

US ROCKIES WATTENBERG PLANNING

**WELD-NAD83-UTMFT13N
2N-67W-21 REESE 5-21HZ PAD
REESE 21-3HZ**

Plan A

Plan: Permit Rev-4

SHL Lat/Long: 40.125499/-104.903979
Survey Program: MWD+IFR+MSA

Standard Planning Report

10 April, 2018

Project: WELD-NAD83-UTMFT13N
Site: 2N-67W-21 REESE 5-21HZ PAD
Well: REESE 21-3HZ
Wellbore: Plan A
Design: Permit Rev-4

US ROCKIES WATTENBERG PLANNING

CASING DETAILS

| TVD | MD | Size |
|---------|---------|-------|
| 1500.00 | 1523.46 | 9-5/8 |
| 7470.00 | 8100.48 | 5-1/2 |

WELL DETAILS: REESE 21-3HZ

GL = 4997'

RKB = 17' @ 5014.00usft (Drilling Rig)

SECTION DETAILS

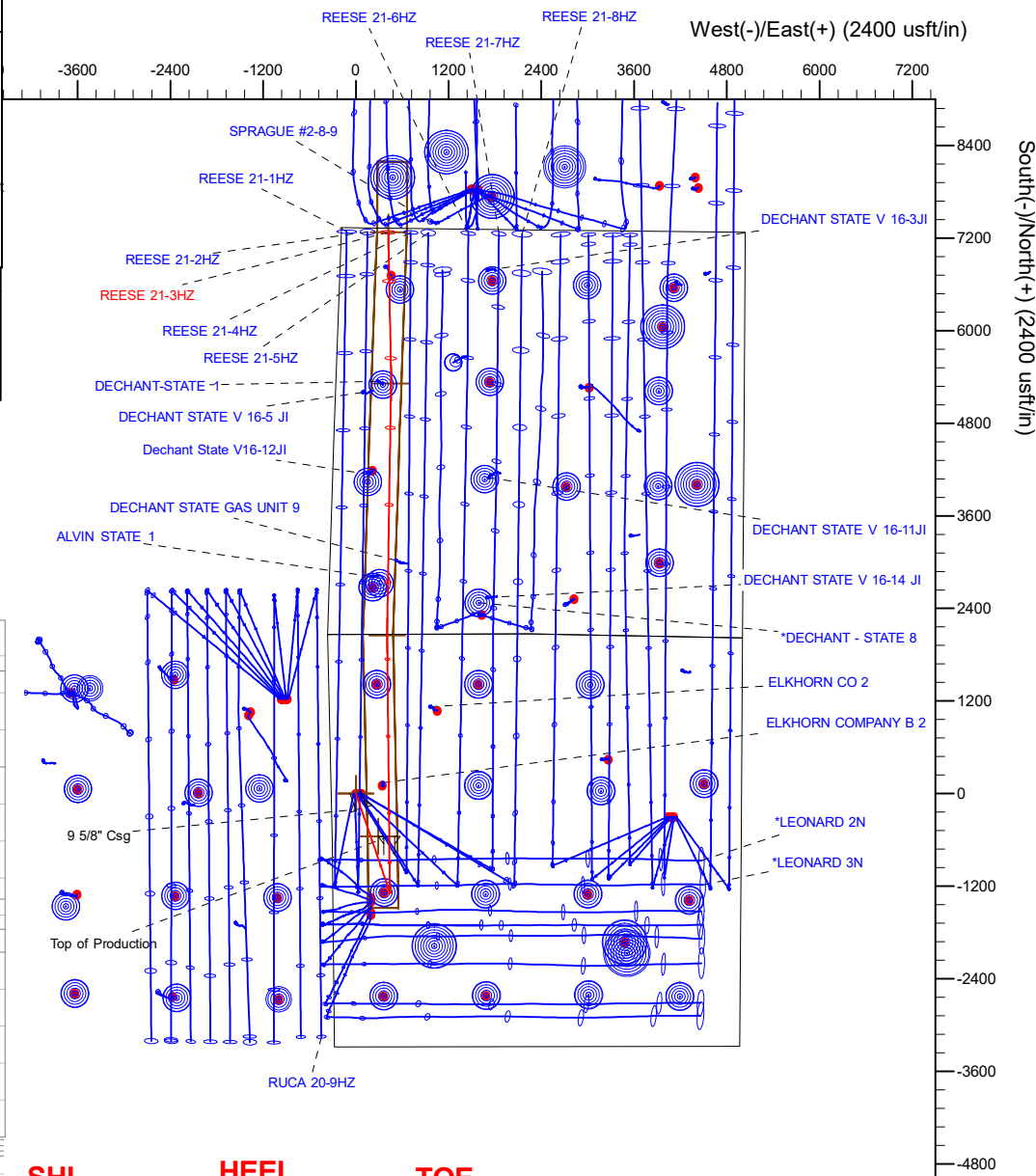
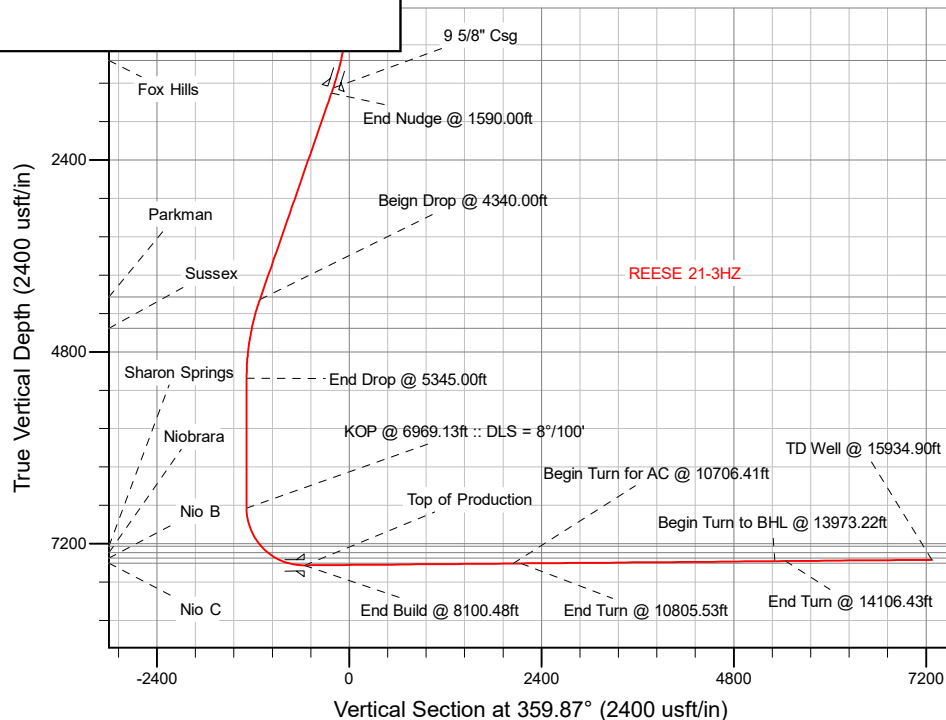
| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | Vsect | Target |
|-----|----------|-------|--------|---------|----------|--------|------|---------|----------|-----------------------------|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 250.00 | 0.00 | 0.00 | 250.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 1590.00 | 20.10 | 161.05 | 1562.68 | -220.03 | 75.55 | 1.50 | 161.05 | -220.20 | |
