

US ROCKIES WATTENBERG PLANNING

**WELD-NAD83-UTMFT13N
3N-68W-33 Newby 15-33HZ Pad
NEWBY STATE 16N-4HZ**

Plan A

Plan: Permit Rev-2

Standard Planning Report

19 April, 2017

Project: WELD-NAD83-UTMFT13N
Site: 3N-68W-33 Newby 15-33HZ Pad
Well: NEWBY STATE 16N-4HZ
Wellbore: Plan A
Design: Permit Rev-2

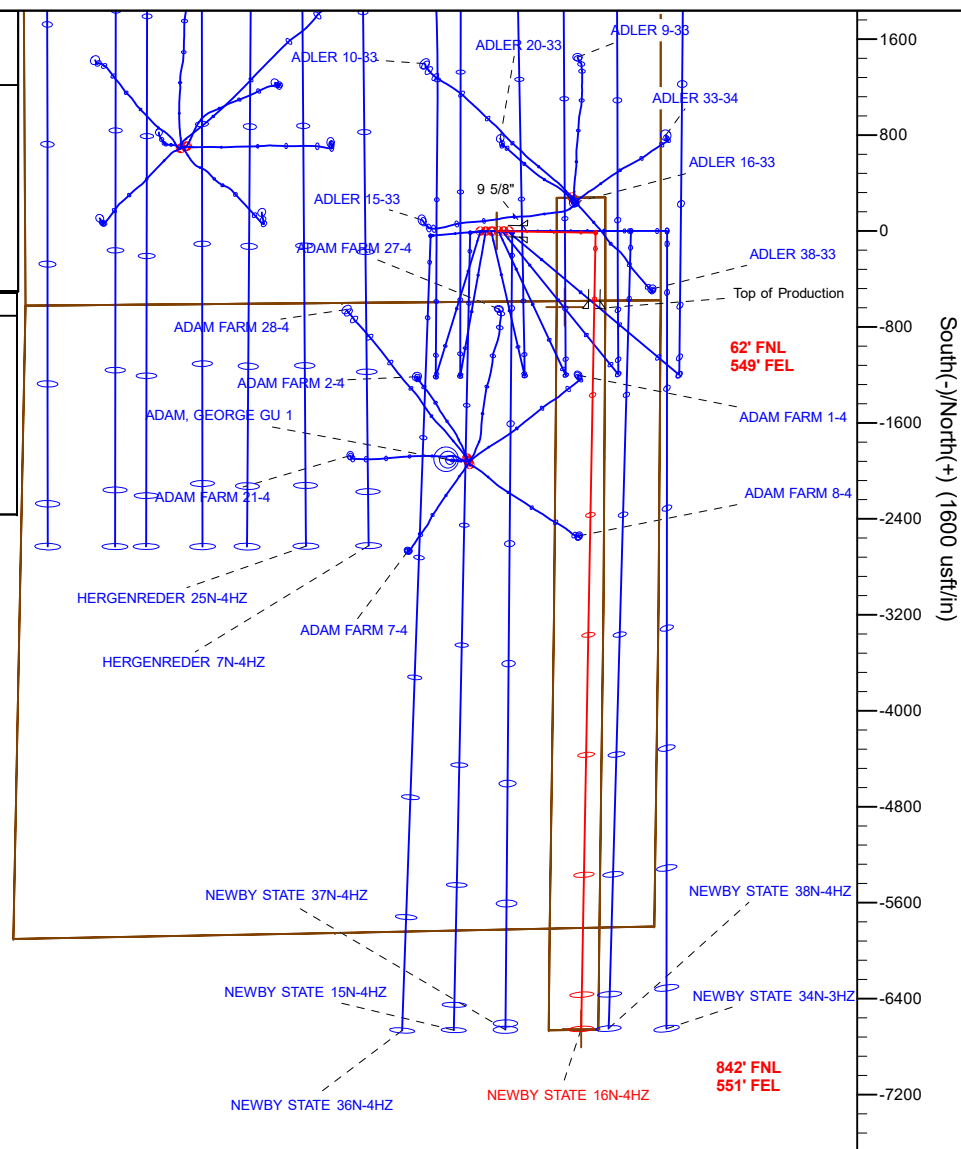
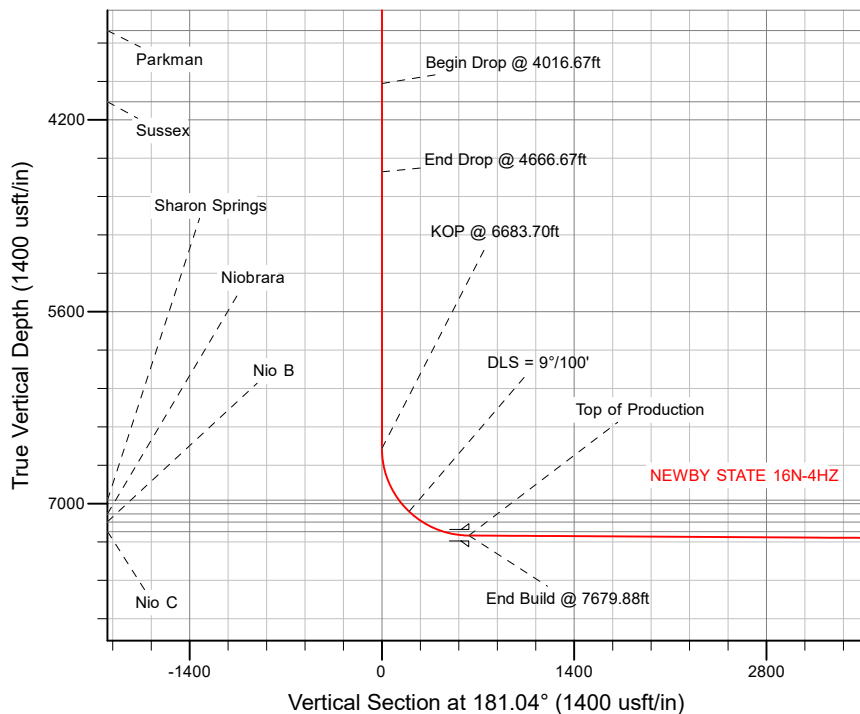
US ROCKIES WATTENBERG PLANNING

SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSec | 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 | 1116.67 | 13.00 | 91.00 | 1109.25 | -1.71 | 97.88 | 1.50 | 91.00 | -0.07 | |
| 4 | 4016.67 | 13.00 | 91.00 | 3934.92 | -13.09 | 750.14 | 0.00 | 0.00 | -0.52 | |
| 5 | 4666.67 | 0.00 | 0.00 | 4579.36 | -14.38 | 823.56 | 2.00 | 180.00 | -0.58 | |
| 6 | 6683.70 | 0.00 | 0.00 | 6596.39 | -14.38 | 823.56 | 0.00 | 0.00 | -0.58 | |
| 7 | 7679.88 | 89.66 | 181.04 | 7233.00 | -647.07 | 812.08 | 9.00 | 181.04 | 632.23 | |
| 8 | 13685.53 | 89.66 | 181.04 | 7269.00 | -6651.63 | 703.20 | 0.00 | 0.00 | 6637.77 | NEWBY STATE 16N-4HZ_BHL |

WELLBORE TARGET DETAILS (LAT/LONG)

| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | Shape |
|-------------------------|---------|----------|--------|-----------|-------------|-------|
| NEWBY STATE 16N-4HZ_SHL | 0.00 | 0.00 | 0.00 | 40.176578 | -105.003235 | Point |
| NEWBY STATE 16N-4HZ_BHL | 7269.00 | -6651.63 | 703.20 | 40.158312 | -105.000718 | Point |



WELL DETAILS: NEWBY STATE 16N-4HZ

Ground Level: 4894'

RKB = 20' @ 4914.00usft (D Rig)

Plan: Permit Rev-2 (NEWBY STATE 16N-4HZ/Plan A)

