

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83  
RESOLUTION FED 12-65-35-2CH PAD  
RESOLUTION FED 12-65-35-2-2NH**

**Wellbore #1**

**Plan: Plan #2**

## **Standard Planning Report**

**31 March, 2018**

Project: COLORADO NORTHERN ZONE - 83  
Site: RESOLUTION FED 12-65-35-2CH PAD  
Well: RESOLUTION FED 12-65-35-2-2NH  
Wellbore: Wellbore #1  
Design: Plan #2

# US ROCKIES REGION PLANNING

## CASING DETAILS

| TVD     | MD      | Size  |
|---------|---------|-------|
| 2300.00 | 2357.37 | 9-5/8 |
| 8591.00 | 8982.57 | 5-1/2 |

WELL DETAILS: RESOLUTION FED 12-65-35-2-2NH

Ground Level: 5931.00

WELL @ 5957.00usft (Original Well Elev)

## 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    |                                    |
| 250.00   | 0.00  | 0.00   | 250.00  | 0.00     | 0.00   | 0.00  | 0.00   | 0.00    |                                    |
| 1022.48  | 15.45 | 36.20  | 1013.15 | 83.54    | 61.13  | 2.00  | 36.20  | -83.58  |                                    |
| 2292.05  | 15.45 | 36.20  | 2236.85 | 356.46   | 260.87 | 0.00  | 0.00   | -356.64 |                                    |
| 3064.53  | 0.00  | 0.00   | 3000.00 | 440.00   | 322.00 | 2.00  | 180.00 | -440.22 |                                    |
| 8082.57  | 0.00  | 0.00   | 8018.04 | 440.00   | 322.00 | 0.00  | 0.00   | -440.22 |                                    |
| 8982.57  | 90.00 | 180.04 | 8591.00 | -132.96  | 321.57 | 10.00 | 180.04 | 132.73  |                                    |
| 17367.58 | 90.00 | 180.04 | 8591.00 | -8517.96 | 315.23 | 0.00  | 0.00   | 8517.74 | RESOLUTION FED 12-65-35-2-2NH PBHL |

## WELLBORE TARGET DETAILS (LAT/LONG)

| Name                               | TVD     | +N/-S    | +E/-W  | Latitude  | Longitude   |
|------------------------------------|---------|----------|--------|-----------|-------------|
| RESOLUTION FED 12-65-35-2-2NH_SHL  | 0.00    | 0.00     | 0.00   | 40.967201 | -104.635056 |
| RESOLUTION FED 12-65-35-2-2NH PBHL | 8591.00 | -8517.96 | 315.23 | 40.943823 | -104.633915 |

## FORMATION TOP DETAILS

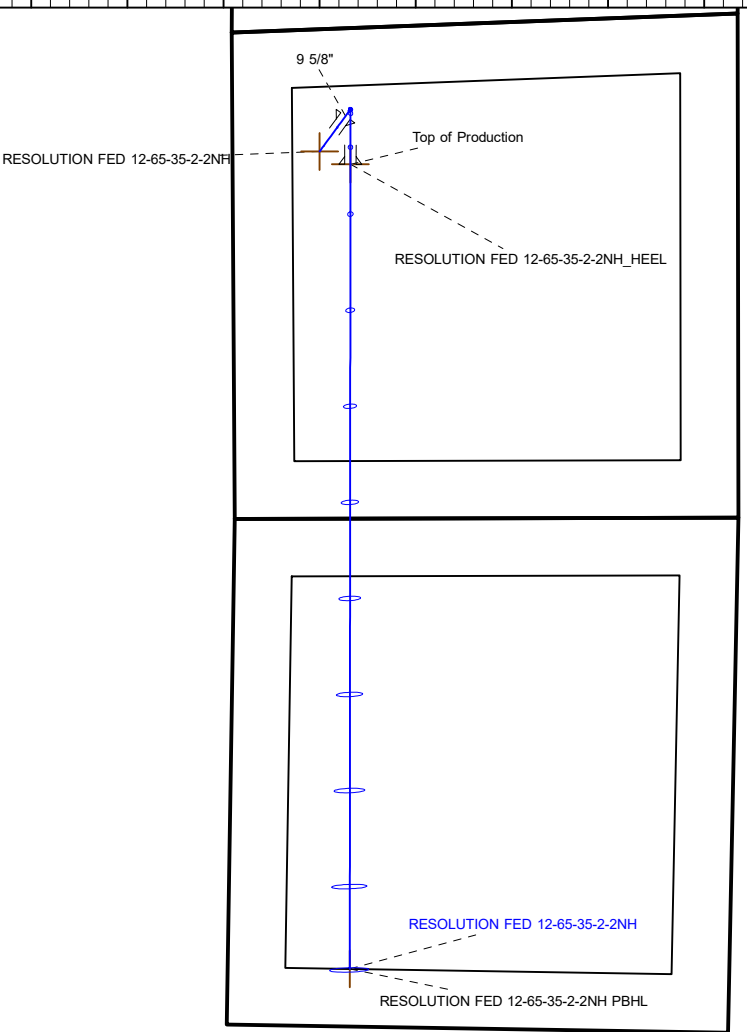
| TVDPath | MDPath  | Formation           |
|---------|---------|---------------------|
| 2077.00 | 2126.21 | Aquifer (Fox Hills) |
| 8402.00 | 8503.34 | Niobrara            |