| 4 | 4340.00 | 20.10 | 161.05 | 4145.20 | -1113.88 | 382.45 | 0.00 | 0.00 | -1114.74 | |
| 5 | 5345.00 | 0.00 | 0.00 | 5129.71 | -1278.90 | 439.11 | 2.00 | -180.00 | -1279.90 | |
| 6 | 6969.13 | 0.00 | 0.00 | 6753.83 | -1278.90 | 439.11 | 0.00 | 0.00 | -1279.90 | |
| 7 | 8100.48 | 90.51 | 359.41 | 7470.00 | -556.40 | 431.71 | 8.00 | 359.41 | -557.37 | |
| 8 | 10706.41 | 90.51 | 359.41 | 7446.90 | 2049.30 | 405.00 | 0.00 | 0.00 | 2048.38 | REESE 21-3HZ_initial target |
| 9 | 10805.53 | 90.51 | 0.90 | 7446.02 | 2148.41 | 405.27 | 1.50 | 89.78 | 2147.49 | |
| 10 | 13973.22 | 90.51 | 0.90 | 7417.63 | 5315.58 | 455.00 | 0.00 | 0.00 | 5314.53 | REESE 21-3HZ_target |
| 11 | 14106.43 | 90.51 | 358.90 | 7416.43 | 5448.78 | 454.77 | 1.50 | -89.95 | 5447.73 | |
| 12 | 15934.90 | 90.51 | 358.90 | 7400.00 | 7276.84 | 419.71 | 0.00 | 0.00 | 7275.87 | REESE 21-3HZ_TOE |

