

# **US ROCKIES WATTENBERG PLANNING**

**WELD-NAD83-UTMFT13N  
1N-66W-09 FITZSIMMONS 3-9HZ  
FITZSIMMONS 36N-W9HZ**

**Plan A**

**Plan: Permit Rev-1**

## **Standard Planning Report**

**02 June, 2016**



Azimuths to True North  
Magnetic North: 8.18°

Magnetic Field  
Strength: 52433.4snT  
Dip Angle: 66.61°  
Date: 5/31/2016  
Model: IGRF2010

SITE: 1N-66W-09 FITZSIMMONS 3-9HZ

Well: FITZSIMMONS 36N-W9HZ  
Wellbore: Plan A  
Design: Permit Rev-1

#### FORMATION TOP DETAILS

| TVDPath | MDPath  | Formation      |
|---------|---------|----------------|
| 1467.00 | 1488.39 | Fox Hills      |
| 4812.00 | 4967.72 | Sussex         |
| 7118.00 | 7329.69 | Sharon Springs |
| 7157.00 | 7389.76 | Niobrara       |
| 7269.00 | 7643.48 | Nio B          |

#### WELL DETAILS: FITZSIMMONS 36N-W9HZ

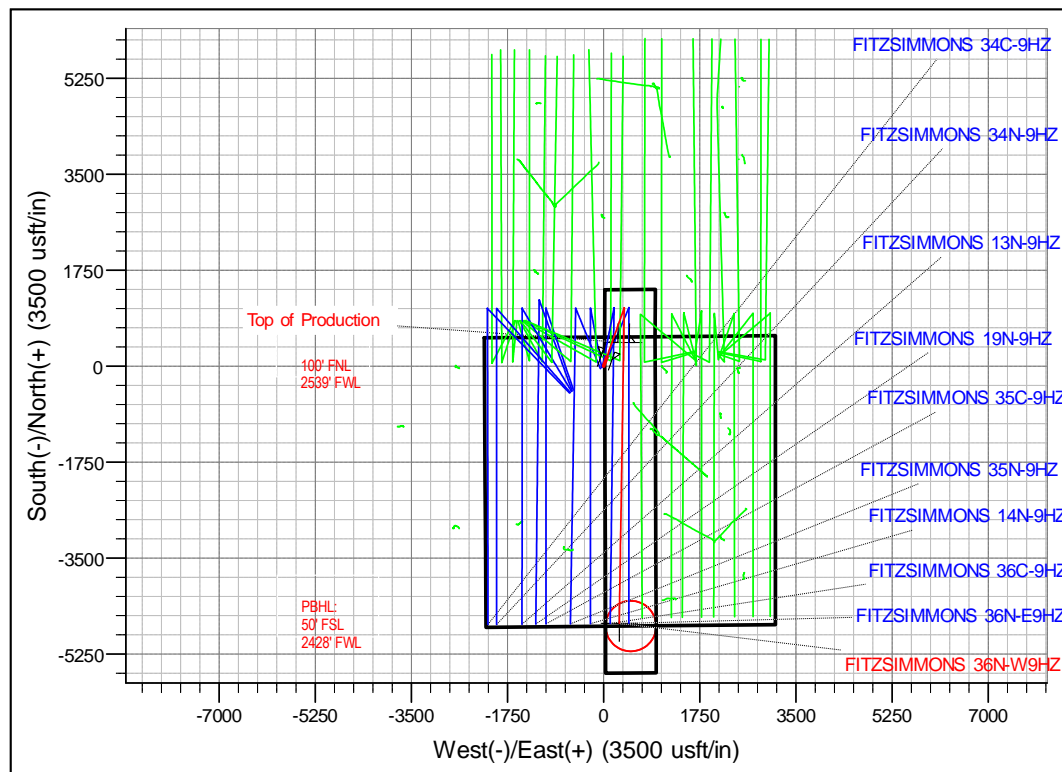
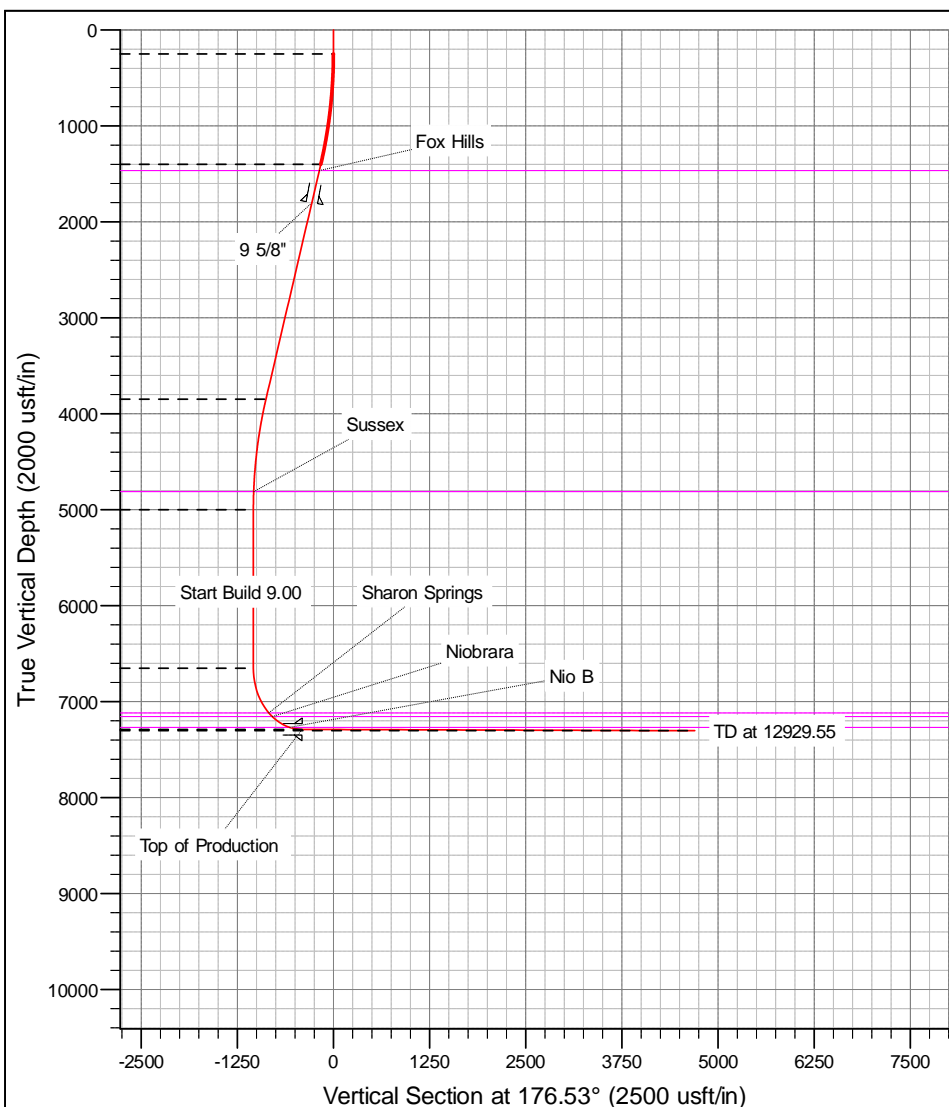
| +N/-S | +E/-W | GL: 4990.00             | RKB @ 5007.00usft (D Rig) | Longitude             | Slot |
|-------|-------|-------------------------|---------------------------|-----------------------|------|
| 0.00  | 0.00  | Northing<br>14552848.15 | Easting<br>1700864.41     | Latitude<br>40.071514 |      |

