SHL | 0.00 | 14624651.10 | 1670131.71 | 40.268845 | -104.893475 |
| CAMENISCH 33-7HZ_LP | 7088.00 | 14624605.67 | 1667631.94 | 40.268729 | -104.902437 |
| CAMENISCH 33-7HZ_BHL | 7104.00 | 14624420.00 | 1677189.04 | 40.268185 | -104.868177 |

SHL
2434' FSL
2072' FEL

LP
2350' FSL
706' FWL

BHL
2341' FSL
205' FEL



South(-)/North(+) (2400 usft/in)

WELL DETAILS: CAMENISCH 33-7HZ

GL = 4870'

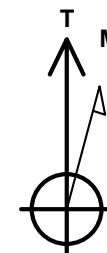
RKB = 17' @ 4887.00usft (RIG)

Plan: Permit Rev-1 (CAMENISCH 33-7HZ/Plan B)

Date: 6/22/2023

FORMATION TOP DETAILS

| TVDPATH | MDPATH | FORMATION |
|---------|---------|----------------|
| 772.00 | 772.36 | Fox Hills |
| 3663.00 | 4042.58 | Parkman |
| 4145.00 | 4637.24 | Sussex |
| 6906.00 | 7918.24 | Sharon Springs |
| 6936.00 | 7965.03 | Niobrara |
| 7088.00 | 8438.61 | Nio B |
| 7088.00 | 8439.16 | Nio C |



M Azimuths to True North
Magnetic North: 7.71°

Magnetic Field
Strength: 51672.5nT
Dip Angle: 66.45°
Date: 5/5/2023
Model: IGRF2020

Planning Report

| | | | |
|------------------|---------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well CAMENISCH 33-7HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Site: | 4N-67W-33 CAMENISCH 10-33HZ PAD | North Reference: | True |
| Well: | CAMENISCH 33-7HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan B | | |
| 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 | | 4N-67W-33 CAMENISCH 10-33HZ PAD | | | | |
| Site Position: | | Northing: | 14,624,597.34 | usft | Latitude: | 40.268698 |
| From: | Map | Easting: | 1,670,059.57 | usft | Longitude: | -104.893734 |
| Position Uncertainty: | | 0.00 | usft | Slot Radius: | 13-3/16 | " |

| Well | | CAMENISCH 33-7HZ | | | | |
|----------------------|-------|------------------|---------------------|--------------------|---------------|---------------|
| Well Position | +N/-S | 0.00 usft | Northing: | 14,624,651.10 usft | Latitude: | 40.268846 |
| | +E/-W | 0.00 usft | Easting: | 1,670,131.71 usft | Longitude: | -104.893475 |
| Position Uncertainty | | 3.28 usft | Wellhead Elevation: | usft | Ground Level: | 4,870.00 usft |
| Grid Convergence: | | 0.07 ° | | | | |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Plan B | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF202013 | 5/5/2023 | 7.71 | 66.45 | 51,672.47348748 |

| | | | | | |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|------|
| Design | Permit Rev-1 | | | | |
| 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 | 91.18 | |

| | | | | | |
|---------------------------------|------------------------|--------------------------|-----------------------|---|--|
| Plan Survey Tool Program | | Date | 6/22/2023 | | |
| Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks | |
| 1 | 0.00 | 2,000.00 | Permit Rev-1 (Plan B) | APC_ISCWSA REV 2 MWD Fixed:v2:standard declination | |
| 2 | 2,000.00 | 17,998.08 | Permit Rev-1 (Plan B) | APC_ISCWSA REV 2 MWD+I Fixed:v2:Rockies, crustal dec + | |

Planning Report

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|-----------|---------------------------------|------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well CAMENISCH 33-7HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Site: | 4N-67W-33 CAMENISCH 10-33HZ PAD | North Reference: | True |
| Well: | CAMENISCH 33-7HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan B | | |
| Design: | Permit Rev-1 | | |

| 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 | |
| 456.15 | 0.00 | 0.00 | 456.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,846.15 | 35.85 | 269.80 | 2,693.23 | -2.53 | -723.63 | 1.50 | 1.50 | 0.00 | 269.80 | |
| 6,867.38 | 35.85 | 269.80 | 5,952.65 | -10.75 | -3,078.71 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 8,439.16 | 89.90 | 91.18 | 7,088.00 | -42.43 | -2,499.83 | 8.00 | 3.44 | -11.36 | -178.30 | |
| 17,998.08 | 89.90 | 91.18 | 7,104.00 | -239.58 | 7,057.04 | 0.00 | 0.00 | 0.00 | 0.00 | CAMENISCH 33-7HZ |

