

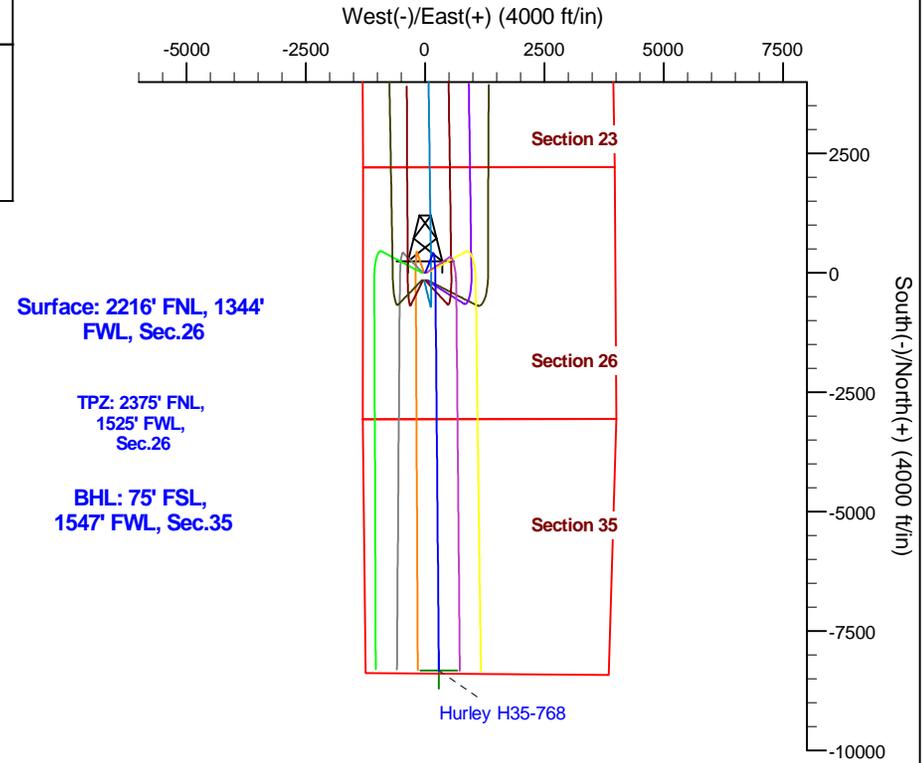
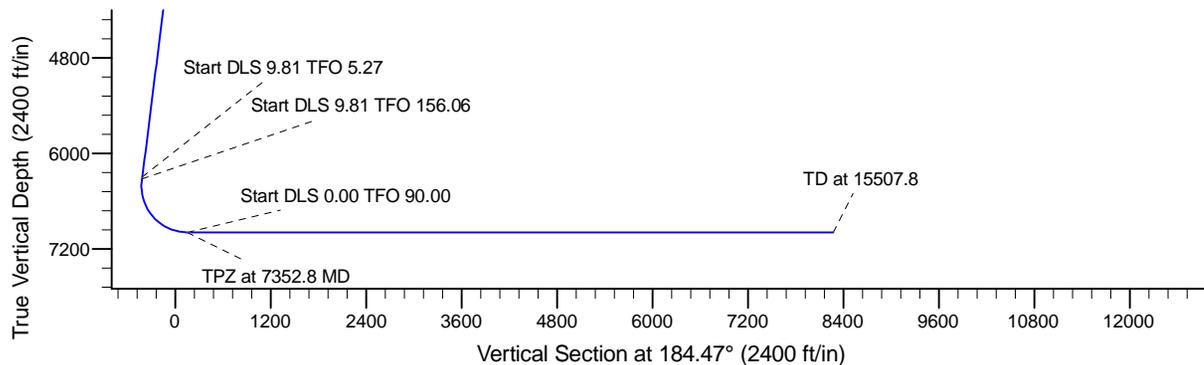
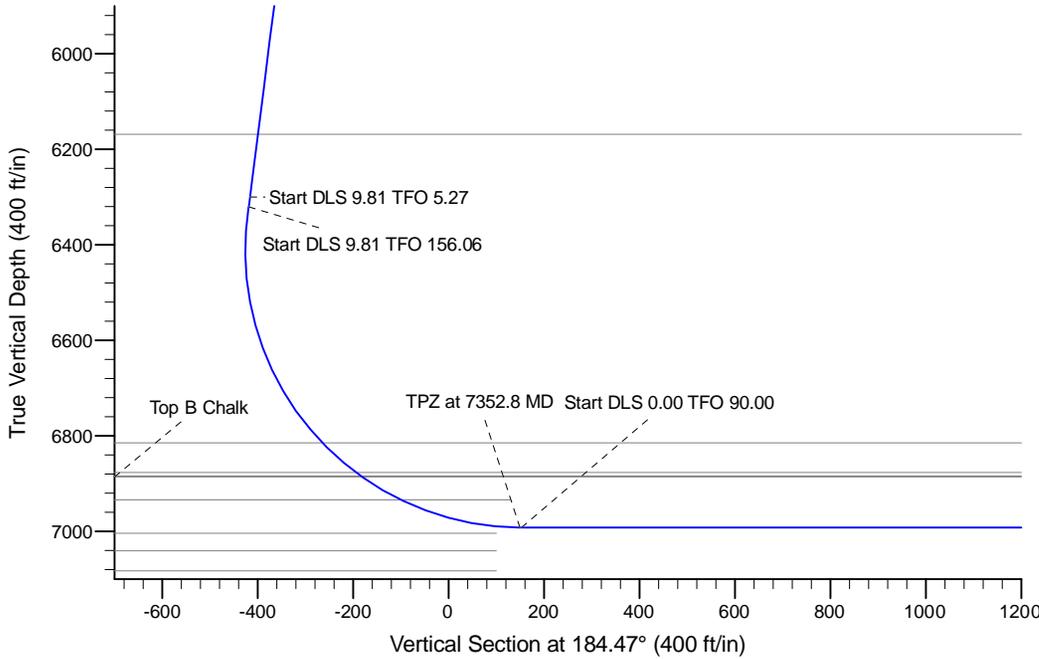
Project: Conceptual Wells  
 Site: DP 408  
 Well: Hurley H35-768  
 Wellbore: Wellbore #1  
 Design: Prelim - Rev 2

# Northern Region Drilling - DJ Basin

Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: Colorado Northern Zone  
 System Datum: Mean Sea Level

## SECTION DETAILS

| Sec | MD      | Inc   | Azi    | TVD    | +N/-S   | +E/-W | Dleg | TFace  | VSec   | Target         |
|-----|---------|-------|--------|--------|---------|-------|------|--------|--------|----------------|
| 1   | 0.0     | 0.00  | 0.00   | 0.0    | 0.0     | 0.0   | 0.00 | 0.00   | 0.0    |                |
| 2   | 2800.0  | 0.00  | 0.00   | 2800.0 | 0.0     | 0.0   | 0.00 | 0.00   | 0.0    |                |
| 3   | 3175.0  | 7.50  | 22.00  | 3173.9 | 22.7    | 9.2   | 2.00 | 22.00  | -23.4  |                |
| 4   | 6328.0  | 7.50  | 22.00  | 6300.0 | 404.3   | 163.4 | 0.00 | 0.00   | -415.8 |                |
| 5   | 6348.8  | 9.53  | 23.13  | 6320.5 | 407.2   | 164.5 | 9.81 | 5.27   | -418.7 |                |
| 6   | 7355.7  | 90.00 | 179.48 | 6992.0 | -170.0  | 215.0 | 9.81 | 156.06 | 152.7  |                |
| 7   | 15507.8 | 90.00 | 179.49 | 6992.0 | -8321.8 | 287.9 | 0.00 | 90.00  | 8274.0 | Hurley H35-768 |



**T G M**

Azimuths to Grid North  
 True North: -0.56°  
 Magnetic North: 7.75°

Magnetic Field  
 Strength: 52669.7snT  
 Dip Angle: 66.79°  
 Date: 12/15/2014  
 Model: IGRF2010

| WELL DETAILS: Hurley H35-768                      |                        |  |   |
|---|------------------------|--|---|
| 0.00.0  | Northing<br>1315972.81 | Ground Level:<br>Easting<br>3241515.45 | 4822.0<br>Latitude<br>40.197510<br>Longitude<br>-104.635400 |
| Plan: Prelim - Rev 2 (Hurley H35-768/Wellbore #1) |                        |  |   |
| Created By:                                       | Chad Stich             | Date:                                  | 16:22, October 30 2017                                      |
| Checked:  | _____                  | Date:                                  | _____   |
| Reviewed:   | _____                  | Date:                                  | _____   |
| Approved:   | _____                  | Date:                                  | _____   |

# **Northern Region Drilling - Sandbox**

**Conceptual Wells**

**DP 408**

**Hurley H35-768**

**Wellbore #1**

**Plan: Prelim - Rev 2**

## **Standard Planning Report**

**30 October, 2017**

# Noble Energy, Inc.

## Planning Report

|                  |                                    |                                     |                                      |
|------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | EDMP                               | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Company:</b>  | Northern Region Drilling - Sandbox | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Project:</b>  | Conceptual Wells                   | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site:</b>     | DP 408                             | <b>North Reference:</b>             | Grid                                 |
| <b>Well:</b>     | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                        |                                     |                                      |
| <b>Design:</b>   | Prelim - Rev 2                     |                                     |                                      |

|                    |                           |                      |                             |
|--------------------|---------------------------|----------------------|-----------------------------|
| <b>Project</b>     | Conceptual Wells          |                      |                             |
| <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 |

|                              |          |                     |                   |                          |             |
|------------------------------|----------|---------------------|-------------------|--------------------------|-------------|
| <b>Site</b>                  | DP 408   |                     |                   |                          |             |
| <b>Site Position:</b>        |          | <b>Northing:</b>    | 1,318,184.69 usft | <b>Latitude:</b>         | 40.203616   |
| <b>From:</b>                 | Lat/Long | <b>Easting:</b>     | 3,240,225.17 usft | <b>Longitude:</b>        | -104.639942 |
| <b>Position Uncertainty:</b> | 0.0 ft   | <b>Slot Radius:</b> | 13-3/16 "         | <b>Grid Convergence:</b> | 0.56 °      |

|                             |                |             |                            |                   |                      |             |
|-----------------------------|----------------|-------------|----------------------------|-------------------|----------------------|-------------|
| <b>Well</b>                 | Hurley H35-768 |             |                            |                   |                      |             |
| <b>Well Position</b>        | <b>+N/-S</b>   | -2,212.0 ft | <b>Northing:</b>           | 1,315,972.81 usft | <b>Latitude:</b>     | 40.197510   |
|                             | <b>+E/-W</b>   | 1,290.3 ft  | <b>Easting:</b>            | 3,241,515.46 usft | <b>Longitude:</b>    | -104.635400 |
| <b>Position Uncertainty</b> |                | 0.0 ft      | <b>Wellhead Elevation:</b> | 0.0 ft            | <b>Ground Level:</b> | 4,822.0 ft  |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2010          | 12/15/2014         | 8.31                   | 66.79                | 52,669.68882333            |

|                          |                              |                   |                      |                      |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| <b>Design</b>            | Prelim - Rev 2               |                   |                      |                      |
| <b>Audit Notes:</b>      |                              |                   |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                | PROTOTYPE         | <b>Tie On Depth:</b> | 0.0                  |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b>    | <b>Direction (°)</b> |
|                          | 0.0                          | 0.0               | 0.0                  | 184.47               |

| <b>Plan Sections</b> |                 |             |                     |            |            |                         |                        |                       |         |                |
|----------------------|-----------------|-------------|---------------------|------------|------------|-------------------------|------------------------|-----------------------|---------|----------------|
| Measured Depth (ft)  | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target         |
| 0.0                  | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.00                    | 0.00                   | 0.00                  | 0.00    |                |
| 2,800.0              | 0.00            | 0.00        | 2,800.0             | 0.0        | 0.0        | 0.00                    | 0.00                   | 0.00                  | 0.00    |                |
| 3,175.0              | 7.50            | 22.00       | 3,173.9             | 22.7       | 9.2        | 2.00                    | 2.00                   | 0.00                  | 22.00   |                |
| 6,328.0              | 7.50            | 22.00       | 6,300.0             | 404.3      | 163.4      | 0.00                    | 0.00                   | 0.00                  | 0.00    |                |
| 6,348.8              | 9.53            | 23.13       | 6,320.5             | 407.2      | 164.5      | 9.81                    | 9.77                   | 5.44                  | 5.27    |                |
| 7,355.7              | 90.00           | 179.48      | 6,992.0             | -170.0     | 215.0      | 9.81                    | 7.99                   | 15.53                 | 156.06  |                |
| 15,507.8             | 90.00           | 179.49      | 6,992.0             | -8,321.8   | 287.9      | 0.00                    | 0.00                   | 0.00                  | 90.00   | Hurley H35-768 |

# Noble Energy, Inc.

## Planning Report

|                  |                                    |                                     |                                      |
|------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | EDMP                               | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Company:</b>  | Northern Region Drilling - Sandbox | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Project:</b>  | Conceptual Wells                   | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site:</b>     | DP 408                             | <b>North Reference:</b>             | Grid                                 |
| <b>Well:</b>     | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                        |                                     |                                      |
| <b>Design:</b>   | Prelim - Rev 2                     |                                     |                                      |

| Planned Survey      |                 |             |                     |            |            |                       |                         |                        |                       |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 0.0                 | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 100.0               | 0.00            | 0.00        | 100.0               | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 200.0               | 0.00            | 0.00        | 200.0               | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 300.0               | 0.00            | 0.00        | 300.0               | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 400.0               | 0.00            | 0.00        | 400.0               | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 500.0               | 0.00            | 0.00        | 500.0               | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 600.0               | 0.00            | 0.00        | 600.0               | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 700.0               | 0.00            | 0.00        | 700.0               | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 800.0               | 0.00            | 0.00        | 800.0               | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 900.0               | 0.00            | 0.00        | 900.0               | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 1,000.0             | 0.00            | 0.00        | 1,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 1,100.0             | 0.00            | 0.00        | 1,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 1,200.0             | 0.00            | 0.00        | 1,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 1,300.0             | 0.00            | 0.00        | 1,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 1,400.0             | 0.00            | 0.00        | 1,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 1,500.0             | 0.00            | 0.00        | 1,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 1,600.0             | 0.00            | 0.00        | 1,600.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 1,700.0             | 0.00            | 0.00        | 1,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 1,800.0             | 0.00            | 0.00        | 1,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 1,900.0             | 0.00            | 0.00        | 1,900.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,000.0             | 0.00            | 0.00        | 2,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,100.0             | 0.00            | 0.00        | 2,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,200.0             | 0.00            | 0.00        | 2,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,300.0             | 0.00            | 0.00        | 2,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,400.0             | 0.00            | 0.00        | 2,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,500.0             | 0.00            | 0.00        | 2,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,600.0             | 0.00            | 0.00        | 2,600.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,700.0             | 0.00            | 0.00        | 2,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,800.0             | 0.00            | 0.00        | 2,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,900.0             | 2.00            | 22.00       | 2,900.0             | 1.6        | 0.7        | -1.7                  | 2.00                    | 2.00                   | 0.00                  |
| 3,000.0             | 4.00            | 22.00       | 2,999.8             | 6.5        | 2.6        | -6.7                  | 2.00                    | 2.00                   | 0.00                  |
| 3,100.0             | 6.00            | 22.00       | 3,099.5             | 14.6       | 5.9        | -15.0                 | 2.00                    | 2.00                   | 0.00                  |
| 3,175.0             | 7.50            | 22.00       | 3,173.9             | 22.7       | 9.2        | -23.4                 | 2.00                    | 2.00                   | 0.00                  |
| 3,200.0             | 7.50            | 22.00       | 3,198.7             | 25.7       | 10.4       | -26.5                 | 0.00                    | 0.00                   | 0.00                  |
| 3,300.0             | 7.50            | 22.00       | 3,297.9             | 37.9       | 15.3       | -38.9                 | 0.00                    | 0.00                   | 0.00                  |
| 3,400.0             | 7.50            | 22.00       | 3,397.0             | 50.0       | 20.2       | -51.4                 | 0.00                    | 0.00                   | 0.00                  |
| 3,500.0             | 7.50            | 22.00       | 3,496.1             | 62.1       | 25.1       | -63.8                 | 0.00                    | 0.00                   | 0.00                  |
| 3,600.0             | 7.50            | 22.00       | 3,595.3             | 74.2       | 30.0       | -76.3                 | 0.00                    | 0.00                   | 0.00                  |
| 3,700.0             | 7.50            | 22.00       | 3,694.4             | 86.3       | 34.9       | -88.7                 | 0.00                    | 0.00                   | 0.00                  |
| 3,800.0             | 7.50            | 22.00       | 3,793.6             | 98.4       | 39.7       | -101.2                | 0.00                    | 0.00                   | 0.00                  |
| 3,900.0             | 7.50            | 22.00       | 3,892.7             | 110.5      | 44.6       | -113.6                | 0.00                    | 0.00                   | 0.00                  |
| 4,000.0             | 7.50            | 22.00       | 3,991.9             | 122.6      | 49.5       | -126.1                | 0.00                    | 0.00                   | 0.00                  |
| 4,100.0             | 7.50            | 22.00       | 4,091.0             | 134.7      | 54.4       | -138.5                | 0.00                    | 0.00                   | 0.00                  |
| 4,200.0             | 7.50            | 22.00       | 4,190.2             | 146.8      | 59.3       | -150.9                | 0.00                    | 0.00                   | 0.00                  |
| 4,300.0             | 7.50            | 22.00       | 4,289.3             | 158.9      | 64.2       | -163.4                | 0.00                    | 0.00                   | 0.00                  |
| 4,400.0             | 7.50            | 22.00       | 4,388.4             | 171.0      | 69.1       | -175.8                | 0.00                    | 0.00                   | 0.00                  |
| 4,500.0             | 7.50            | 22.00       | 4,487.6             | 183.1      | 74.0       | -188.3                | 0.00                    | 0.00                   | 0.00                  |
| 4,600.0             | 7.50            | 22.00       | 4,586.7             | 195.2      | 78.9       | -200.7                | 0.00                    | 0.00                   | 0.00                  |
| 4,700.0             | 7.50            | 22.00       | 4,685.9             | 207.3      | 83.7       | -213.2                | 0.00                    | 0.00                   | 0.00                  |
| 4,800.0             | 7.50            | 22.00       | 4,785.0             | 219.4      | 88.6       | -225.6                | 0.00                    | 0.00                   | 0.00                  |
| 4,900.0             | 7.50            | 22.00       | 4,884.2             | 231.5      | 93.5       | -238.1                | 0.00                    | 0.00                   | 0.00                  |
| 5,000.0             | 7.50            | 22.00       | 4,983.3             | 243.6      | 98.4       | -250.5                | 0.00                    | 0.00                   | 0.00                  |
| 5,100.0             | 7.50            | 22.00       | 5,082.5             | 255.7      | 103.3      | -263.0                | 0.00                    | 0.00                   | 0.00                  |
| 5,200.0             | 7.50            | 22.00       | 5,181.6             | 267.8      | 108.2      | -275.4                | 0.00                    | 0.00                   | 0.00                  |

