

# **ConocoPhillips RBU Gold Data**

**Niobrara North Zone**

**Big Sandy**

**Big Sandy 3-65 36-31 2BH**

**Big Sandy 3-65 36-31 2BH**

**Plan: Big Sandy 3-65 36-31 2BH**

## **Standard Planning Report**

**24 July, 2017**

# ConocoPhillips

## Planning Report

|                  |                              |                                     |                               |
|------------------|------------------------------|-------------------------------------|-------------------------------|
| <b>Database:</b> | EDT 14 Central Planning      | <b>Local Co-ordinate Reference:</b> | Well Big Sandy 3-65 36-31 2BH |
| <b>Company:</b>  | ConocoPhillips RBU Gold Data | <b>TVD Reference:</b>               | 27' RKB @ 5550.90ft (27' RKB) |
| <b>Project:</b>  | Niobrara North Zone          | <b>MD Reference:</b>                | 27' RKB @ 5550.90ft (27' RKB) |
| <b>Site:</b>     | Big Sandy                    | <b>North Reference:</b>             | True                          |
| <b>Well:</b>     | Big Sandy 3-65 36-31 2BH     | <b>Survey Calculation Method:</b>   | Minimum Curvature             |
| <b>Wellbore:</b> | Big Sandy 3-65 36-31 2BH     |                                     |                               |
| <b>Design:</b>   | Big Sandy 3-65 36-31 2BH     |                                     |                               |

|                    |   |                      |                             |
|--------------------|---|----------------------|-----------------------------|
| <b>Project</b>     | Niobrara North Zone, Colorado North Zone, FIPS Zone: 0501 |                      |                             |
| <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                                    |                      | Using geodetic scale factor |

| Site                    |                       | Big Sandy |                    |            |                   |
|-------------------------|-----------------------|-----------|--------------------|------------|-------------------|
| Site Position:<br>From: |                       | Northing: | 1,154,567.170 usft | Latitude:  | 39° 45' 15.469 N  |
|                         | Lat/Long              | Easting:  | 3,246,918.586 usft | Longitude: | 104° 37' 18.412 W |
|                         | Position Uncertainty: | 0.00 ft   | Slot Radius:       | 26 "       | Grid Convergence: |

|                      |                          |              |                     |                    |               |                   |
|----------------------|--------------------------|--------------|---------------------|--------------------|---------------|-------------------|
| Well                 | Big Sandy 3-65 36-31 2BH |              |                     |                    |               |                   |
| Well Position        | +N/-S                    | -2,772.43 ft | Northing:           | 1,151,790.143 usft | Latitude:     | 39° 44' 48.070 N  |
|                      | +E/-W                    | -480.25 ft   | Easting:            | 3,246,465.819 usft | Longitude:    | 104° 37' 24.560 W |
| Position Uncertainty |                          | 2.00 ft      | Wellhead Elevation: |                    | Ground Level: | 5,523.90 ft       |

|                  |                          |                    |                        |                      |                            |
|------------------|--------------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Big Sandy 3-65 36-31 2BH |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b>        | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | BGGM2017                 | 7/24/2017          | 8.26                   | 66.39                | 52,037.77364110            |

|                          |                              |                   |                      |                      |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| <b>Design</b>            | Big Sandy 3-65 36-31 2BH     |                   |                      |                      |
| <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) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b>    | <b>Direction (°)</b> |
|                          | 0.00                         | 0.00              | 0.00                 | 85.79                |

|                                 |                      |                          |                                 |  |
|---------------------------------|----------------------|--------------------------|---------------------------------|--|
| <b>Plan Survey Tool Program</b> | <b>Date</b>          | 7/24/2017                |                                 |  |
| <b>Depth From (ft)</b>          | <b>Depth To (ft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b>                | <b>Remarks</b>                                 |
| 1                               | 0.00                 | 2,025.00                 | Big Sandy 3-65 36-31 2BH (Big S | Gyro-BM-MS<br>Gyro - bat/mem drop m/s          |
| 2                               | 2,025.00             | 8,200.89                 | Big Sandy 3-65 36-31 2BH (Big S | MWD+IFR_No SAG<br>MWD + IFR (No SAG) correctic |
| 3                               | 8,200.89             | 18,230.66                | Big Sandy 3-65 36-31 2BH (Big S | MWD+IFR_No SAG<br>MWD + IFR (No SAG) correctic |

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| <b>Company:</b>  | ConocoPhillips RBU Gold Data | <b>TVD Reference:</b>               | 27' RKB @ 5550.90ft (27' RKB) |
| <b>Project:</b>  | Niobrara North Zone          | <b>MD Reference:</b>                | 27' RKB @ 5550.90ft (27' RKB) |
| <b>Site:</b>     | Big Sandy                    | <b>North Reference:</b>             | True                          |
| <b>Well:</b>     | Big Sandy 3-65 36-31 2BH     | <b>Survey Calculation Method:</b>   | Minimum Curvature             |
| <b>Wellbore:</b> | Big Sandy 3-65 36-31 2BH     |                                     |                               |
| <b>Design:</b>   | Big Sandy 3-65 36-31 2BH     |                                     |                               |

| Plan Sections       |                 |             |                     |            |            |                       |                      |                     |         |                      |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target               |
| 0.00                | 0.00            | 0.00        | 0.00                | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00    |                      |
| 3,671.00            | 0.00            | 0.00        | 3,671.00            | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00    |                      |
| 4,737.49            | 16.00           | 23.81       | 4,723.69            | 135.33     | 59.72      | 1.50                  | 1.50                 | 0.00                | 23.81   |                      |
| 7,355.71            | 16.00           | 23.81       | 7,240.52            | 795.47     | 351.03     | 0.00                  | 0.00                 | 0.00                | 0.00    |                      |
| 8,200.89            | 90.77           | 90.65       | 7,734.00            | 920.82     | 929.47     | 10.00                 | 8.85                 | 7.91                | 67.45   | Big Sandy 3-65 36-31 |
| 18,230.66           | 90.77           | 90.65       | 7,600.00            | 806.84     | 10,957.70  | 0.00                  | 0.00                 | 0.00                | 0.00    | Big Sandy 3-65 36-31 |