Planning Report

| | | | |
|------------------|---------------------------------|-------------------------------------|-------------------------------|
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| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Site: | 4N-67W-33 CAMENISCH 10-33HZ PAD | North Reference: | True |
| Well: | CAMENISCH 33-7HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan B | | |
| 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 |
| 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 |
| 456.15 | 0.00 | 0.00 | 456.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Begin Nudge @ 456.15ft | | | | | | | | | |
| 500.00 | 0.66 | 269.80 | 500.00 | 0.00 | -0.25 | -0.25 | 1.50 | 1.50 | 0.00 |
| 600.00 | 2.16 | 269.80 | 599.97 | -0.01 | -2.71 | -2.71 | 1.50 | 1.50 | 0.00 |
| 700.00 | 3.66 | 269.80 | 699.83 | -0.03 | -7.78 | -7.78 | 1.50 | 1.50 | 0.00 |
| 772.36 | 4.74 | 269.80 | 772.00 | -0.05 | -13.08 | -13.08 | 1.50 | 1.50 | 0.00 |
| Fox Hills | | | | | | | | | |
| 800.00 | 5.16 | 269.80 | 799.54 | -0.05 | -15.47 | -15.46 | 1.50 | 1.50 | 0.00 |
| 900.00 | 6.66 | 269.80 | 899.00 | -0.09 | -25.76 | -25.75 | 1.50 | 1.50 | 0.00 |
| 1,000.00 | 8.16 | 269.80 | 998.16 | -0.13 | -38.65 | -38.64 | 1.50 | 1.50 | 0.00 |
| 1,100.00 | 9.66 | 269.80 | 1,096.96 | -0.19 | -54.13 | -54.12 | 1.50 | 1.50 | 0.00 |
| 1,200.00 | 11.16 | 269.80 | 1,195.31 | -0.25 | -72.20 | -72.18 | 1.50 | 1.50 | 0.00 |
| 1,300.00 | 12.66 | 269.80 | 1,293.15 | -0.32 | -92.83 | -92.81 | 1.50 | 1.50 | 0.00 |
| 1,400.00 | 14.16 | 269.80 | 1,390.42 | -0.40 | -116.02 | -115.99 | 1.50 | 1.50 | 0.00 |
| 1,500.00 | 15.66 | 269.80 | 1,487.06 | -0.49 | -141.74 | -141.70 | 1.50 | 1.50 | 0.00 |
| 1,513.45 | 15.86 | 269.80 | 1,500.00 | -0.51 | -145.40 | -145.36 | 1.50 | 1.50 | 0.00 |
| 9 5/8" | | | | | | | | | |
| 1,600.00 | 17.16 | 269.80 | 1,582.98 | -0.59 | -169.99 | -169.94 | 1.50 | 1.50 | 0.00 |
| 1,700.00 | 18.66 | 269.80 | 1,678.13 | -0.70 | -200.74 | -200.68 | 1.50 | 1.50 | 0.00 |
| 1,800.00 | 20.16 | 269.80 | 1,772.45 | -0.82 | -233.97 | -233.90 | 1.50 | 1.50 | 0.00 |
| 1,900.00 | 21.66 | 269.80 | 1,865.86 | -0.94 | -269.65 | -269.57 | 1.50 | 1.50 | 0.00 |
| 2,000.00 | 23.16 | 269.80 | 1,958.31 | -1.07 | -307.77 | -307.68 | 1.50 | 1.50 | 0.00 |
| 2,100.00 | 24.66 | 269.80 | 2,049.73 | -1.22 | -348.29 | -348.20 | 1.50 | 1.50 | 0.00 |
| 2,200.00 | 26.16 | 269.80 | 2,140.05 | -1.37 | -391.20 | -391.09 | 1.50 | 1.50 | 0.00 |
| 2,300.00 | 27.66 | 269.80 | 2,229.22 | -1.52 | -436.45 | -436.33 | 1.50 | 1.50 | 0.00 |
| 2,400.00 | 29.16 | 269.80 | 2,317.18 | -1.69 | -484.03 | -483.89 | 1.50 | 1.50 | 0.00 |
| 2,500.00 | 30.66 | 269.80 | 2,403.86 | -1.86 | -533.88 | -533.73 | 1.50 | 1.50 | 0.00 |
| 2,600.00 | 32.16 | 269.80 | 2,489.20 | -2.05 | -586.00 | -585.83 | 1.50 | 1.50 | 0.00 |
| 2,700.00 | 33.66 | 269.80 | 2,573.16 | -2.24 | -640.32 | -640.14 | 1.50 | 1.50 | 0.00 |
| 2,800.00 | 35.16 | 269.80 | 2,655.66 | -2.43 | -696.83 | -696.63 | 1.50 | 1.50 | 0.00 |
| 2,846.15 | 35.85 | 269.80 | 2,693.23 | -2.53 | -723.63 | -723.42 | 1.50 | 1.50 | 0.00 |
| Hold Tangent @ 2846.15ft | | | | | | | | | |
| 2,900.00 | 35.85 | 269.80 | 2,736.87 | -2.64 | -755.17 | -754.95 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 35.85 | 269.80 | 2,817.93 | -2.84 | -813.73 | -813.50 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 35.85 | 269.80 | 2,898.99 | -3.04 | -872.30 | -872.05 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 35.85 | 269.80 | 2,980.04 | -3.25 | -930.87 | -930.60 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 35.85 | 269.80 | 3,061.10 | -3.45 | -989.43 | -989.15 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 35.85 | 269.80 | 3,142.15 | -3.66 | -1,048.00 | -1,047.70 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 35.85 | 269.80 | 3,223.21 | -3.86 | -1,106.56 | -1,106.25 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 35.85 | 269.80 | 3,304.26 | -4.07 | -1,165.13 | -1,164.80 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 35.85 | 269.80 | 3,385.32 | -4.27 | -1,223.70 | -1,223.35 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 35.85 | 269.80 | 3,466.37 | -4.48 | -1,282.26 | -1,281.90 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 35.85 | 269.80 | 3,547.43 | -4.68 | -1,340.83 | -1,340.45 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 35.85 | 269.80 | 3,628.48 | -4.88 | -1,399.40 | -1,399.00 | 0.00 | 0.00 | 0.00 |
| 4,042.58 | 35.85 | 269.80 | 3,663.00 | -4.97 | -1,424.34 | -1,423.93 | 0.00 | 0.00 | 0.00 |
| Parkman | | | | | | | | | |
| 4,100.00 | 35.85 | 269.80 | 3,709.54 | -5.09 | -1,457.96 | -1,457.55 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 35.85 | 269.80 | 3,790.59 | -5.29 | -1,516.53 | -1,516.10 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 35.85 | 269.80 | 3,871.65 | -5.50 | -1,575.09 | -1,574.65 | 0.00 | 0.00 | 0.00 |