SHL  
1274' FNL  
860' FWL  
NWNW  
Section 35

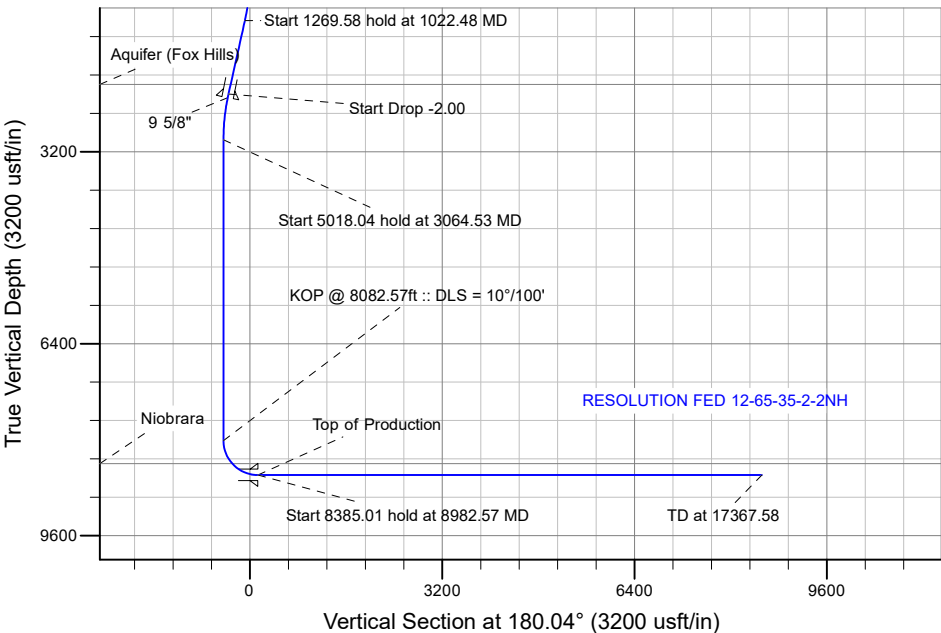
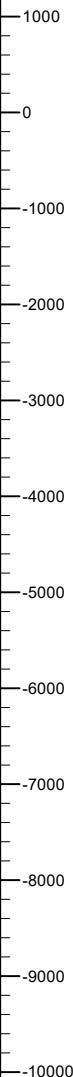
HEEL  
1417' FNL  
1175' FWL  
SWNW  
Section 35

TOE  
600' FSL  
1270' FWL  
SWSW  
Section 2

West(-)/East(+) (2000 usft/in)



South(-)/North(+) (2000 usft/in)



Plan: Plan #2 (RESOLUTION FED 12-65-35-2-2NH/Wellbore #1)

Created By: \_\_\_\_\_ Date: 3/31/2018  
Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_

# Corporate Planning Report

|                  |                                 |                                     |   |
|------------------|---------------------------------|-------------------------------------|---|
| <b>Database:</b> | PLANNING                        | <b>Local Co-ordinate Reference:</b> | Well RESOLUTION FED 12-65-35-2-2NH      |
| <b>Company:</b>  | US ROCKIES REGION PLANNING      | <b>TVD Reference:</b>               | WELL @ 5957.00usft (Original Well Elev) |
| <b>Project:</b>  | COLORADO NORTHERN ZONE - 83     | <b>MD Reference:</b>                | WELL @ 5957.00usft (Original Well Elev) |
| <b>Site:</b>     | RESOLUTION FED 12-65-35-2CH PAD | <b>North Reference:</b>             | True                                    |
| <b>Well:</b>     | RESOLUTION FED 12-65-35-2-2NH   | <b>Survey Calculation Method:</b>   | Minimum Curvature                       |
| <b>Wellbore:</b> | Wellbore #1                     |                                     |   |
| <b>Design:</b>   | Plan #2                         |                                     |   |

|                    |                             |                      |                |
|--------------------|-----------------------------|----------------------|----------------|
| <b>Project</b>     | COLORADO NORTHERN ZONE - 83 |                      |                |
| <b>Map System:</b> | US State Plane 1983         | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983   |                      |                |
| <b>Map Zone:</b>   | Colorado Northern Zone      |                      |                |

|                              |                                 |                     |                   |                                 |
|------------------------------|---------------------------------|---------------------|-------------------|---------------------------------|
| <b>Site</b>                  | RESOLUTION FED 12-65-35-2CH PAD |                     |                   |                                 |
| <b>Site Position:</b>        |                                 | <b>Northing:</b>    | 1,596,381.68 usft | <b>Latitude:</b> 40.967233      |
| <b>From:</b>                 | Lat/Long                        | <b>Easting:</b>     | 3,238,757.01 usft | <b>Longitude:</b> -104.635488   |
| <b>Position Uncertainty:</b> | 0.00 usft                       | <b>Slot Radius:</b> | 13-3/16 "         | <b>Grid Convergence:</b> 0.56 ° |

|                             |                               |                            |                  |                                    |
|-----------------------------|-------------------------------|----------------------------|------------------|------------------------------------|
| <b>Well</b>                 | RESOLUTION FED 12-65-35-2-2NH |                            |                  |                                    |
| <b>Well Position</b>        | <b>+N/-S</b>                  | -11.67 usft                | <b>Northing:</b> | 1,596,371.17 usft                  |
|                             | <b>+E/-W</b>                  | 119.31 usft                | <b>Easting:</b>  | 3,238,876.43 usft                  |
| <b>Position Uncertainty</b> | 0.00 usft                     | <b>Wellhead Elevation:</b> | 0.00 usft        | <b>Ground Level:</b> 5,931.00 usft |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF200510        | 12/31/2009         | 9.00                   | 67.59                | 53,603.42908869            |

|                          |                                |                     |                      |                      |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| <b>Design</b>            | Plan #2                        |                     |                      |                      |
| <b>Audit Notes:</b>      |                                |                     |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                  | PLAN                | <b>Tie On Depth:</b> | 0.00                 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b>  | <b>Direction (°)</b> |
|                          | 0.00                           | 0.00                | 0.00                 | 180.04               |

|                                 |                        |                          |                       |                |
|---------------------------------|------------------------|--------------------------|-----------------------|----------------|
| <b>Plan Survey Tool Program</b> | <b>Date</b>            | 3/31/2018                |                       |                |
| <b>Depth From (usft)</b>        | <b>Depth To (usft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b>      | <b>Remarks</b> |
| 1                               | 0.00                   | 17,367.57                | Plan #2 (Wellbore #1) | MWD            |
|                                 |                        |                          |                       | MWD - STANDARD |