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| <b>Project:</b>  | Niobrara North Zone          | <b>MD Reference:</b>                | 27' RKB @ 5550.90ft (27' RKB) |
| <b>Site:</b>     | Big Sandy                    | <b>North Reference:</b>             | True                          |
| <b>Well:</b>     | Big Sandy 3-65 36-31 2BH     | <b>Survey Calculation Method:</b>   | Minimum Curvature             |
| <b>Wellbore:</b> | Big Sandy 3-65 36-31 2BH     |                                     |                               |
| <b>Design:</b>   | Big Sandy 3-65 36-31 2BH     |                                     |                               |

| Planned Survey      |                 |             |                     |            |            |                       |                       |                      |                     |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 0.00                | 0.00            | 0.00        | 0.00                | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 100.00              | 0.00            | 0.00        | 100.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 200.00              | 0.00            | 0.00        | 200.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 300.00              | 0.00            | 0.00        | 300.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 400.00              | 0.00            | 0.00        | 400.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 500.00              | 0.00            | 0.00        | 500.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 600.00              | 0.00            | 0.00        | 600.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 700.00              | 0.00            | 0.00        | 700.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 800.00              | 0.00            | 0.00        | 800.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 900.00              | 0.00            | 0.00        | 900.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,000.00            | 0.00            | 0.00        | 1,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,100.00            | 0.00            | 0.00        | 1,100.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,200.00            | 0.00            | 0.00        | 1,200.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,300.00            | 0.00            | 0.00        | 1,300.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,400.00            | 0.00            | 0.00        | 1,400.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,500.00            | 0.00            | 0.00        | 1,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,600.00            | 0.00            | 0.00        | 1,600.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,700.00            | 0.00            | 0.00        | 1,700.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,800.00            | 0.00            | 0.00        | 1,800.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 1,900.00            | 0.00            | 0.00        | 1,900.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,000.00            | 0.00            | 0.00        | 2,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,025.00            | 0.00            | 0.00        | 2,025.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| Surface             |                 |             |                     |            |            |                       |                       |                      |                     |
| 2,100.00            | 0.00            | 0.00        | 2,100.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,200.00            | 0.00            | 0.00        | 2,200.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,300.00            | 0.00            | 0.00        | 2,300.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,400.00            | 0.00            | 0.00        | 2,400.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,500.00            | 0.00            | 0.00        | 2,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,600.00            | 0.00            | 0.00        | 2,600.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,700.00            | 0.00            | 0.00        | 2,700.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,800.00            | 0.00            | 0.00        | 2,800.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 2,900.00            | 0.00            | 0.00        | 2,900.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,000.00            | 0.00            | 0.00        | 3,000.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,100.00            | 0.00            | 0.00        | 3,100.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,200.00            | 0.00            | 0.00        | 3,200.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,300.00            | 0.00            | 0.00        | 3,300.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,400.00            | 0.00            | 0.00        | 3,400.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,500.00            | 0.00            | 0.00        | 3,500.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,600.00            | 0.00            | 0.00        | 3,600.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,671.00            | 0.00            | 0.00        | 3,671.00            | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 3,700.00            | 0.44            | 23.81       | 3,700.00            | 0.10       | 0.04       | 0.05                  | 1.50                  | 1.50                 | 0.00                |
| 3,800.00            | 1.94            | 23.81       | 3,799.98            | 1.99       | 0.88       | 1.02                  | 1.50                  | 1.50                 | 0.00                |
| 3,900.00            | 3.44            | 23.81       | 3,899.86            | 6.28       | 2.77       | 3.22                  | 1.50                  | 1.50                 | 0.00                |
| 4,000.00            | 4.94            | 23.81       | 3,999.59            | 12.95      | 5.72       | 6.65                  | 1.50                  | 1.50                 | 0.00                |
| 4,100.00            | 6.44            | 23.81       | 4,099.10            | 22.02      | 9.72       | 11.31                 | 1.50                  | 1.50                 | 0.00                |
| 4,200.00            | 7.94            | 23.81       | 4,198.31            | 33.46      | 14.77      | 17.18                 | 1.50                  | 1.50                 | 0.00                |
| 4,300.00            | 9.44            | 23.81       | 4,297.16            | 47.27      | 20.86      | 24.28                 | 1.50                  | 1.50                 | 0.00                |
| 4,400.00            | 10.94           | 23.81       | 4,395.58            | 63.45      | 28.00      | 32.58                 | 1.50                  | 1.50                 | 0.00                |
| 4,500.00            | 12.44           | 23.81       | 4,493.51            | 81.98      | 36.18      | 42.10                 | 1.50                  | 1.50                 | 0.00                |
| 4,600.00            | 13.94           | 23.81       | 4,590.87            | 102.85     | 45.39      | 52.82                 | 1.50                  | 1.50                 | 0.00                |
| 4,700.00            | 15.44           | 23.81       | 4,687.60            | 126.04     | 55.62      | 64.72                 | 1.50                  | 1.50                 | 0.00                |
| 4,737.49            | 16.00           | 23.81       | 4,723.69            | 135.33     | 59.72      | 69.50                 | 1.50                  | 1.50                 | 0.00                |
| 4,800.00            | 16.00           | 23.81       | 4,783.78            | 151.09     | 66.67      | 77.59                 | 0.00                  | 0.00                 | 0.00                |
| 4,900.00            | 16.00           | 23.81       | 4,879.90            | 176.30     | 77.80      | 90.54                 | 0.00                  | 0.00                 | 0.00                |