Planning Report

| | | | |
|------------------|---------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well CAMENISCH 33-7HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Site: | 4N-67W-33 CAMENISCH 10-33HZ PAD | North Reference: | True |
| Well: | CAMENISCH 33-7HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan B | | |
| 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) |
| 4,400.00 | 35.85 | 269.80 | 3,952.70 | -5.70 | -1,633.66 | -1,633.20 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 35.85 | 269.80 | 4,033.76 | -5.91 | -1,692.23 | -1,691.75 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 35.85 | 269.80 | 4,114.81 | -6.11 | -1,750.79 | -1,750.30 | 0.00 | 0.00 | 0.00 |
| 4,637.24 | 35.85 | 269.80 | 4,145.00 | -6.19 | -1,772.60 | -1,772.10 | 0.00 | 0.00 | 0.00 |
| Sussex | | | | | | | | | |
| 4,700.00 | 35.85 | 269.80 | 4,195.87 | -6.32 | -1,809.36 | -1,808.84 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 35.85 | 269.80 | 4,276.93 | -6.52 | -1,867.92 | -1,867.39 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 35.85 | 269.80 | 4,357.98 | -6.72 | -1,926.49 | -1,925.94 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 35.85 | 269.80 | 4,439.04 | -6.93 | -1,985.06 | -1,984.49 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 35.85 | 269.80 | 4,520.09 | -7.13 | -2,043.62 | -2,043.04 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 35.85 | 269.80 | 4,601.15 | -7.34 | -2,102.19 | -2,101.59 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 35.85 | 269.80 | 4,682.20 | -7.54 | -2,160.76 | -2,160.14 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 35.85 | 269.80 | 4,763.26 | -7.75 | -2,219.32 | -2,218.69 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 35.85 | 269.80 | 4,844.31 | -7.95 | -2,277.89 | -2,277.24 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 35.85 | 269.80 | 4,925.37 | -8.16 | -2,336.45 | -2,335.79 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 35.85 | 269.80 | 5,006.42 | -8.36 | -2,395.02 | -2,394.34 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 35.85 | 269.80 | 5,087.48 | -8.56 | -2,453.59 | -2,452.89 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 35.85 | 269.80 | 5,168.53 | -8.77 | -2,512.15 | -2,511.44 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 35.85 | 269.80 | 5,249.59 | -8.97 | -2,570.72 | -2,569.99 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 35.85 | 269.80 | 5,330.64 | -9.18 | -2,629.28 | -2,628.54 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 35.85 | 269.80 | 5,411.70 | -9.38 | -2,687.85 | -2,687.09 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 35.85 | 269.80 | 5,492.76 | -9.59 | -2,746.42 | -2,745.64 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 35.85 | 269.80 | 5,573.81 | -9.79 | -2,804.98 | -2,804.19 