WELLBORE TARGET DETAILS (LAT/LONG)

| Name | TVD | +N/-S | +E/-W | Latitude | Longitude |
|------------------|---------|---------|--------|-----------|-------------|
| REESE 21-3HZ_SHL | 0.00 | 0.00 | 0.00 | 40.125499 | -104.903979 |
| REESE 21-3HZ_TOE | 7400.00 | 7276.84 | 419.71 | 40.145482 | -104.902477 |

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---------|---------|----------------|
| 1156.00 | 1164.72 | Fox Hills |
| 4114.00 | 4306.78 | Parkman |
| 4506.00 | 4716.26 | Sussex |
| 7231.00 | 7491.36 | Sharon Springs |
| 7309.00 | 7604.37 | Niobrara |
| 7378.00 | 7727.05 | Nio B |
| 7445.00 | 7904.22 | Nio C |



SHL
2065' FNL
322' FWL

HEEL
2620' FNL
741' FWL

TOE
53' FNL
607' FWL

Plan: Permit Rev-4 (REESE 21-3HZ/Plan A)

Created By: _____ Date: 4/9/2018
Reviewed: _____ Date: _____

Corporate Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|--|
| Database: | PLANNING | Local Co-ordinate Reference: | Well REESE 21-3HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Site: | 2N-67W-21 REESE 5-21HZ PAD | North Reference: | True |
| Well: | REESE 21-3HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-4 | | |

| | | | |
|--------------------|--|----------------------|----------------|
| 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 | 2N-67W-21 REESE 5-21HZ PAD | | | |
| Site Position: | | Northing: | 14,572,447.69 usft | Latitude: 40.125499 |
| From: | Lat/Long | Easting: | 1,667,228.23 usft | Longitude: -104.904086 |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13-3/16 " | Grid Convergence: 0.06 ° |

| | | | | |
|-----------------------------|--------------|----------------------------|------------------|------------------------------------|
| Well | REESE 21-3HZ | | | |
| Well Position | +N/-S | 0.00 usft | Northing: | 14,572,447.72 usft |
| | +E/-W | 29.91 usft | Easting: | 1,667,258.14 usft |
| Position Uncertainty | 3.28 usft | Wellhead Elevation: | | Ground Level: 4,997.00 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Plan A | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 11/30/2017 | 8.05 | 66.58 | 52,292.04634457 |

| | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| Design | Permit Rev-4 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
| | 7,400.00 | 0.00 | 0.00 | 359.87 |

| | | | | |
|---------------------------------|------------------------|--------------------------|-----------------------|--|
| Plan Survey Tool Program | Date | 4/10/2018 | | |
| Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks |
| 1 | 0.00 | 1,500.00 | Permit Rev-4 (Plan A) | APC_ISCWSA REV 2 MWD+II Fixed:v2:crustal field declinatio |
| 2 | 1,500.00 | 15,934.90 | Permit Rev-4 (Plan A) | APC_ISCWSA REV 2 MWD+II Fixed:v2:Rockies, crustal dec + |

Corporate Planning Report

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|------------------|--------------------------------|-------------------------------------|--|
| Database: | PLANNING | Local Co-ordinate Reference: | Well REESE 21-3HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Site: | 2N-67W-21 REESE 5-21HZ PAD | North Reference: | True |
| Well: | REESE 21-3HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-4 | | |

| 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 | |
| 1,590.00 | 20.10 | 161.05 | 1,562.68 | -220.03 | 75.55 | 1.50 | 1.50 | 0.00 | 161.05 | |
| 4,340.00 | 20.10 | 161.05 | 4,145.20 | -1,113.88 | 382.45 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,345.00 | 0.00 | 0.00 | 5,129.71 | -1,278.90 | 439.11 | 2.00 | -2.00 | -16.02 | -180.00 | |
| 6,969.13 | 0.00 | 0.00 | 6,753.83 | -1,278.90 | 439.11 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 8,100.48 | 90.51 | 359.41 | 7,470.00 | -556.40 | 431.71 | 8.00 | 8.00 | -0.05 | 359.41 | |
| 10,706.41 | 90.51 | 359.41 | 7,446.90 | 2,049.30 | 405.00 | 0.00 | 0.00 | 0.00 | 0.00 | REESE 21-3HZ_initia |
| 10,805.53 | 90.51 | 0.90 | 7,446.02 | 2,148.41 | 405.27 | 1.50 | 0.01 | 1.50 | 89.78 | |
| 13,973.22 | 90.51 | 0.90 | 7,417.63 | 5,315.58 | 455.00 | 0.00 | 0.00 | 0.00 | 0.00 | REESE 21-3HZ_targe |
| 14,106.43 | 90.51 | 358.90 | 7,416.43 | 5,448.78 | 454.77 | 1.50 | 0.00 | -1.50 | -89.95 | |
| 15,934.90 | 90.51 | 358.90 | 7,400.00 | 7,276.84 | 419.71 | 0.00 | 0.00 | 0.00 | 0.00 | REESE 21-3HZ_TOE |

Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|--|
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| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Site: | 2N-67W-21 REESE 5-21HZ PAD | North Reference: | True |
| Well: | REESE 21-3HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-4 | | |