Created By: Clint Eshelman

Date: 4/19/2017

Reviewed: _____

Date: _____

Corporate Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|---------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well NEWBY STATE 16N-4HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 20' @ 4914.00usft (D Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 20' @ 4914.00usft (D Rig) |
| Site: | 3N-68W-33 Newby 15-33HZ Pad | North Reference: | True |
| Well: | NEWBY STATE 16N-4HZ | 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 | | 3N-68W-33 Newby 15-33HZ Pad | | | |
| Site Position: | | Northing: | 14,591,032.57 usft | Latitude: | 40.176575 |
| From: | Lat/Long | Easting: | 1,639,378.12 usft | Longitude: | -105.003718 |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.00 ° |

| Well | NEWBY STATE 16N-4HZ | | | | | |
|----------------------|---------------------|-------------|---------------------|--------------------|---------------|---------------|
| Well Position | +N/-S | 1.09 usft | Northing: | 14,591,033.66 usft | Latitude: | 40.176578 |
| | +E/-W | 134.92 usft | Easting: | 1,639,513.04 usft | Longitude: | -105.003235 |
| Position Uncertainty | | 3.28 usft | Wellhead Elevation: | 0.00 usft | Ground Level: | 4,894.00 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Plan A | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 1/14/2016 | 8.36 | 66.67 | 52,506.08802621 |

| | | | | | |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|------|
| Design | Permit Rev-2 | | | | |
| 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 | 181.04 | |

| | | | | | |
|---------------------------------|------------------------|--------------------------|-----------------------|--|--|
| Plan Survey Tool Program | Date | 4/19/2017 | | | |
| Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks | |
| 1 | 0.00 | 1,800.00 | Permit Rev-2 (Plan A) | APC_ISCWSA REV 2 MWD Fixed:v2:standard declination | |
| 2 | 1,800.00 | 13,685.53 | Permit Rev-2 (Plan A) | APC_ISCWSA REV 2 MWD+I Fixed:v2:crustal field declination | |

Corporate Planning Report

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|------------------|--------------------------------|-------------------------------------|---------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well NEWBY STATE 16N-4HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 20' @ 4914.00usft (D Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 20' @ 4914.00usft (D Rig) |
| Site: | 3N-68W-33 Newby 15-33HZ Pad | North Reference: | True |
| Well: | NEWBY STATE 16N-4HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Plan A | | |
| Design: | Permit Rev-2 | | |

| 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 | |
| 1,116.67 | 13.00 | 91.00 | 1,109.25 | -1.71 | 97.88 | 1.50 | 1.50 | 0.00 | 91.00 | |
| 4,016.67 | 13.00 | 91.00 | 3,934.92 | -13.09 | 750.14 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4,666.67 | 0.00 | 0.00 | 4,579.36 | -14.38 | 823.56 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 6,683.70 | 0.00 | 0.00 | 6,596.39 | -14.38 | 823.56 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,679.88 | 89.66 | 181.04 | 7,233.00 | -647.07 | 812.08 | 9.00 | 9.00 | -17.96 | 181.04 | |
| 13,685.53 | 89.66 | 181.04 | 7,269.00 | -6,651.63 | 703.20 | 0.00 | 0.00 | 0.00 | 0.00 | NEWBY STATE 16N-4 |