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 35.85 | 269.80 | 5,654.87 | -10.00 | -2,863.55 | -2,862.74 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 35.85 | 269.80 | 5,735.92 | -10.20 | -2,922.12 | -2,921.29 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 35.85 | 269.80 | 5,816.98 | -10.40 | -2,980.68 | -2,979.84 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 35.85 | 269.80 | 5,898.03 | -10.61 | -3,039.25 | -3,038.39 | 0.00 | 0.00 | 0.00 |
| 6,867.38 | 35.85 | 269.80 | 5,952.65 | -10.75 | -3,078.71 | -3,077.84 | 0.00 | 0.00 | 0.00 |
| KOP @ 6867.38ft :: DLS = 8°/100' | | | | | | | | | |
| 6,900.00 | 33.24 | 269.66 | 5,979.51 | -10.83 | -3,097.21 | -3,096.33 | 8.00 | -8.00 | -0.43 |
| 6,950.00 | 29.24 | 269.40 | 6,022.25 | -11.04 | -3,123.13 | -3,122.24 | 8.00 | -8.00 | -0.52 |
| 7,000.00 | 25.25 | 269.07 | 6,066.70 | -11.35 | -3,146.02 | -3,145.12 | 8.00 | -7.99 | -0.67 |
| 7,050.00 | 21.25 | 268.62 | 6,112.63 | -11.74 | -3,165.74 | -3,164.83 | 8.00 | -7.99 | -0.90 |
| 7,100.00 | 17.26 | 267.97 | 6,159.82 | -12.22 | -3,182.22 | -3,181.29 | 8.00 | -7.99 | -1.29 |
| 7,150.00 | 13.27 | 266.95 | 6,208.05 | -12.79 | -3,195.37 | -3,194.43 | 8.00 | -7.98 | -2.04 |
| 7,200.00 | 9.28 | 265.07 | 6,257.07 | -13.44 | -3,205.12 | -3,204.16 | 8.00 | -7.97 | -3.76 |
| 7,250.00 | 5.32 | 260.41 | 6,306.66 | -14.17 | -3,211.42 | -3,210.45 | 8.00 | -7.92 | -9.31 |
| 7,300.00 | 1.58 | 232.12 | 6,356.56 | -14.99 | -3,214.25 | -3,213.26 | 8.00 | -7.48 | -56.58 |
| 7,350.00 | 2.95 | 110.95 | 6,406.54 | -15.87 | -3,213.60 | -3,212.59 | 8.00 | 2.73 | -242.35 |
| 7,400.00 | 6.84 | 99.52 | 6,456.35 | -16.82 | -3,209.46 | -3,208.43 | 8.00 | 7.80 | -22.87 |
| 7,450.00 | 10.82 | 96.41 | 6,505.75 | -17.84 | -3,201.86 | -3,200.81 | 8.00 | 7.95 | -6.22 |
| 7,500.00 | 14.80 | 94.96 | 6,554.49 | -18.91 | -3,190.83 | -3,189.76 | 8.00 | 7.97 | -2.90 |
| 7,550.00 | 18.80 | 94.11 | 6,602.35 | -20.04 | -3,176.42 | -3,175.33 | 8.00 | 7.99 | -1.69 |
| 7,600.00 | 22.79 | 93.55 | 6,649.08 | -21.22 | -3,158.71 | -3,157.61 | 8.00 | 7.99 | -1.11 |
| 7,650.00 | 26.79 | 93.16 | 6,694.47 | -22.44 | -3,137.79 | -3,136.66 | 8.00 | 7.99 | -0.80 |
| 7,700.00 | 30.79 | 92.85 | 6,738.28 | -23.70 | -3,113.75 | -3,112.60 | 8.00 | 7.99 | -0.60 |
| 7,750.00 | 34.78 | 92.62 | 6,780.30 | -24.99 | -3,086.71 | -3,085.54 | 8.00 | 8.00 | -0.48 |
| 7,800.00 | 38.78 | 92.42 | 6,820.34 | -26.30 | -3,056.80 | -3,055.61 | 8.00 | 8.00 | -0.39 |
| 7,850.00 | 42.78 | 92.26 | 6,858.19 | -27.63 | -3,024.18 | -3,022.97 | 8.00 | 8.00 | -0.33 |
| 7,900.00 | 46.78 | 92.12 | 6,893.68 | -28.97 | -2,988.99 | -2,987.76 | 8.00 | 8.00 | -0.28 |
| 7,918.24 | 48.24 | 92.07 | 6,906.00 | -29.47 | -2,975.55 | -2,974.31 | 8.00 | 8.00 | -0.26 |
| Sharon Springs | | | | | | | | | |
| 7,950.00 | 50.78 | 91.99 | 6,926.62 | -30.32 | -2,951.42 | -2,950.16 | 8.00 | 8.00 | -0.24 |