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 |
| Begin Nudge @ 250.00ft | | | | | | | | | |
| 300.00 | 0.75 | 161.05 | 300.00 | -0.31 | 0.11 | -0.31 | 1.50 | 1.50 | 0.00 |
| 400.00 | 2.25 | 161.05 | 399.96 | -2.79 | 0.96 | -2.79 | 1.50 | 1.50 | 0.00 |
| 500.00 | 3.75 | 161.05 | 499.82 | -7.74 | 2.66 | -7.74 | 1.50 | 1.50 | 0.00 |
| 600.00 | 5.25 | 161.05 | 599.51 | -15.16 | 5.20 | -15.17 | 1.50 | 1.50 | 0.00 |
| 700.00 | 6.75 | 161.05 | 698.96 | -25.04 | 8.60 | -25.06 | 1.50 | 1.50 | 0.00 |
| 800.00 | 8.25 | 161.05 | 798.10 | -37.39 | 12.84 | -37.42 | 1.50 | 1.50 | 0.00 |
| 900.00 | 9.75 | 161.05 | 896.87 | -52.18 | 17.92 | -52.22 | 1.50 | 1.50 | 0.00 |
| 1,000.00 | 11.25 | 161.05 | 995.19 | -69.42 | 23.83 | -69.47 | 1.50 | 1.50 | 0.00 |
| 1,100.00 | 12.75 | 161.05 | 1,093.00 | -89.08 | 30.59 | -89.15 | 1.50 | 1.50 | 0.00 |
| 1,164.72 | 13.72 | 161.05 | 1,156.00 | -103.09 | 35.40 | -103.17 | 1.50 | 1.50 | 0.00 |
| Fox Hills | | | | | | | | | |
| 1,200.00 | 14.25 | 161.05 | 1,190.24 | -111.16 | 38.17 | -111.25 | 1.50 | 1.50 | 0.00 |
| 1,300.00 | 15.75 | 161.05 | 1,286.83 | -135.64 | 46.57 | -135.74 | 1.50 | 1.50 | 0.00 |
| 1,400.00 | 17.25 | 161.05 | 1,382.71 | -162.50 | 55.79 | -162.63 | 1.50 | 1.50 | 0.00 |
| 1,500.00 | 18.75 | 161.05 | 1,477.81 | -191.73 | 65.83 | -191.87 | 1.50 | 1.50 | 0.00 |
| 1,523.46 | 19.10 | 161.05 | 1,500.00 | -198.92 | 68.30 | -199.08 | 1.50 | 1.50 | 0.00 |
| 9 5/8" Csg | | | | | | | | | |
| 1,590.00 | 20.10 | 161.05 | 1,562.68 | -220.03 | 75.55 | -220.20 | 1.50 | 1.50 | 0.00 |
| End Nudge @ 1590.00ft | | | | | | | | | |
| 1,600.00 | 20.10 | 161.05 | 1,572.07 | -223.28 | 76.67 | -223.46 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 20.10 | 161.05 | 1,665.98 | -255.79 | 87.83 | -255.99 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 20.10 | 161.05 | 1,759.89 | -288.29 | 98.99 | -288.52 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 20.10 | 161.05 | 1,853.80 | -320.79 | 110.15 | -321.04 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 20.10 | 161.05 | 1,947.71 | -353.30 | 121.31 | -353.57 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 20.10 | 161.05 | 2,041.62 | -385.80 | 132.47 | -386.10 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 20.10 | 161.05 | 2,135.53 | -418.30 | 143.63 | -418.63 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 20.10 | 161.05 | 2,229.44 | -450.81 | 154.79 | -451.16 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 20.10 | 161.05 | 2,323.35 | -483.31 | 165.95 | -483.69 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 20.10 | 161.05 | 2,417.26 | -515.82 | 177.11 | -516.22 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 20.10 | 161.05 | 2,511.17 | -548.32 | 188.27 | -548.74 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 20.10 | 161.05 | 2,605.08 | -580.82 | 199.43 | -581.27 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 20.10 | 161.05 | 2,698.99 | -613.33 | 210.59 | -613.80 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 20.10 | 161.05 | 2,792.90 | -645.83 | 221.75 | -646.33 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 20.10 | 161.05 | 2,886.81 | -678.33 | 232.91 | -678.86 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 20.10 | 161.05 | 2,980.72 | -710.84 | 244.07 | -711.39 | 0.00 | 0.00 | 0.00 |

Corporate
Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|--|
| Database: | PLANNING | Local Co-ordinate Reference: | Well REESE 21-3HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Site: | 2N-67W-21 REESE 5-21HZ PAD | North Reference: | True |
| Well: | REESE 21-3HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-4 | | |