Corporate
Planning Report

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|------------------|--------------------------------|-------------------------------------|---------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well NEWBY STATE 16N-4HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 20' @ 4914.00usft (D Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 20' @ 4914.00usft (D Rig) |
| Site: | 3N-68W-33 Newby 15-33HZ Pad | North Reference: | True |
| Well: | NEWBY STATE 16N-4HZ | 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 |
| Begin Nudge @ 250.00ft | | | | | | | | | |
| 300.00 | 0.75 | 91.00 | 300.00 | -0.01 | 0.33 | 0.00 | 1.50 | 1.50 | 0.00 |
| 400.00 | 2.25 | 91.00 | 399.96 | -0.05 | 2.94 | 0.00 | 1.50 | 1.50 | 0.00 |
| 500.00 | 3.75 | 91.00 | 499.82 | -0.14 | 8.18 | -0.01 | 1.50 | 1.50 | 0.00 |
| 600.00 | 5.25 | 91.00 | 599.51 | -0.28 | 16.02 | -0.01 | 1.50 | 1.50 | 0.00 |
| 700.00 | 6.75 | 91.00 | 698.96 | -0.46 | 26.47 | -0.02 | 1.50 | 1.50 | 0.00 |
| 800.00 | 8.25 | 91.00 | 798.10 | -0.69 | 39.52 | -0.03 | 1.50 | 1.50 | 0.00 |
| 821.13 | 8.57 | 91.00 | 819.00 | -0.74 | 42.61 | -0.03 | 1.50 | 1.50 | 0.00 |
| Fox Hills | | | | | | | | | |
| 900.00 | 9.75 | 91.00 | 896.87 | -0.96 | 55.16 | -0.04 | 1.50 | 1.50 | 0.00 |
| 1,000.00 | 11.25 | 91.00 | 995.19 | -1.28 | 73.38 | -0.05 | 1.50 | 1.50 | 0.00 |
| 1,100.00 | 12.75 | 91.00 | 1,093.00 | -1.64 | 94.17 | -0.07 | 1.50 | 1.50 | 0.00 |
| 1,116.67 | 13.00 | 91.00 | 1,109.25 | -1.71 | 97.88 | -0.07 | 1.50 | 1.50 | 0.00 |
| End Nudge @ 1116.67ft | | | | | | | | | |
| 1,200.00 | 13.00 | 91.00 | 1,190.45 | -2.04 | 116.63 | -0.08 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 13.00 | 91.00 | 1,287.88 | -2.43 | 139.12 | -0.10 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 13.00 | 91.00 | 1,385.32 | -2.82 | 161.61 | -0.11 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 13.00 | 91.00 | 1,482.76 | -3.21 | 184.10 | -0.13 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 13.00 | 91.00 | 1,580.20 | -3.61 | 206.59 | -0.14 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 13.00 | 91.00 | 1,677.63 | -4.00 | 229.09 | -0.16 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 13.00 | 91.00 | 1,775.07 | -4.39 | 251.58 | -0.18 | 0.00 | 0.00 | 0.00 |
| 1,825.59 | 13.00 | 91.00 | 1,800.00 | -4.49 | 257.33 | -0.18 | 0.00 | 0.00 | 0.00 |
| 9 5/8" | | | | | | | | | |
| 1,900.00 | 13.00 | 91.00 | 1,872.51 | -4.78 | 274.07 | -0.19 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 13.00 | 91.00 | 1,969.94 | -5.18 | 296.56 | -0.21 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 13.00 | 91.00 | 2,067.38 | -5.57 | 319.05 | -0.22 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 13.00 | 91.00 | 2,164.82 | -5.96 | 341.54 | -0.24 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 13.00 | 91.00 | 2,262.25 | -6.35 | 364.04 | -0.25 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 13.00 | 91.00 | 2,359.69 | -6.75 | 386.53 | -0.27 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 13.00 | 91.00 | 2,457.13 | -7.14 | 409.02 | -0.29 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 13.00 | 91.00 | 2,554.57 | -7.53 | 431.51 | -0.30 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 13.00 | 91.00 | 2,652.00 | -7.92 | 454.00 | -0.32 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 13.00 | 91.00 | 2,749.44 | -8.32 | 476.49 | -0.33 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 13.00 | 91.00 | 2,846.88 | -8.71 | 498.99 | -0.35 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 13.00 | 91.00 | 2,944.31 | -9.10 | 521.48 | -0.36 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 13.00 | 91.00 | 3,041.75 | -9.50 | 543.97 | -0.38 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 13.00 | 91.00 | 3,139.19 | -9.89 | 566.46 | -0.40 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 13.00 | 91.00 | 3,236.62 | -10.28 | 588.95 | -0.41 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 13.00 | 91.00 | 3,334.06 | -10.67 | 611.44 | -0.43 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 13.00 | 91.00 | 3,431.50 | -11.07 | 633.94 | -0.44 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 13.00 | 91.00 | 3,528.94 | -11.46 | 656.43 | -0.46 | 0.00 | 0.00 | 0.00 |
| 3,620.59 | 13.00 | 91.00 | 3,549.00 | -11.54 | 661.06 | -0.46 | 0.00 | 0.00 | 0.00 |
| Parkman | | | | | | | | | |
| 3,700.00 | 13.00 | 91.00 | 3,626.37 | -11.85 | 678.92 | -0.47 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 13.00 | 91.00 | 3,723.81 | -12.24 | 701.41 | -0.49 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 13.00 | 91.00 | 3,821.25 | -12.64 | 723.90 | -0.51 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 13.00 | 91.00 | 3,918.68 | -13.03 | 746.39 | -0.52 | 0.00 | 0.00 | 0.00 |
| 4,016.67 | 13.00 | 91.00 | 3,934.93 | -13.09 | 750.14 | -0.52 | 0.00 | 0.00 | 0.00 |
| Begin Drop @ 4016.67ft | | | | | | | | | |