Planning Report

| | | | |
|------------------|---------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well CAMENISCH 33-7HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Site: | 4N-67W-33 CAMENISCH 10-33HZ PAD | North Reference: | True |
| Well: | CAMENISCH 33-7HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan B | | |
| 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) |
| 7,965.03 | 51.98 | 91.96 | 6,936.00 | -30.73 | -2,939.68 | -2,938.42 | 8.00 | 8.00 | -0.23 |
| Niobrara | | | | | | | | | |
| 8,000.00 | 54.78 | 91.88 | 6,956.86 | -31.67 | -2,911.63 | -2,910.36 | 8.00 | 8.00 | -0.22 |
| 8,050.00 | 58.78 | 91.78 | 6,984.25 | -33.01 | -2,869.83 | -2,868.55 | 8.00 | 8.00 | -0.20 |
| 8,100.00 | 62.78 | 91.69 | 7,008.65 | -34.33 | -2,826.23 | -2,824.92 | 8.00 | 8.00 | -0.18 |
| 8,150.00 | 66.78 | 91.61 | 7,029.96 | -35.63 | -2,781.02 | -2,779.70 | 8.00 | 8.00 | -0.17 |
| 8,200.00 | 70.77 | 91.53 | 7,048.05 | -36.91 | -2,734.44 | -2,733.10 | 8.00 | 8.00 | -0.16 |
| 8,250.00 | 74.77 | 91.45 | 7,062.86 | -38.15 | -2,686.71 | -2,685.35 | 8.00 | 8.00 | -0.15 |
| 8,300.00 | 78.77 | 91.38 | 7,074.30 | -39.35 | -2,638.06 | -2,636.69 | 8.00 | 8.00 | -0.15 |
| 8,350.00 | 82.77 | 91.31 | 7,082.31 | -40.50 | -2,588.73 | -2,587.35 | 8.00 | 8.00 | -0.14 |
| 8,400.00 | 86.77 | 91.24 | 7,086.87 | -41.61 | -2,538.96 | -2,537.57 | 8.00 | 8.00 | -0.14 |
| 8,438.61 | 89.86 | 91.18 | 7,088.00 | -42.42 | -2,500.38 | -2,498.98 | 8.00 | 8.00 | -0.14 |
| Nio B | | | | | | | | | |
| 8,439.16 | 89.90 | 91.18 | 7,088.00 | -42.43 | -2,499.83 | -2,498.43 | 7.94 | 7.94 | -0.14 |
| End Build @ 8439.16ft - Nio C | | | | | | | | | |
| 8,500.00 | 89.90 | 91.18 | 7,088.10 | -43.69 | -2,439.00 | -2,437.59 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 89.90 | 91.18 | 7,088.27 | -45.75 | -2,339.03 | -2,337.59 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 89.90 | 91.18 | 7,088.44 | -47.81 | -2,239.05 | -2,237.59 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 89.90 | 91.18 | 7,088.61 | -49.88 | -2,139.07 | -2,137.59 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 89.90 | 91.18 | 7,088.77 | -51.94 | -2,039.09 | -2,037.59 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 89.90 | 91.18 | 7,088.94 | -54.00 | -1,939.11 | -1,937.59 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 89.90 | 91.18 | 7,089.11 | -56.06 | -1,839.13 | -1,837.59 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 89.90 | 91.18 | 7,089.27 | -58.13 | -1,739.15 | -1,737.59 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 89.90 | 91.18 | 7,089.44 | -60.19 | -1,639.18 | -1,637.59 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 89.90 | 91.18 | 7,089.61 | -62.25 | -1,539.20 | -1,537.59 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 89.90 | 91.18 | 7,089.78 | -64.31 | -1,439.22 | -1,437.59 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 89.90 | 91.18 | 7,089.94 | -66.38 | -1,339.24 | -1,337.59 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 89.90 | 91.18 | 7,090.11 | -68.44 | -1,239.26 | -1,237.59 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 89.90 | 91.18 | 7,090.28 | -70.50 | -1,139.28 | -1,137.59 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 89.90 | 91.18 | 7,090.45 | -72.56 | -1,039.30 | -1,037.59 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 89.90 | 91.18 | 7,090.61 | -74.63 | -939.33 | -937.59 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 89.90 | 91.18 | 7,090.78 | -76.69 | -839.35 | -837.59 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 89.90 | 91.18 | 7,090.95 | -78.75 | -739.37 | -737.59 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 89.90 | 91.18 | 7,091.12 | -80.81 | -639.39 | -637.59 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 89.90 | 91.18 | 7,091.28 | -82.87 | -539.41 | -537.59 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 89.90 | 91.18 | 7,091.45 | -84.94 | -439.43 | -437.59 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 89.90 | 91.18 | 7,091.62 | -87.00 | -339.45 | -337.59 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 89.90 | 91.18 | 7,091.79 | -89.06 | -239.48 | -237.59 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 89.90 | 91.18 | 7,091.95 | -91.12 | -139.50 | -137.59 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 89.90 | 91.18 | 7,092.12 | -93.19 | -39.52 | -37.59 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 89.90 | 91.18 | 7,092.29 | -95.25 | 60.46 | 62.41 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 89.90 | 91.18 | 7,092.45 | -97.31 | 160.44 | 162.41 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 89.90 | 91.18 | 7,092.62 | -99.37 | 260.42 | 262.41 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 89.90 | 91.18 | 7,092.79 | -101.44 | 360.40 | 362.41 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 89.90 | 91.18 | 7,092.96 | -103.50 | 460.38 | 462.41 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 89.90 | 91.18 | 7,093.12 | -105.56 | 560.35 | 562.41 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 89.90 | 91.18 | 7,093.29 | -107.62 | 660.33 | 662.41 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 89.90 | 91.18 | 7,093.46 | -109.69 | 760.31 | 762.41 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 89.90 | 91.18 | 7,093.63 | -111.75 | 860.29 | 862.41 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 89.90 | 91.18 | 7,093.79 | -113.81 | 960.27 | 962.41 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 89.90 | 91.18 | 7,093.96 | -115.87 | 1,060.25 | 1,062.41 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 89.90 | 91.18 | 7,094.13 | -117.94 | 1,160.23 | 1,162.41 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 89.90 | 91.18 | 7,094.30 | -120.00 | 1,260.20 | 1,262.41 | 0.00 | 0.00 | 0.00 |