# Noble Energy, Inc.

## Planning Report

|                  |                                    |                                     |                                      |
|------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | EDMP                               | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Company:</b>  | Northern Region Drilling - Sandbox | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Project:</b>  | Conceptual Wells                   | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site:</b>     | DP 408                             | <b>North Reference:</b>             | Grid                                 |
| <b>Well:</b>     | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                        |                                     |                                      |
| <b>Design:</b>   | Prelim - Rev 2                     |                                     |                                      |

| Planned Survey      |                 |             |                     |            |            |                       |                         |                        |                       |  |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 5,300.0             | 7.50            | 22.00       | 5,280.8             | 279.9      | 113.1      | -287.9                | 0.00                    | 0.00                   | 0.00                  |  |
| 5,400.0             | 7.50            | 22.00       | 5,379.9             | 292.0      | 118.0      | -300.3                | 0.00                    | 0.00                   | 0.00                  |  |
| 5,500.0             | 7.50            | 22.00       | 5,479.0             | 304.1      | 122.9      | -312.8                | 0.00                    | 0.00                   | 0.00                  |  |
| 5,600.0             | 7.50            | 22.00       | 5,578.2             | 316.2      | 127.8      | -325.2                | 0.00                    | 0.00                   | 0.00                  |  |
| 5,700.0             | 7.50            | 22.00       | 5,677.3             | 328.3      | 132.6      | -337.7                | 0.00                    | 0.00                   | 0.00                  |  |
| 5,800.0             | 7.50            | 22.00       | 5,776.5             | 340.4      | 137.5      | -350.1                | 0.00                    | 0.00                   | 0.00                  |  |
| 5,900.0             | 7.50            | 22.00       | 5,875.6             | 352.5      | 142.4      | -362.5                | 0.00                    | 0.00                   | 0.00                  |  |
| 6,000.0             | 7.50            | 22.00       | 5,974.8             | 364.6      | 147.3      | -375.0                | 0.00                    | 0.00                   | 0.00                  |  |
| 6,100.0             | 7.50            | 22.00       | 6,073.9             | 376.7      | 152.2      | -387.4                | 0.00                    | 0.00                   | 0.00                  |  |
| 6,200.0             | 7.50            | 22.00       | 6,173.1             | 388.8      | 157.1      | -399.9                | 0.00                    | 0.00                   | 0.00                  |  |
| 6,300.0             | 7.50            | 22.00       | 6,272.2             | 400.9      | 162.0      | -412.3                | 0.00                    | 0.00                   | 0.00                  |  |
| 6,328.0             | 7.50            | 22.00       | 6,300.0             | 404.3      | 163.4      | -415.8                | 0.00                    | 0.00                   | 0.00                  |  |
| 6,348.8             | 9.53            | 23.13       | 6,320.5             | 407.2      | 164.5      | -418.7                | 9.81                    | 9.77                   | 5.44                  |  |
| 6,400.0             | 5.34            | 45.54       | 6,371.3             | 412.7      | 167.9      | -424.6                | 9.81                    | -8.18                  | 43.78                 |  |
| 6,500.0             | 7.21            | 147.32      | 6,470.9             | 410.7      | 174.6      | -423.1                | 9.81                    | 1.87                   | 101.78                |  |
| 6,600.0             | 16.35           | 166.21      | 6,568.7             | 391.7      | 181.4      | -404.7                | 9.81                    | 9.14                   | 18.89                 |  |
| 6,700.0             | 25.98           | 171.53      | 6,661.9             | 356.3      | 188.0      | -369.9                | 9.81                    | 9.62                   | 5.32                  |  |
| 6,800.0             | 35.70           | 174.10      | 6,747.7             | 305.5      | 194.2      | -319.7                | 9.81                    | 9.72                   | 2.57                  |  |
| 6,900.0             | 45.45           | 175.68      | 6,823.5             | 240.8      | 199.9      | -255.6                | 9.81                    | 9.75                   | 1.58                  |  |
| 7,000.0             | 55.22           | 176.80      | 6,887.3             | 164.0      | 204.9      | -179.5                | 9.81                    | 9.77                   | 1.12                  |  |
| 7,100.0             | 64.99           | 177.68      | 6,937.1             | 77.6       | 209.1      | -93.6                 | 9.81                    | 9.78                   | 0.88                  |  |
| 7,200.0             | 74.77           | 178.43      | 6,971.4             | -16.2      | 212.2      | -0.4                  | 9.81                    | 9.78                   | 0.75                  |  |
| 7,300.0             | 84.55           | 179.11      | 6,989.4             | -114.4     | 214.3      | 97.3                  | 9.81                    | 9.78                   | 0.68                  |  |
| 7,355.7             | 90.00           | 179.48      | 6,992.0             | -170.0     | 215.0      | 152.7                 | 9.81                    | 9.78                   | 0.66                  |  |
| 7,400.0             | 90.00           | 179.48      | 6,992.0             | -214.3     | 215.4      | 196.9                 | 0.00                    | 0.00                   | 0.00                  |  |
| 7,500.0             | 90.00           | 179.48      | 6,992.0             | -314.3     | 216.3      | 296.5                 | 0.00                    | 0.00                   | 0.00                  |  |
| 7,600.0             | 90.00           | 179.48      | 6,992.0             | -414.3     | 217.2      | 396.1                 | 0.00                    | 0.00                   | 0.00                  |  |
| 7,700.0             | 90.00           | 179.48      | 6,992.0             | -514.3     | 218.1      | 495.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 7,800.0             | 90.00           | 179.48      | 6,992.0             | -614.3     | 219.0      | 595.3                 | 0.00                    | 0.00                   | 0.00                  |  |
| 7,900.0             | 90.00           | 179.48      | 6,992.0             | -714.3     | 219.9      | 695.0                 | 0.00                    | 0.00                   | 0.00                  |  |
| 8,000.0             | 90.00           | 179.48      | 6,992.0             | -814.3     | 220.8      | 794.6                 | 0.00                    | 0.00                   | 0.00                  |  |
| 8,100.0             | 90.00           | 179.48      | 6,992.0             | -914.3     | 221.7      | 894.2                 | 0.00                    | 0.00                   | 0.00                  |  |
| 8,200.0             | 90.00           | 179.48      | 6,992.0             | -1,014.3   | 222.7      | 993.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 8,300.0             | 90.00           | 179.48      | 6,992.0             | -1,114.3   | 223.6      | 1,093.4               | 0.00                    | 0.00                   | 0.00                  |  |
| 8,400.0             | 90.00           | 179.48      | 6,992.0             | -1,214.3   | 224.5      | 1,193.1               | 0.00                    | 0.00                   | 0.00                  |  |
| 8,500.0             | 90.00           | 179.48      | 6,992.0             | -1,314.3   | 225.4      | 1,292.7               | 0.00                    | 0.00                   | 0.00                  |  |
| 8,600.0             | 90.00           | 179.48      | 6,992.0             | -1,414.3   | 226.3      | 1,392.3               | 0.00                    | 0.00                   | 0.00                  |  |
| 8,700.0             | 90.00           | 179.48      | 6,992.0             | -1,514.3   | 227.2      | 1,491.9               | 0.00                    | 0.00                   | 0.00                  |  |
| 8,800.0             | 90.00           | 179.48      | 6,992.0             | -1,614.3   | 228.1      | 1,591.5               | 0.00                    | 0.00                   | 0.00                  |  |
| 8,900.0             | 90.00           | 179.48      | 6,992.0             | -1,714.3   | 229.0      | 1,691.2               | 0.00                    | 0.00                   | 0.00                  |  |
| 9,000.0             | 90.00           | 179.48      | 6,992.0             | -1,814.3   | 229.9      | 1,790.8               | 0.00                    | 0.00                   | 0.00                  |  |
| 9,100.0             | 90.00           | 179.48      | 6,992.0             | -1,914.2   | 230.8      | 1,890.4               | 0.00                    | 0.00                   | 0.00                  |  |
| 9,200.0             | 90.00           | 179.48      | 6,992.0             | -2,014.2   | 231.7      | 1,990.0               | 0.00                    | 0.00                   | 0.00                  |  |
| 9,300.0             | 90.00           | 179.48      | 6,992.0             | -2,114.2   | 232.6      | 2,089.7               | 0.00                    | 0.00                   | 0.00                  |  |
| 9,400.0             | 90.00           | 179.48      | 6,992.0             | -2,214.2   | 233.5      | 2,189.3               | 0.00                    | 0.00                   | 0.00                  |  |
| 9,500.0             | 90.00           | 179.48      | 6,992.0             | -2,314.2   | 234.4      | 2,288.9               | 0.00                    | 0.00                   | 0.00                  |  |
| 9,600.0             | 90.00           | 179.48      | 6,992.0             | -2,414.2   | 235.3      | 2,388.5               | 0.00                    | 0.00                   | 0.00                  |  |
| 9,700.0             | 90.00           | 179.48      | 6,992.0             | -2,514.2   | 236.2      | 2,488.1               | 0.00                    | 0.00                   | 0.00                  |  |
| 9,800.0             | 90.00           | 179.48      | 6,992.0             | -2,614.2   | 237.1      | 2,587.8               | 0.00                    | 0.00                   | 0.00                  |  |
| 9,900.0             | 90.00           | 179.48      | 6,992.0             | -2,714.2   | 238.0      | 2,687.4               | 0.00                    | 0.00                   | 0.00                  |  |
| 10,000.0            | 90.00           | 179.48      | 6,992.0             | -2,814.2   | 238.9      | 2,787.0               | 0.00                    | 0.00                   | 0.00                  |  |
| 10,100.0            | 90.00           | 179.48      | 6,992.0             | -2,914.2   | 239.8      | 2,886.6               | 0.00                    | 0.00                   | 0.00                  |  |
| 10,200.0            | 90.00           | 179.49      | 6,992.0             | -3,014.2   | 240.7      | 2,986.2               | 0.00                    | 0.00                   | 0.00                  |  |
| 10,300.0            | 90.00           | 179.49      | 6,992.0             | -3,114.2   | 241.6      | 3,085.9               | 0.00                    | 0.00                   | 0.00                  |  |

# Noble Energy, Inc.

## Planning Report

|                  |                                    |                                     |                                      |
|------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | EDMP                               | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Company:</b>  | Northern Region Drilling - Sandbox | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Project:</b>  | Conceptual Wells                   | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site:</b>     | DP 408                             | <b>North Reference:</b>             | Grid                                 |
| <b>Well:</b>     | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                        |                                     |                                      |
| <b>Design:</b>   | Prelim - Rev 2                     |                                     |                                      |

| Planned Survey            |                    |                |                           |               |               |                             |                               |                              |                             |  |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|-------------------------------|------------------------------|-----------------------------|--|
| Measured<br>Depth<br>(ft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Vertical<br>Section<br>(ft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |  |
| 10,400.0                  | 90.00              | 179.49         | 6,992.0                   | -3,214.2      | 242.5         | 3,185.5                     | 0.00                          | 0.00                         | 0.00                        |  |
| 10,500.0                  | 90.00              | 179.49         | 6,992.0                   | -3,314.2      | 243.4         | 3,285.1                     | 0.00                          | 0.00                         | 0.00                        |  |
| 10,600.0                  | 90.00              | 179.49         | 6,992.0                   | -3,414.2      | 244.3         | 3,384.7                     | 0.00                          | 0.00                         | 0.00                        |  |
| 10,700.0                  | 90.00              | 179.49         | 6,992.0                   | -3,514.2      | 245.2         | 3,484.3                     | 0.00                          | 0.00                         | 0.00                        |  |
| 10,800.0                  | 90.00              | 179.49         | 6,992.0                   | -3,614.2      | 246.1         | 3,584.0                     | 0.00                          | 0.00                         | 0.00                        |  |
| 10,900.0                  | 90.00              | 179.49         | 6,992.0                   | -3,714.2      | 247.0         | 3,683.6                     | 0.00                          | 0.00                         | 0.00                        |  |
| 11,000.0                  | 90.00              | 179.49         | 6,992.0                   | -3,814.2      | 247.9         | 3,783.2                     | 0.00                          | 0.00                         | 0.00                        |  |
| 11,100.0                  | 90.00              | 179.49         | 6,992.0                   | -3,914.2      | 248.8         | 3,882.8                     | 0.00                          | 0.00                         | 0.00                        |  |
| 11,200.0                  | 90.00              | 179.49         | 6,992.0                   | -4,014.2      | 249.7         | 3,982.5                     | 0.00                          | 0.00                         | 0.00                        |  |
| 11,300.0                  | 90.00              | 179.49         | 6,992.0                   | -4,114.2      | 250.6         | 4,082.1                     | 0.00                          | 0.00                         | 0.00                        |  |
| 11,400.0                  | 90.00              | 179.49         | 6,992.0                   | -4,214.2      | 251.4         | 4,181.7                     | 0.00                          | 0.00                         | 0.00                        |  |
| 11,500.0                  | 90.00              | 179.49         | 6,992.0                   | -4,314.2      | 252.3         | 4,281.3                     | 0.00                          | 0.00                         | 0.00                        |  |
| 11,600.0                  | 90.00              | 179.49         | 6,992.0                   | -4,414.1      | 253.2         | 4,380.9                     | 0.00                          | 0.00                         | 0.00                        |  |
| 11,700.0                  | 90.00              | 179.49         | 6,992.0                   | -4,514.1      | 254.1         | 4,480.6                     | 0.00                          | 0.00                         | 0.00                        |  |
| 11,800.0                  | 90.00              | 179.49         | 6,992.0                   | -4,614.1      | 255.0         | 4,580.2                     | 0.00                          | 0.00                         | 0.00                        |  |
| 11,900.0                  | 90.00              | 179.49         | 6,992.0                   | -4,714.1      | 255.9         | 4,679.8                     | 0.00                          | 0.00                         | 0.00                        |  |
| 12,000.0                  | 90.00              | 179.49         | 6,992.0                   | -4,814.1      | 256.8         | 4,779.4                     | 0.00                          | 0.00                         | 0.00                        |  |
| 12,100.0                  | 90.00              | 179.49         | 6,992.0                   | -4,914.1      | 257.7         | 4,879.0                     | 0.00                          | 0.00                         | 0.00                        |  |
| 12,200.0                  | 90.00              | 179.49         | 6,992.0                   | -5,014.1      | 258.6         | 4,978.7                     | 0.00                          | 0.00                         | 0.00                        |  |
| 12,300.0                  | 90.00              | 179.49         | 6,992.0                   | -5,114.1      | 259.5         | 5,078.3                     | 0.00                          | 0.00                         | 0.00                        |  |
| 12,400.0                  | 90.00              | 179.49         | 6,992.0                   | -5,214.1      | 260.4         | 5,177.9                     | 0.00                          | 0.00                         | 0.00                        |  |
| 12,500.0                  | 90.00              | 179.49         | 6,992.0                   | -5,314.1      | 261.3         | 5,277.5                     | 0.00                          | 0.00                         | 0.00                        |  |
| 12,600.0                  | 90.00              | 179.49         | 6,992.0                   | -5,414.1      | 262.2         | 5,377.2                     | 0.00                          | 0.00                         | 0.00                        |  |
| 12,700.0                  | 90.00              | 179.49         | 6,992.0                   | -5,514.1      | 263.1         | 5,476.8                     | 0.00                          | 0.00                         | 0.00                        |  |
| 12,800.0                  | 90.00              | 179.49         | 6,992.0                   | -5,614.1      | 263.9         | 5,576.4                     | 0.00                          | 0.00                         | 0.00                        |  |
| 12,900.0                  | 90.00              | 179.49         | 6,992.0                   | -5,714.1      | 264.8         | 5,676.0                     | 0.00                          | 0.00                         | 0.00                        |  |
| 13,000.0                  | 90.00              | 179.49         | 6,992.0                   | -5,814.1      | 265.7         | 5,775.6                     | 0.00                          | 0.00                         | 0.00                        |  |
| 13,100.0                  | 90.00              | 179.49         | 6,992.0                   | -5,914.1      | 266.6         | 5,875.3                     | 0.00                          | 0.00                         | 0.00                        |  |
| 13,200.0                  | 90.00              | 179.49         | 6,992.0                   | -6,014.1      | 267.5         | 5,974.9                     | 0.00                          | 0.00                         | 0.00                        |  |
| 13,300.0                  | 90.00              | 179.49         | 6,992.0                   | -6,114.1      | 268.4         | 6,074.5                     | 0.00                          | 0.00                         | 0.00                        |  |
| 13,400.0                  | 90.00              | 179.49         | 6,992.0                   | -6,214.1      | 269.3         | 6,174.1                     | 0.00                          | 0.00                         | 0.00                        |  |
| 13,500.0                  | 90.00              | 179.49         | 6,992.0                   | -6,314.1      | 270.2         | 6,273.8                     | 0.00                          | 0.00                         | 0.00                        |  |
| 13,600.0                  | 90.00              | 179.49         | 6,992.0                   | -6,414.1      | 271.1         | 6,373.4                     | 0.00                          | 0.00                         | 0.00                        |  |
| 13,700.0                  | 90.00              | 179.49         | 6,992.0                   | -6,514.1      | 271.9         | 6,473.0                     | 0.00                          | 0.00                         | 0.00                        |  |
| 13,800.0                  | 90.00              | 179.49         | 6,992.0                   | -6,614.1      | 272.8         | 6,572.6                     | 0.00                          | 0.00                         | 0.00                        |  |
| 13,900.0                  | 90.00              | 179.49         | 6,992.0                   | -6,714.1      | 273.7         | 6,672.2                     | 0.00                          | 0.00                         | 0.00                        |  |
| 14,000.0                  | 90.00              | 179.49         | 6,992.0                   | -6,814.1      | 274.6         | 6,771.9                     | 0.00                          | 0.00                         | 0.00                        |  |
| 14,100.0                  | 90.00              | 179.49         | 6,992.0                   | -6,914.0      | 275.5         | 6,871.5                     | 0.00                          | 0.00                         | 0.00                        |  |
| 14,200.0                  | 90.00              | 179.49         | 6,992.0                   | -7,014.0      | 276.4         | 6,971.1                     | 0.00                          | 0.00                         | 0.00                        |  |
| 14,300.0                  | 90.00              | 179.49         | 6,992.0                   | -7,114.0      | 277.3         | 7,070.7                     | 0.00                          | 0.00                         | 0.00                        |  |
| 14,400.0                  | 90.00              | 179.49         | 6,992.0                   | -7,214.0      | 278.2         | 7,170.4                     | 0.00                          | 0.00                         | 0.00                        |  |
| 14,500.0                  | 90.00              | 179.49         | 6,992.0                   | -7,314.0      | 279.0         | 7,270.0                     | 0.00                          | 0.00                         | 0.00                        |  |
| 14,600.0                  | 90.00              | 179.49         | 6,992.0                   | -7,414.0      | 279.9         | 7,369.6                     | 0.00                          | 0.00                         | 0.00                        |  |
| 14,700.0                  | 90.00              | 179.49         | 6,992.0                   | -7,514.0      | 280.8         | 7,469.2                     | 0.00                          | 0.00                         | 0.00                        |  |
| 14,800.0                  | 90.00              | 179.49         | 6,992.0                   | -7,614.0      | 281.7         | 7,568.8                     | 0.00                          | 0.00                         | 0.00                        |  |
| 14,900.0                  | 90.00              | 179.49         | 6,992.0                   | -7,714.0      | 282.6         | 7,668.5                     | 0.00                          | 0.00                         | 0.00                        |  |
| 15,000.0                  | 90.00              | 179.49         | 6,992.0                   | -7,814.0      | 283.5         | 7,768.1                     | 0.00                          | 0.00                         | 0.00                        |  |
| 15,100.0                  | 90.00              | 179.49         | 6,992.0                   | -7,914.0      | 284.3         | 7,867.7                     | 0.00                          | 0.00                         | 0.00                        |  |
| 15,200.0                  | 90.00              | 179.49         | 6,992.0                   | -8,014.0      | 285.2         | 7,967.3                     | 0.00                          | 0.00                         | 0.00                        |  |
| 15,300.0                  | 90.00              | 179.49         | 6,992.0                   | -8,114.0      | 286.1         | 8,067.0                     | 0.00                          | 0.00                         | 0.00                        |  |
| 15,400.0                  | 90.00              | 179.49         | 6,992.0                   | -8,214.0      | 287.0         | 8,166.6                     | 0.00                          | 0.00                         | 0.00                        |  |
| 15,500.0                  | 90.00              | 179.49         | 6,992.0                   | -8,314.0      | 287.9         | 8,266.2                     | 0.00                          | 0.00                         | 0.00                        |  |
| 15,507.8                  | 90.00              | 179.49         | 6,992.0                   | -8,321.8      | 287.9         | 8,274.0                     | 0.00                          | 0.00                         | 0.00                        |  |