Corporate
Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|---------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well NEWBY STATE 16N-4HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 20' @ 4914.00usft (D Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 20' @ 4914.00usft (D Rig) |
| Site: | 3N-68W-33 Newby 15-33HZ Pad | North Reference: | True |
| Well: | NEWBY STATE 16N-4HZ | 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) |
| 4,100.00 | 11.33 | 91.00 | 4,016.38 | -13.40 | 767.70 | -0.54 | 2.00 | -2.00 | 0.00 |
| 4,152.55 | 10.28 | 91.00 | 4,068.00 | -13.57 | 777.56 | -0.54 | 2.00 | -2.00 | 0.00 |
| Sussex | | | | | | | | | |
| 4,200.00 | 9.33 | 91.00 | 4,114.75 | -13.71 | 785.64 | -0.55 | 2.00 | -2.00 | 0.00 |
| 4,300.00 | 7.33 | 91.00 | 4,213.69 | -13.97 | 800.13 | -0.56 | 2.00 | -2.00 | 0.00 |
| 4,400.00 | 5.33 | 91.00 | 4,313.08 | -14.16 | 811.16 | -0.57 | 2.00 | -2.00 | 0.00 |
| 4,500.00 | 3.33 | 91.00 | 4,412.79 | -14.29 | 818.71 | -0.57 | 2.00 | -2.00 | 0.00 |
| 4,600.00 | 1.33 | 91.00 | 4,512.70 | -14.36 | 822.78 | -0.57 | 2.00 | -2.00 | 0.00 |
| 4,666.67 | 0.00 | 0.00 | 4,579.36 | -14.38 | 823.56 | -0.58 | 2.00 | -2.00 | 0.00 |
| End Drop @ 4666.67ft | | | | | | | | | |
| 4,700.00 | 0.00 | 0.00 | 4,612.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 0.00 | 0.00 | 4,712.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 0.00 | 0.00 | 4,812.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 0.00 | 0.00 | 4,912.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 0.00 | 0.00 | 5,012.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 0.00 | 0.00 | 5,112.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 0.00 | 0.00 | 5,212.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 0.00 | 0.00 | 5,312.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 0.00 | 0.00 | 5,412.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 0.00 | 0.00 | 5,512.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 0.00 | 0.00 | 5,612.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 0.00 | 0.00 | 5,712.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 0.00 | 0.00 | 5,812.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 0.00 | 0.00 | 5,912.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 0.00 | 0.00 | 6,012.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 0.00 | 0.00 | 6,112.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 0.00 | 0.00 | 6,212.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 0.00 | 0.00 | 6,312.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 0.00 | 0.00 | 6,412.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 0.00 | 0.00 | 6,512.69 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| 6,683.70 | 0.00 | 0.00 | 6,596.39 | -14.38 | 823.56 | -0.58 | 0.00 | 0.00 | 0.00 |
| KOP @ 6683.70ft | | | | | | | | | |
| 6,700.00 | 1.47 | 181.04 | 6,612.69 | -14.58 | 823.55 | -0.37 | 9.00 | 9.00 | 0.00 |
| 6,800.00 | 10.47 | 181.04 | 6,712.05 | -24.97 | 823.36 | 10.02 | 9.00 | 9.00 | 0.00 |
| 6,900.00 | 19.47 | 181.04 | 6,808.56 | -50.76 | 822.90 | 35.82 | 9.00 | 9.00 | 0.00 |
| 7,000.00 | 28.47 | 181.04 | 6,899.84 | -91.34 | 822.16 | 76.40 | 9.00 | 9.00 | 0.00 |
| 7,089.17 | 36.49 | 181.04 | 6,975.00 | -139.17 | 821.29 | 124.24 | 9.00 | 9.00 | 0.00 |
| Sharon Springs | | | | | | | | | |
| 7,100.00 | 37.47 | 181.04 | 6,983.65 | -145.69 | 821.17 | 130.76 | 9.00 | 9.00 | 0.00 |
| 7,200.00 | 46.47 | 181.04 | 7,057.93 | -212.48 | 819.96 | 197.56 | 9.00 | 9.00 | 0.00 |
| DLS = 9°/100' | | | | | | | | | |
| 7,225.32 | 48.75 | 181.04 | 7,075.00 | -231.18 | 819.62 | 216.26 | 9.00 | 9.00 | 0.00 |
| Niobrara | | | | | | | | | |
| 7,300.00 | 55.47 | 181.04 | 7,120.84 | -290.06 | 818.56 | 275.16 | 9.00 | 9.00 | 0.00 |
| 7,325.74 | 57.78 | 181.04 | 7,135.00 | -311.56 | 818.17 | 296.66 | 9.00 | 9.00 | 0.00 |
| Nio B | | | | | | | | | |
| 7,400.00 | 64.47 | 181.04 | 7,170.84 | -376.54 | 816.99 | 361.64 | 9.00 | 9.00 | 0.00 |
| 7,490.77 | 72.64 | 181.04 | 7,204.00 | -460.93 | 815.46 | 446.06 | 9.00 | 9.00 | 0.00 |
| Nio C | | | | | | | | | |
| 7,500.00 | 73.47 | 181.04 | 7,206.69 | -469.76 | 815.30 | 454.89 | 9.00 | 9.00 | 0.00 |
| 7,600.00 | 82.47 | 181.04 | 7,227.52 | -567.45 | 813.53 | 552.59 | 9.00 | 9.00 | 0.00 |
| 7,679.88 | 89.66 | 181.04 | 7,233.00 | -647.07 | 812.08 | 632.23 | 9.00 | 9.00 | 0.00 |
| End Build @ 7679.88ft - Top of Production | | | | | | | | | |