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| <b>Company:</b>  | ConocoPhillips RBU Gold Data | <b>TVD Reference:</b>               | 27' RKB @ 5550.90ft (27' RKB) |
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| <b>Site:</b>     | Big Sandy                    | <b>North Reference:</b>             | True                          |
| <b>Well:</b>     | Big Sandy 3-65 36-31 2BH     | <b>Survey Calculation Method:</b>   | Minimum Curvature             |
| <b>Wellbore:</b> | Big Sandy 3-65 36-31 2BH     |                                     |                               |
| <b>Design:</b>   | Big Sandy 3-65 36-31 2BH     |                                     |                               |

| Planned Survey      |                 |             |                     |            |            |                       |                       |                      |                     |  |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |  |
| 5,000.00            | 16.00           | 23.81       | 4,976.03            | 201.52     | 88.93      | 103.49                | 0.00                  | 0.00                 | 0.00                |  |
| 5,100.00            | 16.00           | 23.81       | 5,072.16            | 226.73     | 100.05     | 116.43                | 0.00                  | 0.00                 | 0.00                |  |
| 5,200.00            | 16.00           | 23.81       | 5,168.29            | 251.94     | 111.18     | 129.38                | 0.00                  | 0.00                 | 0.00                |  |
| 5,300.00            | 16.00           | 23.81       | 5,264.41            | 277.16     | 122.31     | 142.33                | 0.00                  | 0.00                 | 0.00                |  |
| 5,400.00            | 16.00           | 23.81       | 5,360.54            | 302.37     | 133.43     | 155.28                | 0.00                  | 0.00                 | 0.00                |  |
| 5,500.00            | 16.00           | 23.81       | 5,456.67            | 327.58     | 144.56     | 168.22                | 0.00                  | 0.00                 | 0.00                |  |
| 5,600.00            | 16.00           | 23.81       | 5,552.80            | 352.80     | 155.69     | 181.17                | 0.00                  | 0.00                 | 0.00                |  |
| 5,700.00            | 16.00           | 23.81       | 5,648.92            | 378.01     | 166.81     | 194.12                | 0.00                  | 0.00                 | 0.00                |  |
| 5,800.00            | 16.00           | 23.81       | 5,745.05            | 403.22     | 177.94     | 207.07                | 0.00                  | 0.00                 | 0.00                |  |
| 5,900.00            | 16.00           | 23.81       | 5,841.18            | 428.44     | 189.06     | 220.02                | 0.00                  | 0.00                 | 0.00                |  |
| 6,000.00            | 16.00           | 23.81       | 5,937.31            | 453.65     | 200.19     | 232.96                | 0.00                  | 0.00                 | 0.00                |  |
| 6,100.00            | 16.00           | 23.81       | 6,033.43            | 478.87     | 211.32     | 245.91                | 0.00                  | 0.00                 | 0.00                |  |
| 6,200.00            | 16.00           | 23.81       | 6,129.56            | 504.08     | 222.44     | 258.86                | 0.00                  | 0.00                 | 0.00                |  |
| 6,300.00            | 16.00           | 23.81       | 6,225.69            | 529.29     | 233.57     | 271.81                | 0.00                  | 0.00                 | 0.00                |  |
| 6,400.00            | 16.00           | 23.81       | 6,321.82            | 554.51     | 244.70     | 284.75                | 0.00                  | 0.00                 | 0.00                |  |
| 6,500.00            | 16.00           | 23.81       | 6,417.94            | 579.72     | 255.82     | 297.70                | 0.00                  | 0.00                 | 0.00                |  |
| 6,600.00            | 16.00           | 23.81       | 6,514.07            | 604.93     | 266.95     | 310.65                | 0.00                  | 0.00                 | 0.00                |  |
| 6,700.00            | 16.00           | 23.81       | 6,610.20            | 630.15     | 278.07     | 323.60                | 0.00                  | 0.00                 | 0.00                |  |
| 6,800.00            | 16.00           | 23.81       | 6,706.33            | 655.36     | 289.20     | 336.55                | 0.00                  | 0.00                 | 0.00                |  |
| 6,900.00            | 16.00           | 23.81       | 6,802.45            | 680.57     | 300.33     | 349.49                | 0.00                  | 0.00                 | 0.00                |  |
| 7,000.00            | 16.00           | 23.81       | 6,898.58            | 705.79     | 311.45     | 362.44                | 0.00                  | 0.00                 | 0.00                |  |
| 7,100.00            | 16.00           | 23.81       | 6,994.71            | 731.00     | 322.58     | 375.39                | 0.00                  | 0.00                 | 0.00                |  |
| 7,200.00            | 16.00           | 23.81       | 7,090.84            | 756.21     | 333.71     | 388.34                | 0.00                  | 0.00                 | 0.00                |  |
| 7,300.00            | 16.00           | 23.81       | 7,186.96            | 781.43     | 344.83     | 401.29                | 0.00                  | 0.00                 | 0.00                |  |
| 7,355.71            | 16.00           | 23.81       | 7,240.52            | 795.47     | 351.03     | 408.50                | 0.00                  | 0.00                 | 0.00                |  |