|                              |                        |                    |                              |                     |                     |                                |                               |                              |                |                  |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|-------------------------------|------------------------------|----------------|------------------|
| <b>Plan Sections</b>         |                        |                    |                              |                     |                     |                                |                               |                              |                |                  |
| <b>Measured Depth (usft)</b> | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>Vertical Depth (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Dogleg Rate (°/100usft)</b> | <b>Build Rate (°/100usft)</b> | <b>Turn Rate (°/100usft)</b> | <b>TFO (°)</b> | <b>Target</b>    |
| 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           |                  |
| 1,022.48                     | 15.45                  | 36.20              | 1,013.15                     | 83.54               | 61.13               | 2.00                           | 2.00                          | 0.00                         | 36.20          |                  |
| 2,292.05                     | 15.45                  | 36.20              | 2,236.85                     | 356.46              | 260.87              | 0.00                           | 0.00                          | 0.00                         | 0.00           |                  |
| 3,064.53                     | 0.00                   | 0.00               | 3,000.00                     | 440.00              | 322.00              | 2.00                           | -2.00                         | 0.00                         | 180.00         |                  |
| 8,082.57                     | 0.00                   | 0.00               | 8,018.04                     | 440.00              | 322.00              | 0.00                           | 0.00                          | 0.00                         | 0.00           |                  |
| 8,982.57                     | 90.00                  | 180.04             | 8,591.00                     | -132.96             | 321.57              | 10.00                          | 10.00                         | 0.00                         | 180.04         |                  |
| 17,367.58                    | 90.00                  | 180.04             | 8,591.00                     | -8,517.96           | 315.23              | 0.00                           | 0.00                          | 0.00                         | 0.00           | RESOLUTION FED 1 |

# Corporate Planning Report

|                  |                                 |                                     |   |
|------------------|---------------------------------|-------------------------------------|---|
| <b>Database:</b> | PLANNING                        | <b>Local Co-ordinate Reference:</b> | Well RESOLUTION FED 12-65-35-2-2NH      |
| <b>Company:</b>  | US ROCKIES REGION PLANNING      | <b>TVD Reference:</b>               | WELL @ 5957.00usft (Original Well Elev) |
| <b>Project:</b>  | COLORADO NORTHERN ZONE - 83     | <b>MD Reference:</b>                | WELL @ 5957.00usft (Original Well Elev) |
| <b>Site:</b>     | RESOLUTION FED 12-65-35-2CH PAD | <b>North Reference:</b>             | True                                    |
| <b>Well:</b>     | RESOLUTION FED 12-65-35-2-2NH   | <b>Survey Calculation Method:</b>   | Minimum Curvature                       |
| <b>Wellbore:</b> | Wellbore #1                     |                                     |   |
| <b>Design:</b>   | Plan #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                  |
| Start Build 2.00                 |                 |             |                       |              |              |                         |                         |                        |                       |
| 300.00                           | 1.00            | 36.20       | 300.00                | 0.35         | 0.26         | -0.35                   | 2.00                    | 2.00                   | 0.00                  |
| 400.00                           | 3.00            | 36.20       | 399.93                | 3.17         | 2.32         | -3.17                   | 2.00                    | 2.00                   | 0.00                  |
| 500.00                           | 5.00            | 36.20       | 499.68                | 8.80         | 6.44         | -8.80                   | 2.00                    | 2.00                   | 0.00                  |
| 600.00                           | 7.00            | 36.20       | 599.13                | 17.23        | 12.61        | -17.24                  | 2.00                    | 2.00                   | 0.00                  |
| 700.00                           | 9.00            | 36.20       | 698.15                | 28.46        | 20.83        | -28.48                  | 2.00                    | 2.00                   | 0.00                  |
| 800.00                           | 11.00           | 36.20       | 796.63                | 42.48        | 31.08        | -42.50                  | 2.00                    | 2.00                   | 0.00                  |
| 900.00                           | 13.00           | 36.20       | 894.44                | 59.25        | 43.36        | -59.28                  | 2.00                    | 2.00                   | 0.00                  |
| 1,000.00                         | 15.00           | 36.20       | 991.46                | 78.77        | 57.65        | -78.81                  | 2.00                    | 2.00                   | 0.00                  |
| 1,022.48                         | 15.45           | 36.20       | 1,013.15              | 83.54        | 61.13        | -83.58                  | 2.00                    | 2.00                   | 0.00                  |
| Start 1269.58 hold at 1022.48 MD |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,100.00                         | 15.45           | 36.20       | 1,087.87              | 100.20       | 73.33        | -100.25                 | 0.00                    | 0.00                   | 0.00                  |
| 1,200.00                         | 15.45           | 36.20       | 1,184.26              | 121.70       | 89.06        | -121.76                 | 0.00                    | 0.00                   | 0.00                  |
| 1,300.00                         | 15.45           | 36.20       | 1,280.64              | 143.20       | 104.79       | -143.27                 | 0.00                    | 0.00                   | 0.00                  |
| 1,400.00                         | 15.45           | 36.20       | 1,377.03              | 164.69       | 120.53       | -164.78                 | 0.00                    | 0.00                   | 0.00                  |
| 1,500.00                         | 15.45           | 36.20       | 1,473.42              | 186.19       | 136.26       | -186.29                 | 0.00                    | 0.00                   | 0.00                  |
| 1,600.00                         | 15.45           | 36.20       | 1,569.80              | 207.69       | 151.99       | -207.80                 | 0.00                    | 0.00                   | 0.00                  |
| 1,700.00                         | 15.45           | 36.20       | 1,666.19              | 229.19       | 167.72       | -229.30                 | 0.00                    | 0.00                   | 0.00                  |
| 1,800.00                         | 15.45           | 36.20       | 1,762.58              | 250.68       | 183.46       | -250.81                 | 0.00                    | 0.00                   | 0.00                  |
| 1,900.00                         | 15.45           | 36.20       | 1,858.96              | 272.18       | 199.19       | -272.32                 | 0.00                    | 0.00                   | 0.00                  |
| 2,000.00                         | 15.45           | 36.20       | 1,955.35              | 293.68       | 214.92       | -293.83                 | 0.00                    | 0.00                   | 0.00                  |
| 2,100.00                         | 15.45           | 36.20       | 2,051.74              | 315.18       | 230.65       | -315.34                 | 0.00                    | 0.00                   | 0.00                  |
| 2,126.21                         | 15.45           | 36.20       | 2,077.00              | 320.81       | 234.78       | -320.97                 | 0.00                    | 0.00                   | 0.00                  |
| Aquifer (Fox Hills)              |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,200.00                         | 15.45           | 36.20       | 2,148.12              | 336.67       | 246.38       | -336.85                 | 0.00                    | 0.00                   | 0.00                  |
| 2,292.05                         | 15.45           | 36.20       | 2,236.85              | 356.46       | 260.87       | -356.64                 | 0.00                    | 0.00                   | 0.00                  |
| Start Drop -2.00                 |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,300.00                         | 15.29           | 36.20       | 2,244.51              | 358.16       | 262.11       | -358.35                 | 2.00                    | -2.00                  | 0.00                  |
| 2,357.37                         | 14.14           | 36.20       | 2,300.00              | 369.92       | 270.72       | -370.11                 | 2.00                    | -2.00                  | 0.00                  |
| 9 5/8"                           |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,400.00                         | 13.29           | 36.20       | 2,341.41              | 378.08       | 276.69       | -378.27                 | 2.00                    | -2.00                  | 0.00                  |
| 2,500.00                         | 11.29           | 36.20       | 2,439.12              | 395.26       | 289.26       | -395.46                 | 2.00                    | -2.00                  | 0.00                  |
| 2,600.00                         | 9.29            | 36.20       | 2,537.50              | 409.67       | 299.81       | -409.88                 | 2.00                    | -2.00                  | 0.00                  |
| 2,700.00                         | 7.29            | 36.20       | 2,636.45              | 421.31       | 308.32       | -421.52                 | 2.00                    | -2.00                  | 0.00                  |
| 2,800.00                         | 5.29            | 36.20       | 2,735.85              | 430.15       | 314.79       | -430.37                 | 2.00                    | -2.00                  | 0.00                  |
| 2,900.00                         | 3.29            | 36.20       | 2,835.56              | 436.19       | 319.21       | -436.41                 | 2.00                    | -2.00                  | 0.00                  |
| 3,000.00                         | 1.29            | 36.20       | 2,935.48              | 439.41       | 321.57       | -439.64                 | 2.00                    | -2.00                  | 0.00                  |
| 3,064.53                         | 0.00            | 0.00        | 3,000.00              | 440.00       | 322.00       | -440.22                 | 2.00                    | -2.00                  | -56.09                |
| Start 5018.04 hold at 3064.53 MD |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,100.00                         | 0.00            | 0.00        | 3,035.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 3,200.00                         | 0.00            | 0.00        | 3,135.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 3,300.00                         | 0.00            | 0.00        | 3,235.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 3,400.00                         | 0.00            | 0.00        | 3,335.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 3,500.00                         | 0.00            | 0.00        | 3,435.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 3,600.00                         | 0.00            | 0.00        | 3,535.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 3,700.00                         | 0.00            | 0.00        | 3,635.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 3,800.00                         | 0.00            | 0.00        | 3,735.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 3,900.00                         | 0.00            | 0.00        | 3,835.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 4,000.00                         | 0.00            | 0.00        | 3,935.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |

# Corporate Planning Report

|                  |                                 |                                     |   |
|------------------|---------------------------------|-------------------------------------|---|
| <b>Database:</b> | PLANNING                        | <b>Local Co-ordinate Reference:</b> | Well RESOLUTION FED 12-65-35-2-2NH      |
| <b>Company:</b>  | US ROCKIES REGION PLANNING      | <b>TVD Reference:</b>               | WELL @ 5957.00usft (Original Well Elev) |
| <b>Project:</b>  | COLORADO NORTHERN ZONE - 83     | <b>MD Reference:</b>                | WELL @ 5957.00usft (Original Well Elev) |
| <b>Site:</b>     | RESOLUTION FED 12-65-35-2CH PAD | <b>North Reference:</b>             | True                                    |
| <b>Well:</b>     | RESOLUTION FED 12-65-35-2-2NH   | <b>Survey Calculation Method:</b>   | Minimum Curvature                       |
| <b>Wellbore:</b> | Wellbore #1                     |                                     |   |
| <b>Design:</b>   | Plan #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                          | 0.00            | 0.00        | 4,035.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 4,200.00                          | 0.00            | 0.00        | 4,135.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 4,300.00                          | 0.00            | 0.00        | 4,235.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 4,400.00                          | 0.00            | 0.00        | 4,335.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 4,500.00                          | 0.00            | 0.00        | 4,435.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 4,600.00                          | 0.00            | 0.00        | 4,535.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 4,700.00                          | 0.00            | 0.00        | 4,635.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 4,800.00                          | 0.00            | 0.00        | 4,735.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 4,900.00                          | 0.00            | 0.00        | 4,835.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 5,000.00                          | 0.00            | 0.00        | 4,935.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 5,100.00                          | 0.00            | 0.00        | 5,035.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 5,200.00                          | 0.00            | 0.00        | 5,135.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 5,300.00                          | 0.00            | 0.00        | 5,235.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 5,400.00                          | 0.00            | 0.00        | 5,335.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 5,500.00                          | 0.00            | 0.00        | 5,435.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 5,600.00                          | 0.00            | 0.00        | 5,535.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 5,700.00                          | 0.00            | 0.00        | 5,635.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 5,800.00                          | 0.00            | 0.00        | 5,735.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 5,900.00                          | 0.00            | 0.00        | 5,835.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 6,000.00                          | 0.00            | 0.00        | 5,935.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 6,100.00                          | 0.00            | 0.00        | 6,035.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 6,200.00                          | 0.00            | 0.00        | 6,135.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 6,300.00                          | 0.00            | 0.00        | 6,235.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 6,400.00                          | 0.00            | 0.00        | 6,335.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 6,500.00                          | 0.00            | 0.00        | 6,435.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 6,600.00                          | 0.00            | 0.00        | 6,535.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 6,700.00                          | 0.00            | 0.00        | 6,635.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 6,800.00                          | 0.00            | 0.00        | 6,735.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 6,900.00                          | 0.00            | 0.00        | 6,835.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 7,000.00                          | 0.00            | 0.00        | 6,935.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 7,100.00                          | 0.00            | 0.00        | 7,035.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 7,200.00                          | 0.00            | 0.00        | 7,135.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 7,300.00                          | 0.00            | 0.00        | 7,235.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 7,400.00                          | 0.00            | 0.00        | 7,335.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 7,500.00                          | 0.00            | 0.00        | 7,435.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 7,600.00                          | 0.00            | 0.00        | 7,535.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 7,700.00                          | 0.00            | 0.00        | 7,635.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 7,800.00                          | 0.00            | 0.00        | 7,735.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 7,900.00                          | 0.00            | 0.00        | 7,835.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 8,000.00                          | 0.00            | 0.00        | 7,935.47              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| 8,082.57                          | 0.00            | 0.00        | 8,018.04              | 440.00       | 322.00       | -440.22                 | 0.00                    | 0.00                   | 0.00                  |
| KOP @ 8082.57ft :: DLS = 10°/100' |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,100.00                          | 1.74            | 180.04      | 8,035.47              | 439.73       | 322.00       | -439.96                 | 10.00                   | 10.00                  | 0.00                  |
| 8,200.00                          | 11.74           | 180.04      | 8,134.65              | 428.01       | 321.99       | -428.23                 | 10.00                   | 10.00                  | 0.00                  |
| 8,300.00                          | 21.74           | 180.04      | 8,230.29              | 399.24       | 321.97       | -399.46                 | 10.00                   | 10.00                  | 0.00                  |
| 8,400.00                          | 31.74           | 180.04      | 8,319.48              | 354.30       | 321.94       | -354.52                 | 10.00                   | 10.00                  | 0.00                  |
| 8,500.00                          | 41.74           | 180.04      | 8,399.51              | 294.55       | 321.89       | -294.77                 | 10.00                   | 10.00                  | 0.00                  |
| 8,503.35                          | 42.08           | 180.04      | 8,402.00              | 292.32       | 321.89       | -292.54                 | 10.00                   | 10.00                  | 0.00                  |
| Niobrara                          |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,600.00                          | 51.74           | 180.04      | 8,467.95              | 221.81       | 321.84       | -222.04                 | 10.00                   | 10.00                  | 0.00                  |
| 8,700.00                          | 61.74           | 180.04      | 8,522.72              | 138.30       | 321.77       | -138.52                 | 10.00                   | 10.00                  | 0.00                  |
| 8,800.00                          | 71.74           | 180.04      | 8,562.16              | 46.54        | 321.70       | -46.76                  | 10.00                   | 10.00                  | 0.00                  |
| 8,900.00                          | 81.74           | 180.04      | 8,585.06              | -50.67       | 321.63       | 50.45                   | 10.00                   | 10.00                  | 0.00                  |
| 8,982.57                          | 90.00           | 180.04      | 8,591.00              | -132.96      | 321.57       | 132.73                  | 10.00                   | 10.00                  | 0.00                  |

# Corporate Planning Report

|                  |                                 |                                     |   |
|------------------|---------------------------------|-------------------------------------|---|
| <b>Database:</b> | PLANNING                        | <b>Local Co-ordinate Reference:</b> | Well RESOLUTION FED 12-65-35-2-2NH      |
| <b>Company:</b>  | US ROCKIES REGION PLANNING      | <b>TVD Reference:</b>               | WELL @ 5957.00usft (Original Well Elev) |
| <b>Project:</b>  | COLORADO NORTHERN ZONE - 83     | <b>MD Reference:</b>                | WELL @ 5957.00usft (Original Well Elev) |
| <b>Site:</b>     | RESOLUTION FED 12-65-35-2CH PAD | <b>North Reference:</b>             | True                                    |
| <b>Well:</b>     | RESOLUTION FED 12-65-35-2-2NH   | <b>Survey Calculation Method:</b>   | Minimum Curvature                       |
| <b>Wellbore:</b> | Wellbore #1                     |                                     |   |
| <b>Design:</b>   | Plan #2                         |                                     |   |