Planning Report

| | | | |
|------------------|---------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well CAMENISCH 33-7HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Site: | 4N-67W-33 CAMENISCH 10-33HZ PAD | North Reference: | True |
| Well: | CAMENISCH 33-7HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan B | | |
| 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) | |
| 12,300.00 | 89.90 | 91.18 | 7,094.46 | -122.06 | 1,360.18 | 1,362.41 | 0.00 | 0.00 | 0.00 | |
| 12,400.00 | 89.90 | 91.18 | 7,094.63 | -124.12 | 1,460.16 | 1,462.41 | 0.00 | 0.00 | 0.00 | |
| 12,500.00 | 89.90 | 91.18 | 7,094.80 | -126.19 | 1,560.14 | 1,562.41 | 0.00 | 0.00 | 0.00 | |
| 12,600.00 | 89.90 | 91.18 | 7,094.97 | -128.25 | 1,660.12 | 1,662.41 | 0.00 | 0.00 | 0.00 | |
| 12,700.00 | 89.90 | 91.18 | 7,095.13 | -130.31 | 1,760.10 | 1,762.41 | 0.00 | 0.00 | 0.00 | |
| 12,800.00 | 89.90 | 91.18 | 7,095.30 | -132.37 | 1,860.08 | 1,862.41 | 0.00 | 0.00 | 0.00 | |
| 12,900.00 | 89.90 | 91.18 | 7,095.47 | -134.44 | 1,960.05 | 1,962.41 | 0.00 | 0.00 | 0.00 | |
| 13,000.00 | 89.90 | 91.18 | 7,095.63 | -136.50 | 2,060.03 | 2,062.41 | 0.00 | 0.00 | 0.00 | |
| 13,100.00 | 89.90 | 91.18 | 7,095.80 | -138.56 | 2,160.01 | 2,162.41 | 0.00 | 0.00 | 0.00 | |
| 13,200.00 | 89.90 | 91.18 | 7,095.97 | -140.62 | 2,259.99 | 2,262.41 | 0.00 | 0.00 | 0.00 | |
| 13,300.00 | 89.90 | 91.18 | 7,096.14 | -142.69 | 2,359.97 | 2,362.41 | 0.00 | 0.00 | 0.00 | |
| 13,400.00 | 89.90 | 91.18 | 7,096.30 | -144.75 | 2,459.95 | 2,462.41 | 0.00 | 0.00 | 0.00 | |
| 13,500.00 | 89.90 | 91.18 | 7,096.47 | -146.81 | 2,559.93 | 2,562.41 | 0.00 | 0.00 | 0.00 | |
| 13,600.00 | 89.90 | 91.18 | 7,096.64 | -148.87 | 2,659.90 | 2,662.41 | 0.00 | 0.00 | 0.00 | |
| 13,700.00 | 89.90 | 91.18 | 7,096.81 | -150.94 | 2,759.88 | 2,762.41 | 0.00 | 0.00 | 0.00 | |
| 13,800.00 | 89.90 | 91.18 | 7,096.97 | -153.00 | 2,859.86 | 2,862.41 | 0.00 | 0.00 | 0.00 | |
| 13,900.00 | 89.90 | 91.18 | 7,097.14 | -155.06 | 2,959.84 | 2,962.41 | 0.00 | 0.00 | 0.00 | |
| 14,000.00 | 89.90 | 91.18 | 7,097.31 | -157.12 | 3,059.82 | 3,062.41 | 0.00 | 0.00 | 0.00 | |
| 14,100.00 | 89.90 | 91.18 | 7,097.48 | -159.18 | 3,159.80 | 3,162.41 | 0.00 | 0.00 | 0.00 | |
| 14,200.00 | 89.90 | 91.18 | 7,097.64 | -161.25 | 3,259.78 | 3,262.41 | 0.00 | 0.00 | 0.00 | |
| 14,300.00 | 89.90 | 91.18 | 7,097.81 | -163.31 | 3,359.75 | 3,362.40 | 0.00 | 0.00 | 0.00 | |
| 14,400.00 | 89.90 | 91.18 | 7,097.98 | -165.37 | 3,459.73 | 3,462.40 | 0.00 | 0.00 | 0.00 | |
| 14,500.00 | 89.90 | 91.18 | 7,098.15 | -167.43 | 3,559.71 | 3,562.40 | 0.00 | 0.00 | 0.00 | |
| 14,600.00 | 89.90 | 91.18 | 7,098.31 | -169.50 | 3,659.69 | 3,662.40 | 0.00 | 0.00 | 0.00 | |
| 14,700.00 | 89.90 | 91.18 | 7,098.48 | -171.56 | 3,759.67 | 3,762.40 | 0.00 | 0.00 | 0.00 | |