#### SECTION DETAILS

| MD       | Inc   | Azi    | TVD     | +N/-S    | +E/-W  | Dleg | Vsect    |
|----------|-------|--------|---------|----------|--------|------|----------|
| 0.00     | 0.00  | 0.00   | 0.00    | 0.00     | 0.00   | 0.00 | 0.00     |
| 250.00   | 0.00  | 0.00   | 250.00  | 0.00     | 0.00   | 0.00 | 0.00     |
| 1419.73  | 17.55 | 19.40  | 1401.53 | 167.62   | 59.02  | 1.50 | -163.74  |
| 3986.06  | 17.55 | 19.40  | 3848.47 | 897.38   | 315.98 | 0.00 | -876.58  |
| 5155.79  | 0.00  | 0.00   | 5000.00 | 1065.00  | 375.00 | 1.50 | -1040.32 |
| 6809.77  | 0.00  | 0.00   | 6653.97 | 1065.00  | 375.00 | 0.00 | -1040.32 |
| 7808.10  | 89.85 | 180.90 | 7290.59 | 430.12   | 365.05 | 9.00 | -407.21  |
| 12929.55 | 89.85 | 180.90 | 7304.00 | -4690.68 | 284.76 | 0.00 | 4699.32  |

#### DESIGN TARGET DETAILS

| Name                      | TVD     | +N/-S    | +E/-W  | Northing    | Easting    | Latitude  | Longitude   |
|---------------------------|---------|----------|--------|-------------|------------|-----------|-------------|
| FITZSIMMONS 36N-W9HZ_PHL  | 7290.59 | 430.12   | 365.05 | 14553279.16 | 1701228.41 | 40.072895 | -104.782624 |
| FITZSIMMONS 36N-W9HZ_PBHL | 7304.00 | -4690.68 | 284.76 | 14548158.17 | 1701160.55 | 40.058633 | -104.782911 |



# Anadarko

## Planning Report

|                  |                                |                                     |                           |
|------------------|--------------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | PLANNING                       | <b>Local Co-ordinate Reference:</b> | Well FITZSIMMONS 36N-W9HZ |
| <b>Company:</b>  | US ROCKIES WATTENBERG PLANNING | <b>TVD Reference:</b>               | RKB @ 5007.00usft (D Rig) |
| <b>Project:</b>  | WELD-NAD83-UTMFT13N            | <b>MD Reference:</b>                | RKB @ 5007.00usft (D Rig) |
| <b>Site:</b>     | 1N-66W-09 FITZSIMMONS 3-9HZ    | <b>North Reference:</b>             | True                      |
| <b>Well:</b>     | FITZSIMMONS 36N-W9HZ           | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Plan A                         |                                     |                           |
| <b>Design:</b>   | Permit Rev-1                   |                                     |                           |