# Noble Energy, Inc.

## Planning Report

|                  |                                    |                                     |                                      |
|------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | EDMP                               | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Company:</b>  | Northern Region Drilling - Sandbox | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Project:</b>  | Conceptual Wells                   | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site:</b>     | DP 408                             | <b>North Reference:</b>             | Grid                                 |
| <b>Well:</b>     | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                        |                                     |                                      |
| <b>Design:</b>   | Prelim - Rev 2                     |                                     |                                      |

| Design Targets   |           |          |         |          |       |              |              |           |             |
|--|-----------|----------|---------|----------|-------|--------------|--------------|-----------|-------------|
| Target Name  | Dip Angle | Dip Dir. | TVD     | +N/-S    | +E/-W | Northing     | Easting      | Latitude  | Longitude   |
| - hit/miss target                                      | (°)       | (°)      | (ft)    | (ft)     | (ft)  | (usft)       | (usft)       |           |             |
| - Shape  |           |          |         |          |       |              |              |           |             |
| Hurley H35-768<br>- plan hits target center<br>- Point | 0.00      | 0.00     | 6,992.0 | -8,321.8 | 287.9 | 1,307,651.38 | 3,241,803.39 | 40.174660 | -104.634660 |

| Formations     |                |                           |           |     |               |  |
|----------------|----------------|---------------------------|-----------|-----|---------------|--|
| Measured Depth | Vertical Depth | Name                      | Lithology | Dip | Dip Direction |  |
| (ft)           | (ft)           |                           |           | (°) | (°)           |  |
| 618.0          | 618.0          | Pierre                    |           |     |               |  |
| 770.0          | 770.0          | Upper Pierre Aquifer Top  |           |     |               |  |
| 1,658.0        | 1,658.0        | Upper Pierre Aquifer Base |           |     |               |  |
| 3,932.6        | 3,925.0        | Parkman                   |           |     |               |  |
| 4,528.7        | 4,516.0        | Sussex                    |           |     |               |  |
| 5,216.5        | 5,198.0        | Shannon                   |           |     |               |  |
| 6,195.9        | 6,169.0        | Teepee Buttes             |           |     |               |  |
| 6,888.0        | 6,815.0        | Sharon Springs            |           |     |               |  |
| 6,982.3        | 6,877.0        | Top A Chalk               |           |     |               |  |
| 6,994.3        | 6,884.0        | Top A Marl                |           |     |               |  |
| 6,997.7        | 6,886.0        | Top B Chalk               |           |     |               |  |
| 7,092.8        | 6,934.0        | Top B Marl                |           |     |               |  |

| Plan Annotations |                |                   |       |                           |  |
|------------------|----------------|-------------------|-------|---------------------------|--|
| Measured Depth   | Vertical Depth | Local Coordinates |       | Comment                   |  |
| (ft)             | (ft)           | +N/-S             | +E/-W |                           |  |
|                  |                | (ft)              | (ft)  |                           |  |
| 2,800.0          | 2,800.0        | 0.0               | 0.0   | KOP - Start Build 2.00    |  |
| 6,328.0          | 6,300.0        | 404.3             | 163.4 | Start DLS 9.81 TFO 5.27   |  |
| 6,348.8          | 6,320.5        | 407.1             | 164.5 | Start DLS 9.81 TFO 156.06 |  |
| 7,352.8          | 6,992.0        | -167.1            | 215.0 | TPZ at 7352.8 MD          |  |
| 7,355.7          | 6,992.0        | -170.0            | 215.0 | Start DLS 0.00 TFO 90.00  |  |
| 15,507.8         | 6,992.0        | -8,321.8          | 287.9 | TD at 15507.8             |  |

# **Northern Region Drilling - Sandbox**

**Conceptual Wells**

**DP 408**

**Hurley H35-768**

**Wellbore #1**

**Prelim - Rev 2**

## **Anticollision Summary Report**

**30 October, 2017**

**Noble Energy, Inc.**  
Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

|                                     |   |                       |                     |
|-------------------------------------|---|-----------------------|---------------------|
| <b>Reference</b>                    | Prelim - Rev 2  |                       |                     |
| <b>Filter type:</b>                 | NO GLOBAL FILTER: Using user defined selection & filtering criteria |                       |                     |
| <b>Interpolation Method:</b>        | Stations  | <b>Error Model:</b>   | ISCWSA              |
| <b>Depth Range:</b>                 | Unlimited   | <b>Scan Method:</b>   | Closest Approach 3D |
| <b>Results Limited by:</b>          | Maximum center-center distance of 10,000.0 ft                       | <b>Error Surface:</b> | Pedal Curve         |
| <b>Warning Levels Evaluated at:</b> | 2.00 Sigma  | <b>Casing Method:</b> | Not applied         |

|                            |                |                              |                  |   |
|----------------------------|----------------|------------------------------|------------------|---|
| <b>Survey Tool Program</b> | <b>Date</b>    | 10/30/2017                   |                  |   |
| <b>From (ft)</b>           | <b>To (ft)</b> | <b>Survey (Wellbore)</b>     | <b>Tool Name</b> | <b>Description</b>                                |
| 0.0                        | 15,507.8       | Prelim - Rev 2 (Wellbore #1) | MWD+IFR1+MS_WY   | Fixed:v2:Rockies, crustal dec + 3-axis correction |

| Summary   |                               |                            |                               |                                |                   |         |
|---|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|---------|
| Site Name   | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
| D Section 19  |                               |                            |                               |                                |                   |         |
| Butterball H24-69HN - Original Drilling - Original Drilling - | 6,513.6                       | 11,992.0                   | 9,872.5                       | 9,758.3                        | 86.422            | CC, ES  |
| Butterball H24-69HN - Original Drilling - Original Drilling - | 6,850.0                       | 11,992.0                   | 9,946.3                       | 9,830.7                        | 86.014            | SF      |
| DP 408  |                               |                            |                               |                                |                   |         |
| Emmy H25-711 - Wellbore #1 - Prelim - Rev 2                   | 2,000.0                       | 1,983.0                    | 7,943.0                       | 7,934.3                        | 917.177           | CC, ES  |
| Emmy H25-711 - Wellbore #1 - Prelim - Rev 2                   | 15,507.8                      | 4,655.6                    | 9,856.0                       | 9,773.9                        | 120.056           | SF      |
| Emmy State H25-718 - Wellbore #1 - Prelim - Rev 2             | 2,400.0                       | 2,383.0                    | 7,922.1                       | 7,911.7                        | 757.491           | CC, ES  |
| Emmy State H25-718 - Wellbore #1 - Prelim - Rev 2             | 15,507.8                      | 5,206.7                    | 9,647.8                       | 9,564.9                        | 116.354           | SF      |
| Emmy State H25-724 - Wellbore #1 - Prelim - Rev 2             | 10,402.6                      | 5,854.2                    | 7,727.6                       | 7,679.4                        | 160.485           | CC      |
| Emmy State H25-724 - Wellbore #1 - Prelim - Rev 2             | 10,500.0                      | 5,865.5                    | 7,728.2                       | 7,679.1                        | 157.526           | ES      |
| Emmy State H25-724 - Wellbore #1 - Prelim - Rev 2             | 15,300.0                      | 6,385.8                    | 9,131.5                       | 9,046.6                        | 107.543           | SF      |
| Emmy State H25-731 - Wellbore #1 - Prelim - Rev 2             | 10,437.7                      | 6,425.2                    | 7,418.0                       | 7,368.7                        | 150.340           | CC      |
| Emmy State H25-731 - Wellbore #1 - Prelim - Rev 2             | 10,500.0                      | 6,423.3                    | 7,418.3                       | 7,368.4                        | 148.673           | ES      |
| Emmy State H25-731 - Wellbore #1 - Prelim - Rev 2             | 14,800.0                      | 6,400.0                    | 8,605.7                       | 8,524.9                        | 106.474           | SF      |
| Emmy State H25-738 - Wellbore #1 - Prelim - Rev 2             | 10,019.6                      | 7,074.7                    | 7,049.8                       | 7,003.7                        | 153.062           | CC      |
| Emmy State H25-738 - Wellbore #1 - Prelim - Rev 2             | 10,200.0                      | 6,946.4                    | 7,050.7                       | 7,003.2                        | 148.556           | ES      |
| Emmy State H25-738 - Wellbore #1 - Prelim - Rev 2             | 14,400.0                      | 6,472.6                    | 8,147.6                       | 8,070.3                        | 105.361           | SF      |
| Emmy State H25-744 - Wellbore #1 - Prelim - Rev 2             | 9,799.7                       | 7,360.9                    | 6,586.2                       | 6,541.0                        | 145.604           | CC      |
| Emmy State H25-744 - Wellbore #1 - Prelim - Rev 2             | 9,900.0                       | 7,322.1                    | 6,586.7                       | 6,540.7                        | 143.180           | ES      |
| Emmy State H25-744 - Wellbore #1 - Prelim - Rev 2             | 14,100.0                      | 6,600.0                    | 7,633.7                       | 7,558.0                        | 100.783           | SF      |
| Emmy State H25-751 - Wellbore #1 - Design #1                  | 10,402.6                      | 5,664.4                    | 5,932.5                       | 5,884.2                        | 122.900           | CC      |
| Emmy State H25-751 - Wellbore #1 - Design #1                  | 10,500.0                      | 5,676.0                    | 5,933.3                       | 5,884.1                        | 120.601           | ES      |
| Emmy State H25-751 - Wellbore #1 - Design #1                  | 13,800.0                      | 6,069.7                    | 6,824.5                       | 6,750.1                        | 91.622            | SF      |
| Emmy State H25-757 - Wellbore #1 - Design #1                  | 10,432.3                      | 5,952.5                    | 5,731.8                       | 5,682.8                        | 117.121           | CC      |
| Emmy State H25-757 - Wellbore #1 - Design #1                  | 10,500.0                      | 5,960.8                    | 5,732.2                       | 5,682.6                        | 115.609           | ES      |
| Emmy State H25-757 - Wellbore #1 - Design #1                  | 13,600.0                      | 6,342.7                    | 6,537.4                       | 6,464.0                        | 89.147            | SF      |
| Emmy State H25-764 - Wellbore #1 - Design #1                  | 10,488.6                      | 6,470.9                    | 5,413.0                       | 5,377.3                        | 151.945           | CC      |
| Emmy State H25-764 - Wellbore #1 - Design #1                  | 10,500.0                      | 6,470.6                    | 5,413.0                       | 5,377.2                        | 151.508           | ES      |
| Emmy State H25-764 - Wellbore #1 - Design #1                  | 13,500.0                      | 6,450.0                    | 6,194.3                       | 6,137.7                        | 109.391           | SF      |
| Emmy State H25-771 - Wellbore #1 - Design #1                  | 10,100.4                      | 7,115.3                    | 5,015.5                       | 4,968.5                        | 106.609           | CC      |
| Emmy State H25-771 - Wellbore #1 - Design #1                  | 10,200.0                      | 7,033.4                    | 5,015.8                       | 4,967.9                        | 104.890           | ES      |
| Emmy State H25-771 - Wellbore #1 - Design #1                  | 12,800.0                      | 6,500.0                    | 5,552.2                       | 5,485.6                        | 83.325            | SF      |
| Emmy State H25-777 - Wellbore #1 - Design #1                  | 7,250.0                       | 10,030.0                   | 4,626.1                       | 4,578.2                        | 96.567            | ES      |
| Emmy State H25-777 - Wellbore #1 - Design #1                  | 7,330.8                       | 9,949.8                    | 4,625.7                       | 4,578.3                        | 97.777            | CC      |
| Emmy State H25-777 - Wellbore #1 - Design #1                  | 12,500.0                      | 6,650.0                    | 5,116.0                       | 5,051.2                        | 79.042            | SF      |
| Emmy State H25-785 - Wellbore #1 - Prelim - Rev 2             | 9,871.1                       | 7,438.2                    | 4,103.5                       | 4,056.8                        | 87.833            | CC      |
| Emmy State H25-785 - Wellbore #1 - Prelim - Rev 2             | 9,900.0                       | 7,425.4                    | 4,103.6                       | 4,056.6                        | 87.419            | ES      |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