| Planned Survey                                       |                    |                |                             |                 |                 |                               |                               |                              |                             |
|--|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| Measured<br>Depth<br>(usft)                          | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
| Start 8385.01 hold at 8982.57 MD - Top of Production |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 9,000.00   | 90.00              | 180.04         | 8,591.00                    | -150.39         | 321.55          | 150.16                        | 0.00                          | 0.00                         | 0.00                        |
| 9,100.00   | 90.00              | 180.04         | 8,591.00                    | -250.39         | 321.48          | 250.16                        | 0.00                          | 0.00                         | 0.00                        |
| 9,200.00   | 90.00              | 180.04         | 8,591.00                    | -350.39         | 321.40          | 350.16                        | 0.00                          | 0.00                         | 0.00                        |
| 9,300.00   | 90.00              | 180.04         | 8,591.00                    | -450.39         | 321.33          | 450.16                        | 0.00                          | 0.00                         | 0.00                        |
| 9,400.00   | 90.00              | 180.04         | 8,591.00                    | -550.39         | 321.25          | 550.16                        | 0.00                          | 0.00                         | 0.00                        |
| 9,500.00   | 90.00              | 180.04         | 8,591.00                    | -650.39         | 321.18          | 650.16                        | 0.00                          | 0.00                         | 0.00                        |
| 9,600.00   | 90.00              | 180.04         | 8,591.00                    | -750.39         | 321.10          | 750.16                        | 0.00                          | 0.00                         | 0.00                        |
| 9,700.00   | 90.00              | 180.04         | 8,591.00                    | -850.39         | 321.02          | 850.16                        | 0.00                          | 0.00                         | 0.00                        |
| 9,800.00   | 90.00              | 180.04         | 8,591.00                    | -950.39         | 320.95          | 950.16                        | 0.00                          | 0.00                         | 0.00                        |
| 9,900.00   | 90.00              | 180.04         | 8,591.00                    | -1,050.39       | 320.87          | 1,050.16                      | 0.00                          | 0.00                         | 0.00                        |
| 10,000.00  | 90.00              | 180.04         | 8,591.00                    | -1,150.39       | 320.80          | 1,150.16                      | 0.00                          | 0.00                         | 0.00                        |
| 10,100.00  | 90.00              | 180.04         | 8,591.00                    | -1,250.39       | 320.72          | 1,250.16                      | 0.00                          | 0.00                         | 0.00                        |
| 10,200.00  | 90.00              | 180.04         | 8,591.00                    | -1,350.39       | 320.65          | 1,350.16                      | 0.00                          | 0.00                         | 0.00                        |
| 10,300.00  | 90.00              | 180.04         | 8,591.00                    | -1,450.39       | 320.57          | 1,450.16                      | 0.00                          | 0.00                         | 0.00                        |
| 10,400.00  | 90.00              | 180.04         | 8,591.00                    | -1,550.39       | 320.50          | 1,550.16                      | 0.00                          | 0.00                         | 0.00                        |
| 10,500.00  | 90.00              | 180.04         | 8,591.00                    | -1,650.39       | 320.42          | 1,650.16                      | 0.00                          | 0.00                         | 0.00                        |
| 10,600.00  | 90.00              | 180.04         | 8,591.00                    | -1,750.39       | 320.34          | 1,750.16                      | 0.00                          | 0.00                         | 0.00                        |
| 10,700.00  | 90.00              | 180.04         | 8,591.00                    | -1,850.39       | 320.27          | 1,850.16                      | 0.00                          | 0.00                         | 0.00                        |
| 10,800.00  | 90.00              | 180.04         | 8,591.00                    | -1,950.39       | 320.19          | 1,950.16                      | 0.00                          | 0.00                         | 0.00                        |
| 10,900.00  | 90.00              | 180.04         | 8,591.00                    | -2,050.39       | 320.12          | 2,050.16                      | 0.00                          | 0.00                         | 0.00                        |
| 11,000.00  | 90.00              | 180.04         | 8,591.00                    | -2,150.39       | 320.04          | 2,150.16                      | 0.00                          | 0.00                         | 0.00                        |
| 11,100.00  | 90.00              | 180.04         | 8,591.00                    | -2,250.39       | 319.97          | 2,250.16                      | 0.00                          | 0.00                         | 0.00                        |
| 11,200.00  | 90.00              | 180.04         | 8,591.00                    | -2,350.39       | 319.89          | 2,350.16                      | 0.00                          | 0.00                         | 0.00                        |
| 11,300.00  | 90.00              | 180.04         | 8,591.00                    | -2,450.39       | 319.82          | 2,450.16                      | 0.00                          | 0.00                         | 0.00                        |
| 11,400.00  | 90.00              | 180.04         | 8,591.00                    | -2,550.39       | 319.74          | 2,550.16                      | 0.00                          | 0.00                         | 0.00                        |