|                    |  |                      |                |
|--------------------|--|----------------------|----------------|
| <b>Project</b>     | WELD-NAD83-UTMFT13N                            |                      |                |
| <b>Map System:</b> | Universal Transverse Mercator (US Survey Feet) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983                      |                      |                |
| <b>Map Zone:</b>   | Zone 13N (108 W to 102 W)                      |                      |                |

|                       |          |                             |                    |            |                   |        |
|-----------------------|----------|-----------------------------|--------------------|------------|-------------------|--------|
| Site                  |          | 1N-66W-09 FITZSIMMONS 3-9HZ |                    |            |                   |        |
| Site Position:        |          | Northing:                   | 14,552,801.75 usft | Latitude:  | 40.071387         |        |
| From:                 | Lat/Long | Easting:                    | 1,700,805.49 usft  | Longitude: | -104.784140       |        |
| Position Uncertainty: |          | 0.00 usft                   | Slot Radius:       | 13-3/16 "  | Grid Convergence: | 0.14 ° |

| Well                 |      | FITZSIMMONS 36N-W9HZ |                     |                    |               |               |
|----------------------|------|----------------------|---------------------|--------------------|---------------|---------------|
| Well Position        | +N-S | 46.25 usft           | Northing:           | 14,552,848.14 usft | Latitude:     | 40.071514     |
|                      | +E-W | 59.03 usft           | Easting:            | 1,700,864.41 usft  | Longitude:    | -104.783929   |
| Position Uncertainty |      | 3.28 usft            | Wellhead Elevation: | 0.00 usft          | Ground Level: | 4,990.00 usft |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Plan A            |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2010          | 5/31/2016          | 8.18                   | 66.61                | 52,433                     |

|                          |                                |                     |                      |                      |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| <b>Design</b>            | Permit Rev-1                   |                     |                      |                      |
| <b>Audit Notes:</b>      |                                |                     |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                  | PROTOTYPE           | <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                 | 176.53               |

| <b>Plan Sections</b>  |                 |             |                       |              |              |                         |                        |                       |         |                 |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|-----------------|
| 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    |                 |
| 1,419.73              | 17.55           | 19.40       | 1,401.53              | 167.62       | 59.02        | 1.50                    | 1.50                   | 0.00                  | 19.40   |                 |
| 3,986.06              | 17.55           | 19.40       | 3,848.47              | 897.38       | 315.98       | 0.00                    | 0.00                   | 0.00                  | 0.00    |                 |
| 5,155.79              | 0.00            | 0.00        | 5,000.00              | 1,065.00     | 375.00       | 1.50                    | -1.50                  | 0.00                  | 180.00  |                 |
| 6,809.77              | 0.00            | 0.00        | 6,653.97              | 1,065.00     | 375.00       | 0.00                    | 0.00                   | 0.00                  | 0.00    |                 |
| 7,808.10              | 89.85           | 180.90      | 7,290.59              | 430.12       | 365.05       | 9.00                    | 9.00                   | 0.00                  | 180.90  |                 |
| 12,929.55             | 89.85           | 180.90      | 7,304.00              | -4,690.68    | 284.76       | 0.00                    | 0.00                   | 0.00                  | 0.00    | FITZSIMMONS 36N |

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## Planning Report

|                  |                                |                                     |                           |
|------------------|--------------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | PLANNING                       | <b>Local Co-ordinate Reference:</b> | Well FITZSIMMONS 36N-W9HZ |
| <b>Company:</b>  | US ROCKIES WATTENBERG PLANNING | <b>TVD Reference:</b>               | RKB @ 5007.00usft (D Rig) |
| <b>Project:</b>  | WELD-NAD83-UTMFT13N            | <b>MD Reference:</b>                | RKB @ 5007.00usft (D Rig) |
| <b>Site:</b>     | 1N-66W-09 FITZSIMMONS 3-9HZ    | <b>North Reference:</b>             | True                      |
| <b>Well:</b>     | FITZSIMMONS 36N-W9HZ           | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Plan A                         |                                     |                           |
| <b>Design:</b>   | Permit Rev-1                   |                                     |                           |