**Noble Energy, Inc.**  
Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary   |                               |                            |                               |                                |                   |            |
|---|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|------------|
| Site Name   | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning    |
| DP 408  |                               |                            |                               |                                |                   |            |
| Emmy State H25-785 - Wellbore #1 - Prelim - Rev 2 | 12,100.0                      | 6,800.0                    | 4,502.7                       | 4,440.0                        | 71.845            | SF         |
| Emmy State H36-753 - Wellbore #1 - Design #1      | 2,600.0                       | 2,594.0                    | 5,889.6                       | 5,878.2                        | 517.438           | CC, ES     |
| Emmy State H36-753 - Wellbore #1 - Design #1      | 15,507.8                      | 12,699.7                   | 6,055.6                       | 5,919.0                        | 44.311            | SF         |
| Emmy State H36-760 - Wellbore #1 - Design #1      | 15,090.4                      | 12,527.7                   | 5,599.7                       | 5,467.3                        | 42.284            | CC         |
| Emmy State H36-760 - Wellbore #1 - Design #1      | 15,100.0                      | 12,527.7                   | 5,599.8                       | 5,467.2                        | 42.251            | ES         |
| Emmy State H36-760 - Wellbore #1 - Design #1      | 15,507.8                      | 12,527.7                   | 5,615.3                       | 5,478.8                        | 41.147            | SF         |
| Emmy State H36-766 - Wellbore #1 - Design #1      | 15,015.0                      | 12,453.6                   | 5,163.6                       | 5,033.4                        | 39.654            | CC         |
| Emmy State H36-766 - Wellbore #1 - Design #1      | 15,100.0                      | 12,453.6                   | 5,164.3                       | 5,033.3                        | 39.411            | ES         |
| Emmy State H36-766 - Wellbore #1 - Design #1      | 15,507.8                      | 12,453.6                   | 5,187.1                       | 5,052.6                        | 38.554            | SF         |
| Emmy State H36-773 - Wellbore #1 - Design #1      | 15,095.0                      | 12,608.4                   | 4,719.5                       | 4,586.9                        | 35.581            | CC         |
| Emmy State H36-773 - Wellbore #1 - Design #1      | 15,100.0                      | 12,608.4                   | 4,719.5                       | 4,586.8                        | 35.569            | ES         |
| Emmy State H36-773 - Wellbore #1 - Design #1      | 15,507.8                      | 12,608.4                   | 4,737.5                       | 4,601.5                        | 34.831            | SF         |
| Emmy State H36-780 - Wellbore #1 - Design #1      | 15,099.1                      | 12,543.0                   | 4,280.7                       | 4,148.1                        | 32.289            | CC         |
| Emmy State H36-780 - Wellbore #1 - Design #1      | 15,100.0                      | 12,543.0                   | 4,280.7                       | 4,148.1                        | 32.287            | ES         |
| Emmy State H36-780 - Wellbore #1 - Design #1      | 15,507.8                      | 12,543.0                   | 4,300.2                       | 4,164.7                        | 31.732            | SF         |
| Emmy State H36-787 - Wellbore #1 - Prelim - Rev 2 | 15,103.2                      | 12,821.8                   | 3,839.3                       | 3,707.2                        | 29.068            | CC, ES     |
| Emmy State H36-787 - Wellbore #1 - Prelim - Rev 2 | 15,507.8                      | 12,821.8                   | 3,860.6                       | 3,726.2                        | 28.737            | SF         |
| Hurley H26-712 - Wellbore #1 - Design #1          | 1,801.0                       | 1,833.0                    | 3,017.3                       | 3,009.4                        | 383.114           | CC         |
| Hurley H26-712 - Wellbore #1 - Design #1          | 1,900.0                       | 1,900.0                    | 3,017.5                       | 3,009.2                        | 365.810           | ES         |
| Hurley H26-712 - Wellbore #1 - Design #1          | 9,800.0                       | 6,524.1                    | 4,134.3                       | 4,090.2                        | 93.792            | SF         |
| Hurley H26-717 - Wellbore #1 - Design #1          | 1,901.0                       | 1,933.0                    | 2,995.0                       | 2,986.6                        | 359.743           | CC         |
| Hurley H26-717 - Wellbore #1 - Design #1          | 2,000.0                       | 2,018.9                    | 2,995.0                       | 2,986.3                        | 342.833           | ES         |
| Hurley H26-717 - Wellbore #1 - Design #1          | 9,500.0                       | 6,521.1                    | 3,737.6                       | 3,696.4                        | 90.720            | SF         |
| Hurley H26-724 - Wellbore #1 - Design #1          | 7,462.4                       | 7,115.6                    | 2,796.6                       | 2,766.0                        | 91.361            | CC, ES     |
| Hurley H26-724 - Wellbore #1 - Design #1          | 9,100.0                       | 6,650.0                    | 3,130.1                       | 3,092.3                        | 82.812            | SF         |
| Hurley H26-730 - Wellbore #1 - Design #1          | 7,240.7                       | 7,094.9                    | 2,393.3                       | 2,363.3                        | 79.693            | CC, ES     |
| Hurley H26-730 - Wellbore #1 - Design #1          | 8,400.0                       | 6,674.5                    | 2,583.0                       | 2,549.7                        | 77.618            | SF         |
| Hurley H26-736 - Wellbore #1 - Design #1          | 7,000.0                       | 7,469.9                    | 2,038.1                       | 2,006.9                        | 65.254            | SF         |
| Hurley H26-736 - Wellbore #1 - Design #1          | 7,161.6                       | 7,377.7                    | 2,032.5                       | 2,001.4                        | 65.343            | CC, ES     |
| Hurley H26-743 - Wellbore #1 - Prelim - Rev 2     | 7,000.0                       | 7,704.7                    | 1,554.2                       | 1,521.7                        | 47.743            | SF         |
| Hurley H26-743 - Wellbore #1 - Prelim - Rev 2     | 7,210.9                       | 7,550.0                    | 1,544.6                       | 1,512.3                        | 47.856            | CC, ES     |
| Hurley H26-750 - Wellbore #1 - Prelim - Rev 2     | 2,400.0                       | 2,400.0                    | 155.1                         | 144.6                          | 14.779            | CC, ES     |
| Hurley H26-750 - Wellbore #1 - Prelim - Rev 2     | 2,600.0                       | 2,592.6                    | 159.8                         | 148.5                          | 14.122            | SF         |
| Hurley H26-756 - Wellbore #1 - Prelim - Rev 2     | 2,600.0                       | 2,600.0                    | 150.6                         | 139.2                          | 13.219            | CC, ES     |
| Hurley H26-756 - Wellbore #1 - Prelim - Rev 2     | 2,800.0                       | 2,793.2                    | 155.1                         | 142.8                          | 12.696            | SF         |
| Hurley H26-762 - Wellbore #1 - Prelim - Rev 2     | 2,600.0                       | 2,599.0                    | 149.4                         | 138.0                          | 13.112            | CC, ES     |
| Hurley H26-762 - Wellbore #1 - Prelim - Rev 2     | 7,537.9                       | 7,139.1                    | 329.2                         | 297.9                          | 10.522            | SF         |
| Hurley H26-768 - Wellbore #1 - Prelim - Rev 2     | 7,300.0                       | 7,376.9                    | 88.2                          | 57.5                           | 2.877             | ES, SF     |
| Hurley H26-768 - Wellbore #1 - Prelim - Rev 2     | 7,356.8                       | 7,320.4                    | 88.1                          | 57.6                           | 2.881             | CC         |
| Hurley H26-776 - Wellbore #1 - Prelim - Rev 2     | 2,200.0                       | 2,199.0                    | 156.7                         | 147.1                          | 16.335            | CC, ES     |
| Hurley H26-776 - Wellbore #1 - Prelim - Rev 2     | 2,400.0                       | 2,388.5                    | 163.2                         | 152.8                          | 15.716            | SF         |
| Hurley H26-783 - Wellbore #1 - Prelim - Rev 2     | 2,000.0                       | 1,999.0                    | 164.9                         | 156.2                          | 18.960            | CC, ES     |
| Hurley H26-783 - Wellbore #1 - Prelim - Rev 2     | 2,200.0                       | 2,188.5                    | 171.1                         | 161.6                          | 18.014            | SF         |
| Hurley H35-720 - Wellbore #1 - Design #1          | 15,507.8                      | 15,976.1                   | 2,948.8                       | 2,781.8                        | 17.662            | CC, ES, SF |
| Hurley H35-727 - Wellbore #1 - Design #1          | 15,507.8                      | 15,763.0                   | 2,507.0                       | 2,339.7                        | 14.986            | CC, ES, SF |
| Hurley H35-733 - Wellbore #1 - Design #1          | 15,507.8                      | 15,790.0                   | 2,068.5                       | 1,901.2                        | 12.361            | CC, ES, SF |
| Hurley H35-740 - Wellbore #1 - Design #1          | 15,507.8                      | 15,842.9                   | 1,626.7                       | 1,459.4                        | 9.721             | CC, ES, SF |
| Hurley H35-746 - Wellbore #1 - Prelim - Rev 2     | 15,400.0                      | 29,803.5                   | 1,190.5                       | 890.4                          | 3.967             | ES, SF     |
| Hurley H35-746 - Wellbore #1 - Prelim - Rev 2     | 15,507.8                      | 15,803.5                   | 1,188.3                       | 1,020.7                        | 7.090             | CC         |
| Hurley H35-755 - Wellbore #1 - Prelim - Rev 2     | 2,600.0                       | 2,600.0                    | 44.7                          | 33.3                           | 3.922             | CC, ES     |
| Hurley H35-755 - Wellbore #1 - Prelim - Rev 2     | 2,700.0                       | 2,698.6                    | 46.2                          | 34.4                           | 3.906             | SF         |
| Hurley H35-761 - Wellbore #1 - Prelim - Rev 2     | 2,800.0                       | 2,800.0                    | 22.3                          | 10.1                           | 1.818             | CC, ES     |
| Hurley H35-761 - Wellbore #1 - Prelim - Rev 2     | 2,900.0                       | 2,899.3                    | 23.1                          | 10.4                           | 1.817             | SF         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

**Noble Energy, Inc.**  
Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary   |                               |                            |                               |                                |                   |              |
|---|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|--------------|
| Site Name   | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning      |
| <b>DP 408</b>   |                               |                            |                               |                                |                   |              |
| Hurley H35-774 - Wellbore #1 - Prelim - Rev 2                   | 2,400.0                       | 2,400.0                    | 22.3                          | 11.9                           | 2.129             | CC, ES       |
| Hurley H35-774 - Wellbore #1 - Prelim - Rev 2                   | 2,500.0                       | 2,499.7                    | 23.0                          | 12.0                           | 2.098             | SF           |
| Hurley H35-779 - Wellbore #1 - Prelim - Rev 2                   | 2,200.0                       | 2,199.0                    | 44.8                          | 35.2                           | 4.674             | CC, ES       |
| Hurley H35-779 - Wellbore #1 - Prelim - Rev 2                   | 2,300.0                       | 2,297.8                    | 46.1                          | 36.1                           | 4.597             | SF           |
| Hurley H35-787 - Wellbore #1 - Prelim - Rev 2                   | 2,000.0                       | 1,999.0                    | 67.1                          | 58.4                           | 7.721             | CC, ES       |
| Hurley H35-787 - Wellbore #1 - Prelim - Rev 2                   | 2,100.0                       | 2,096.9                    | 68.7                          | 59.5                           | 7.519             | SF           |
| Hurley State H35-713 - Wellbore #1 - Design #1                  | 1,901.0                       | 1,933.0                    | 3,019.0                       | 3,010.7                        | 362.632           | CC           |
| Hurley State H35-713 - Wellbore #1 - Design #1                  | 2,000.0                       | 2,000.0                    | 3,019.2                       | 3,010.5                        | 347.102           | ES           |
| Hurley State H35-713 - Wellbore #1 - Design #1                  | 15,507.8                      | 15,707.5                   | 3,387.4                       | 3,220.0                        | 20.242            | SF           |
| <b>H Section 13</b>   |                               |                            |                               |                                |                   |              |
| Karakakes H13-25 - Original Drilling - Original Drilling - A    | 6,457.8                       | 6,517.6                    | 9,878.2                       | 9,821.4                        | 173.888           | CC, ES       |
| Karakakes H13-25 - Original Drilling - Original Drilling - A    | 6,750.0                       | 6,800.0                    | 9,938.9                       | 9,881.1                        | 171.995           | SF           |
| Karakakes H13-33 - Original Drilling - Original Drilling - A    | 6,485.8                       | 6,882.7                    | 9,413.1                       | 9,374.7                        | 244.814           | CC, ES       |
| Karakakes H13-33 - Original Drilling - Original Drilling - A    | 6,950.0                       | 7,292.6                    | 9,572.9                       | 9,532.5                        | 237.033           | SF           |
| Karakakes H14-63HN - Original Drilling - Original Drilling      | 6,477.2                       | 10,361.0                   | 8,587.9                       | 8,480.9                        | 80.280            | CC, ES       |
| Karakakes H14-63HN - Original Drilling - Original Drilling      | 6,550.0                       | 10,361.0                   | 8,592.7                       | 8,485.6                        | 80.202            | SF           |
| Sarchet H13-75HN - Original Drilling - Original Drilling        | 6,450.0                       | 6,206.1                    | 9,513.8                       | 9,480.4                        | 285.452           | CC           |
| Sarchet H13-75HN - Original Drilling - Original Drilling        | 6,457.3                       | 6,220.0                    | 9,513.8                       | 9,480.4                        | 284.941           | ES           |
| Sarchet H13-75HN - Original Drilling - Original Drilling        | 6,800.0                       | 6,251.0                    | 9,589.5                       | 9,555.6                        | 282.861           | SF           |
| UPRC 13-13J - Original Drilling - Original Drilling - As Dr     | 6,464.3                       | 6,472.5                    | 9,122.2                       | 9,085.2                        | 246.446           | CC           |
| UPRC 13-13J - Original Drilling - Original Drilling - As Dr     | 6,500.0                       | 6,724.4                    | 9,122.7                       | 9,084.7                        | 240.484           | ES           |
| UPRC 13-13J - Original Drilling - Original Drilling - As Dr     | 7,000.0                       | 7,131.5                    | 9,311.2                       | 9,271.3                        | 233.474           | SF           |
| UPRC 13-14J - Original Drilling - Original Drilling - As Dr     | 6,458.4                       | 6,330.1                    | 9,825.1                       | 9,788.5                        | 269.006           | CC, ES       |
| UPRC 13-14J - Original Drilling - Original Drilling - As Dr     | 6,950.0                       | 6,631.2                    | 9,988.8                       | 9,950.1                        | 258.440           | SF           |
| UPRC 13-15J - Original Drilling - Original Drilling - As Dr     |                               |                            |                               |                                |                   | Out of range |
| UPRC 13-16J - Wellbore #1 - Wellbore #1- As Drilled             |                               |                            |                               |                                |                   | Out of range |
| UPRR 39 Pan Am B1 (PA) - Original Drilling - Original Dr        | 6,460.1                       | 6,426.2                    | 8,752.5                       | 8,609.5                        | 61.178            | CC, ES       |
| UPRR 39 Pan Am B1 (PA) - Original Drilling - Original Dr        | 7,000.0                       | 6,882.3                    | 8,955.9                       | 8,803.1                        | 58.621            | SF           |
| <b>H Section 14</b>   |                               |                            |                               |                                |                   |              |
| Bohlender H14-09 - Original Drilling - Original Drilling - A    | 6,453.7                       | 6,427.3                    | 9,772.9                       | 9,736.1                        | 265.249           | CC, ES       |
| Bohlender H14-09 - Original Drilling - Original Drilling - A    | 6,950.0                       | 7,060.5                    | 9,952.2                       | 9,912.7                        | 251.412           | SF           |
| Bohlender H14-15 - Original Drilling - Original Drilling - A    | 6,426.7                       | 6,100.0                    | 7,650.8                       | 7,615.1                        | 214.429           | CC, ES       |
| Bohlender H14-15 - Original Drilling - Original Drilling - A    | 6,800.0                       | 6,800.0                    | 7,753.5                       | 7,714.9                        | 200.873           | SF           |
| Bohlender H14-16 - Original Drilling - Original Drilling - A    | 6,453.4                       | 6,428.5                    | 8,493.0                       | 8,456.1                        | 230.565           | CC, ES       |
| Bohlender H14-16 - Original Drilling - Original Drilling - A    | 6,800.0                       | 6,678.7                    | 8,589.2                       | 8,551.0                        | 225.097           | SF           |
| Wilcox H14-03J - Original Drilling - Original Drilling - As D   | 188.5                         | 159.5                      | 8,295.7                       | 8,295.0                        | 10,000.000        | CC           |
| Wilcox H14-03J - Original Drilling - Original Drilling - As D   | 6,426.3                       | 6,542.3                    | 8,299.6                       | 8,205.5                        | 88.221            | ES           |
| Wilcox H14-03J - Original Drilling - Original Drilling - As D   | 6,550.0                       | 7,100.0                    | 8,312.6                       | 8,217.8                        | 87.732            | SF           |
| Wilcox H14-10 - Original Drilling - Original Drilling - As Dr   | 1,286.7                       | 1,257.7                    | 8,360.3                       | 8,353.3                        | 1,200.320         | CC           |
| Wilcox H14-10 - Original Drilling - Original Drilling - As Dr   | 1,300.0                       | 1,263.0                    | 8,360.3                       | 8,353.3                        | 1,192.048         | ES           |
| Wilcox H14-10 - Original Drilling - Original Drilling - As Dr   | 6,900.0                       | 7,320.3                    | 9,576.4                       | 9,535.7                        | 235.118           | SF           |
| Wilcox H14-11 - Original Drilling - Original Drilling - As Dr   | 330.1                         | 301.3                      | 8,326.5                       | 8,325.1                        | 5,648.392         | CC           |
| Wilcox H14-11 - Original Drilling - Original Drilling - As Dr   | 930.3                         | 919.4                      | 8,327.4                       | 8,322.4                        | 1,671.756         | ES           |
| Wilcox H14-11 - Original Drilling - Original Drilling - As Dr   | 6,550.0                       | 7,275.2                    | 9,268.4                       | 9,190.4                        | 118.767           | SF           |
| Wilcox H14-13 - Original Drilling - Original Drilling - As Dr   | 6,430.6                       | 6,947.3                    | 7,846.8                       | 7,675.6                        | 45.843            | CC, ES       |
| Wilcox H14-13 - Original Drilling - Original Drilling - As Dr   | 6,450.0                       | 6,953.1                    | 7,847.2                       | 7,676.0                        | 45.836            | SF           |
| <b>H Section 19</b>   |                               |                            |                               |                                |                   |              |
| Butterball 13-19 - Original Drilling - Original Drilling - As D |                               |                            |                               |                                |                   | Out of range |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