| 11,500.00  | 90.00              | 180.04         | 8,591.00                    | -2,650.39       | 319.66          | 2,650.16                      | 0.00                          | 0.00                         | 0.00                        |
| 11,600.00  | 90.00              | 180.04         | 8,591.00                    | -2,750.39       | 319.59          | 2,750.16                      | 0.00                          | 0.00                         | 0.00                        |
| 11,700.00  | 90.00              | 180.04         | 8,591.00                    | -2,850.39       | 319.51          | 2,850.16                      | 0.00                          | 0.00                         | 0.00                        |
| 11,800.00  | 90.00              | 180.04         | 8,591.00                    | -2,950.39       | 319.44          | 2,950.16                      | 0.00                          | 0.00                         | 0.00                        |
| 11,900.00  | 90.00              | 180.04         | 8,591.00                    | -3,050.39       | 319.36          | 3,050.16                      | 0.00                          | 0.00                         | 0.00                        |
| 12,000.00  | 90.00              | 180.04         | 8,591.00                    | -3,150.39       | 319.29          | 3,150.16                      | 0.00                          | 0.00                         | 0.00                        |
| 12,100.00  | 90.00              | 180.04         | 8,591.00                    | -3,250.39       | 319.21          | 3,250.16                      | 0.00                          | 0.00                         | 0.00                        |
| 12,200.00  | 90.00              | 180.04         | 8,591.00                    | -3,350.39       | 319.14          | 3,350.16                      | 0.00                          | 0.00                         | 0.00                        |
| 12,300.00  | 90.00              | 180.04         | 8,591.00                    | -3,450.39       | 319.06          | 3,450.16                      | 0.00                          | 0.00                         | 0.00                        |
| 12,400.00  | 90.00              | 180.04         | 8,591.00                    | -3,550.38       | 318.98          | 3,550.16                      | 0.00                          | 0.00                         | 0.00                        |
| 12,500.00  | 90.00              | 180.04         | 8,591.00                    | -3,650.38       | 318.91          | 3,650.16                      | 0.00                          | 0.00                         | 0.00                        |
| 12,600.00  | 90.00              | 180.04         | 8,591.00                    | -3,750.38       | 318.83          | 3,750.16                      | 0.00                          | 0.00                         | 0.00                        |
| 12,700.00  | 90.00              | 180.04         | 8,591.00                    | -3,850.38       | 318.76          | 3,850.16                      | 0.00                          | 0.00                         | 0.00                        |
| 12,800.00  | 90.00              | 180.04         | 8,591.00                    | -3,950.38       | 318.68          | 3,950.16                      | 0.00                          | 0.00                         | 0.00                        |
| 12,900.00  | 90.00              | 180.04         | 8,591.00                    | -4,050.38       | 318.61          | 4,050.16                      | 0.00                          | 0.00                         | 0.00                        |
| 13,000.00  | 90.00              | 180.04         | 8,591.00                    | -4,150.38       | 318.53          | 4,150.16                      | 0.00                          | 0.00                         | 0.00                        |
| 13,100.00  | 90.00              | 180.04         | 8,591.00                    | -4,250.38       | 318.46          | 4,250.16                      | 0.00                          | 0.00                         | 0.00                        |
| 13,200.00  | 90.00              | 180.04         | 8,591.00                    | -4,350.38       | 318.38          | 4,350.16                      | 0.00                          | 0.00                         | 0.00                        |
| 13,300.00  | 90.00              | 180.04         | 8,591.00                    | -4,450.38       | 318.30          | 4,450.16                      | 0.00                          | 0.00                         | 0.00                        |
| 13,400.00  | 90.00              | 180.04         | 8,591.00                    | -4,550.38       | 318.23          | 4,550.16                      | 0.00                          | 0.00                         | 0.00                        |
| 13,500.00  | 90.00              | 180.04         | 8,591.00                    | -4,650.38       | 318.15          | 4,650.16                      | 0.00                          | 0.00                         | 0.00                        |
| 13,600.00  | 90.00              | 180.04         | 8,591.00                    | -4,750.38       | 318.08          | 4,750.16                      | 0.00                          | 0.00                         | 0.00                        |
| 13,700.00  | 90.00              | 180.04         | 8,591.00                    | -4,850.38       | 318.00          | 4,850.16                      | 0.00                          | 0.00                         | 0.00                        |
| 13,800.00  | 90.00              | 180.04         | 8,591.00                    | -4,950.38       | 317.93          | 4,950.16                      | 0.00                          | 0.00                         | 0.00                        |
| 13,900.00  | 90.00              | 180.04         | 8,591.00                    | -5,050.38       | 317.85          | 5,050.16                      | 0.00                          | 0.00                         | 0.00                        |
| 14,000.00  | 90.00              | 180.04         | 8,591.00                    | -5,150.38       | 317.78          | 5,150.16                      | 0.00                          | 0.00                         | 0.00                        |
| 14,100.00  | 90.00              | 180.04         | 8,591.00                    | -5,250.38       | 317.70          | 5,250.16                      | 0.00                          | 0.00                         | 0.00                        |