| Planned Survey        |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 0.00                  | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 100.00                | 0.00            | 0.00        | 100.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 200.00                | 0.00            | 0.00        | 200.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 250.00                | 0.00            | 0.00        | 250.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 300.00                | 0.75            | 19.40       | 300.00                | 0.31         | 0.11         | -0.30                   | 1.50                    | 1.50                   | 0.00                  |
| 400.00                | 2.25            | 19.40       | 399.96                | 2.78         | 0.98         | -2.71                   | 1.50                    | 1.50                   | 0.00                  |
| 500.00                | 3.75            | 19.40       | 499.82                | 7.71         | 2.72         | -7.54                   | 1.50                    | 1.50                   | 0.00                  |
| 600.00                | 5.25            | 19.40       | 599.51                | 15.11        | 5.32         | -14.76                  | 1.50                    | 1.50                   | 0.00                  |
| 700.00                | 6.75            | 19.40       | 698.96                | 24.97        | 8.79         | -24.39                  | 1.50                    | 1.50                   | 0.00                  |
| 800.00                | 8.25            | 19.40       | 798.10                | 37.28        | 13.13        | -36.42                  | 1.50                    | 1.50                   | 0.00                  |
| 900.00                | 9.75            | 19.40       | 896.87                | 52.04        | 18.32        | -50.83                  | 1.50                    | 1.50                   | 0.00                  |
| 1,000.00              | 11.25           | 19.40       | 995.19                | 69.23        | 24.38        | -67.62                  | 1.50                    | 1.50                   | 0.00                  |
| 1,100.00              | 12.75           | 19.40       | 1,093.00              | 88.84        | 31.28        | -86.78                  | 1.50                    | 1.50                   | 0.00                  |
| 1,200.00              | 14.25           | 19.40       | 1,190.24              | 110.86       | 39.03        | -108.29                 | 1.50                    | 1.50                   | 0.00                  |
| 1,300.00              | 15.75           | 19.40       | 1,286.83              | 135.27       | 47.63        | -132.14                 | 1.50                    | 1.50                   | 0.00                  |
| 1,400.00              | 17.25           | 19.40       | 1,382.71              | 162.06       | 57.06        | -158.30                 | 1.50                    | 1.50                   | 0.00                  |
| 1,419.73              | 17.55           | 19.40       | 1,401.53              | 167.62       | 59.02        | -163.74                 | 1.50                    | 1.50                   | 0.00                  |
| 1,488.39              | 17.55           | 19.40       | 1,467.00              | 187.15       | 65.90        | -182.81                 | 0.00                    | 0.00                   | 0.00                  |
| <b>Fox Hills</b>      |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,500.00              | 17.55           | 19.40       | 1,478.07              | 190.45       | 67.06        | -186.03                 | 0.00                    | 0.00                   | 0.00                  |
| 1,600.00              | 17.55           | 19.40       | 1,573.42              | 218.88       | 77.07        | -213.81                 | 0.00                    | 0.00                   | 0.00                  |
| 1,700.00              | 17.55           | 19.40       | 1,668.76              | 247.32       | 87.08        | -241.59                 | 0.00                    | 0.00                   | 0.00                  |
| 1,800.00              | 17.55           | 19.40       | 1,764.11              | 275.76       | 97.10        | -269.36                 | 0.00                    | 0.00                   | 0.00                  |
| 1,837.64              | 17.55           | 19.40       | 1,800.00              | 286.46       | 100.87       | -279.82                 | 0.00                    | 0.00                   | 0.00                  |
| <b>9 5/8"</b>         |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,900.00              | 17.55           | 19.40       | 1,859.46              | 304.19       | 107.11       | -297.14                 | 0.00                    | 0.00                   | 0.00                  |
| 2,000.00              | 17.55           | 19.40       | 1,954.81              | 332.63       | 117.12       | -324.92                 | 0.00                    | 0.00                   | 0.00                  |
| 2,100.00              | 17.55           | 19.40       | 2,050.15              | 361.06       | 127.13       | -352.70                 | 0.00                    | 0.00                   | 0.00                  |