| 7,400.00            | 18.15           | 37.05       | 7,282.87            | 806.57     | 357.65     | 415.92                | 10.00                 | 4.86                 | 29.88               |  |
| 7,450.00            | 21.41           | 48.29       | 7,329.93            | 818.86     | 369.17     | 428.30                | 10.00                 | 6.53                 | 22.50               |  |
| 7,500.00            | 25.23           | 56.49       | 7,375.85            | 830.83     | 384.88     | 444.85                | 10.00                 | 7.63                 | 16.39               |  |
| 7,550.00            | 29.38           | 62.58       | 7,420.28            | 842.36     | 404.66     | 465.43                | 10.00                 | 8.31                 | 12.18               |  |
| 7,600.00            | 33.75           | 67.25       | 7,462.87            | 853.39     | 428.37     | 489.88                | 10.00                 | 8.73                 | 9.34                |  |
| 7,650.00            | 38.25           | 70.95       | 7,503.32            | 863.82     | 455.82     | 518.03                | 10.00                 | 9.01                 | 7.40                |  |
| 7,700.00            | 42.85           | 73.97       | 7,541.31            | 873.57     | 486.81     | 549.65                | 10.00                 | 9.20                 | 6.04                |  |
| 7,750.00            | 47.52           | 76.50       | 7,576.54            | 882.58     | 521.10     | 584.51                | 10.00                 | 9.33                 | 5.07                |  |
| 7,800.00            | 52.23           | 78.68       | 7,608.76            | 890.77     | 558.43     | 622.34                | 10.00                 | 9.43                 | 4.36                |  |
| 7,850.00            | 56.98           | 80.60       | 7,637.71            | 898.07     | 598.52     | 662.85                | 10.00                 | 9.50                 | 3.84                |  |
| 7,900.00            | 61.76           | 82.32       | 7,663.18            | 904.44     | 641.05     | 705.74                | 10.00                 | 9.55                 | 3.44                |  |
| 7,950.00            | 66.55           | 83.89       | 7,684.97            | 909.83     | 685.71     | 750.67                | 10.00                 | 9.59                 | 3.15                |  |
| 8,000.00            | 71.36           | 85.36       | 7,702.92            | 914.19     | 732.16     | 797.31                | 10.00                 | 9.62                 | 2.92                |  |
| 8,050.00            | 76.18           | 86.74       | 7,716.89            | 917.49     | 780.04     | 845.30                | 10.00                 | 9.64                 | 2.76                |  |
| 8,100.00            | 81.01           | 88.06       | 7,726.77            | 919.70     | 828.98     | 894.28                | 10.00                 | 9.66                 | 2.65                |  |
| 8,150.00            | 85.84           | 89.35       | 7,732.50            | 920.82     | 878.63     | 943.87                | 10.00                 | 9.67                 | 2.58                |  |
| 8,200.89            | 90.77           | 90.65       | 7,734.00            | 920.82     | 929.47     | 994.58                | 10.00                 | 9.67                 | 2.55                |  |
| 8,300.00            | 90.77           | 90.65       | 7,732.68            | 919.69     | 1,028.57   | 1,093.33              | 0.00                  | 0.00                 | 0.00                |  |
| 8,400.00            | 90.77           | 90.65       | 7,731.34            | 918.55     | 1,128.56   | 1,192.96              | 0.00                  | 0.00                 | 0.00                |  |
| 8,500.00            | 90.77           | 90.65       | 7,730.00            | 917.42     | 1,228.54   | 1,292.59              | 0.00                  | 0.00                 | 0.00                |  |
| 8,600.00            | 90.77           | 90.65       | 7,728.67            | 916.28     | 1,328.53   | 1,392.23              | 0.00                  | 0.00                 | 0.00                |  |
| 8,700.00            | 90.77           | 90.65       | 7,727.33            | 915.15     | 1,428.51   | 1,491.86              | 0.00                  | 0.00                 | 0.00                |  |
| 8,800.00            | 90.77           | 90.65       | 7,726.00            | 914.01     | 1,528.50   | 1,591.49              | 0.00                  | 0.00                 | 0.00                |  |
| 8,900.00            | 90.77           | 90.65       | 7,724.66            | 912.87     | 1,628.48   | 1,691.12              | 0.00                  | 0.00                 | 0.00                |  |
| 9,000.00            | 90.77           | 90.65       | 7,723.32            | 911.74     | 1,728.46   | 1,790.75              | 0.00                  | 0.00                 | 0.00                |  |
| 9,100.00            | 90.77           | 90.65       | 7,721.99            | 910.60     | 1,828.45   | 1,890.38              | 0.00                  | 0.00                 | 0.00                |  |
| 9,200.00            | 90.77           | 90.65       | 7,720.65            | 909.46     | 1,928.43   | 1,990.01              | 0.00                  | 0.00                 | 0.00                |  |
| 9,300.00            | 90.77           | 90.65       | 7,719.32            | 908.33     | 2,028.42   | 2,089.64              | 0.00                  | 0.00                 | 0.00                |  |
| 9,400.00            | 90.77           | 90.65       | 7,717.98            | 907.19     | 2,128.40   | 2,189.28              | 0.00                  | 0.00                 | 0.00                |  |