# Corporate Planning Report

|                  |                                 |                                     |   |
|------------------|---------------------------------|-------------------------------------|---|
| <b>Database:</b> | PLANNING                        | <b>Local Co-ordinate Reference:</b> | Well RESOLUTION FED 12-65-35-2-2NH      |
| <b>Company:</b>  | US ROCKIES REGION PLANNING      | <b>TVD Reference:</b>               | WELL @ 5957.00usft (Original Well Elev) |
| <b>Project:</b>  | COLORADO NORTHERN ZONE - 83     | <b>MD Reference:</b>                | WELL @ 5957.00usft (Original Well Elev) |
| <b>Site:</b>     | RESOLUTION FED 12-65-35-2CH PAD | <b>North Reference:</b>             | True                                    |
| <b>Well:</b>     | RESOLUTION FED 12-65-35-2-2NH   | <b>Survey Calculation Method:</b>   | Minimum Curvature                       |
| <b>Wellbore:</b> | Wellbore #1                     |                                     |   |
| <b>Design:</b>   | Plan #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) |
| 14,200.00             | 90.00           | 180.04      | 8,591.00              | -5,350.38    | 317.62       | 5,350.16                | 0.00                    | 0.00                   | 0.00                  |
| 14,300.00             | 90.00           | 180.04      | 8,591.00              | -5,450.38    | 317.55       | 5,450.16                | 0.00                    | 0.00                   | 0.00                  |
| 14,400.00             | 90.00           | 180.04      | 8,591.00              | -5,550.38    | 317.47       | 5,550.16                | 0.00                    | 0.00                   | 0.00                  |
| 14,500.00             | 90.00           | 180.04      | 8,591.00              | -5,650.38    | 317.40       | 5,650.16                | 0.00                    | 0.00                   | 0.00                  |
| 14,600.00             | 90.00           | 180.04      | 8,591.00              | -5,750.38    | 317.32       | 5,750.16                | 0.00                    | 0.00                   | 0.00                  |
| 14,700.00             | 90.00           | 180.04      | 8,591.00              | -5,850.38    | 317.25       | 5,850.16                | 0.00                    | 0.00                   | 0.00                  |
| 14,800.00             | 90.00           | 180.04      | 8,591.00              | -5,950.38    | 317.17       | 5,950.16                | 0.00                    | 0.00                   | 0.00                  |
| 14,900.00             | 90.00           | 180.04      | 8,591.00              | -6,050.38    | 317.10       | 6,050.16                | 0.00                    | 0.00                   | 0.00                  |
| 15,000.00             | 90.00           | 180.04      | 8,591.00              | -6,150.38    | 317.02       | 6,150.16                | 0.00                    | 0.00                   | 0.00                  |
| 15,100.00             | 90.00           | 180.04      | 8,591.00              | -6,250.38    | 316.94       | 6,250.16                | 0.00                    | 0.00                   | 0.00                  |
| 15,200.00             | 90.00           | 180.04      | 8,591.00              | -6,350.38    | 316.87       | 6,350.16                | 0.00                    | 0.00                   | 0.00                  |
| 15,300.00             | 90.00           | 180.04      | 8,591.00              | -6,450.38    | 316.79       | 6,450.16                | 0.00                    | 0.00                   | 0.00                  |
| 15,400.00             | 90.00           | 180.04      | 8,591.00              | -6,550.38    | 316.72       | 6,550.16                | 0.00                    | 0.00                   | 0.00                  |
| 15,500.00             | 90.00           | 180.04      | 8,591.00              | -6,650.38    | 316.64       | 6,650.16                | 0.00                    | 0.00                   | 0.00                  |
| 15,600.00             | 90.00           | 180.04      | 8,591.00              | -6,750.38    | 316.57       | 6,750.16                | 0.00                    | 0.00                   | 0.00                  |
| 15,700.00             | 90.00           | 180.04      | 8,591.00              | -6,850.38    | 316.49       | 6,850.16                | 0.00                    | 0.00                   | 0.00                  |
| 15,800.00             | 90.00           | 180.04      | 8,591.00              | -6,950.38    | 316.42       | 6,950.16                | 0.00                    | 0.00                   | 0.00                  |
| 15,900.00             | 90.00           | 180.04      | 8,591.00              | -7,050.38    | 316.34       | 7,050.16                | 0.00                    | 0.00                   | 0.00                  |
| 16,000.00             | 90.00           | 180.04      | 8,591.00              | -7,150.38    | 316.26       | 7,150.16                | 0.00                    | 0.00                   | 0.00                  |
| 16,100.00             | 90.00           | 180.04      | 8,591.00              | -7,250.38    | 316.19       | 7,250.16                | 0.00                    | 0.00                   | 0.00                  |
| 16,200.00             | 90.00           | 180.04      | 8,591.00              | -7,350.38    | 316.11       | 7,350.16                | 0.00                    | 0.00                   | 0.00                  |
| 16,300.00             | 90.00           | 180.04      | 8,591.00              | -7,450.38    | 316.04       | 7,450.16                | 0.00                    | 0.00                   | 0.00                  |
| 16,400.00             | 90.00           | 180.04      | 8,591.00              | -7,550.38    | 315.96       | 7,550.16                | 0.00                    | 0.00                   | 0.00                  |
| 16,500.00             | 90.00           | 180.04      | 8,591.00              | -7,650.38    | 315.89       | 7,650.16                | 0.00                    | 0.00                   | 0.00                  |
| 16,600.00             | 90.00           | 180.04      | 8,591.00              | -7,750.38    | 315.81       | 7,750.16                | 0.00                    | 0.00                   | 0.00                  |
| 16,700.00             | 90.00           | 180.04      | 8,591.00              | -7,850.38    | 315.74       | 7,850.16                | 0.00                    | 0.00                   | 0.00                  |
| 16,800.00             | 90.00           | 180.04      | 8,591.00              | -7,950.38    | 315.66       | 7,950.16                | 0.00                    | 0.00                   | 0.00                  |
| 16,900.00             | 90.00           | 180.04      | 8,591.00              | -8,050.38    | 315.58       | 8,050.16                | 0.00                    | 0.00                   | 0.00                  |
| 17,000.00             | 90.00           | 180.04      | 8,591.00              | -8,150.38    | 315.51       | 8,150.16                | 0.00                    | 0.00                   | 0.00                  |
| 17,100.00             | 90.00           | 180.04      | 8,591.00              | -8,250.38    | 315.43       | 8,250.16                | 0.00                    | 0.00                   | 0.00                  |
| 17,200.00             | 90.00           | 180.04      | 8,591.00              | -8,350.38    | 315.36       | 8,350.16                | 0.00                    | 0.00                   | 0.00                  |
| 17,300.00             | 90.00           | 180.04      | 8,591.00              | -8,450.38    | 315.28       | 8,450.16                | 0.00                    | 0.00                   | 0.00                  |
| 17,367.58             | 90.00           | 180.04      | 8,591.00              | -8,517.96    | 315.23       | 8,517.74                | 0.00                    | 0.00                   | 0.00                  |
| TD at 17367.58        |                 |             |                       |              |              |                         |                         |                        |                       |