| 2,200.00              | 17.55           | 19.40       | 2,145.50              | 389.50       | 137.15       | -380.47                 | 0.00                    | 0.00                   | 0.00                  |
| 2,300.00              | 17.55           | 19.40       | 2,240.85              | 417.93       | 147.16       | -408.25                 | 0.00                    | 0.00                   | 0.00                  |
| 2,400.00              | 17.55           | 19.40       | 2,336.20              | 446.37       | 157.17       | -436.03                 | 0.00                    | 0.00                   | 0.00                  |
| 2,500.00              | 17.55           | 19.40       | 2,431.54              | 474.81       | 167.18       | -463.80                 | 0.00                    | 0.00                   | 0.00                  |
| 2,600.00              | 17.55           | 19.40       | 2,526.89              | 503.24       | 177.20       | -491.58                 | 0.00                    | 0.00                   | 0.00                  |
| 2,700.00              | 17.55           | 19.40       | 2,622.24              | 531.68       | 187.21       | -519.36                 | 0.00                    | 0.00                   | 0.00                  |
| 2,800.00              | 17.55           | 19.40       | 2,717.59              | 560.11       | 197.22       | -547.13                 | 0.00                    | 0.00                   | 0.00                  |
| 2,900.00              | 17.55           | 19.40       | 2,812.93              | 588.55       | 207.24       | -574.91                 | 0.00                    | 0.00                   | 0.00                  |
| 3,000.00              | 17.55           | 19.40       | 2,908.28              | 616.98       | 217.25       | -602.69                 | 0.00                    | 0.00                   | 0.00                  |
| 3,100.00              | 17.55           | 19.40       | 3,003.63              | 645.42       | 227.26       | -630.46                 | 0.00                    | 0.00                   | 0.00                  |
| 3,200.00              | 17.55           | 19.40       | 3,098.98              | 673.86       | 237.27       | -658.24                 | 0.00                    | 0.00                   | 0.00                  |
| 3,300.00              | 17.55           | 19.40       | 3,194.32              | 702.29       | 247.29       | -686.02                 | 0.00                    | 0.00                   | 0.00                  |
| 3,400.00              | 17.55           | 19.40       | 3,289.67              | 730.73       | 257.30       | -713.79                 | 0.00                    | 0.00                   | 0.00                  |
| 3,500.00              | 17.55           | 19.40       | 3,385.02              | 759.16       | 267.31       | -741.57                 | 0.00                    | 0.00                   | 0.00                  |
| 3,600.00              | 17.55           | 19.40       | 3,480.37              | 787.60       | 277.32       | -769.35                 | 0.00                    | 0.00                   | 0.00                  |
| 3,700.00              | 17.55           | 19.40       | 3,575.71              | 816.03       | 287.34       | -797.12                 | 0.00                    | 0.00                   | 0.00                  |
| 3,800.00              | 17.55           | 19.40       | 3,671.06              | 844.47       | 297.35       | -824.90                 | 0.00                    | 0.00                   | 0.00                  |
| 3,900.00              | 17.55           | 19.40       | 3,766.41              | 872.91       | 307.36       | -852.68                 | 0.00                    | 0.00                   | 0.00                  |
| 3,986.06              | 17.55           | 19.40       | 3,848.47              | 897.38       | 315.98       | -876.58                 | 0.00                    | 0.00                   | 0.00                  |
| 4,000.00              | 17.34           | 19.40       | 3,861.77              | 901.32       | 317.37       | -880.43                 | 1.50                    | -1.50                  | 0.00                  |
| 4,100.00              | 15.84           | 19.40       | 3,957.60              | 928.24       | 326.85       | -906.73                 | 1.50                    | -1.50                  | 0.00                  |
| 4,200.00              | 14.34           | 19.40       | 4,054.15              | 952.79       | 335.49       | -930.71                 | 1.50                    | -1.50                  | 0.00                  |
| 4,300.00              | 12.84           | 19.40       | 4,151.35              | 974.95       | 343.29       | -952.36                 | 1.50                    | -1.50                  | 0.00                  |
| 4,400.00              | 11.34           | 19.40       | 4,249.13              | 994.70       | 350.25       | -971.65                 | 1.50                    | -1.50                  | 0.00                  |
| 4,500.00              | 9.84            | 19.40       | 4,347.43              | 1,012.03     | 356.35       | -988.58                 | 1.50                    | -1.50                  | 0.00                  |
| 4,600.00              | 8.34            | 19.40       | 4,446.17              | 1,026.93     | 361.59       | -1,003.13               | 1.50                    | -1.50                  | 0.00                  |