**Noble Energy, Inc.**  
Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary  |                               |                            |                               |                                |                   |         |
|--|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|---------|
| Site Name  | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
| <b>Offset Well - Wellbore - Design</b>                     |                               |                            |                               |                                |                   |         |
| H Section 21   |                               |                            |                               |                                |                   |         |
| Moser 24-21 - Wellbore #1 - Wellbore #1 - As Drilled       | 100.0                         | 55.4                       | 8,466.1                       | 8,465.9                        | 10,000.000        | CC      |
| Moser 24-21 - Wellbore #1 - Wellbore #1 - As Drilled       | 500.0                         | 424.8                      | 8,467.0                       | 8,465.3                        | 4,865.148         | ES      |
| Moser 24-21 - Wellbore #1 - Wellbore #1 - As Drilled       | 7,050.0                       | 6,774.4                    | 9,436.5                       | 9,398.5                        | 248.523           | SF      |
| H Section 22   |                               |                            |                               |                                |                   |         |
| HSR Demeules 09-22 - Original Drilling - Original Drilling | 6,411.9                       | 6,317.7                    | 4,210.7                       | 4,174.2                        | 115.454           | CC, ES  |
| HSR Demeules 09-22 - Original Drilling - Original Drilling | 6,800.0                       | 6,640.4                    | 4,322.4                       | 4,284.3                        | 113.487           | SF      |
| HSR Duryea - Wellbore #1 - Wellbore #1 - As Drilled        | 6,388.5                       | 6,254.3                    | 3,820.0                       | 3,783.8                        | 105.500           | CC, ES  |
| HSR Duryea - Wellbore #1 - Wellbore #1 - As Drilled        | 6,700.0                       | 6,523.8                    | 3,880.8                       | 3,843.2                        | 103.259           | SF      |
| Sarchet 16-22 - Wellbore #1 - Wellbore #1 - As Drilled     | 6,390.4                       | 6,289.5                    | 3,146.3                       | 3,109.8                        | 86.177            | CC, ES  |
| Sarchet 16-22 - Wellbore #1 - Wellbore #1 - As Drilled     | 6,650.0                       | 6,546.8                    | 3,186.8                       | 3,149.0                        | 84.340            | SF      |

# Noble Energy, Inc.

## Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary  |                               |                            |                               |                                |                   |         |
|--|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|---------|
| Site Name  | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
| <b>Offset Well - Wellbore - Design</b>                         |                               |                            |                               |                                |                   |         |
| H Section 23   |                               |                            |                               |                                |                   |         |
| Eachus 32-23 - Original Drilling - Original Drilling - As Dri  | 6,431.3                       | 6,200.0                    | 5,426.1                       | 5,390.1                        | 150.607           | CC, ES  |
| Eachus 32-23 - Original Drilling - Original Drilling - As Dri  | 6,800.0                       | 6,769.2                    | 5,519.8                       | 5,481.3                        | 143.459           | SF      |
| Eachus 41-23 (PA) - Original Drilling - Original Drilling - A  | 6,457.4                       | 6,415.5                    | 7,016.5                       | 6,873.6                        | 49.116            | CC, ES  |
| Eachus 41-23 (PA) - Original Drilling - Original Drilling - A  | 6,950.0                       | 6,844.0                    | 7,192.6                       | 7,040.6                        | 47.325            | SF      |
| Eachus UPRR 31-23 - Original Drilling - Original Drilling -    | 6,445.5                       | 6,341.2                    | 6,664.8                       | 6,589.8                        | 88.807            | CC      |
| Eachus UPRR 31-23 - Original Drilling - Original Drilling -    | 6,450.0                       | 6,345.7                    | 6,664.8                       | 6,589.6                        | 88.614            | ES      |
| Eachus UPRR 31-23 - Original Drilling - Original Drilling -    | 7,150.0                       | 6,880.3                    | 7,026.6                       | 6,932.2                        | 74.436            | SF      |
| Eachus UPRR 42-23 (PA) - Original Drilling - Original Dri      | 6,462.8                       | 6,430.9                    | 5,880.2                       | 5,737.0                        | 41.074            | CC, ES  |
| Eachus UPRR 42-23 (PA) - Original Drilling - Original Dri      | 6,900.0                       | 6,820.5                    | 6,013.1                       | 5,861.6                        | 39.701            | SF      |
| HSR Alberstein 16-23 - Original Drilling - Original Drilling   | 6,483.2                       | 6,459.6                    | 4,021.9                       | 3,984.9                        | 108.819           | CC, ES  |
| HSR Alberstein 16-23 - Original Drilling - Original Drilling   | 6,950.0                       | 6,935.0                    | 4,138.9                       | 4,099.8                        | 105.796           | SF      |
| HSR Ashley 15-23A - Original Drilling - Original Drilling -    | 6,448.2                       | 6,337.1                    | 3,202.6                       | 3,166.1                        | 87.636            | CC      |
| HSR Ashley 15-23A - Original Drilling - Original Drilling -    | 6,450.0                       | 6,338.8                    | 3,202.6                       | 3,166.0                        | 87.614            | ES      |
| HSR Ashley 15-23A - Original Drilling - Original Drilling -    | 6,700.0                       | 6,625.0                    | 3,246.6                       | 3,208.7                        | 85.684            | SF      |
| HSR Benirschke 10-23 - Original Drilling - Original Drillin    | 6,438.0                       | 6,264.3                    | 4,195.1                       | 4,158.8                        | 115.833           | CC, ES  |
| HSR Benirschke 10-23 - Original Drilling - Original Drillin    | 6,650.0                       | 6,426.7                    | 4,229.3                       | 4,192.2                        | 114.038           | SF      |
| HSR Eachus 03-23 - Original Drilling - Original Drilling - A   | 788.3                         | 751.4                      | 6,093.7                       | 6,089.6                        | 1,492.697         | CC      |
| HSR Eachus 03-23 - Original Drilling - Original Drilling - A   | 2,100.0                       | 2,030.7                    | 6,095.3                       | 6,083.8                        | 530.139           | ES      |
| HSR Eachus 03-23 - Original Drilling - Original Drilling - A   | 6,750.0                       | 6,872.7                    | 6,521.8                       | 6,479.3                        | 153.612           | SF      |
| HSR Eachus 04-23 - Original Drilling - Original Drilling - A   | 100.0                         | 55.6                       | 6,066.2                       | 6,066.0                        | 10,000.000        | CC      |
| HSR Eachus 04-23 - Original Drilling - Original Drilling - A   | 985.5                         | 931.3                      | 6,068.6                       | 6,063.4                        | 1,174.653         | ES      |
| HSR Eachus 04-23 - Original Drilling - Original Drilling - A   | 6,550.0                       | 6,863.2                    | 6,498.6                       | 6,392.5                        | 61.241            | SF      |
| HSR Eachus 05-23 - Original Drilling - Original Drilling - A   | 6,417.2                       | 6,709.6                    | 5,168.0                       | 5,038.5                        | 39.909            | CC, ES  |
| HSR Eachus 05-23 - Original Drilling - Original Drilling - A   | 6,650.0                       | 6,935.9                    | 5,213.2                       | 5,080.9                        | 39.422            | SF      |
| HSR Fruman 06-23 - Original Drilling - Original Drilling - A   | 6,443.5                       | 6,500.0                    | 5,481.7                       | 5,437.1                        | 123.043           | CC      |
| HSR Fruman 06-23 - Original Drilling - Original Drilling - A   | 6,450.0                       | 6,508.2                    | 5,481.7                       | 5,437.1                        | 122.953           | ES      |
| HSR Fruman 06-23 - Original Drilling - Original Drilling - A   | 6,650.0                       | 6,646.4                    | 5,518.6                       | 5,473.4                        | 121.949           | SF      |
| HSR Grasshopper 09-23 - Original Drilling - Original Drill     | 6,463.7                       | 6,399.5                    | 4,527.7                       | 4,490.9                        | 123.119           | CC, ES  |
| HSR Grasshopper 09-23 - Original Drilling - Original Drill     | 6,800.0                       | 6,818.4                    | 4,597.3                       | 4,558.7                        | 119.020           | SF      |
| Ritchey 21-23 - Original Drilling - Original Drilling - As Dri | 6,448.6                       | 6,409.0                    | 5,960.6                       | 5,923.8                        | 161.947           | CC      |
| Ritchey 21-23 - Original Drilling - Original Drilling - As Dri | 6,450.0                       | 6,410.4                    | 5,960.6                       | 5,923.8                        | 161.915           | ES      |
| Ritchey 21-23 - Original Drilling - Original Drilling - As Dri | 6,800.0                       | 6,752.7                    | 6,060.3                       | 6,021.9                        | 157.598           | SF      |
| Ritchey 24-23 - Original Drilling - Original Drilling - As Dri | 1,041.5                       | 1,027.5                    | 4,643.4                       | 4,637.7                        | 826.833           | CC      |
| Ritchey 24-23 - Original Drilling - Original Drilling - As Dri | 1,600.0                       | 1,556.3                    | 4,646.1                       | 4,637.4                        | 533.156           | ES      |
| Ritchey 24-23 - Original Drilling - Original Drilling - As Dri | 6,800.0                       | 6,770.4                    | 5,050.1                       | 5,011.4                        | 130.434           | SF      |
| Ritchey 31-24 - Original Drilling - Original Drilling - As Dri | 1,403.0                       | 1,400.0                    | 6,543.0                       | 6,535.3                        | 847.413           | CC      |
| Ritchey 31-24 - Original Drilling - Original Drilling - As Dri | 1,500.0                       | 1,448.3                    | 6,543.3                       | 6,535.2                        | 806.996           | ES      |
| Ritchey 31-24 - Original Drilling - Original Drilling - As Dri | 6,800.0                       | 6,858.2                    | 6,915.6                       | 6,868.1                        | 145.815           | SF      |
| UPRC 23-11J - Original Drilling - Original Drilling - As Dri   | 6,440.6                       | 6,367.5                    | 3,735.2                       | 3,698.5                        | 101.899           | CC, ES  |
| UPRC 23-11J - Original Drilling - Original Drilling - As Dri   | 6,700.0                       | 6,646.4                    | 3,790.7                       | 3,752.7                        | 99.794            | SF      |
| UPRC 23-12J - Original Drilling - Original Drilling - As Dri   | 6,429.9                       | 6,377.1                    | 3,863.6                       | 3,826.8                        | 105.233           | CC, ES  |
| UPRC 23-12J - Original Drilling - Original Drilling - As Dri   | 6,650.0                       | 6,620.4                    | 3,902.4                       | 3,864.5                        | 103.041           | SF      |
| UPRC H23-13 - Wellbore #1 - Wellbore #1 - As Drilled           | 6,413.0                       | 6,310.0                    | 2,755.5                       | 2,719.0                        | 75.373            | CC, ES  |
| UPRC H23-13 - Wellbore #1 - Wellbore #1 - As Drilled           | 6,600.0                       | 6,478.0                    | 2,783.4                       | 2,746.0                        | 74.342            | SF      |
| UPRC H23-14J - Original Drilling - Original Drilling - As D    | 6,433.6                       | 6,302.2                    | 2,496.4                       | 2,460.0                        | 68.537            | CC, ES  |
| UPRC H23-14J - Original Drilling - Original Drilling - As D    | 6,600.0                       | 6,456.2                    | 2,519.5                       | 2,482.3                        | 67.690            | SF      |
| UPRC H23-24 - Original Drilling - Original Drilling - As Dr    | 6,419.8                       | 6,191.2                    | 3,443.4                       | 3,407.4                        | 95.639            | CC, ES  |
| UPRC H23-24 - Original Drilling - Original Drilling - As Dr    | 6,700.0                       | 6,506.6                    | 3,504.8                       | 3,467.3                        | 93.414            | SF      |
| UPRR 53 Pan Am B#1 (PA) - Original Drilling - Original D       | 6,431.2                       | 6,356.4                    | 2,823.9                       | 2,682.2                        | 19.928            | CC      |
| UPRR 53 Pan Am B#1 (PA) - Original Drilling - Original D       | 6,450.0                       | 6,375.2                    | 2,824.2                       | 2,682.1                        | 19.873            | ES      |
| UPRR 53 Pan Am B#1 (PA) - Original Drilling - Original D       | 6,650.0                       | 6,570.1                    | 2,863.9                       | 2,717.6                        | 19.575            | SF      |
| UPRR 53 Pan Am UT V#1 - Original Drilling - Original Dr        | 6,468.7                       | 6,549.8                    | 6,090.6                       | 6,053.4                        | 163.519           | CC, ES  |
| UPRR 53 Pan Am UT V#1 - Original Drilling - Original Dr        | 6,800.0                       | 6,761.3                    | 6,176.2                       | 6,137.8                        | 160.778           | SF      |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

**Noble Energy, Inc.**  
Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary                         |                               |                            |                               |                                |                   |         |
|---------------------------------|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|---------|
| Site Name                       | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design |                               |                            |                               |                                |                   |         |

# Noble Energy, Inc.

## Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary   |                               |                            |                               |                                |                   |              |
|---|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|--------------|
| Site Name   | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning      |
| <b>Offset Well - Wellbore - Design</b>                          |                               |                            |                               |                                |                   |              |
| H Section 24  |                               |                            |                               |                                |                   |              |
| Gurtler 24-09J - Original Drilling - Original Drilling - As Dr  | 6,514.5                       | 6,514.5                    | 9,126.8                       | 9,089.6                        | 245.197           | CC, ES       |
| Gurtler 24-09J - Original Drilling - Original Drilling - As Dr  | 8,600.0                       | 6,800.0                    | 9,990.7                       | 9,947.6                        | 232.202           | SF           |
| Gurtler 24-10J - Original Drilling - Original Drilling - As Dr  | 6,459.2                       | 6,053.2                    | 8,060.1                       | 8,024.6                        | 227.138           | CC, ES       |
| Gurtler 24-10J - Original Drilling - Original Drilling - As Dr  | 10,000.0                      | 6,932.4                    | 9,966.6                       | 9,917.2                        | 201.410           | SF           |
| Gurtler 24-11J - Original Drilling - Original Drilling - As Dr  | 6,500.1                       | 6,469.4                    | 6,770.2                       | 6,733.2                        | 182.977           | CC, ES       |
| Gurtler 24-11J - Original Drilling - Original Drilling - As Dr  | 6,750.0                       | 6,700.0                    | 6,798.6                       | 6,760.5                        | 178.509           | SF           |
| Gurtler 24-12J - Original Drilling - Original Drilling - As Dr  | 6,483.7                       | 6,443.7                    | 5,810.3                       | 5,773.4                        | 157.524           | CC, ES       |
| Gurtler 24-12J - Original Drilling - Original Drilling - As Dr  | 6,650.0                       | 6,500.0                    | 5,826.3                       | 5,789.0                        | 156.176           | SF           |
| Gurtler 24-12J - Original Drilling - ST01 - ST01 Original D     | 6,483.8                       | 6,444.2                    | 5,813.8                       | 5,778.0                        | 161.973           | CC, ES       |
| Gurtler 24-12J - Original Drilling - ST01 - ST01 Original D     | 7,500.0                       | 7,289.1                    | 6,257.9                       | 6,216.7                        | 152.085           | SF           |
| Gurtler 24-13J - Original Drilling - Original Drilling - As Dr  | 6,687.3                       | 7,388.2                    | 5,046.2                       | 5,002.3                        | 114.898           | CC           |
| Gurtler 24-13J - Original Drilling - Original Drilling - As Dr  | 6,700.0                       | 7,400.9                    | 5,046.3                       | 5,002.2                        | 114.532           | ES, SF       |
| Gurtler 24-15J - Original Drilling - Original Drilling - As Dr  | 6,546.3                       | 6,454.5                    | 7,456.4                       | 7,419.4                        | 201.387           | CC           |
| Gurtler 24-15J - Original Drilling - Original Drilling - As Dr  | 6,550.0                       | 6,457.3                    | 7,456.4                       | 7,419.3                        | 201.306           | ES           |
| Gurtler 24-15J - Original Drilling - Original Drilling - As Dr  | 11,400.0                      | 7,054.0                    | 9,939.8                       | 9,881.8                        | 171.345           | SF           |
| Gurtler 24-16J - Original Drilling - Original Drilling - As Dr  | 6,574.5                       | 6,524.8                    | 8,398.5                       | 8,361.2                        | 225.152           | CC, ES       |
| Gurtler 24-16J - Original Drilling - Original Drilling - As Dr  | 10,300.0                      | 10,300.0                   | 9,980.8                       | 9,915.8                        | 153.447           | SF           |
| Gurtler H24-14 - Original Drilling - Original Drilling - As D   | 6,519.5                       | 6,396.6                    | 6,314.9                       | 6,278.1                        | 171.617           | CC, ES       |
| Gurtler H24-14 - Original Drilling - Original Drilling - As D   | 10,300.0                      | 6,836.5                    | 8,257.3                       | 8,206.5                        | 162.464           | SF           |
| Gurtler H24-21 (PA) - Original Drilling - Original Drilling -   | 6,474.2                       | 6,246.0                    | 7,696.1                       | 7,659.9                        | 212.622           | CC, ES       |
| Gurtler H24-21 (PA) - Original Drilling - Original Drilling -   | 7,000.0                       | 6,806.3                    | 7,817.4                       | 7,778.8                        | 202.173           | SF           |
| Gurtler H24-23 - Original Drilling - Original Drilling - As D   | 6,533.0                       | 6,445.2                    | 8,286.8                       | 8,249.9                        | 224.174           | CC           |
| Gurtler H24-23 - Original Drilling - Original Drilling - As D   | 6,550.0                       | 6,476.2                    | 8,286.9                       | 8,249.8                        | 223.384           | ES           |
| Gurtler H24-23 - Original Drilling - Original Drilling - As D   | 10,100.0                      | 6,900.0                    | 9,988.4                       | 9,937.3                        | 195.518           | SF           |
| Gurtler H24-24 - Original Drilling - Original Drilling - As D   | 6,438.4                       | 5,948.3                    | 7,233.3                       | 7,198.2                        | 206.062           | CC           |
| Gurtler H24-24 - Original Drilling - Original Drilling - As D   | 6,500.0                       | 6,500.0                    | 7,234.3                       | 7,197.2                        | 194.749           | ES           |
| Gurtler H24-24 - Original Drilling - Original Drilling - As D   | 11,200.0                      | 6,559.4                    | 9,963.9                       | 9,910.2                        | 185.554           | SF           |
| Gurtler H24-99HZ - Wellbore #1 - Original Drilling              | 6,563.1                       | 11,118.0                   | 5,215.4                       | 5,138.3                        | 67.639            | CC, ES       |
| Gurtler H24-99HZ - Wellbore #1 - Original Drilling              | 8,400.0                       | 11,118.0                   | 6,269.5                       | 6,170.0                        | 62.994            | SF           |
| Gurtler H25-27 - Original Drilling - Original Drilling - As D   | 6,613.0                       | 6,601.6                    | 7,860.8                       | 7,822.0                        | 202.392           | CC, ES       |
| Gurtler H25-27 - Original Drilling - Original Drilling - As D   | 11,400.0                      | 6,991.4                    | 9,995.9                       | 9,935.9                        | 166.611           | SF           |
| Gurtler Russell L1 (PA) - Original Drilling - Original Drilling | 6,518.2                       | 6,520.0                    | 5,977.3                       | 5,940.1                        | 160.491           | CC, ES       |
| Gurtler Russell L1 (PA) - Original Drilling - Original Drilling | 7,300.0                       | 7,005.9                    | 6,211.2                       | 6,162.4                        | 127.202           | SF           |
| HSR Brutschy 04-24 - Original Drilling - Original Drilling -    | 6,447.8                       | 6,214.8                    | 7,696.9                       | 7,660.8                        | 213.416           | CC           |
| HSR Brutschy 04-24 - Original Drilling - Original Drilling -    | 6,450.0                       | 6,217.2                    | 7,696.9                       | 7,660.8                        | 213.345           | ES           |
| HSR Brutschy 04-24 - Original Drilling - Original Drilling -    | 6,950.0                       | 6,824.8                    | 7,862.3                       | 7,823.6                        | 202.911           | SF           |
| HSR Epstein 05-24 - Original Drilling - Original Drilling - A   | 6,452.8                       | 6,208.6                    | 7,405.9                       | 7,369.9                        | 205.562           | CC, ES       |
| HSR Epstein 05-24 - Original Drilling - Original Drilling - A   | 6,900.0                       | 6,741.9                    | 7,523.9                       | 7,485.5                        | 195.988           | SF           |
| HSR Hoffman 03-24 - Original Drilling - Original Drilling -     | 6,487.7                       | 6,584.5                    | 8,598.6                       | 8,557.8                        | 210.542           | CC           |
| HSR Hoffman 03-24 - Original Drilling - Original Drilling -     | 6,500.0                       | 6,596.7                    | 8,598.7                       | 8,557.7                        | 209.811           | ES           |
| HSR Hoffman 03-24 - Original Drilling - Original Drilling -     | 7,200.0                       | 7,104.2                    | 8,885.0                       | 8,838.2                        | 189.868           | SF           |
| HSR Sarchet 02-24 - Original Drilling - Original Drilling - A   | 6,485.7                       | 6,459.6                    | 9,561.3                       | 9,524.3                        | 258.713           | CC, ES       |
| HSR Sarchet 02-24 - Original Drilling - Original Drilling - A   | 7,050.0                       | 6,830.2                    | 9,733.2                       | 9,694.4                        | 250.806           | SF           |
| HSR Sarchet 06-24 - Original Drilling - Original Drilling - A   | 6,454.5                       | 6,141.9                    | 7,737.3                       | 7,701.5                        | 216.103           | CC, ES       |
| HSR Sarchet 06-24 - Original Drilling - Original Drilling - A   | 7,100.0                       | 6,784.9                    | 7,949.1                       | 7,910.4                        | 205.417           | SF           |
| HSR Traurig 01-24 - Original Drilling - Original Drilling - A   |                               |                            |                               |                                |                   | Out of range |
| Nopens D19-31 - Original Drilling - Original Drilling - As D    |                               |                            |                               |                                |                   | Out of range |
| Nopens H24-08 - Original Drilling - Original Drilling - As D    | 6,457.9                       | 5,997.7                    | 9,725.6                       | 9,690.3                        | 275.342           | CC           |
| Nopens H24-08 - Original Drilling - Original Drilling - As D    | 6,500.0                       | 6,500.0                    | 9,726.2                       | 9,689.0                        | 261.824           | ES           |
| Nopens H24-08 - Original Drilling - Original Drilling - As D    | 7,200.0                       | 6,665.4                    | 9,941.8                       | 9,903.5                        | 259.027           | SF           |
| Sarchet H24-22 - Original Drilling - Original Drilling - As D   | 6,480.8                       | 6,251.5                    | 8,847.0                       | 8,810.7                        | 244.149           | CC, ES       |
| Sarchet H24-22 - Original Drilling - Original Drilling - As D   | 6,950.0                       | 6,630.5                    | 8,942.8                       | 8,904.8                        | 235.156           | SF           |
| Weld County Lumber 01 - Original Drilling - Original Drilling   | 6,490.3                       | 6,425.1                    | 9,134.6                       | 9,097.8                        | 247.720           | CC           |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