# ConocoPhillips

## Planning Report

|                  |                              |                                     |                               |
|------------------|------------------------------|-------------------------------------|-------------------------------|
| <b>Database:</b> | EDT 14 Central Planning      | <b>Local Co-ordinate Reference:</b> | Well Big Sandy 3-65 36-31 2BH |
| <b>Company:</b>  | ConocoPhillips RBU Gold Data | <b>TVD Reference:</b>               | 27' RKB @ 5550.90ft (27' RKB) |
| <b>Project:</b>  | Niobrara North Zone          | <b>MD Reference:</b>                | 27' RKB @ 5550.90ft (27' RKB) |
| <b>Site:</b>     | Big Sandy                    | <b>North Reference:</b>             | True                          |
| <b>Well:</b>     | Big Sandy 3-65 36-31 2BH     | <b>Survey Calculation Method:</b>   | Minimum Curvature             |
| <b>Wellbore:</b> | Big Sandy 3-65 36-31 2BH     |                                     |                               |
| <b>Design:</b>   | Big Sandy 3-65 36-31 2BH     |                                     |                               |

| Planned Survey      |                 |             |                     |            |            |                       |                       |                      |                     |  |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |  |
| 9,500.00            | 90.77           | 90.65       | 7,716.64            | 906.06     | 2,228.39   | 2,288.91              | 0.00                  | 0.00                 | 0.00                |  |
| 9,600.00            | 90.77           | 90.65       | 7,715.31            | 904.92     | 2,328.37   | 2,388.54              | 0.00                  | 0.00                 | 0.00                |  |
| 9,700.00            | 90.77           | 90.65       | 7,713.97            | 903.78     | 2,428.36   | 2,488.17              | 0.00                  | 0.00                 | 0.00                |  |
| 9,800.00            | 90.77           | 90.65       | 7,712.64            | 902.65     | 2,528.34   | 2,587.80              | 0.00                  | 0.00                 | 0.00                |  |
| 9,900.00            | 90.77           | 90.65       | 7,711.30            | 901.51     | 2,628.33   | 2,687.43              | 0.00                  | 0.00                 | 0.00                |  |
| 10,000.00           | 90.77           | 90.65       | 7,709.96            | 900.37     | 2,728.31   | 2,787.06              | 0.00                  | 0.00                 | 0.00                |  |
| 10,100.00           | 90.77           | 90.65       | 7,708.63            | 899.24     | 2,828.30   | 2,886.69              | 0.00                  | 0.00                 | 0.00                |  |
| 10,200.00           | 90.77           | 90.65       | 7,707.29            | 898.10     | 2,928.28   | 2,986.33              | 0.00                  | 0.00                 | 0.00                |  |
| 10,300.00           | 90.77           | 90.65       | 7,705.96            | 896.96     | 3,028.26   | 3,085.96              | 0.00                  | 0.00                 | 0.00                |  |
| 10,400.00           | 90.77           | 90.65       | 7,704.62            | 895.83     | 3,128.25   | 3,185.59              | 0.00                  | 0.00                 | 0.00                |  |
| 10,500.00           | 90.77           | 90.65       | 7,703.28            | 894.69     | 3,228.23   | 3,285.22              | 0.00                  | 0.00                 | 0.00                |  |
| 10,600.00           | 90.77           | 90.65       | 7,701.95            | 893.56     | 3,328.22   | 3,384.85              | 0.00                  | 0.00                 | 0.00                |  |
| 10,700.00           | 90.77           | 90.65       | 7,700.61            | 892.42     | 3,428.20   | 3,484.48              | 0.00                  | 0.00                 | 0.00                |  |
| 10,800.00           | 90.77           | 90.65       | 7,699.28            | 891.28     | 3,528.19   | 3,584.11              | 0.00                  | 0.00                 | 0.00                |  |
| 10,900.00           | 90.77           | 90.65       | 7,697.94            | 890.15     | 3,628.17   | 3,683.74              | 0.00                  | 0.00                 | 0.00                |  |
| 11,000.00           | 90.77           | 90.65       | 7,696.60            | 889.01     | 3,728.16   | 3,783.37              | 0.00                  | 0.00                 | 0.00                |  |
| 11,100.00           | 90.77           | 90.65       | 7,695.27            | 887.87     | 3,828.14   | 3,883.01              | 0.00                  | 0.00                 | 0.00                |  |
| 11,200.00           | 90.77           | 90.65       | 7,693.93            | 886.74     | 3,928.13   | 3,982.64              | 0.00                  | 0.00                 | 0.00                |  |
| 11,300.00           | 90.77           | 90.65       | 7,692.60            | 885.60     | 4,028.11   | 4,082.27              | 0.00                  | 0.00                 | 0.00                |  |
| 11,400.00           | 90.77           | 90.65       | 7,691.26            | 884.46     | 4,128.10   | 4,181.90              | 0.00                  | 0.00                 | 0.00                |  |
| 11,500.00           | 90.77           | 90.65       | 7,689.92            | 883.33     | 4,228.08   | 4,281.53              | 0.00                  | 0.00                 | 0.00                |  |
| 11,600.00           | 90.77           | 90.65       | 7,688.59            | 882.19     | 4,328.06   | 4,381.16              | 0.00                  | 0.00                 | 0.00                |  |
| 11,700.00           | 90.77           | 90.65       | 7,687.25            | 881.06     | 4,428.05   | 4,480.79              | 0.00                  | 0.00                 | 0.00                |  |
| 11,800.00           | 90.77           | 90.65       | 7,685.92            | 879.92     | 4,528.03   | 4,580.42              | 0.00                  | 0.00                 | 0.00                |  |