# Anadarko

## Planning Report

|                  |                                |                                     |                           |
|------------------|--------------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | PLANNING                       | <b>Local Co-ordinate Reference:</b> | Well FITZSIMMONS 36N-W9HZ |
| <b>Company:</b>  | US ROCKIES WATTENBERG PLANNING | <b>TVD Reference:</b>               | RKB @ 5007.00usft (D Rig) |
| <b>Project:</b>  | WELD-NAD83-UTMFT13N            | <b>MD Reference:</b>                | RKB @ 5007.00usft (D Rig) |
| <b>Site:</b>     | 1N-66W-09 FITZSIMMONS 3-9HZ    | <b>North Reference:</b>             | True                      |
| <b>Well:</b>     | FITZSIMMONS 36N-W9HZ           | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Plan A                         |                                     |                           |
| <b>Design:</b>   | Permit Rev-1                   |                                     |                           |

| Planned Survey                                      |                 |             |                       |              |              |                         |                         |                        |                       |
|---|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)                               | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 4,700.00  | 6.84            | 19.40       | 4,545.29              | 1,039.38     | 365.98       | -1,015.29               | 1.50                    | -1.50                  | 0.00                  |
| 4,800.00  | 5.34            | 19.40       | 4,644.72              | 1,049.38     | 369.50       | -1,025.06               | 1.50                    | -1.50                  | 0.00                  |
| 4,900.00  | 3.84            | 19.40       | 4,744.40              | 1,056.92     | 372.16       | -1,032.43               | 1.50                    | -1.50                  | 0.00                  |
| 4,967.72  | 2.82            | 19.40       | 4,812.00              | 1,060.63     | 373.46       | -1,036.05               | 1.50                    | -1.50                  | 0.00                  |
| <b>Sussex</b>                                       |                 |             |                       |              |              |                         |                         |                        |                       |
| 5,000.00  | 2.34            | 19.40       | 4,844.25              | 1,062.00     | 373.94       | -1,037.39               | 1.50                    | -1.50                  | 0.00                  |
| 5,100.00  | 0.84            | 19.40       | 4,944.21              | 1,064.62     | 374.86       | -1,039.94               | 1.50                    | -1.50                  | 0.00                  |
| 5,155.79  | 0.00            | 0.00        | 5,000.00              | 1,065.00     | 375.00       | -1,040.32               | 1.50                    | -1.50                  | 0.00                  |
| 5,200.00  | 0.00            | 0.00        | 5,044.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 5,300.00  | 0.00            | 0.00        | 5,144.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 5,400.00  | 0.00            | 0.00        | 5,244.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 5,500.00  | 0.00            | 0.00        | 5,344.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 5,600.00  | 0.00            | 0.00        | 5,444.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 5,700.00  | 0.00            | 0.00        | 5,544.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 5,800.00  | 0.00            | 0.00        | 5,644.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 5,900.00  | 0.00            | 0.00        | 5,744.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 6,000.00  | 0.00            | 0.00        | 5,844.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 6,100.00  | 0.00            | 0.00        | 5,944.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 6,200.00  | 0.00            | 0.00        | 6,044.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 6,300.00  | 0.00            | 0.00        | 6,144.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 6,400.00  | 0.00            | 0.00        | 6,244.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 6,500.00  | 0.00            | 0.00        | 6,344.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 6,600.00  | 0.00            | 0.00        | 6,444.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 6,700.00  | 0.00            | 0.00        | 6,544.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 6,800.00  | 0.00            | 0.00        | 6,644.21              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 6,809.77  | 0.00            | 0.00        | 6,653.97              | 1,065.00     | 375.00       | -1,040.32               | 0.00                    | 0.00                   | 0.00                  |
| 6,900.00  | 8.12            | 180.90      | 6,743.91              | 1,058.62     | 374.90       | -1,033.95               | 9.00                    | 9.00                   | 0.00                  |
| 7,000.00  | 17.12           | 180.90      | 6,841.39              | 1,036.79     | 374.56       | -1,012.19               | 9.00                    | 9.00                   | 0.00                  |
| 7,100.00  | 26.12           | 180.90      | 6,934.26              | 999.99       | 373.98       | -975.49                 | 9.00                    | 9.00                   | 0.00                  |
| 7,200.00  | 35.12           | 180.90      | 7,020.23              | 949.11       | 373.18       | -924.75                 | 9.00                    | 9.00                   | 0.00                  |
| 7,300.00  | 44.12           | 180.90      | 7,097.17              | 885.41       | 372.18       | -861.23                 | 9.00                    | 9.00                   | 0.00                  |
| 7,329.69  | 46.79           | 180.90      | 7,118.00              | 864.25       | 371.85       | -840.13                 | 9.00                    | 9.00                   | 0.00                  |
| <b>Sharon Springs</b>                               |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,389.76  | 52.20           | 180.90      | 7,157.00              | 818.60       | 371.14       | -794.61                 | 9.00                    | 9.00                   | 0.00                  |
| <b>Niobrara</b>                                     |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,400.00  | 53.12           | 180.90      | 7,163.21              | 810.46       | 371.01       | -786.49                 | 9.00                    | 9.00                   | 0.00                  |
| 7,500.00  | 62.12           | 180.90      | 7,216.71              | 726.11       | 369.69       | -702.37                 | 9.00                    | 9.00                   | 0.00                  |
| 7,600.00  | 71.12           | 180.90      | 7,256.35              | 634.42       | 368.25       | -610.94                 | 9.00                    | 9.00                   | 0.00                  |
| 7,643.48  | 75.03           | 180.90      | 7,269.00              | 592.84       | 367.60       | -569.48                 | 9.00                    | 9.00                   | 0.00                  |
| <b>Nio B</b>  |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,700.00  | 80.12           | 180.90      | 7,281.15              | 537.67       | 366.73       | -514.46                 | 9.00                    | 9.00                   | 0.00                  |
| 7,800.00  | 89.12           | 180.90      | 7,290.52              | 438.22       | 365.17       | -415.29                 | 9.00                    | 9.00                   | 0.00                  |
| 7,808.10  | 89.85           | 180.90      | 7,290.59              | 430.12       | 365.05       | -407.21                 | 9.00                    | 9.00                   | 0.00                  |
| <b>Top of Production - FITZSIMMONS 36N-W9HZ_PHL</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,900.00  | 89.85           | 180.90      | 7,290.83              | 338.24       | 363.61       | -315.58                 | 0.00                    | 0.00                   | 0.00                  |
| 8,000.00  | 89.85           | 180.90      | 7,291.09              | 238.25       | 362.04       | -215.87                 | 0.00                    | 0.00                   | 0.00                  |
| 8,100.00  | 89.85           | 180.90      | 7,291.36              | 138.26       | 360.47       | -116.16                 | 0.00                    | 0.00                   | 0.00                  |
| 8,200.00  | 89.85           | 180.90      | 7,291.62              | 38.27        | 358.90       | -16.46                  | 0.00                    | 0.00                   | 0.00                  |
| 8,300.00  | 89.85           | 180.90      | 7,291.88              | -61.71       | 357.33       | 83.25                   | 0.00                    | 0.00                   | 0.00                  |
| 8,400.00  | 89.85           | 180.90      | 7,292.14              | -161.70      | 355.77       | 182.96                  | 0.00                    | 0.00                   | 0.00                  |
| 8,500.00  | 89.85           | 180.90      | 7,292.40              | -261.69      | 354.20       | 282.67                  | 0.00                    | 0.00                   | 0.00                  |
| 8,600.00  | 89.85           | 180.90      | 7,292.67              | -361.68      | 352.63       | 382.38                  | 0.00                    | 0.00                   | 0.00                  |
| 8,700.00  | 89.85           | 180.90      | 7,292.93              | -461.66      | 351.06       | 482.09                  | 0.00                    | 0.00                   | 0.00                  |