**Noble Energy, Inc.**  
Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary   |                               |                            |                               |                                |                   |         |
|---|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|---------|
| Site Name   | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
| H Section 24  |                               |                            |                               |                                |                   |         |
| Offset Well - Wellbore - Design                             |                               |                            |                               |                                |                   |         |
| Weld County Lumber 01 - Original Drilling - Original Drilli | 6,500.0                       | 6,435.6                    | 9,134.7                       | 9,097.8                        | 247.374           | ES      |
| Weld County Lumber 01 - Original Drilling - Original Drilli | 6,950.0                       | 6,836.0                    | 9,239.9                       | 9,201.2                        | 238.392           | SF      |

**Noble Energy, Inc.**  
Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary  |                               |                            |                               |                                |                   |         |
|--|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|---------|
| Site Name  | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
| <b>Offset Well - Wellbore - Design</b>                         |                               |                            |                               |                                |                   |         |
| H Section 25   |                               |                            |                               |                                |                   |         |
| Dechant 21-25 - Original Drilling - Original Drilling - As D   | 576.0                         | 554.0                      | 5,789.2                       | 5,786.3                        | 1,989.007         | CC      |
| Dechant 21-25 - Original Drilling - Original Drilling - As D   | 1,400.0                       | 1,358.1                    | 5,790.1                       | 5,782.6                        | 765.064           | ES      |
| Dechant 21-25 - Original Drilling - Original Drilling - As D   | 12,000.0                      | 7,204.1                    | 8,508.3                       | 8,442.9                        | 129.923           | SF      |
| Dechant D30-33D - Original Drilling - Original Drilling - As   | 100.0                         | 33.5                       | 8,376.4                       | 8,376.2                        | 10,000.000        | CC, ES  |
| Dechant D30-33D - Original Drilling - Original Drilling - As   | 13,700.0                      | 6,805.1                    | 9,967.8                       | 9,884.2                        | 119.226           | SF      |
| Dechant D31-30D - Original Drilling - Original Drilling - As   | 100.0                         | 36.9                       | 8,379.9                       | 8,379.7                        | 10,000.000        | CC, ES  |
| Dechant D31-30D - Original Drilling - Original Drilling - As   | 14,900.0                      | 7,073.5                    | 9,960.7                       | 9,861.3                        | 100.191           | SF      |
| Dechant H25-64-1HN - Original Drilling - Original Drilling     | 8,704.5                       | 6,423.0                    | 3,817.7                       | 3,775.4                        | 90.355            | CC, ES  |
| Dechant H25-64-1HN - Original Drilling - Original Drilling     | 10,400.0                      | 6,423.0                    | 4,177.3                       | 4,124.3                        | 78.862            | SF      |
| Dechant H25-65HN - Original Drilling - Original Drilling       | 7,777.1                       | 6,417.0                    | 3,829.8                       | 3,792.7                        | 103.329           | CC      |
| Dechant H25-65HN - Original Drilling - Original Drilling       | 7,800.0                       | 6,417.0                    | 3,829.9                       | 3,792.7                        | 103.061           | ES      |
| Dechant H25-65HN - Original Drilling - Original Drilling       | 9,900.0                       | 6,417.0                    | 4,378.9                       | 4,328.6                        | 87.125            | SF      |
| HSR Cohn 03-25 - Original Drilling - Original Drilling - As    | 6,601.5                       | 6,492.8                    | 5,654.0                       | 5,616.8                        | 151.876           | CC, ES  |
| HSR Cohn 03-25 - Original Drilling - Original Drilling - As    | 10,400.0                      | 6,858.6                    | 7,252.9                       | 7,200.1                        | 137.476           | SF      |
| HSR Crowe 06-25 - Original Drilling - Original Drilling - A    | 7,176.8                       | 6,978.0                    | 5,581.3                       | 5,542.0                        | 142.051           | CC, ES  |
| HSR Crowe 06-25 - Original Drilling - Original Drilling - A    | 11,100.0                      | 7,077.4                    | 6,892.4                       | 6,832.8                        | 115.732           | SF      |
| HSR Dechant 04-25 - Original Drilling - Original Drilling -    | 6,581.8                       | 7,001.2                    | 4,630.6                       | 4,569.1                        | 75.283            | CC, ES  |
| HSR Dechant 04-25 - Original Drilling - Original Drilling -    | 6,850.0                       | 7,208.9                    | 4,649.2                       | 4,587.2                        | 74.981            | SF      |
| HSR Dechant 05-25 - Original Drilling - Original Drilling -    | 7,226.9                       | 7,053.8                    | 4,572.5                       | 4,533.0                        | 115.494           | CC, ES  |
| HSR Dechant 05-25 - Original Drilling - Original Drilling -    | 10,000.0                      | 7,028.9                    | 5,391.5                       | 5,338.9                        | 102.525           | SF      |
| KY Blue D30-32 - Original Drilling - Original Drilling - As D  | 7,770.7                       | 6,902.7                    | 8,739.2                       | 8,699.0                        | 217.479           | CC      |
| KY Blue D30-32 - Original Drilling - Original Drilling - As D  | 7,800.0                       | 6,902.5                    | 8,739.3                       | 8,699.0                        | 216.960           | ES      |
| KY Blue D30-32 - Original Drilling - Original Drilling - As D  | 12,600.0                      | 6,874.7                    | 9,985.1                       | 9,912.0                        | 136.650           | SF      |
| KY Blue H25-04J - Original Drilling - Original Drilling - As   | 9,274.8                       | 6,940.0                    | 7,909.6                       | 7,872.1                        | 211.060           | CC      |
| KY Blue H25-04J - Original Drilling - Original Drilling - As   | 9,300.0                       | 6,940.0                    | 7,909.6                       | 7,871.9                        | 209.951           | ES      |
| KY Blue H25-04J - Original Drilling - Original Drilling - As   | 14,800.0                      | 6,940.0                    | 9,648.6                       | 9,572.9                        | 127.439           | SF      |
| KY Blue H25-09 - Original Drilling - Original Drilling - As D  | 8,285.2                       | 6,889.2                    | 8,217.9                       | 8,175.5                        | 193.565           | CC      |
| KY Blue H25-09 - Original Drilling - Original Drilling - As D  | 8,300.0                       | 6,889.2                    | 8,217.9                       | 8,175.4                        | 193.192           | ES      |
| KY Blue H25-09 - Original Drilling - Original Drilling - As D  | 13,900.0                      | 6,883.2                    | 9,953.3                       | 9,872.5                        | 123.120           | SF      |
| KY Blue H25-10 - Original Drilling - Original Drilling - As D  | 8,112.4                       | 7,015.9                    | 6,780.4                       | 6,738.4                        | 161.471           | CC, ES  |
| KY Blue H25-10 - Original Drilling - Original Drilling - As D  | 15,400.0                      | 15,400.0                   | 9,954.6                       | 9,843.1                        | 89.255            | SF      |
| KY Blue H25-11 - Original Drilling - Original Drilling - As D  | 8,283.7                       | 7,037.8                    | 5,605.5                       | 5,531.6                        | 75.900            | CC      |
| KY Blue H25-11 - Original Drilling - Original Drilling - As D  | 8,300.0                       | 7,037.6                    | 5,605.5                       | 5,531.5                        | 75.811            | ES      |
| KY Blue H25-11 - Original Drilling - Original Drilling - As D  | 10,800.0                      | 6,997.9                    | 6,144.3                       | 6,053.7                        | 67.793            | SF      |
| KY Blue H25-12 - Original Drilling - Original Drilling - As D  | 8,258.7                       | 6,895.9                    | 4,156.2                       | 4,113.8                        | 98.048            | CC      |
| KY Blue H25-12 - Original Drilling - Original Drilling - As D  | 8,300.0                       | 6,895.1                    | 4,156.4                       | 4,113.8                        | 97.530            | ES      |
| KY Blue H25-12 - Original Drilling - Original Drilling - As D  | 10,400.0                      | 6,855.8                    | 4,675.3                       | 4,619.4                        | 83.569            | SF      |
| KY Blue H25-14 - Original Drilling - Original Drilling - As D  | 9,769.4                       | 6,873.0                    | 5,673.0                       | 5,619.8                        | 106.614           | CC      |
| KY Blue H25-14 - Original Drilling - Original Drilling - As D  | 9,800.0                       | 6,873.1                    | 5,673.1                       | 5,619.7                        | 106.098           | ES      |
| KY Blue H25-14 - Original Drilling - Original Drilling - As D  | 14,100.0                      | 14,100.0                   | 7,137.3                       | 7,031.6                        | 67.560            | SF      |
| KY Blue H25-15 - Original Drilling - Original Drilling - As D  | 9,597.7                       | 6,894.4                    | 6,734.8                       | 6,682.9                        | 129.851           | CC      |
| KY Blue H25-15 - Original Drilling - Original Drilling - As D  | 9,700.0                       | 6,893.4                    | 6,735.5                       | 6,682.8                        | 127.711           | ES      |
| KY Blue H25-15 - Original Drilling - Original Drilling - As D  | 13,400.0                      | 6,874.9                    | 7,734.2                       | 7,654.8                        | 97.435            | SF      |
| KY H25-24 - Original Drilling - Original Drilling - As Drilled | 8,948.8                       | 6,976.5                    | 6,334.9                       | 6,287.8                        | 134.673           | CC      |
| KY H25-24 - Original Drilling - Original Drilling - As Drilled | 9,000.0                       | 6,977.5                    | 6,335.1                       | 6,287.7                        | 133.594           | ES      |
| KY H25-24 - Original Drilling - Original Drilling - As Drilled | 12,900.0                      | 7,053.7                    | 7,465.9                       | 7,390.4                        | 98.870            | SF      |
| Moore UPRC H25-01 - Original Drilling - Original Drilling      | 6,691.7                       | 6,594.4                    | 8,495.4                       | 8,457.7                        | 225.435           | CC      |
| Moore UPRC H25-01 - Original Drilling - Original Drilling      | 6,700.0                       | 6,601.3                    | 8,495.4                       | 8,457.7                        | 225.248           | ES      |
| Moore UPRC H25-01 - Original Drilling - Original Drilling      | 11,000.0                      | 6,890.8                    | 9,975.2                       | 9,916.0                        | 168.502           | SF      |
| Moore UPRC H25-02 - Original Drilling - Original Drilling      | 6,687.0                       | 6,644.0                    | 7,109.6                       | 7,071.8                        | 187.933           | CC      |
| Moore UPRC H25-02 - Original Drilling - Original Drilling      | 6,700.0                       | 6,651.9                    | 7,109.6                       | 7,071.8                        | 187.741           | ES      |
| Moore UPRC H25-02 - Original Drilling - Original Drilling      | 12,100.0                      | 6,863.0                    | 9,479.6                       | 9,416.4                        | 150.024           | SF      |
| Moser 25-32 - Original Drilling - Original Drilling - As Drill | 7,237.4                       | 6,959.5                    | 6,694.1                       | 6,654.8                        | 170.400           | CC      |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

**Noble Energy, Inc.**  
Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary  |                               |                            |                               |                                |                   |         |
|--|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|---------|
| Site Name  | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
| H Section 25   |                               |                            |                               |                                |                   |         |
| Offset Well - Wellbore - Design                                |                               |                            |                               |                                |                   |         |
| Moser 25-32 - Original Drilling - Original Drilling - As Drill | 7,250.0                       | 6,962.1                    | 6,694.1                       | 6,654.8                        | 170.306           | ES      |
| Moser 25-32 - Original Drilling - Original Drilling - As Drill | 12,300.0                      | 7,025.8                    | 8,449.8                       | 8,382.4                        | 125.356           | SF      |
| Moser 25-42 - Original Drilling - Original Drilling - As Drill | 7,127.3                       | 6,858.0                    | 8,372.0                       | 8,333.2                        | 215.391           | CC      |
| Moser 25-42 - Original Drilling - Original Drilling - As Drill | 7,150.0                       | 6,869.1                    | 8,372.1                       | 8,333.2                        | 215.085           | ES      |
| Moser 25-42 - Original Drilling - Original Drilling - As Drill | 12,300.0                      | 6,918.5                    | 9,950.1                       | 9,880.9                        | 143.664           | SF      |
| UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling     | 6,747.5                       | 6,600.0                    | 5,314.1                       | 5,276.4                        | 140.838           | CC      |
| UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling     | 6,750.0                       | 6,600.0                    | 5,314.1                       | 5,276.4                        | 140.832           | ES      |
| UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling     | 10,200.0                      | 6,700.0                    | 6,509.4                       | 6,457.3                        | 124.857           | SF      |
| UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dr        | 6,952.6                       | 6,799.7                    | 7,695.7                       | 7,544.7                        | 50.979            | CC      |
| UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dr        | 7,000.0                       | 6,828.3                    | 7,695.9                       | 7,544.4                        | 50.781            | ES      |
| UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dr        | 9,300.0                       | 6,933.0                    | 8,150.1                       | 7,986.6                        | 49.836            | SF      |
| Von Feldt 1-25B - Original Drilling - Original Drilling - As D | 9,334.4                       | 7,017.4                    | 4,714.0                       | 4,663.8                        | 93.895            | CC      |
| Von Feldt 1-25B - Original Drilling - Original Drilling - As D | 9,400.0                       | 7,019.7                    | 4,714.5                       | 4,663.7                        | 92.900            | ES      |
| Von Feldt 1-25B - Original Drilling - Original Drilling - As D | 11,600.0                      | 7,098.3                    | 5,229.7                       | 5,162.7                        | 78.114            | SF      |