| 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) |
| 4,340.00 | 20.10 | 161.05 | 4,145.20 | -1,113.88 | 382.45 | -1,114.74 | 0.00 | 0.00 | 0.00 |
| Beign Drop @ 4340.00ft | | | | | | | | | |
| 4,400.00 | 18.90 | 161.05 | 4,201.75 | -1,132.82 | 388.96 | -1,133.70 | 2.00 | -2.00 | 0.00 |
| 4,500.00 | 16.90 | 161.05 | 4,296.90 | -1,161.89 | 398.94 | -1,162.79 | 2.00 | -2.00 | 0.00 |
| 4,600.00 | 14.90 | 161.05 | 4,393.07 | -1,187.80 | 407.83 | -1,188.72 | 2.00 | -2.00 | 0.00 |
| 4,700.00 | 12.90 | 161.05 | 4,490.14 | -1,210.52 | 415.63 | -1,211.46 | 2.00 | -2.00 | 0.00 |
| 4,716.26 | 12.57 | 161.05 | 4,506.00 | -1,213.91 | 416.80 | -1,214.85 | 2.00 | -2.00 | 0.00 |
| Sussex | | | | | | | | | |
| 4,800.00 | 10.90 | 161.05 | 4,587.99 | -1,230.02 | 422.33 | -1,230.98 | 2.00 | -2.00 | 0.00 |
| 4,900.00 | 8.90 | 161.05 | 4,686.49 | -1,246.28 | 427.91 | -1,247.25 | 2.00 | -2.00 | 0.00 |
| 5,000.00 | 6.90 | 161.05 | 4,785.54 | -1,259.28 | 432.38 | -1,260.26 | 2.00 | -2.00 | 0.00 |
| 5,100.00 | 4.90 | 161.05 | 4,885.00 | -1,269.00 | 435.71 | -1,269.99 | 2.00 | -2.00 | 0.00 |
| 5,200.00 | 2.90 | 161.05 | 4,984.77 | -1,275.43 | 437.92 | -1,276.42 | 2.00 | -2.00 | 0.00 |
| 5,300.00 | 0.90 | 161.05 | 5,084.71 | -1,278.57 | 439.00 | -1,279.56 | 2.00 | -2.00 | 0.00 |
| 5,345.00 | 0.00 | 0.00 | 5,129.71 | -1,278.90 | 439.11 | -1,279.90 | 2.00 | -2.00 | -357.86 |
| End Drop @ 5345.00ft | | | | | | | | | |
| 5,400.00 | 0.00 | 0.00 | 5,184.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 0.00 | 0.00 | 5,284.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 0.00 | 0.00 | 5,384.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 0.00 | 0.00 | 5,484.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 0.00 | 0.00 | 5,584.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 0.00 | 0.00 | 5,684.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 0.00 | 0.00 | 5,784.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 0.00 | 0.00 | 5,884.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 0.00 | 0.00 | 5,984.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 0.00 | 0.00 | 6,084.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 0.00 | 0.00 | 6,184.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 0.00 | 0.00 | 6,284.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 0.00 | 0.00 | 6,384.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 0.00 | 0.00 | 6,484.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 0.00 | 0.00 | 6,584.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 0.00 | 0.00 | 6,684.70 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| 6,969.13 | 0.00 | 0.00 | 6,753.83 | -1,278.90 | 439.11 | -1,279.90 | 0.00 | 0.00 | 0.00 |
| KOP @ 6969.13ft :: DLS = 8°/100' | | | | | | | | | |
| 7,000.00 | 2.47 | 359.41 | 6,784.70 | -1,278.24 | 439.11 | -1,279.23 | 8.00 | 8.00 | -1.90 |
| 7,100.00 | 10.47 | 359.41 | 6,883.98 | -1,266.98 | 438.99 | -1,267.97 | 8.00 | 8.00 | 0.00 |
| 7,200.00 | 18.47 | 359.41 | 6,980.73 | -1,242.02 | 438.74 | -1,243.01 | 8.00 | 8.00 | 0.00 |
| 7,300.00 | 26.47 | 359.41 | 7,073.06 | -1,203.83 | 438.34 | -1,204.82 | 8.00 | 8.00 | 0.00 |
| 7,400.00 | 34.47 | 359.41 | 7,159.18 | -1,153.17 | 437.83 | -1,154.16 | 8.00 | 8.00 | 0.00 |
| 7,491.36 | 41.78 | 359.41 | 7,231.00 | -1,096.81 | 437.25 | -1,097.80 | 8.00 | 8.00 | 0.00 |
| Sharon Springs | | | | | | | | | |
| 7,500.00 | 42.47 | 359.41 | 7,237.41 | -1,091.01 | 437.19 | -1,092.00 | 8.00 | 8.00 | 0.00 |
| 7,600.00 | 50.47 | 359.41 | 7,306.23 | -1,018.57 | 436.45 | -1,019.56 | 8.00 | 8.00 | 0.00 |
| 7,604.37 | 50.82 | 359.41 | 7,309.00 | -1,015.19 | 436.41 | -1,016.18 | 8.00 | 8.00 | 0.00 |
| Niobrara | | | | | | | | | |
| 7,700.00 | 58.47 | 359.41 | 7,364.29 | -937.26 | 435.61 | -938.25 | 8.00 | 8.00 | 0.00 |
| 7,727.05 | 60.63 | 359.41 | 7,378.00 | -913.95 | 435.37 | -914.93 | 8.00 | 8.00 | 0.00 |
| Nio B | | | | | | | | | |
| 7,800.00 | 66.47 | 359.41 | 7,410.48 | -848.66 | 434.70 | -849.65 | 8.00 | 8.00 | 0.00 |
| 7,900.00 | 74.47 | 359.41 | 7,443.88 | -754.50 | 433.74 | -755.48 | 8.00 | 8.00 | 0.00 |
| 7,904.22 | 74.81 | 359.41 | 7,445.00 | -750.43 | 433.70 | -751.41 | 8.00 | 8.00 | 0.00 |
| Nio C | | | | | | | | | |
| 8,000.00 | 82.47 | 359.41 | 7,463.86 | -656.60 | 432.74 | -657.58 | 8.00 | 8.00 | 0.00 |