Corporate Planning Report

| | | | |
|------------------|--------------------------------|-------------------------------------|---------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well NEWBY STATE 16N-4HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 20' @ 4914.00usft (D Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 20' @ 4914.00usft (D Rig) |
| Site: | 3N-68W-33 Newby 15-33HZ Pad | North Reference: | True |
| Well: | NEWBY STATE 16N-4HZ | 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) |
| 7,700.00 | 89.66 | 181.04 | 7,233.12 | -667.19 | 811.72 | 652.35 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 89.66 | 181.04 | 7,233.72 | -767.17 | 809.91 | 752.35 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 89.66 | 181.04 | 7,234.32 | -867.15 | 808.09 | 852.34 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 89.66 | 181.04 | 7,234.92 | -967.14 | 806.28 | 952.34 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 89.66 | 181.04 | 7,235.52 | -1,067.12 | 804.47 | 1,052.34 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 89.66 | 181.04 | 7,236.12 | -1,167.10 | 802.65 | 1,152.34 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 89.66 | 181.04 | 7,236.72 | -1,267.08 | 800.84 | 1,252.34 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 89.66 | 181.04 | 7,237.32 | -1,367.06 | 799.03 | 1,352.34 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 89.66 | 181.04 | 7,237.92 | -1,467.04 | 797.21 | 1,452.33 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 89.66 | 181.04 | 7,238.51 | -1,567.03 | 795.40 | 1,552.33 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 89.66 | 181.04 | 7,239.11 | -1,667.01 | 793.59 | 1,652.33 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 89.66 | 181.04 | 7,239.71 | -1,766.99 | 791.77 | 1,752.33 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 89.66 | 181.04 | 7,240.31 | -1,866.97 | 789.96 | 1,852.33 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 89.66 | 181.04 | 7,240.91 | -1,966.95 | 788.15 | 1,952.32 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 89.66 | 181.04 | 7,241.51 | -2,066.94 | 786.34 | 2,052.32 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 89.66 | 181.04 | 7,242.11 | -2,166.92 | 784.52 | 2,152.32 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 89.66 | 181.04 | 7,242.71 | -2,266.90 | 782.71 | 2,252.32 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 89.66 | 181.04 | 7,243.31 | -2,366.88 | 780.90 | 2,352.32 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 89.66 | 181.04 | 7,243.91 | -2,466.86 | 779.08 | 2,452.32 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 89.66 | 181.04 | 7,244.51 | -2,566.84 | 777.27 | 2,552.31 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 89.66 | 181.04 | 7,245.11 | -2,666.83 | 775.46 | 2,652.31 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 89.66 | 181.04 | 7,245.71 | -2,766.81 | 773.64 | 2,752.31 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 89.66 | 181.04 | 7,246.31 | -2,866.79 | 771.83 | 2,852.31 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 89.66 | 181.04 | 7,246.91 | -2,966.77 | 770.02 | 2,952.31 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 