**Noble Energy, Inc.**  
Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary  |                               |                            |                               |                                |                   |            |
|--|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|------------|
| Site Name  | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning    |
| <b>Offset Well - Wellbore - Design</b>                           |                               |                            |                               |                                |                   |            |
| H Section 26   |                               |                            |                               |                                |                   |            |
| Bullard 31-26 - Original Drilling - Original Drilling - As Dril  | 6,473.6                       | 6,404.2                    | 2,177.7                       | 2,141.0                        | 59.247            | CC, ES     |
| Bullard 31-26 - Original Drilling - Original Drilling - As Dril  | 6,700.0                       | 6,610.1                    | 2,205.3                       | 2,167.5                        | 58.393            | SF         |
| Bullard 32-26 - Original Drilling - Original Drilling - As Dril  | 7,132.8                       | 6,955.2                    | 1,818.9                       | 1,779.7                        | 46.408            | CC, ES     |
| Bullard 32-26 - Original Drilling - Original Drilling - As Dril  | 7,250.0                       | 6,986.6                    | 1,823.3                       | 1,783.8                        | 46.252            | SF         |
| Bullard 41-26 - Original Drilling - Original Drilling - As Dril  | 6,561.2                       | 6,538.8                    | 2,793.5                       | 2,756.1                        | 74.701            | CC, ES     |
| Bullard 41-26 - Original Drilling - Original Drilling - As Dril  | 7,000.0                       | 6,939.8                    | 2,851.0                       | 2,811.9                        | 72.868            | SF         |
| Dechant H25-29D - Original Drilling - Original Drilling - As     | 111.8                         | 131.0                      | 3,752.9                       | 3,752.5                        | 9,137.121         | CC         |
| Dechant H25-29D - Original Drilling - Original Drilling - As     | 200.0                         | 197.1                      | 3,753.2                       | 3,752.3                        | 4,455.200         | ES         |
| Dechant H25-29D - Original Drilling - Original Drilling - As     | 11,300.0                      | 11,300.0                   | 8,209.8                       | 8,114.5                        | 86.218            | SF         |
| Dechant H25-33D - Original Drilling - Original Drilling - As     | 3,401.8                       | 3,480.3                    | 3,654.8                       | 3,624.0                        | 118.620           | CC         |
| Dechant H25-33D - Original Drilling - Original Drilling - As     | 3,500.0                       | 3,562.9                    | 3,655.3                       | 3,623.5                        | 115.059           | ES         |
| Dechant H25-33D - Original Drilling - Original Drilling - As     | 9,800.0                       | 7,816.5                    | 3,910.0                       | 3,821.4                        | 44.160            | SF         |
| Harsh H26-09D - Original Drilling - Original Drilling - As D     | 8,211.1                       | 6,974.1                    | 3,174.7                       | 3,132.3                        | 74.882            | CC, ES     |
| Harsh H26-09D - Original Drilling - Original Drilling - As D     | 9,500.0                       | 6,997.4                    | 3,426.3                       | 3,375.9                        | 67.930            | SF         |
| Harsh H26-10 - Original Drilling - Original Drilling - As Dr     | 8,064.6                       | 7,003.7                    | 1,887.8                       | 1,846.1                        | 45.240            | CC, ES     |
| Harsh H26-10 - Original Drilling - Original Drilling - As Dr     | 8,500.0                       | 7,003.1                    | 1,937.4                       | 1,893.3                        | 43.957            | SF         |
| Harsh H26-15 - Original Drilling - Original Drilling - As Dr     | 9,507.0                       | 6,967.3                    | 1,814.9                       | 1,763.5                        | 35.312            | CC, ES     |
| Harsh H26-15 - Original Drilling - Original Drilling - As Dr     | 9,900.0                       | 6,971.2                    | 1,856.9                       | 1,802.6                        | 34.178            | SF         |
| Harsh H26-16 - Original Drilling - Original Drilling - As Dr     | 9,588.2                       | 6,966.8                    | 2,877.8                       | 2,825.8                        | 55.292            | CC         |
| Harsh H26-16 - Original Drilling - Original Drilling - As Dr     | 9,600.0                       | 6,967.0                    | 2,877.9                       | 2,825.7                        | 55.186            | ES         |
| Harsh H26-16 - Original Drilling - Original Drilling - As Dr     | 10,500.0                      | 6,977.2                    | 3,018.8                       | 2,960.0                        | 51.345            | SF         |
| Harsh H26-23D - Original Drilling - Original Drilling - As D     | 1,056.0                       | 1,074.0                    | 2,327.2                       | 2,322.4                        | 491.720           | CC         |
| Harsh H26-23D - Original Drilling - Original Drilling - As D     | 1,100.0                       | 1,108.5                    | 2,327.3                       | 2,322.3                        | 470.418           | ES         |
| Harsh H26-23D - Original Drilling - Original Drilling - As D     | 9,700.0                       | 7,087.5                    | 2,634.2                       | 2,577.8                        | 46.705            | SF         |
| HSR Moser 04-26 - Original Drilling - Original Drilling - As     | 6,394.3                       | 6,288.6                    | 1,723.6                       | 1,687.2                        | 47.267            | CC         |
| HSR Moser 04-26 - Original Drilling - Original Drilling - As     | 6,400.0                       | 6,293.2                    | 1,723.7                       | 1,687.2                        | 47.233            | ES         |
| HSR Moser 04-26 - Original Drilling - Original Drilling - As     | 6,550.0                       | 6,441.9                    | 1,741.0                       | 1,703.7                        | 46.728            | SF         |
| HSR Moser 06-26 - Original Drilling - Original Drilling - As     | 7,034.2                       | 6,892.4                    | 678.6                         | 639.7                          | 17.437            | CC, ES     |
| HSR Moser 06-26 - Original Drilling - Original Drilling - As     | 7,050.0                       | 6,900.0                    | 678.8                         | 639.8                          | 17.425            | SF         |
| HSR Regalia 05-26 - Original Drilling - Original Drilling - A    | 6,392.4                       | 6,335.2                    | 489.7                         | 453.2                          | 13.398            | CC         |
| HSR Regalia 05-26 - Original Drilling - Original Drilling - A    | 6,400.0                       | 6,342.7                    | 489.8                         | 453.2                          | 13.384            | ES         |
| HSR Regalia 05-26 - Original Drilling - Original Drilling - A    | 6,450.0                       | 6,392.6                    | 491.6                         | 454.7                          | 13.337            | SF         |
| HSR-Moser 03-26A - Original Drilling - Original Drilling - A     | 6,440.6                       | 6,336.0                    | 1,517.7                       | 1,481.1                        | 41.550            | CC, ES     |
| HSR-Moser 03-26A - Original Drilling - Original Drilling - A     | 6,550.0                       | 6,432.9                    | 1,527.0                       | 1,489.9                        | 41.228            | SF         |
| A John 03-26 - Original Drilling - Original Drilling - As Drille | 6,460.7                       | 6,407.2                    | 1,241.5                       | 1,204.8                        | 33.796            | CC, ES     |
| John 03-26 - Original Drilling - Original Drilling - As Drille   | 6,550.0                       | 6,480.6                    | 1,248.0                       | 1,210.9                        | 33.606            | SF         |
| Lamp H25-31 - Original Drilling - Original Drilling - As Dri     | 6,759.1                       | 6,802.6                    | 3,679.3                       | 3,640.8                        | 95.726            | CC, ES     |
| Lamp H25-31 - Original Drilling - Original Drilling - As Dri     | 7,200.0                       | 7,061.6                    | 3,721.2                       | 3,681.6                        | 93.909            | SF         |
| Lamp H26-01 - Original Drilling - Original Drilling - As Dri     | 6,497.8                       | 6,478.2                    | 3,502.0                       | 3,460.9                        | 85.067            | CC         |
| Lamp H26-01 - Original Drilling - Original Drilling - As Dri     | 6,500.0                       | 6,480.0                    | 3,502.0                       | 3,460.9                        | 85.049            | ES         |
| Lamp H26-01 - Original Drilling - Original Drilling - As Dri     | 6,900.0                       | 6,894.3                    | 3,551.8                       | 3,509.0                        | 83.013            | SF         |
| Lamp H26-08 - Original Drilling - Original Drilling - As Dri     | 6,889.8                       | 6,687.7                    | 3,152.1                       | 3,114.0                        | 82.704            | CC         |
| Lamp H26-08 - Original Drilling - Original Drilling - As Dri     | 6,900.0                       | 6,695.8                    | 3,152.2                       | 3,114.0                        | 82.632            | ES         |
| Lamp H26-08 - Original Drilling - Original Drilling - As Dri     | 7,350.0                       | 6,870.3                    | 3,185.4                       | 3,146.3                        | 81.328            | SF         |
| Lamp H26-22 - Original Drilling - Original Drilling - As Dri     | 7,500.0                       | 7,151.8                    | 2,415.9                       | 2,369.8                        | 52.325            | SF         |
| Lamp H26-22 - Original Drilling - Original Drilling - As Dri     | 7,643.9                       | 7,152.5                    | 2,411.6                       | 2,365.6                        | 52.343            | CC, ES     |
| Moser 05-26 - Original Drilling - Original Drilling - As Drill   | 3,065.0                       | 3,056.5                    | 834.4                         | 817.2                          | 48.441            | CC         |
| Moser 05-26 - Original Drilling - Original Drilling - As Drill   | 3,100.0                       | 3,091.7                    | 834.5                         | 817.1                          | 47.891            | ES         |
| Moser 05-26 - Original Drilling - Original Drilling - As Drill   | 7,100.0                       | 6,918.2                    | 955.1                         | 916.0                          | 24.442            | SF         |
| Moser 41-27 - Original Drilling - Original Drilling - As Drill   | 936.5                         | 908.3                      | 844.9                         | 839.9                          | 170.118           | CC, ES     |
| Moser 41-27 - Original Drilling - Original Drilling - As Drill   | 6,600.0                       | 6,657.7                    | 1,662.5                       | 1,622.1                        | 41.202            | SF         |
| Moser H26-11 - Original Drilling - Original Drilling - As Dr     | 8,059.9                       | 6,968.9                    | 252.4                         | 210.8                          | 6.072             | CC, ES, SF |
| Moser H26-12 - Wellbore #1 - Wellbore #1 - As Drilled            | 8,275.9                       | 6,974.5                    | 889.3                         | 846.6                          | 20.822            | CC, ES     |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

**Noble Energy, Inc.**  
Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary  |                               |                            |                               |                                |                   |            |
|--|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|------------|
| Site Name  | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning    |
| <b>Offset Well - Wellbore - Design</b>                         |                               |                            |                               |                                |                   |            |
| H Section 26   |                               |                            |                               |                                |                   |            |
| Moser H26-12 - Wellbore #1 - Wellbore #1 - As Drilled          | 8,400.0                       | 6,978.0                    | 897.9                         | 854.7                          | 20.747            | SF         |
| Moser H26-13 - Wellbore #1 - Wellbore #1 - As Drilled          | 9,584.9                       | 6,969.4                    | 939.5                         | 887.4                          | 18.053            | CC, ES     |
| Moser H26-13 - Wellbore #1 - Wellbore #1 - As Drilled          | 9,700.0                       | 6,974.9                    | 946.5                         | 893.7                          | 17.935            | SF         |
| Moser H26-14 - Original Drilling - Original Drilling - As Dr   | 9,790.0                       | 7,004.2                    | 594.2                         | 540.4                          | 11.051            | CC         |
| Moser H26-14 - Original Drilling - Original Drilling - As Dr   | 9,800.0                       | 7,004.1                    | 594.2                         | 540.4                          | 11.034            | ES, SF     |
| Moser H26-18D - Original Drilling - Original Drilling - As D   | 6,551.3                       | 6,962.4                    | 1,325.4                       | 1,284.0                        | 32.011            | CC, ES     |
| Moser H26-18D - Original Drilling - Original Drilling - As D   | 6,800.0                       | 7,182.0                    | 1,348.3                       | 1,305.6                        | 31.559            | SF         |
| Moser H26-24 - Original Drilling - Original Drilling - As Dr   | 8,776.8                       | 6,979.6                    | 911.2                         | 865.3                          | 19.852            | CC, ES     |
| Moser H26-24 - Original Drilling - Original Drilling - As Dr   | 8,900.0                       | 6,981.3                    | 919.5                         | 872.7                          | 19.659            | SF         |
| Moser H26-25 - Original Drilling - Original Drilling - As Dr   | 8,976.9                       | 6,980.1                    | 109.9                         | 62.6                           | 2.322             | CC, ES, SF |
| Moser H26-27D - Original Drilling - Original Drilling - As D   | 6,502.9                       | 6,638.2                    | 3,059.5                       | 3,016.3                        | 70.822            | CC, ES     |
| Moser H26-27D - Original Drilling - Original Drilling - As D   | 6,750.0                       | 6,871.2                    | 3,089.2                       | 3,045.0                        | 69.979            | SF         |
| Moser H26-28D - Original Drilling - Original Drilling - As D   | 6,453.8                       | 7,004.4                    | 2,182.9                       | 2,116.1                        | 32.689            | CC, ES     |
| Moser H26-28D - Original Drilling - Original Drilling - As D   | 6,500.0                       | 7,055.8                    | 2,184.5                       | 2,117.5                        | 32.626            | SF         |
| Moser H26-29D - Original Drilling - Original Drilling - As D   | 6,383.9                       | 7,195.2                    | 1,922.4                       | 1,836.1                        | 22.289            | CC, ES     |
| Moser H26-29D - Original Drilling - Original Drilling - As D   | 6,450.0                       | 7,284.2                    | 1,925.7                       | 1,839.0                        | 22.214            | SF         |
| Moser, Wesley E. G. U. B1 (PA) - Original Drilling - Origin    | 9,267.8                       | 6,972.0                    | 538.9                         | 374.1                          | 3.271             | CC, ES, SF |
| H Section 27   |                               |                            |                               |                                |                   |            |
| HSR Moser 1-27 - Original Drilling - Original Drilling - As    | 6,368.9                       | 6,278.2                    | 2,431.1                       | 2,394.8                        | 66.994            | CC, ES     |
| HSR Moser 1-27 - Original Drilling - Original Drilling - As    | 6,600.0                       | 6,469.5                    | 2,458.1                       | 2,420.8                        | 65.858            | SF         |
| HSR Moser 16-27 - Original Drilling - Original Drilling - As   | 9,742.0                       | 6,979.3                    | 2,037.0                       | 1,983.6                        | 38.175            | CC, ES     |
| HSR Moser 16-27 - Original Drilling - Original Drilling - As   | 10,200.0                      | 6,981.1                    | 2,087.8                       | 2,031.3                        | 36.969            | SF         |
| Moser 09-27X (PA) - Original Drilling - Original Drilling - A  | 8,328.0                       | 6,980.3                    | 2,078.2                       | 2,033.3                        | 46.258            | CC, ES     |
| Moser 09-27X (PA) - Original Drilling - Original Drilling - A  | 8,800.0                       | 6,972.1                    | 2,131.1                       | 2,083.8                        | 45.075            | SF         |
| Moser 24-27 - Original Drilling - Original Drilling - As Drill | 850.6                         | 818.6                      | 2,064.3                       | 2,059.8                        | 463.952           | CC         |
| Moser 24-27 - Original Drilling - Original Drilling - As Drill | 900.0                         | 858.1                      | 2,064.4                       | 2,059.7                        | 439.333           | ES         |
| Moser 24-27 - Original Drilling - Original Drilling - As Drill | 8,400.0                       | 7,021.5                    | 2,900.1                       | 2,856.0                        | 65.741            | SF         |
| H Section 34   |                               |                            |                               |                                |                   |            |
| Moser H34-09 - Wellbore #1 - Wellbore #1 - As Drilled          | 13,562.2                      | 7,000.4                    | 2,122.3                       | 2,034.0                        | 24.034            | CC, ES     |
| Moser H34-09 - Wellbore #1 - Wellbore #1 - As Drilled          | 13,800.0                      | 7,000.6                    | 2,135.6                       | 2,045.5                        | 23.705            | SF         |
| Moser H34-16 - Wellbore #1 - Wellbore #1 - As Drilled          | 14,810.3                      | 6,964.1                    | 2,132.2                       | 2,032.1                        | 21.308            | CC, ES     |
| Moser H34-16 - Wellbore #1 - Wellbore #1 - As Drilled          | 15,100.0                      | 6,970.3                    | 2,151.8                       | 2,049.7                        | 21.077            | SF         |
| Moser H34-31 - Wellbore #1 - Wellbore #1 - As Drilled          | 11,535.0                      | 7,079.4                    | 6,768.6                       | 6,699.0                        | 97.244            | CC         |
| Moser H34-31 - Wellbore #1 - Wellbore #1 - As Drilled          | 11,600.0                      | 7,081.3                    | 6,768.9                       | 6,698.7                        | 96.424            | ES         |
| Moser H34-31 - Wellbore #1 - Wellbore #1 - As Drilled          | 14,600.0                      | 7,155.1                    | 7,429.5                       | 7,337.2                        | 80.498            | SF         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