| Casing Points         |                       |                   |                     |                   |  |
|-----------------------|-----------------------|-------------------|---------------------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name              | Casing Diameter (") | Hole Diameter (") |  |
| 2,357.37              | 2,300.00              | 9 5/8"            | 9-5/8               | 13-1/2            |  |
| 8,982.57              | 8,591.00              | Top of Production | 5-1/2               | 7-7/8             |  |

| Formations            |                       |                     |                 |         |                   |
|-----------------------|-----------------------|---------------------|-----------------|---------|-------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Name                | Lithology       | Dip (°) | Dip Direction (°) |
| 2,126.21              | 2,077.00              | Aquifer (Fox Hills) | Aquifer (Water) |         |                   |
| 8,503.35              | 8,402.00              | Niobrara            | Oil/Gas         |         |                   |

# Corporate Planning Report

|                  |                                 |                                     |   |
|------------------|---------------------------------|-------------------------------------|---|
| <b>Database:</b> | PLANNING                        | <b>Local Co-ordinate Reference:</b> | Well RESOLUTION FED 12-65-35-2-2NH      |
| <b>Company:</b>  | US ROCKIES REGION PLANNING      | <b>TVD Reference:</b>               | WELL @ 5957.00usft (Original Well Elev) |
| <b>Project:</b>  | COLORADO NORTHERN ZONE - 83     | <b>MD Reference:</b>                | WELL @ 5957.00usft (Original Well Elev) |
| <b>Site:</b>     | RESOLUTION FED 12-65-35-2CH PAD | <b>North Reference:</b>             | True                                    |
| <b>Well:</b>     | RESOLUTION FED 12-65-35-2-2NH   | <b>Survey Calculation Method:</b>   | Minimum Curvature                       |
| <b>Wellbore:</b> | Wellbore #1                     |                                     |   |
| <b>Design:</b>   | Plan #2                         |                                     |   |

| Plan Annotations            |                             |                   |                 |                                   |
|-----------------------------|-----------------------------|-------------------|-----------------|-----------------------------------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                           |
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                   |
| 250.00                      | 250.00                      | 0.00              | 0.00            | Start Build 2.00                  |
| 1,022.48                    | 1,013.15                    | 83.54             | 61.13           | Start 1269.58 hold at 1022.48 MD  |
| 2,292.05                    | 2,236.85                    | 356.46            | 260.87          | Start Drop -2.00                  |
| 3,064.53                    | 3,000.00                    | 440.00            | 322.00          | Start 5018.04 hold at 3064.53 MD  |
| 8,082.57                    | 8,018.04                    | 440.00            | 322.00          | KOP @ 8082.57ft :: DLS = 10°/100' |
| 8,982.57                    | 8,591.00                    | -132.96           | 321.57          | Start 8385.01 hold at 8982.57 MD  |
| 17,367.58                   | 8,591.00                    | -8,517.96         | 315.23          | TD at 17367.58                    |