| 14,800.00 | 89.90 | 91.18 | 7,098.65 | -173.62 | 3,859.65 | 3,862.40 | 0.00 | 0.00 | 0.00 | |
| 14,900.00 | 89.90 | 91.18 | 7,098.81 | -175.68 | 3,959.63 | 3,962.40 | 0.00 | 0.00 | 0.00 | |
| 15,000.00 | 89.90 | 91.18 | 7,098.98 | -177.75 | 4,059.60 | 4,062.40 | 0.00 | 0.00 | 0.00 | |
| 15,100.00 | 89.90 | 91.18 | 7,099.15 | -179.81 | 4,159.58 | 4,162.40 | 0.00 | 0.00 | 0.00 | |
| 15,200.00 | 89.90 | 91.18 | 7,099.32 | -181.87 | 4,259.56 | 4,262.40 | 0.00 | 0.00 | 0.00 | |
| 15,300.00 | 89.90 | 91.18 | 7,099.48 | -183.93 | 4,359.54 | 4,362.40 | 0.00 | 0.00 | 0.00 | |
| 15,400.00 | 89.90 | 91.18 | 7,099.65 | -186.00 | 4,459.52 | 4,462.40 | 0.00 | 0.00 | 0.00 | |
| 15,500.00 | 89.90 | 91.18 | 7,099.82 | -188.06 | 4,559.50 | 4,562.40 | 0.00 | 0.00 | 0.00 | |
| 15,600.00 | 89.90 | 91.18 | 7,099.99 | -190.12 | 4,659.48 | 4,662.40 | 0.00 | 0.00 | 0.00 | |
| 15,700.00 | 89.90 | 91.18 | 7,100.15 | -192.18 | 4,759.45 | 4,762.40 | 0.00 | 0.00 | 0.00 | |
| 15,800.00 | 89.90 | 91.18 | 7,100.32 | -194.25 | 4,859.43 | 4,862.40 | 0.00 | 0.00 | 0.00 | |
| 15,900.00 | 89.90 | 91.18 | 7,100.49 | -196.31 | 4,959.41 | 4,962.40 | 0.00 | 0.00 | 0.00 | |
| 16,000.00 | 89.90 | 91.18 | 7,100.66 | -198.37 | 5,059.39 | 5,062.40 | 0.00 | 0.00 | 0.00 | |
| 16,100.00 | 89.90 | 91.18 | 7,100.82 | -200.43 | 5,159.37 | 5,162.40 | 0.00 | 0.00 | 0.00 | |
| 16,200.00 | 89.90 | 91.18 | 7,100.99 | -202.50 | 5,259.35 | 5,262.40 | 0.00 | 0.00 | 0.00 | |
| 16,300.00 | 89.90 | 91.18 | 7,101.16 | -204.56 | 5,359.33 | 5,362.40 | 0.00 | 0.00 | 0.00 | |
| 16,400.00 | 89.90 | 91.18 | 7,101.33 | -206.62 | 5,459.30 | 5,462.40 | 0.00 | 0.00 | 0.00 | |
| 16,500.00 | 89.90 | 91.18 | 7,101.49 | -208.68 | 5,559.28 | 5,562.40 | 0.00 | 0.00 | 0.00 | |
| 16,600.00 | 89.90 | 91.18 | 7,101.66 | -210.75 | 5,659.26 | 5,662.40 | 0.00 | 0.00 | 0.00 | |
| 16,700.00 | 89.90 | 91.18 | 7,101.83 | -212.81 | 5,759.24 | 5,762.40 | 0.00 | 0.00 | 0.00 | |
| 16,800.00 | 89.90 | 91.18 | 7,101.99 | -214.87 | 5,859.22 | 5,862.40 | 0.00 | 0.00 | 0.00 | |
| 16,900.00 | 89.90 | 91.18 | 7,102.16 | -216.93 | 5,959.20 | 5,962.40 | 0.00 | 0.00 | 0.00 | |
| 17,000.00 | 89.90 | 91.18 | 7,102.33 | -219.00 | 6,059.18 | 6,062.40 | 0.00 | 0.00 | 0.00 | |
| 17,100.00 | 89.90 | 91.18 | 7,102.50 | -221.06 | 6,159.15 | 6,162.40 | 0.00 | 0.00 | 0.00 | |
| 17,200.00 | 89.90 | 91.18 | 7,102.66 | -223.12 | 6,259.13 | 6,262.40 | 0.00 | 0.00 | 0.00 | |
| 17,300.00 | 89.90 | 91.18 | 7,102.83 | -225.18 | 6,359.11 | 6,362.40 | 0.00 | 0.00 | 0.00 | |
| 17,400.00 | 89.90 | 91.18 | 7,103.00 | -227.24 | 6,459.09 | 6,462.40 | 0.00 | 0.00 | 0.00 | |
| 17,500.00 | 89.90 | 91.18 | 7,103.17 | -229.31 | 6,559.07 | 6,562.40 | 0.00 | 0.00 | 0.00 | |
| 17,600.00 | 89.90 | 91.18 | 7,103.33 | -231.37 | 6,659.05 | 6,662.40 | 0.00 | 0.00 | 0.00 | |