# Anadarko

## Planning Report

|                  |                                |                                     |                           |
|------------------|--------------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | PLANNING                       | <b>Local Co-ordinate Reference:</b> | Well FITZSIMMONS 36N-W9HZ |
| <b>Company:</b>  | US ROCKIES WATTENBERG PLANNING | <b>TVD Reference:</b>               | RKB @ 5007.00usft (D Rig) |
| <b>Project:</b>  | WELD-NAD83-UTMFT13N            | <b>MD Reference:</b>                | RKB @ 5007.00usft (D Rig) |
| <b>Site:</b>     | 1N-66W-09 FITZSIMMONS 3-9HZ    | <b>North Reference:</b>             | True                      |
| <b>Well:</b>     | FITZSIMMONS 36N-W9HZ           | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Plan A                         |                                     |                           |
| <b>Design:</b>   | Permit Rev-1                   |                                     |                           |

| Planned Survey            |                 |             |                       |              |              |                         |                         |                        |                       |  |
|---------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft)     | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 8,800.00                  | 89.85           | 180.90      | 7,293.19              | -561.65      | 349.50       | 581.80                  | 0.00                    | 0.00                   | 0.00                  |  |
| 8,900.00                  | 89.85           | 180.90      | 7,293.45              | -661.64      | 347.93       | 681.51                  | 0.00                    | 0.00                   | 0.00                  |  |
| 9,000.00                  | 89.85           | 180.90      | 7,293.71              | -761.63      | 346.36       | 781.21                  | 0.00                    | 0.00                   | 0.00                  |  |
| 9,100.00                  | 89.85           | 180.90      | 7,293.97              | -861.61      | 344.79       | 880.92                  | 0.00                    | 0.00                   | 0.00                  |  |
| 9,200.00                  | 89.85           | 180.90      | 7,294.24              | -961.60      | 343.23       | 980.63                  | 0.00                    | 0.00                   | 0.00                  |  |
| 9,300.00                  | 89.85           | 180.90      | 7,294.50              | -1,061.59    | 341.66       | 1,080.34                | 0.00                    | 0.00                   | 0.00                  |  |
| 9,400.00                  | 89.85           | 180.90      | 7,294.76              | -1,161.57    | 340.09       | 1,180.05                | 0.00                    | 0.00                   | 0.00                  |  |
| 9,500.00                  | 89.85           | 180.90      | 7,295.02              | -1,261.56    | 338.52       | 1,279.76                | 0.00                    | 0.00                   | 0.00                  |  |
| 9,600.00                  | 89.85           | 180.90      | 7,295.28              | -1,361.55    | 336.96       | 1,379.47                | 0.00                    | 0.00                   | 0.00                  |  |
| 9,700.00                  | 89.85           | 180.90      | 7,295.55              | -1,461.54    | 335.39       | 1,479.17                | 0.00                    | 0.00                   | 0.00                  |  |
| 9,800.00                  | 89.85           | 180.90      | 7,295.81              | -1,561.52    | 333.82       | 1,578.88                | 0.00                    | 0.00                   | 0.00                  |  |
| 9,900.00                  | 89.85           | 180.90      | 7,296.07              | -1,661.51    | 332.25       | 1,678.59                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,000.00                 | 89.85           | 180.90      | 7,296.33              | -1,761.50    | 330.68       | 1,778.30                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,100.00                 | 89.85           | 180.90      | 7,296.59              | -1,861.49    | 329.12       | 1,878.01                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,200.00                 | 89.85           | 180.90      | 7,296.85              | -1,961.47    | 327.55       | 1,977.72                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,300.00                 | 89.85           | 180.90      | 7,297.12              | -2,061.46    | 325.98       | 2,077.43                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,400.00                 | 89.85           | 180.90      | 7,297.38              | -2,161.45    | 324.41       | 2,177.13                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,500.00                 | 89.85           | 180.90      | 7,297.64              | -2,261.44    | 322.85       | 2,276.84                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,600.00                 | 89.85           | 180.90      | 7,297.90              | -2,361.42    | 321.28       | 2,376.55                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,700.00                 | 89.85           | 180.90      | 7,298.16              | -2,461.41    | 319.71       | 2,476.26                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,800.00                 | 89.85           | 180.90      | 7,298.43              | -2,561.40    | 318.14       | 2,575.97                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,900.00                 | 89.85           | 180.90      | 7,298.69              | -2,661.39    | 316.58       | 2,675.68                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,000.00                 | 89.85           | 180.90      | 7,298.95              | -2,761.37    | 315.01       | 2,775.39                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,100.00                 | 89.85           | 180.90      | 7,299.21              | -2,861.36    | 313.44       | 2,875.10                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,200.00                 | 89.85           | 180.90      | 7,299.47              | -2,961.35    | 311.87       | 2,974.80                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,300.00                 | 89.85           | 180.90      | 7,299.73              | -3,061.33    | 310.31       | 3,074.51                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,400.00                 | 89.85           | 180.90      | 7,300.00              | -3,161.32    | 308.74       | 3,174.22                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,500.00                 | 89.85           | 180.90      | 7,300.26              | -3,261.31    | 307.17       | 3,273.93                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,600.00                 | 89.85           | 180.90      | 7,300.52              | -3,361.30    | 305.60       | 3,373.64                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,700.00                 | 89.85           | 180.90      | 7,300.78              | -3,461.28    | 304.03       | 3,473.35                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,800.00                 | 89.85           | 180.90      | 7,301.04              | -3,561.27    | 302.47       | 3,573.06                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,900.00                 | 89.85           | 180.90      | 7,301.30              | -3,661.26    | 300.90       | 3,672.76                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,000.00                 | 89.85           | 180.90      | 7,301.57              | -3,761.25    | 299.33       | 3,772.47                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,100.00                 | 89.85           | 180.90      | 7,301.83              | -3,861.23    | 297.76       | 3,872.18                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,200.00                 | 89.85           | 180.90      | 7,302.09              | -3,961.22    | 296.20       | 3,971.89                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,300.00                 | 89.85           | 180.90      | 7,302.35              | -4,061.21    | 294.63       | 4,071.60                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,400.00                 | 89.85           | 180.90      | 7,302.61              | -4,161.20    | 293.06       | 4,171.31                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,500.00                 | 89.85           | 180.90      | 7,302.88              | -4,261.18    | 291.49       | 4,271.02                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,600.00                 | 89.85           | 180.90      | 7,303.14              | -4,361.17    | 289.93       | 4,370.72                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,700.00                 | 89.85           | 180.90      | 7,303.40              | -4,461.16    | 288.36       | 4,470.43                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,800.00                 | 89.85           | 180.90      | 7,303.66              | -4,561.15    | 286.79       | 4,570.14                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,900.00                 | 89.85           | 180.90      | 7,303.92              | -4,661.13    | 285.22       | 4,669.85                | 0.00                    | 0.00                   | 0.00                  |  |
| 12,929.55                 | 89.85           | 180.90      | 7,304.00              | -4,690.68    | 284.76       | 4,699.32                | 0.00                    | 0.00                   | 0.00                  |  |
| FITZSIMMONS 36N-W9HZ_PBHL |                 |             |                       |              |              |                         |                         |                        |                       |  |