| 11,900.00           | 90.77           | 90.65       | 7,684.58            | 878.78     | 4,628.02   | 4,680.06              | 0.00                  | 0.00                 | 0.00                |  |
| 12,000.00           | 90.77           | 90.65       | 7,683.24            | 877.65     | 4,728.00   | 4,779.69              | 0.00                  | 0.00                 | 0.00                |  |
| 12,100.00           | 90.77           | 90.65       | 7,681.91            | 876.51     | 4,827.99   | 4,879.32              | 0.00                  | 0.00                 | 0.00                |  |
| 12,200.00           | 90.77           | 90.65       | 7,680.57            | 875.37     | 4,927.97   | 4,978.95              | 0.00                  | 0.00                 | 0.00                |  |
| 12,300.00           | 90.77           | 90.65       | 7,679.24            | 874.24     | 5,027.96   | 5,078.58              | 0.00                  | 0.00                 | 0.00                |  |
| 12,400.00           | 90.77           | 90.65       | 7,677.90            | 873.10     | 5,127.94   | 5,178.21              | 0.00                  | 0.00                 | 0.00                |  |
| 12,500.00           | 90.77           | 90.65       | 7,676.56            | 871.96     | 5,227.93   | 5,277.84              | 0.00                  | 0.00                 | 0.00                |  |
| 12,600.00           | 90.77           | 90.65       | 7,675.23            | 870.83     | 5,327.91   | 5,377.47              | 0.00                  | 0.00                 | 0.00                |  |
| 12,700.00           | 90.77           | 90.65       | 7,673.89            | 869.69     | 5,427.90   | 5,477.11              | 0.00                  | 0.00                 | 0.00                |  |
| 12,800.00           | 90.77           | 90.65       | 7,672.55            | 868.56     | 5,527.88   | 5,576.74              | 0.00                  | 0.00                 | 0.00                |  |
| 12,900.00           | 90.77           | 90.65       | 7,671.22            | 867.42     | 5,627.86   | 5,676.37              | 0.00                  | 0.00                 | 0.00                |  |
| 13,000.00           | 90.77           | 90.65       | 7,669.88            | 866.28     | 5,727.85   | 5,776.00              | 0.00                  | 0.00                 | 0.00                |  |
| 13,100.00           | 90.77           | 90.65       | 7,668.55            | 865.15     | 5,827.83   | 5,875.63              | 0.00                  | 0.00                 | 0.00                |  |
| 13,200.00           | 90.77           | 90.65       | 7,667.21            | 864.01     | 5,927.82   | 5,975.26              | 0.00                  | 0.00                 | 0.00                |  |
| 13,300.00           | 90.77           | 90.65       | 7,665.87            | 862.87     | 6,027.80   | 6,074.89              | 0.00                  | 0.00                 | 0.00                |  |
| 13,400.00           | 90.77           | 90.65       | 7,664.54            | 861.74     | 6,127.79   | 6,174.52              | 0.00                  | 0.00                 | 0.00                |  |
| 13,500.00           | 90.77           | 90.65       | 7,663.20            | 860.60     | 6,227.77   | 6,274.16              | 0.00                  | 0.00                 | 0.00                |  |
| 13,600.00           | 90.77           | 90.65       | 7,661.87            | 859.46     | 6,327.76   | 6,373.79              | 0.00                  | 0.00                 | 0.00                |  |
| 13,700.00           | 90.77           | 90.65       | 7,660.53            | 858.33     | 6,427.74   | 6,473.42              | 0.00                  | 0.00                 | 0.00                |  |
| 13,800.00           | 90.77           | 90.65       | 7,659.19            | 857.19     | 6,527.73   | 6,573.05              | 0.00                  | 0.00                 | 0.00                |  |
| 13,900.00           | 90.77           | 90.65       | 7,657.86            | 856.06     | 6,627.71   | 6,672.68              | 0.00                  | 0.00                 | 0.00                |  |
| 14,000.00           | 90.77           | 90.65       | 7,656.52            | 854.92     | 6,727.70   | 6,772.31              | 0.00                  | 0.00                 | 0.00                |  |
| 14,100.00           | 90.77           | 90.65       | 7,655.19            | 853.78     | 6,827.68   | 6,871.94              | 0.00                  | 0.00                 | 0.00                |  |
| 14,200.00           | 90.77           | 90.65       | 7,653.85            | 852.65     | 6,927.66   | 6,971.57              | 0.00                  | 0.00                 | 0.00                |  |
| 14,300.00           | 90.77           | 90.65       | 7,652.51            | 851.51     | 7,027.65   | 7,071.21              | 0.00                  | 0.00                 | 0.00                |  |
| 14,400.00           | 90.77           | 90.65       | 7,651.18            | 850.37     | 7,127.63   | 7,170.84              | 0.00                  | 0.00                 | 0.00                |  |
| 14,500.00           | 90.77           | 90.65       | 7,649.84            | 849.24     | 7,227.62   | 7,270.47              | 0.00                  | 0.00                 | 0.00                |  |
| 14,600.00           | 90.77           | 90.65       | 7,648.51            | 848.10     | 7,327.60   | 7,370.10              | 0.00                  | 0.00                 | 0.00                |  |
| 14,700.00           | 90.77           | 90.65       | 7,647.17            | 846.96     | 7,427.59   | 7,469.73              | 0.00                  | 0.00                 | 0.00                |  |
| 14,800.00           | 90.77           | 90.65       | 7,645.83            | 845.83     | 7,527.57   | 7,569.36              | 0.00                  | 0.00                 | 0.00                |  |