89.66 | 181.04 | 7,247.51 | -3,066.75 | 768.21 | 3,052.30 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 89.66 | 181.04 | 7,248.11 | -3,166.73 | 766.39 | 3,152.30 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 89.66 | 181.04 | 7,248.71 | -3,266.72 | 764.58 | 3,252.30 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 89.66 | 181.04 | 7,249.30 | -3,366.70 | 762.77 | 3,352.30 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 89.66 | 181.04 | 7,249.90 | -3,466.68 | 760.95 | 3,452.30 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 89.66 | 181.04 | 7,250.50 | -3,566.66 | 759.14 | 3,552.30 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 89.66 | 181.04 | 7,251.10 | -3,666.64 | 757.33 | 3,652.29 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 89.66 | 181.04 | 7,251.70 | -3,766.63 | 755.51 | 3,752.29 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 89.66 | 181.04 | 7,252.30 | -3,866.61 | 753.70 | 3,852.29 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 89.66 | 181.04 | 7,252.90 | -3,966.59 | 751.89 | 3,952.29 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 89.66 | 181.04 | 7,253.50 | -4,066.57 | 750.07 | 4,052.29 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 89.66 | 181.04 | 7,254.10 | -4,166.55 | 748.26 | 4,152.28 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 89.66 | 181.04 | 7,254.70 | -4,266.53 | 746.45 | 4,252.28 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 89.66 | 181.04 | 7,255.30 | -4,366.52 | 744.64 | 4,352.28 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 89.66 | 181.04 | 7,255.90 | -4,466.50 | 742.82 | 4,452.28 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 89.66 | 181.04 | 7,256.50 | -4,566.48 | 741.01 | 4,552.28 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 89.66 | 181.04 | 7,257.10 | -4,666.46 | 739.20 | 4,652.28 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 89.66 | 181.04 | 7,257.70 | -4,766.44 | 737.38 | 4,752.27 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 89.66 | 181.04 | 7,258.30 | -4,866.42 | 735.57 | 4,852.27 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 89.66 | 181.04 | 7,258.90 | -4,966.41 | 733.76 | 4,952.27 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 89.66 | 181.04 | 7,259.50 | -5,066.39 | 731.94 | 5,052.27 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 89.66 | 181.04 | 7,260.09 | -5,166.37 | 730.13 | 5,152.27 | 0.00 | 0.00 | 0.00 |
| 12,300.00 | 89.66 | 181.04 | 7,260.69 | -5,266.35 | 728.32 | 5,252.27 | 0.00 | 0.00 | 0.00 |
| 12,400.00 | 89.66 | 181.04 | 7,261.29 | -5,366.33 | 726.50 | 5,352.26 | 0.00 | 0.00 | 0.00 |
| 12,500.00 | 89.66 | 181.04 | 7,261.89 | -5,466.32 | 724.69 | 5,452.26 | 0.00 | 0.00 | 0.00 |
| 12,600.00 | 89.66 | 181.04 | 7,262.49 | -5,566.30 | 722.88 | 5,552.26 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 89.66 | 181.04 | 7,263.09 | -5,666.28 | 721.07 | 5,652.26 | 0.00 | 0.00 | 0.00 |
| 12,800.00 | 89.66 | 181.04 | 7,263.69 | -5,766.26 | 719.25 | 5,752.26 | 0.00 | 0.00 | 0.00 |
| 12,900.00 | 89.66 | 181.04 | 7,264.29 | -5,866.24 | 717.44 | 5,852.25 | 0.00 | 0.00 | 0.00 |
| 13,000.00 | 89.66 | 181.04 | 7,264.89 | -5,966.22 | 715.63 | 5,952.25 | 0.00 | 0.00 | 0.00 |