Corporate Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|--|
| Database: | PLANNING | Local Co-ordinate Reference: | Well REESE 21-3HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Site: | 2N-67W-21 REESE 5-21HZ PAD | North Reference: | True |
| Well: | REESE 21-3HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-4 | | |

| 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) |
| 8,100.00 | 90.47 | 359.41 | 7,470.01 | -556.88 | 431.71 | -557.85 | 8.00 | 8.00 | 0.00 |
| 8,100.48 | 90.51 | 359.41 | 7,470.00 | -556.40 | 431.71 | -557.37 | 8.00 | 8.00 | 0.00 |
| End Build @ 8100.48ft - Top of Production | | | | | | | | | |
| 8,200.00 | 90.51 | 359.41 | 7,469.12 | -456.88 | 430.69 | -457.86 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 90.51 | 359.41 | 7,468.24 | -356.89 | 429.66 | -357.87 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 90.51 | 359.41 | 7,467.35 | -256.90 | 428.64 | -257.87 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 90.51 | 359.41 | 7,466.46 | -156.91 | 427.61 | -157.88 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 90.51 | 359.41 | 7,465.58 | -56.92 | 426.59 | -57.89 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 90.51 | 359.41 | 7,464.69 | 43.07 | 425.56 | 42.10 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 90.51 | 359.41 | 7,463.80 | 143.06 | 424.54 | 142.10 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 90.51 | 359.41 | 7,462.92 | 243.05 | 423.51 | 242.09 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 90.51 | 359.41 | 7,462.03 | 343.04 | 422.49 | 342.08 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 90.51 | 359.41 | 7,461.14 | 443.03 | 421.46 | 442.08 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 90.51 | 359.41 | 7,460.26 | 543.02 | 420.44 | 542.07 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 90.51 | 359.41 | 7,459.37 | 643.01 | 419.41 | 642.06 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 90.51 | 359.41 | 7,458.48 | 743.01 | 418.39 | 742.05 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 90.51 | 359.41 | 7,457.60 | 843.00 | 417.36 | 842.05 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 90.51 | 359.41 | 7,456.71 | 942.99 | 416.34 | 942.04 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 90.51 | 359.41 | 7,455.82 | 1,042.98 | 415.31 | 1,042.03 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 90.51 | 359.41 | 7,454.94 | 1,142.97 | 414.29 | 1,142.03 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 90.51 | 359.41 | 7,454.05 | 1,242.96 | 413.27 | 1,242.02 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 90.51 | 359.41 | 7,453.16 | 1,342.95 | 412.24 | 1,342.01 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 90.51 | 359.41 | 7,452.28 | 1,442.94 | 411.22 | 1,442.00 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 90.51 | 359.41 | 7,451.39 | 1,542.93 | 410.19 | 1,542.00 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 90.51 | 359.41 | 7,450.50 | 1,642.92 | 409.17 | 1,641.99 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 90.51 | 359.41 | 7,449.62 | 1,742.91 | 408.14 | 1,741.98 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 90.51 | 359.41 | 7,448.73 | 1,842.90 | 407.12 | 1,841.98 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 90.51 | 359.41 | 7,447.84 | 1,942.90 | 406.09 | 1,941.97 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 90.51 | 359.41 | 7,446.96 | 2,042.89 | 405.07 | 2,041.96 | 0.00 | 0.00 | 0.00 |
| 10,706.41 | 90.51 | 359.41 | 7,446.90 | 2,049.30 | 405.00 | 2,048.38 | 0.00 | 0.00 | 0.00 |
| Begin Turn for AC @ 10706.41ft | | | | | | | | | |
| 10,800.00 | 90.51 | 0.82 | 7,446.07 | 2,142.88 | 405.19 | 2,141.95 | 1.50 | 0.01 | 1.50 |
| 10,805.53 | 90.51 | 0.90 | 7,446.02 | 2,148.41 | 405.27 | 2,147.49 | 1.50 | 0.01 | 1.50 |
| End Turn @ 10805.53ft | | | | | | | | | |
| 10,900.00 | 90.51 | 0.90 | 7,445.17 | 2,242.86 | 406.75 | 2,241.93 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 90.51 | 0.90 | 7,444.27 | 2,342.85 | 408.32 | 2,341.91 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 90.51 | 0.90 | 7,443.38 | 2,442.83 | 409.89 | 2,441.89 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 90.51 | 0.90 | 7,442.48 | 2,542.81 | 411.46 | 2,541.87 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 90.51 | 0.90 | 7,441.59 | 2,642.80 | 413.03 | 2,641.85 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 90.51 | 0.90 | 7,440.69 | 2,742.78 | 414.60 | 2,741.83 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 90.51 | 0.90 | 7,439.79 | 2,842.76 | 416.17 | 2,841.81 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 90.51 | 0.90 | 7,438.90 | 2,942.75 | 417.74 | 2,941.79 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 90.51 | 0.90 | 7,438.00 | 3,042.73 | 419.31 | 3,041.77 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 90.51 | 0.90 | 7,437.10 | 3,142.72 | 420.88 | 3,141.75 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 90.51 | 0.90 | 7,436.21 | 3,242.70 | 422.45 | 3,241.73 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 90.51 | 0.90 | 7,435.31 | 3,342.68 | 424.02 | 3,341.71 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 90.51 | 0.90 | 7,434.42 | 3,442.67 | 425.59 | 3,441.69 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 90.51 | 0.90 | 7,433.52 | 3,542.65 | 427.16 | 3,541.67 | 0.00 | 0.00 | 0.00 |
| 12,300.00 | 90.51 | 0.90 | 7,432.62 | 3,642.63 | 428.73 | 3,641.65 | 0.00 | 0.00 | 0.00 |
| 12,400.00 | 90.51 | 0.90 | 7,431.73 | 3,742.62 | 430.30 | 3,741.63 | 0.00 | 0.00 | 0.00 |
| 12,500.00 | 90.51 | 0.90 | 7,430.83 | 3,842.60 | 431.87 | 3,841.61 | 0.00 | 0.00 | 0.00 |
| 12,600.00 | 90.51 | 0.90 | 7,429.94 | 3,942.59 | 433.44 | 3,941.59 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 90.51 | 0.90 | 7,429.04 | 4,042.57 | 435.01 | 4,041.57 | 0.00 | 0.00 | 0.00 |