# ConocoPhillips

## Planning Report

|                  |                              |                                     |                               |
|------------------|------------------------------|-------------------------------------|-------------------------------|
| <b>Database:</b> | EDT 14 Central Planning      | <b>Local Co-ordinate Reference:</b> | Well Big Sandy 3-65 36-31 2BH |
| <b>Company:</b>  | ConocoPhillips RBU Gold Data | <b>TVD Reference:</b>               | 27' RKB @ 5550.90ft (27' RKB) |
| <b>Project:</b>  | Niobrara North Zone          | <b>MD Reference:</b>                | 27' RKB @ 5550.90ft (27' RKB) |
| <b>Site:</b>     | Big Sandy                    | <b>North Reference:</b>             | True                          |
| <b>Well:</b>     | Big Sandy 3-65 36-31 2BH     | <b>Survey Calculation Method:</b>   | Minimum Curvature             |
| <b>Wellbore:</b> | Big Sandy 3-65 36-31 2BH     |                                     |                               |
| <b>Design:</b>   | Big Sandy 3-65 36-31 2BH     |                                     |                               |

| Planned Survey      |                 |             |                     |            |            |                       |                       |                      |                     |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 14,900.00           | 90.77           | 90.65       | 7,644.50            | 844.69     | 7,627.56   | 7,668.99              | 0.00                  | 0.00                 | 0.00                |
| 15,000.00           | 90.77           | 90.65       | 7,643.16            | 843.56     | 7,727.54   | 7,768.62              | 0.00                  | 0.00                 | 0.00                |
| 15,100.00           | 90.77           | 90.65       | 7,641.83            | 842.42     | 7,827.53   | 7,868.25              | 0.00                  | 0.00                 | 0.00                |
| 15,200.00           | 90.77           | 90.65       | 7,640.49            | 841.28     | 7,927.51   | 7,967.89              | 0.00                  | 0.00                 | 0.00                |
| 15,300.00           | 90.77           | 90.65       | 7,639.15            | 840.15     | 8,027.50   | 8,067.52              | 0.00                  | 0.00                 | 0.00                |
| 15,400.00           | 90.77           | 90.65       | 7,637.82            | 839.01     | 8,127.48   | 8,167.15              | 0.00                  | 0.00                 | 0.00                |
| 15,500.00           | 90.77           | 90.65       | 7,636.48            | 837.87     | 8,227.47   | 8,266.78              | 0.00                  | 0.00                 | 0.00                |
| 15,600.00           | 90.77           | 90.65       | 7,635.15            | 836.74     | 8,327.45   | 8,366.41              | 0.00                  | 0.00                 | 0.00                |
| 15,700.00           | 90.77           | 90.65       | 7,633.81            | 835.60     | 8,427.43   | 8,466.04              | 0.00                  | 0.00                 | 0.00                |
| 15,800.00           | 90.77           | 90.65       | 7,632.47            | 834.46     | 8,527.42   | 8,565.67              | 0.00                  | 0.00                 | 0.00                |
| 15,900.00           | 90.77           | 90.65       | 7,631.14            | 833.33     | 8,627.40   | 8,665.30              | 0.00                  | 0.00                 | 0.00                |
| 16,000.00           | 90.77           | 90.65       | 7,629.80            | 832.19     | 8,727.39   | 8,764.94              | 0.00                  | 0.00                 | 0.00                |
| 16,100.00           | 90.77           | 90.65       | 7,628.47            | 831.06     | 8,827.37   | 8,864.57              | 0.00                  | 0.00                 | 0.00                |
| 16,200.00           | 90.77           | 90.65       | 7,627.13            | 829.92     | 8,927.36   | 8,964.20              | 0.00                  | 0.00                 | 0.00                |
| 16,300.00           | 90.77           | 90.65       | 7,625.79            | 828.78     | 9,027.34   | 9,063.83              | 0.00                  | 0.00                 | 0.00                |
| 16,400.00           | 90.77           | 90.65       | 7,624.46            | 827.65     | 9,127.33   | 9,163.46              | 0.00                  | 0.00                 | 0.00                |
| 16,500.00           | 90.77           | 90.65       | 7,623.12            | 826.51     | 9,227.31   | 9,263.09              | 0.00                  | 0.00                 | 0.00                |
| 16,600.00           | 90.77           | 90.65       | 7,621.79            | 825.37     | 9,327.30   | 9,362.72              | 0.00                  | 0.00                 | 0.00                |
| 16,700.00           | 90.77           | 90.65       | 7,620.45            | 824.24     | 9,427.28   | 9,462.35              | 0.00                  | 0.00                 | 0.00                |
| 16,800.00           | 90.77           | 90.65       | 7,619.11            | 823.10     | 9,527.27   | 9,561.99              | 0.00                  | 0.00                 | 0.00                |
| 16,900.00           | 90.77           | 90.65       | 7,617.78            | 821.96     | 9,627.25   | 9,661.62              | 0.00                  | 0.00                 | 0.00                |
| 17,000.00           | 90.77           | 90.65       | 7,616.44            | 820.83     | 9,727.23   | 9,761.25              | 0.00                  | 0.00                 | 0.00                |
| 17,100.00           | 90.77           | 90.65       | 7,615.11            | 819.69     | 9,827.22   | 9,860.88              | 0.00                  | 0.00                 | 0.00                |
| 17,200.00           | 90.77           | 90.65       | 7,613.77            | 818.56     | 9,927.20   | 9,960.51              | 0.00                  | 0.00                 | 0.00                |
| 17,300.00           | 90.77           | 90.65       | 7,612.43            | 817.42     | 10,027.19  | 10,060.14             | 0.00                  | 0.00                 | 0.00                |
| 17,400.00           | 90.77           | 90.65       | 7,611.10            | 816.28     | 10,127.17  | 10,159.77             | 0.00                  | 0.00                 | 0.00                |
| 17,500.00           | 90.77           | 90.65       | 7,609.76            | 815.15     | 10,227.16  | 10,259.40             | 0.00                  | 0.00                 | 0.00                |
| 17,600.00           | 90.77           | 90.65       | 7,608.43            | 814.01     | 10,327.14  | 10,359.04             | 0.00                  | 0.00                 | 0.00                |
| 17,700.00           | 90.77           | 90.65       | 7,607.09            | 812.87     | 10,427.13  | 10,458.67             | 0.00                  | 0.00                 | 0.00                |
| 17,800.00           | 90.77           | 90.65       | 7,605.75            | 811.74     | 10,527.11  | 10,558.30             | 0.00                  | 0.00                 | 0.00                |
| 17,900.00           | 90.77           | 90.65       | 7,604.42            | 810.60     | 10,627.10  | 10,657.93             | 0.00                  | 0.00                 | 0.00                |
| 18,000.00           | 90.77           | 90.65       | 7,603.08            | 809.46     | 10,727.08  | 10,757.56             | 0.00                  | 0.00                 | 0.00                |
| 18,100.00           | 90.77           | 90.65       | 7,601.75            | 808.33     | 10,827.07  | 10,857.19             | 0.00                  | 0.00                 | 0.00                |
| 18,200.00           | 90.77           | 90.65       | 7,600.41            | 807.19     | 10,927.05  | 10,956.82             | 0.00                  | 0.00                 | 0.00                |
| 18,230.66           | 90.77           | 90.65       | 7,600.00            | 806.84     | 10,957.70  | 10,987.37             | 0.00                  | 0.00                 | 0.00                |

| Design Targets  |               |              |          |            |            |                 |                |                  |                   |
|---|---------------|--------------|----------|------------|------------|-----------------|----------------|------------------|-------------------|
| Target Name   | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (usft) | Easting (usft) | Latitude         | Longitude         |
| - hit/miss target   |               |              |          |            |            |                 |                |                  |                   |
| - Shape   |               |              |          |            |            |                 |                |                  |                   |
| Big Sandy 3-65 36-31 2E<br>- plan hits target center<br>- Point | 0.00          | 0.00         | 7,600.00 | 806.84     | 10,957.70  | 1,152,705.251   | 3,257,414.936  | 39° 44' 56.020 N | 104° 35' 4.270 W  |
| Big Sandy 3-65 36-31 2E<br>- plan hits target center<br>- Point | 0.00          | 0.00         | 7,734.00 | 920.82     | 929.47     | 1,152,720.097   | 3,247,386.140  | 39° 44' 57.170 N | 104° 37' 12.660 W |