Corporate Planning Report

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|------------------|--------------------------------|-------------------------------------|---------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well NEWBY STATE 16N-4HZ |
| Company: | US ROCKIES WATTENBERG PLANNING | TVD Reference: | RKB = 20' @ 4914.00usft (D Rig) |
| Project: | WELD-NAD83-UTMFT13N | MD Reference: | RKB = 20' @ 4914.00usft (D Rig) |
| Site: | 3N-68W-33 Newby 15-33HZ Pad | North Reference: | True |
| Well: | NEWBY STATE 16N-4HZ | 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) | |
| 13,100.00 | 89.66 | 181.04 | 7,265.49 | -6,066.21 | 713.81 | 6,052.25 | 0.00 | 0.00 | 0.00 | |
| 13,200.00 | 89.66 | 181.04 | 7,266.09 | -6,166.19 | 712.00 | 6,152.25 | 0.00 | 0.00 | 0.00 | |
| 13,300.00 | 89.66 | 181.04 | 7,266.69 | -6,266.17 | 710.19 | 6,252.25 | 0.00 | 0.00 | 0.00 | |
| 13,400.00 | 89.66 | 181.04 | 7,267.29 | -6,366.15 | 708.37 | 6,352.25 | 0.00 | 0.00 | 0.00 | |
| 13,500.00 | 89.66 | 181.04 | 7,267.89 | -6,466.13 | 706.56 | 6,452.24 | 0.00 | 0.00 | 0.00 | |
| 13,600.00 | 89.66 | 181.04 | 7,268.49 | -6,566.12 | 704.75 | 6,552.24 | 0.00 | 0.00 | 0.00 | |
| 13,685.53 | 89.66 | 181.04 | 7,269.00 | -6,651.63 | 703.20 | 6,637.77 | 0.00 | 0.00 | 0.00 | |
| TD Well @ 13685.53ft | | | | | | | | | | |

| Casing Points | | | | | |
|-----------------------|-----------------------|-------------------|---------------------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Casing Diameter (") | Hole Diameter (") | |
| 1,825.59 | 1,800.00 | 9 5/8" | 9-5/8 | 13-1/2 | |
| 7,679.88 | 7,233.00 | Top of Production | 5-1/2 | 7-7/8 | |

| Formations | | | | | | |
|-----------------------|-----------------------|----------------|-----------|---------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) | |
| 821.13 | 819.00 | Fox Hills | | | | |
| 3,620.59 | 3,549.00 | Parkman | | | | |
| 4,152.55 | 4,068.00 | Sussex | | | | |
| 7,089.17 | 6,975.00 | Sharon Springs | | | | |
| 7,225.32 | 7,075.00 | Niobrara | | | | |
| 7,325.74 | 7,135.00 | Nio B | | | | |
| 7,490.77 | 7,204.00 | 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 | |
| 1,116.67 | 1,109.25 | -1.71 | 97.88 | End Nudge @ 1116.67ft | |
| 4,016.67 | 3,934.93 | -13.09 | 750.14 | Begin Drop @ 4016.67ft | |
| 4,666.67 | 4,579.36 | -14.38 | 823.56 | End Drop @ 4666.67ft | |
| 6,683.70 | 6,596.39 | -14.38 | 823.56 | KOP @ 6683.70ft | |
| 7,200.00 | 7,057.93 | -212.48 | 819.96 | DLS = 9°/100' | |
| 7,679.88 | 7,233.00 | -647.07 | 812.08 | End Build @ 7679.88ft | |
| 13,685.53 | 7,269.00 | -6,651.63 | 703.20 | TD Well @ 13685.53ft | |