Corporate Planning Report

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| Database: | PLANNING | Local Co-ordinate Reference: | Well REESE 21-3HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Site: | 2N-67W-21 REESE 5-21HZ PAD | North Reference: | True |
| Well: | REESE 21-3HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-4 | | |

| 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) |
| 12,800.00 | 90.51 | 0.90 | 7,428.14 | 4,142.55 | 436.58 | 4,141.55 | 0.00 | 0.00 | 0.00 |
| 12,900.00 | 90.51 | 0.90 | 7,427.25 | 4,242.54 | 438.15 | 4,241.53 | 0.00 | 0.00 | 0.00 |
| 13,000.00 | 90.51 | 0.90 | 7,426.35 | 4,342.52 | 439.72 | 4,341.51 | 0.00 | 0.00 | 0.00 |
| 13,100.00 | 90.51 | 0.90 | 7,425.46 | 4,442.50 | 441.29 | 4,441.49 | 0.00 | 0.00 | 0.00 |
| 13,200.00 | 90.51 | 0.90 | 7,424.56 | 4,542.49 | 442.86 | 4,541.47 | 0.00 | 0.00 | 0.00 |
| 13,300.00 | 90.51 | 0.90 | 7,423.66 | 4,642.47 | 444.43 | 4,641.45 | 0.00 | 0.00 | 0.00 |
| 13,400.00 | 90.51 | 0.90 | 7,422.77 | 4,742.45 | 446.00 | 4,741.43 | 0.00 | 0.00 | 0.00 |
| 13,500.00 | 90.51 | 0.90 | 7,421.87 | 4,842.44 | 447.57 | 4,841.41 | 0.00 | 0.00 | 0.00 |
| 13,600.00 | 90.51 | 0.90 | 7,420.97 | 4,942.42 | 449.14 | 4,941.39 | 0.00 | 0.00 | 0.00 |
| 13,700.00 | 90.51 | 0.90 | 7,420.08 | 5,042.41 | 450.71 | 5,041.37 | 0.00 | 0.00 | 0.00 |
| 13,800.00 | 90.51 | 0.90 | 7,419.18 | 5,142.39 | 452.28 | 5,141.35 | 0.00 | 0.00 | 0.00 |
| 13,900.00 | 90.51 | 0.90 | 7,418.29 | 5,242.37 | 453.85 | 5,241.33 | 0.00 | 0.00 | 0.00 |
| 13,973.22 | 90.51 | 0.90 | 7,417.63 | 5,315.58 | 455.00 | 5,314.53 | 0.00 | 0.00 | 0.00 |
| Begin Turn to BHL @ 13973.22ft | | | | | | | | | |
| 14,000.00 | 90.51 | 0.50 | 7,417.39 | 5,342.36 | 455.33 | 5,341.31 | 1.50 | 0.00 | -1.50 |
| 14,100.00 | 90.51 | 359.00 | 7,416.49 | 5,442.35 | 454.89 | 5,441.30 | 1.50 | 0.00 | -1.50 |
| 14,106.43 | 90.51 | 358.90 | 7,416.43 | 5,448.78 | 454.77 | 5,447.73 | 1.50 | 0.00 | -1.50 |
| End Turn @ 14106.43ft | | | | | | | | | |
| 14,200.00 | 90.51 | 358.90 | 7,415.59 | 5,542.33 | 452.97 | 5,541.29 | 0.00 | 0.00 | 0.00 |
| 14,300.00 | 90.51 | 358.90 | 7,414.69 | 5,642.31 | 451.06 | 5,641.27 | 0.00 | 0.00 | 0.00 |
| 14,400.00 | 90.51 | 358.90 | 7,413.80 | 5,742.28 | 449.14 | 5,741.25 | 0.00 | 0.00 | 0.00 |
| 14,500.00 | 90.51 | 358.90 | 7,412.90 | 5,842.26 | 447.22 | 5,841.23 | 0.00 | 0.00 | 0.00 |
| 14,600.00 | 90.51 | 358.90 | 7,412.00 | 5,942.24 | 445.31 | 5,941.21 | 0.00 | 0.00 | 0.00 |
| 14,700.00 | 90.51 | 358.90 | 7,411.10 | 6,042.22 | 443.39 | 6,041.19 | 0.00 | 0.00 | 0.00 |
| 14,800.00 | 90.51 | 358.90 | 7,410.20 | 6,142.19 | 441.47 | 6,141.18 | 0.00 | 0.00 | 0.00 |
| 14,900.00 | 90.51 | 358.90 | 7,409.30 | 6,242.17 | 439.55 | 6,241.16 | 0.00 | 0.00 | 0.00 |
| 15,000.00 | 90.51 | 358.90 | 7,408.40 | 6,342.15 | 437.64 | 6,341.14 | 0.00 | 0.00 | 0.00 |
| 15,100.00 | 90.51 | 358.90 | 7,407.50 | 6,442.13 | 435.72 | 6,441.12 | 0.00 | 0.00 | 0.00 |
| 15,200.00 | 90.51 | 358.90 | 7,406.61 | 6,542.10 | 433.80 | 6,541.10 | 0.00 | 0.00 | 0.00 |
| 15,300.00 | 90.51 | 358.90 | 7,405.71 | 6,642.08 | 431.88 | 6,641.08 | 0.00 | 0.00 | 0.00 |
| 15,400.00 | 90.51 | 358.90 | 7,404.81 | 6,742.06 | 429.97 | 6,741.07 | 0.00 | 0.00 | 0.00 |
| 15,500.00 | 90.51 | 358.90 | 7,403.91 | 6,842.04 | 428.05 | 6,841.05 | 0.00 | 0.00 | 0.00 |
| 15,600.00 | 90.51 | 358.90 | 7,403.01 | 6,942.01 | 426.13 | 6,941.03 | 0.00 | 0.00 | 0.00 |
| 15,700.00 | 90.51 | 358.90 | 7,402.11 | 7,041.99 | 424.21 | 7,041.01 | 0.00 | 0.00 | 0.00 |
| 15,800.00 | 90.51 | 358.90 | 7,401.21 | 7,141.97 | 422.30 | 7,140.99 | 0.00 | 0.00 | 0.00 |
| 15,900.00 | 90.51 | 358.90 | 7,400.31 | 7,241.95 | 420.38 | 7,240.97 | 0.00 | 0.00 | 0.00 |
| 15,934.90 | 90.51 | 358.90 | 7,400.00 | 7,276.84 | 419.71 | 7,275.87 | 0.00 | 0.00 | 0.00 |
| TD Well @ 15934.90ft | | | | | | | | | |