Planning Report

| | | | |
|------------------|---------------------------------|-------------------------------------|-------------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well CAMENISCH 33-7HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 4887.00usft (RIG) |
| Site: | 4N-67W-33 CAMENISCH 10-33HZ PAD | North Reference: | True |
| Well: | CAMENISCH 33-7HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan B | | |
| 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) |
| 17,700.00 | 89.90 | 91.18 | 7,103.50 | -233.43 | 6,759.03 | 6,762.40 | 0.00 | 0.00 | 0.00 |
| 17,800.00 | 89.90 | 91.18 | 7,103.67 | -235.49 | 6,859.00 | 6,862.40 | 0.00 | 0.00 | 0.00 |
| 17,900.00 | 89.90 | 91.18 | 7,103.84 | -237.56 | 6,958.98 | 6,962.40 | 0.00 | 0.00 | 0.00 |
| 17,998.08 | 89.90 | 91.18 | 7,104.00 | -239.58 | 7,057.04 | 7,060.48 | 0.00 | 0.00 | 0.00 |
| TD Well @ 17998.08ft - 5.5" CSG | | | | | | | | | |

| Casing Points | | | | |
|-----------------------|-----------------------|----------|---------------------|-------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Casing Diameter (") | Hole Diameter (") |
| 1,513.45 | 1,500.00 | 9 5/8" | 9-5/8 | 13-1/2 |
| 17,998.08 | 7,104.00 | 5.5" CSG | 5-1/2 | 7-7/8 |

| Formations | | | | | |
|-----------------------|-----------------------|----------------|-----------|---------|-------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) |
| 772.36 | 772.00 | Fox Hills | | | |
| 4,042.58 | 3,663.00 | Parkman | | | |
| 4,637.24 | 4,145.00 | Sussex | | | |
| 7,918.24 | 6,906.00 | Sharon Springs | | | |
| 7,965.03 | 6,936.00 | Niobrara | | | |
| 8,438.61 | 7,088.00 | Nio B | | | |
| 8,439.16 | 7,088.00 | Nio C | | 0.00 | |

| Plan Annotations | | | | |
|-----------------------|-----------------------|-------------------|--------------|----------------------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
| | | +N/-S (usft) | +E/-W (usft) | |
| 456.15 | 456.15 | 0.00 | 0.00 | Begin Nudge @ 456.15ft |
| 2,846.15 | 2,693.23 | -2.53 | -723.63 | Hold Tangent @ 2846.15ft |
| 6,867.38 | 5,952.65 | -10.75 | -3,078.71 | KOP @ 6867.38ft :: DLS = 8°/100' |
| 8,439.16 | 7,088.00 | -42.43 | -2,499.83 | End Build @ 8439.16ft |
| 17,998.08 | 7,104.00 | -239.58 | 7,057.04 | TD Well @ 17998.08ft |