# ConocoPhillips

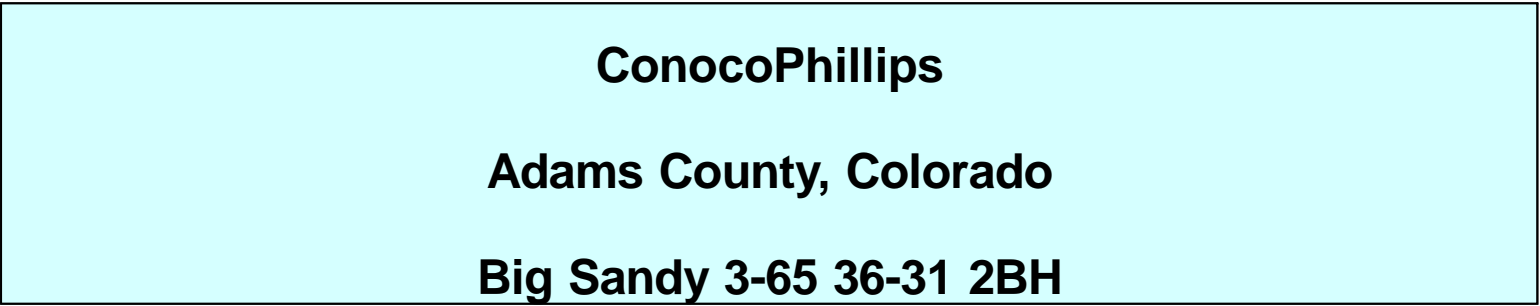
## Planning Report

|                  |                              |                                     |                               |
|------------------|------------------------------|-------------------------------------|-------------------------------|
| <b>Database:</b> | EDT 14 Central Planning      | <b>Local Co-ordinate Reference:</b> | Well Big Sandy 3-65 36-31 2BH |
| <b>Company:</b>  | ConocoPhillips RBU Gold Data | <b>TVD Reference:</b>               | 27' RKB @ 5550.90ft (27' RKB) |
| <b>Project:</b>  | Niobrara North Zone          | <b>MD Reference:</b>                | 27' RKB @ 5550.90ft (27' RKB) |
| <b>Site:</b>     | Big Sandy                    | <b>North Reference:</b>             | True                          |
| <b>Well:</b>     | Big Sandy 3-65 36-31 2BH     | <b>Survey Calculation Method:</b>   | Minimum Curvature             |
| <b>Wellbore:</b> | Big Sandy 3-65 36-31 2BH     |                                     |                               |
| <b>Design:</b>   | Big Sandy 3-65 36-31 2BH     |                                     |                               |

| Casing Points       |                     |            |                     |                   |  |
|---------------------|---------------------|------------|---------------------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name       | Casing Diameter (") | Hole Diameter (") |  |
| 2,025.00            | 2,025.00            | Surface    | 9-5/8               | 12-1/4            |  |
| 18,230.66           | 7,600.00            | Production | 5-1/2               | 8-1/2             |  |

| Plan Annotations    |                     |                   |            |                                   |  |
|---------------------|---------------------|-------------------|------------|-----------------------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates |            |                                   |  |
|                     |                     | +N/-S (ft)        | +E/-W (ft) | Comment                           |  |
| 2,000.00            | 2,000.00            | 0.00              | 0.00       | SL 2505' FSL 465' FEL             |  |
| 3,671.00            | 3,671.00            | 0.00              | 0.00       | Start Build 1.50                  |  |
| 4,737.49            | 4,723.69            | 135.33            | 59.72      | Start 2618.22 hold at 4737.49 MD  |  |
| 7,355.71            | 7,240.52            | 795.47            | 351.03     | Start DLS 10.00 TFO 67.45         |  |
| 8,200.00            | 7,734.01            | 920.83            | 928.59     | BPI 1850' FNL 460' FWL            |  |
| 8,200.89            | 7,734.00            | 920.82            | 929.48     | Start 10029.77 hold at 8200.89 MD |  |
| 18,095.00           | 7,601.81            | 808.39            | 10,822.07  | EPI 1874' FNL 460' FEL            |  |
| 18,230.00           | 7,600.01            | 806.85            | 10,957.05  | BHL 1874' FNL 325' FEL            |  |
| 18,230.66           | 7,600.00            | 806.84            | 10,957.70  | TD at 18230.66                    |  |





North American Datum 1983  
GRS 1980  
US State Plane 1983  
Colorado Northern Zone

| 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     |
| 3671.00  | 0.00  | 0.00  | 3671.00 | 0.00   | 0.00     | 0.00  | 0.00     |
| 4737.49  | 16.00 | 23.81 | 4723.69 | 135.33 | 59.72    | 1.50  | 69.50    |
| 7355.71  | 16.00 | 23.81 | 7240.52 | 795.47 | 351.03   | 0.00  | 408.50   |
| 8200.89  | 90.77 | 90.65 | 7734.00 | 920.82 | 929.47   | 10.00 | 994.58   |
| 18230.66 | 90.77 | 90.65 | 7600.00 | 806.84 | 10957.70 | 0.00  | 10987.37 |

-2000   -1000   0   1000   2000   3000   4000   5000   6000   7000   8000   9000   10000   11000