| Casing Points | | | | | |
|-----------------------|-----------------------|-------------------|---------------------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Casing Diameter (") | Hole Diameter (") | |
| 1,523.46 | 1,500.00 | 9 5/8" Csg | 9-5/8 | 13-1/2 | |
| 8,100.48 | 7,470.00 | Top of Production | 5-1/2 | 7-7/8 | |

Corporate Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|--|
| Database: | PLANNING | Local Co-ordinate Reference: | Well REESE 21-3HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 17' @ 5014.00usft (Drilling Rig) |
| Site: | 2N-67W-21 REESE 5-21HZ PAD | North Reference: | True |
| Well: | REESE 21-3HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-4 | | |

| Formations | | | | | | |
|-----------------------|-----------------------|----------------|-----------|---------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) | |
| 1,164.72 | 1,156.00 | Fox Hills | | | | |
| 4,306.78 | 4,114.00 | Parkman | | | | |
| 4,716.26 | 4,506.00 | Sussex | | | | |
| 7,491.36 | 7,231.00 | Sharon Springs | | | | |
| 7,604.37 | 7,309.00 | Niobrara | | | | |
| 7,727.05 | 7,378.00 | Nio B | | | | |
| 7,904.22 | 7,445.00 | Nio C | | | | |

| Plan Annotations | | | | | |
|-----------------------|-----------------------|-------------------|--------------|----------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | | |
| | | +N/-S (usft) | +E/-W (usft) | Comment | |
| 250.00 | 250.00 | 0.00 | 0.00 | Begin Nudge @ 250.00ft | |
| 1,590.00 | 1,562.68 | -220.03 | 75.55 | End Nudge @ 1590.00ft | |
| 4,340.00 | 4,145.20 | -1,113.88 | 382.45 | Begin Drop @ 4340.00ft | |
| 5,345.00 | 5,129.71 | -1,278.90 | 439.11 | End Drop @ 5345.00ft | |
| 6,969.13 | 6,753.83 | -1,278.90 | 439.11 | KOP @ 6969.13ft :: DLS = 8"/100' | |
| 8,100.48 | 7,470.00 | -556.40 | 431.71 | End Build @ 8100.48ft | |
| 10,706.41 | 7,446.90 | 2,049.30 | 405.00 | Begin Turn for AC @ 10706.41ft | |
| 10,805.53 | 7,446.02 | 2,148.41 | 405.27 | End Turn @ 10805.53ft | |
| 13,973.22 | 7,417.63 | 5,315.58 | 455.00 | Begin Turn to BHL @ 13973.22ft | |
| 14,106.43 | 7,416.43 | 5,448.78 | 454.77 | End Turn @ 14106.43ft | |
| 15,934.90 | 7,400.00 | 7,276.84 | 419.71 | TD Well @ 15934.90ft | |