# Anadarko

## Planning Report

|                  |                                |                                     |                           |
|------------------|--------------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | PLANNING                       | <b>Local Co-ordinate Reference:</b> | Well FITZSIMMONS 36N-W9HZ |
| <b>Company:</b>  | US ROCKIES WATTENBERG PLANNING | <b>TVD Reference:</b>               | RKB @ 5007.00usft (D Rig) |
| <b>Project:</b>  | WELD-NAD83-UTMFT13N            | <b>MD Reference:</b>                | RKB @ 5007.00usft (D Rig) |
| <b>Site:</b>     | 1N-66W-09 FITZSIMMONS 3-9HZ    | <b>North Reference:</b>             | True                      |
| <b>Well:</b>     | FITZSIMMONS 36N-W9HZ           | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Plan A                         |                                     |                           |
| <b>Design:</b>   | Permit Rev-1                   |                                     |                           |

| Design Targets            |           |          |          |           |        |               |              |           |             |
|---------------------------|-----------|----------|----------|-----------|--------|---------------|--------------|-----------|-------------|
| Target Name               |           |          |          |           |        |               |              |           |             |
| - hit/miss target         | Dip Angle | Dip Dir. | TVD      | +N/-S     | +E/-W  | Northing      | Easting      | Latitude  | Longitude   |
| - Shape                   | (°)       | (°)      | (usft)   | (usft)    | (usft) | (usft)        | (usft)       |           |             |
| FITZSIMMONS 36N-V         | 0.00      | 0.00     | 7,290.59 | 430.12    | 365.05 | 14,553,279.15 | 1,701,228.41 | 40.072695 | -104.782624 |
| - plan hits target center |           |          |          |           |        |               |              |           |             |
| - Point                   |           |          |          |           |        |               |              |           |             |
| FITZSIMMONS 36N-V         | 0.00      | 0.00     | 7,304.00 | -4,690.68 | 284.76 | 14,548,158.17 | 1,701,160.55 | 40.058633 | -104.782912 |
| - plan hits target center |           |          |          |           |        |               |              |           |             |
| - Point                   |           |          |          |           |        |               |              |           |             |

| Casing Points |                       |                       |                   |                     |                   |
|---------------|-----------------------|-----------------------|-------------------|---------------------|-------------------|
|               | Measured Depth (usft) | Vertical Depth (usft) | Name              | Casing Diameter (") | Hole Diameter (") |
|               | 1,837.64              | 1,800.00              | 9 5/8"            | 9-5/8               | 13-1/2            |
|               | 7,808.10              | 7,290.59              | Top of Production | 5-1/2               | 8-1/2             |

| Formations |                       |                       |                |           |         |                   |
|------------|-----------------------|-----------------------|----------------|-----------|---------|-------------------|
|            | Measured Depth (usft) | Vertical Depth (usft) | Name           | Lithology | Dip (°) | Dip Direction (°) |
|            | 1,488.39              | 1,467.00              | Fox Hills      |           |         |                   |
|            | 4,967.72              | 4,812.00              | Sussex         |           |         |                   |
|            | 7,329.69              | 7,118.00              | Sharon Springs |           |         |                   |
|            | 7,389.76              | 7,157.00              | Niobrara       |           |         |                   |
|            | 7,643.48              | 7,269.00              | Nio B          |           |         |                   |