**Noble Energy, Inc.**  
Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary   |                               |                            |                               |                                |                   |                     |
|---|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|---------------------|
| Site Name   | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning             |
| H Section 35  |                               |                            |                               |                                |                   |                     |
| Offset Well - Wellbore - Design                                     |                               |                            |                               |                                |                   |                     |
| Cannon Farms 01-35C - Original Drilling - Original Drilling         | 14,485.0                      | 6,980.1                    | 2,527.6                       | 2,430.5                        | 26.046            | CC                  |
| Cannon Farms 01-35C - Original Drilling - Original Drilling         | 14,500.0                      | 6,979.6                    | 2,527.6                       | 2,430.4                        | 26.007            | ES                  |
| Cannon Farms 01-35C - Original Drilling - Original Drilling         | 14,900.0                      | 6,966.1                    | 2,561.4                       | 2,461.3                        | 25.575            | SF                  |
| Cannon H35-03D - Original Drilling - Original Drilling - As D       | 13,962.7                      | 6,991.6                    | 102.1                         | 10.1                           | 1.110             | Level 2, CC, ES, SF |
| Cannon H35-09 - Original Drilling - Original Drilling - As D        | 13,555.6                      | 7,012.8                    | 2,909.4                       | 2,816.3                        | 31.272            | CC                  |
| Cannon H35-09 - Original Drilling - Original Drilling - As D        | 13,600.0                      | 7,011.8                    | 2,909.7                       | 2,816.3                        | 31.139            | ES                  |
| Cannon H35-09 - Original Drilling - Original Drilling - As D        | 14,100.0                      | 7,001.0                    | 2,959.9                       | 2,862.8                        | 30.500            | SF                  |
| Cannon H35-10 - Original Drilling - Original Drilling - As D        | 13,662.0                      | 6,962.6                    | 1,667.6                       | 1,578.5                        | 18.712            | CC, ES              |
| Cannon H35-10 - Original Drilling - Original Drilling - As D        | 13,800.0                      | 6,963.3                    | 1,673.3                       | 1,583.0                        | 18.532            | SF                  |
| Cannon H35-11 - Original Drilling - Original Drilling - As D        | 13,543.4                      | 7,010.8                    | 599.6                         | 511.5                          | 6.805             | CC, ES, SF          |
| Cannon H35-12 - Original Drilling - Original Drilling - As D        | 13,643.0                      | 6,985.0                    | 866.8                         | 777.8                          | 9.737             | CC, ES              |
| Cannon H35-12 - Original Drilling - Original Drilling - As D        | 13,700.0                      | 6,985.7                    | 868.6                         | 779.3                          | 9.719             | SF                  |
| Cannon H35-13 - Wellbore #1 - Wellbore #1 - As Drilled              | 14,835.4                      | 6,989.9                    | 931.0                         | 830.6                          | 9.271             | CC, ES              |
| Cannon H35-13 - Wellbore #1 - Wellbore #1 - As Drilled              | 14,900.0                      | 6,988.2                    | 933.2                         | 832.4                          | 9.258             | SF                  |
| Cannon H35-14 - Original Drilling - Original Drilling - As D        | 14,871.3                      | 6,991.7                    | 462.5                         | 355.5                          | 4.321             | CC, ES, SF          |
| Cannon H35-15 (PA) - Original Drilling - Original Drilling - As D   | 14,909.9                      | 6,984.0                    | 1,678.9                       | 1,462.3                        | 7.753             | CC, ES              |
| Cannon H35-15 (PA) - Original Drilling - Original Drilling - As D   | 15,000.0                      | 6,984.0                    | 1,681.3                       | 1,463.9                        | 7.735             | SF                  |
| Cannon H35-20 - Original Drilling - Original Drilling - As D        | 13,043.4                      | 6,973.8                    | 264.3                         | 181.1                          | 3.177             | CC, ES, SF          |
| Cannon H35-21 - Original Drilling - Original Drilling - As D        | 13,128.6                      | 6,983.2                    | 1,154.7                       | 1,070.6                        | 13.726            | CC, ES              |
| Cannon H35-21 - Original Drilling - Original Drilling - As D        | 13,200.0                      | 6,983.4                    | 1,156.9                       | 1,072.2                        | 13.652            | SF                  |
| Cannon H35-22 - Original Drilling - Original Drilling - As D        | 13,048.9                      | 6,842.7                    | 2,082.8                       | 1,999.8                        | 25.110            | CC, ES              |
| Cannon H35-22 - Original Drilling - Original Drilling - As D        | 13,400.0                      | 6,842.2                    | 2,112.2                       | 2,026.5                        | 24.656            | SF                  |
| Cannon H35-24 - Original Drilling - Original Drilling - As D        | 14,315.7                      | 7,024.6                    | 948.7                         | 853.2                          | 9.937             | CC, ES              |
| Cannon H35-24 - Original Drilling - Original Drilling - As D        | 14,400.0                      | 7,025.5                    | 952.4                         | 856.3                          | 9.913             | SF                  |
| Cannon X02-27 - Original Drilling - Original Drilling - As D        | 15,394.1                      | 6,975.4                    | 2,098.8                       | 1,993.1                        | 19.858            | CC                  |
| Cannon X02-27 - Original Drilling - Original Drilling - As D        | 15,400.0                      | 6,975.4                    | 2,098.8                       | 1,993.0                        | 19.847            | ES                  |
| Cannon X02-27 - Original Drilling - Original Drilling - As D        | 15,507.8                      | 6,975.3                    | 2,101.9                       | 1,995.1                        | 19.696            | SF                  |
| Cannon X02-28 - Original Drilling - Original Drilling - As D        | 15,160.2                      | 7,011.9                    | 915.5                         | 812.0                          | 8.840             | CC, ES              |
| Cannon X02-28 - Original Drilling - Original Drilling - As D        | 15,200.0                      | 7,012.0                    | 916.4                         | 812.5                          | 8.820             | SF                  |
| Cannon X02-29 - Original Drilling - Original Drilling - As D        | 15,240.2                      | 7,022.9                    | 411.4                         | 306.7                          | 3.928             | CC, ES, SF          |
| Foster 18-35 - Original Drilling - Original Drilling - As Drill     | 11,379.5                      | 6,967.8                    | 387.7                         | 320.0                          | 5.723             | CC, ES              |
| Foster 18-35 - Original Drilling - Original Drilling - As Drill     | 11,400.0                      | 6,967.9                    | 388.3                         | 320.4                          | 5.722             | SF                  |
| Foster UPRR 31-35 #1 - Original Drilling - Original Drilling        | 10,806.9                      | 6,996.0                    | 1,742.2                       | 1,564.1                        | 9.782             | CC, ES              |
| Foster UPRR 31-35 #1 (PA) - Original Drilling - Original Drilling   | 10,900.0                      | 6,996.0                    | 1,744.6                       | 1,565.7                        | 9.751             | SF                  |
| Foster UPRR 32-35 - Original Drilling - Original Drilling - As D    | 12,140.1                      | 6,988.7                    | 1,607.0                       | 1,532.1                        | 21.464            | CC, ES              |
| Foster UPRR 32-35 - Original Drilling - Original Drilling - As D    | 12,300.0                      | 6,989.2                    | 1,614.9                       | 1,538.7                        | 21.190            | SF                  |
| Foster UPRR 41-35 - Original Drilling - Original Drilling - As D    | 11,031.0                      | 6,977.5                    | 3,069.5                       | 2,995.8                        | 41.680            | CC, ES              |
| Foster UPRR 41-35 - Original Drilling - Original Drilling - As D    | 11,800.0                      | 6,981.7                    | 3,164.3                       | 3,084.6                        | 39.685            | SF                  |
| Foster UPRR 42-35 #2 - Original Drilling - Original Drilling - As D | 12,121.2                      | 6,855.6                    | 3,017.8                       | 2,943.6                        | 40.643            | CC, ES              |
| Foster UPRR 42-35 #2 - Original Drilling - Original Drilling - As D | 12,800.0                      | 6,864.6                    | 3,093.2                       | 3,013.6                        | 38.864            | SF                  |
| HSR Foster 03-35 - Original Drilling - Original Drilling - As D     | 11,020.0                      | 6,979.1                    | 500.3                         | 435.7                          | 7.752             | CC, ES, SF          |
| HSR Foster 04-35 - Wellbore #1 - Wellbore #1 - As Drilled           | 10,713.3                      | 6,878.8                    | 1,168.2                       | 1,106.9                        | 19.068            | CC, ES              |
| HSR Foster 04-35 - Wellbore #1 - Wellbore #1 - As Drilled           | 10,800.0                      | 6,879.3                    | 1,171.4                       | 1,109.5                        | 18.920            | SF                  |
| HSR Foster 05-35 - Wellbore #1 - Wellbore #1 - As Drilled           | 12,304.0                      | 6,914.9                    | 964.7                         | 888.7                          | 12.693            | CC, ES              |
| HSR Foster 05-35 - Wellbore #1 - Wellbore #1 - As Drilled           | 12,400.0                      | 6,916.5                    | 969.5                         | 892.9                          | 12.654            | SF                  |
| HSR Foster 06-35 - Original Drilling - Original Drilling - As D     | 12,199.5                      | 6,993.1                    | 407.3                         | 331.9                          | 5.402             | CC                  |
| HSR Foster 06-35 - Original Drilling - Original Drilling - As D     | 12,200.0                      | 6,993.1                    | 407.4                         | 331.9                          | 5.402             | ES, SF              |
| UPRR 53 Pan Am Unit P1 - Original Drilling - Original Drilling      | 11,615.6                      | 6,991.4                    | 2,512.3                       | 2,442.3                        | 35.889            | CC, ES              |
| UPRR 53 Pan Am Unit P1 - Original Drilling - Original Drilling      | 12,100.0                      | 6,990.1                    | 2,558.6                       | 2,484.8                        | 34.652            | SF                  |
| UPRR 53 Pan Am UT P2 - Original Drilling - Original Drilling        | 11,237.3                      | 6,983.5                    | 33.3                          | -33.1                          | 0.502             | Level 1, CC, ES, SF |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Noble Energy, Inc.

## Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary   |                               |                            |                               |                                |                   |            |
|---|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|------------|
| Site Name   | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning    |
| <b>Offset Well - Wellbore - Design</b>                            |                               |                            |                               |                                |                   |            |
| H Section 36  |                               |                            |                               |                                |                   |            |
| Dechant 07-36 - Original Drilling - Original Drilling - As D      | 12,528.7                      | 6,831.1                    | 6,696.6                       | 6,618.6                        | 85.907            | CC         |
| Dechant 07-36 - Original Drilling - Original Drilling - As D      | 12,600.0                      | 6,831.4                    | 6,697.0                       | 6,618.3                        | 85.173            | ES         |
| Dechant 07-36 - Original Drilling - Original Drilling - As D      | 15,300.0                      | 6,842.6                    | 7,247.5                       | 7,148.5                        | 73.260            | SF         |
| Dechant 13N-1HZ - Original Drilling - Original Drilling - A       | 15,507.8                      | 7,076.0                    | 4,116.3                       | 4,008.0                        | 37.983            | CC, ES, SF |
| Dechant 14C-1HZ - Original Drilling - Original Drilling - A       | 15,385.4                      | 6,436.3                    | 5,576.7                       | 5,472.2                        | 53.407            | CC         |
| Dechant 14C-1HZ - Original Drilling - Original Drilling - A       | 15,400.0                      | 6,436.9                    | 5,576.7                       | 5,472.1                        | 53.332            | ES         |
| Dechant 14C-1HZ - Original Drilling - Original Drilling - A       | 15,507.8                      | 6,441.8                    | 5,578.0                       | 5,472.4                        | 52.810            | SF         |
| Dechant 15-36 - Original Drilling - Original Drilling - As D      | 14,981.9                      | 6,928.9                    | 6,681.4                       | 6,563.2                        | 56.529            | CC         |
| Dechant 15-36 - Original Drilling - Original Drilling - As D      | 15,000.0                      | 6,929.0                    | 6,681.4                       | 6,563.0                        | 56.445            | ES         |
| Dechant 15-36 - Original Drilling - Original Drilling - As D      | 15,507.8                      | 6,931.1                    | 6,702.1                       | 6,578.9                        | 54.435            | SF         |
| Dechant 15C-1HZ - Original Drilling - Original Drilling - A       | 15,507.8                      | 11,919.8                   | 6,826.8                       | 6,650.5                        | 38.718            | CC, ES, SF |
| Dechant 24-36 - Original Drilling - Original Drilling - As D      | 12,865.9                      | 7,096.0                    | 7,386.2                       | 7,301.9                        | 87.612            | CC         |
| Dechant 24-36 - Original Drilling - Original Drilling - As D      | 12,900.0                      | 7,096.0                    | 7,386.3                       | 7,301.6                        | 87.236            | ES         |
| Dechant 24-36 - Original Drilling - Original Drilling - As D      | 15,507.8                      | 7,097.0                    | 7,844.6                       | 7,736.1                        | 72.309            | SF         |
| Dechant 35N-E1HZ - Original Drilling - Original Drilling -        | 15,507.8                      | 6,733.3                    | 5,277.4                       | 5,170.9                        | 49.559            | CC, ES, SF |
| Dechant 35N-W1HZ - Original Drilling - Original Drilling -        | 15,507.8                      | 6,929.9                    | 4,676.0                       | 4,568.8                        | 43.611            | CC, ES, SF |
| Dechant 36N-W1HZ - Original Drilling - Original Drilling -        | 15,381.1                      | 6,213.2                    | 5,817.0                       | 5,713.3                        | 56.077            | CC         |
| Dechant 36N-W1HZ - Original Drilling - Original Drilling -        | 15,400.0                      | 6,213.2                    | 5,817.1                       | 5,713.1                        | 55.977            | ES         |
| Dechant 36N-W1HZ - Original Drilling - Original Drilling -        | 15,507.8                      | 6,213.3                    | 5,818.4                       | 5,713.4                        | 55.434            | SF         |
| Dechant 37N-E1HZ - Original Drilling - Original Drilling -        | 15,373.8                      | 5,096.1                    | 7,599.7                       | 7,500.0                        | 76.254            | CC         |
| Dechant 37N-E1HZ - Original Drilling - Original Drilling -        | 15,400.0                      | 5,096.3                    | 7,599.7                       | 7,499.8                        | 76.059            | ES         |
| Dechant 37N-E1HZ - Original Drilling - Original Drilling -        | 15,507.8                      | 5,103.1                    | 7,600.9                       | 7,499.9                        | 75.265            | SF         |
| Dechant 37N-W1HZ - Original Drilling - Original Drilling -        | 15,377.0                      | 5,923.4                    | 7,125.9                       | 7,023.4                        | 69.494            | CC         |
| Dechant 37N-W1HZ - Original Drilling - Original Drilling -        | 15,400.0                      | 5,923.5                    | 7,125.9                       | 7,023.2                        | 69.343            | ES         |
| Dechant 37N-W1HZ - Original Drilling - Original Drilling -        | 15,507.8                      | 5,923.6                    | 7,127.1                       | 7,023.3                        | 68.659            | SF         |
| Dechant State 16C-1HZ - Original Drilling - Original Drilling -   | 15,507.8                      | 12,646.0                   | 8,020.9                       | 7,835.3                        | 43.228            | CC, ES, SF |
| Dechant State 36N-E1HZ - Original Drilling - Original Drilling -  | 15,507.8                      | 11,746.3                   | 6,547.8                       | 6,371.8                        | 37.212            | CC, ES, SF |
| Dechant State 37N-E36HZ - Original Drilling - Original Drilling - | 15,148.1                      | 11,401.3                   | 7,768.3                       | 7,603.7                        | 47.192            | CC         |
| Dechant State 37N-E36HZ - Original Drilling - Original Drilling - | 15,200.0                      | 11,401.3                   | 7,768.5                       | 7,603.4                        | 47.066            | ES         |
| Dechant State 37N-E36HZ - Original Drilling - Original Drilling - | 15,507.8                      | 11,401.3                   | 7,776.6                       | 7,609.1                        | 46.414            | SF         |
| Dechant State 37N-W36HZ - Original Drilling - Original Drilling - | 15,162.6                      | 11,489.0                   | 7,172.6                       | 7,006.1                        | 43.083            | CC         |
| Dechant State 37N-W36HZ - Original Drilling - Original Drilling - | 15,200.0                      | 11,489.0                   | 7,172.7                       | 7,005.8                        | 42.982            | ES         |
| Dechant State 37N-W36HZ - Original Drilling - Original Drilling - | 15,507.8                      | 11,489.0                   | 7,180.9                       | 7,010.9                        | 42.252            | SF         |
| Dechant State 38N-1HZ - Original Drilling - Original Drilling -   | 15,507.8                      | 11,663.6                   | 8,473.5                       | 8,299.2                        | 48.615            | CC, ES, SF |
| Dechant State H36-11D - Original Drilling - Original Drilling -   | 13,716.7                      | 6,900.0                    | 5,527.6                       | 5,438.2                        | 61.809            | CC         |
| Dechant State H36-11D - Original Drilling - Original Drilling -   | 13,800.0                      | 6,900.0                    | 5,528.3                       | 5,438.0                        | 61.269            | ES         |
| Dechant State H36-11D - Original Drilling - Original Drilling -   | 15,507.8                      | 6,900.0                    | 5,810.6                       | 5,707.6                        | 56.400            | SF         |
| Dechant State H36-18D - Original Drilling - Original Drilling -   | 11,663.2                      | 7,076.0                    | 6,100.6                       | 6,029.1                        | 85.261            | CC         |
| Dechant State H36-18D - Original Drilling - Original Drilling -   | 11,700.0                      | 7,077.3                    | 6,100.7                       | 6,028.8                        | 84.819            | ES         |
| Dechant State H36-18D - Original Drilling - Original Drilling -   | 14,600.0                      | 7,209.4                    | 6,769.7                       | 6,673.3                        | 70.223            | SF         |
| Dechant State H36-19 - Original Drilling - Original Drilling -    | 11,319.4                      | 7,216.6                    | 4,697.4                       | 4,629.5                        | 69.118            | CC         |
| Dechant State H36-19 - Original Drilling - Original Drilling -    | 11,400.0                      | 7,217.5                    | 4,698.1                       | 4,629.4                        | 68.380            | ES         |
| Dechant State H36-19 - Original Drilling - Original Drilling -    | 13,000.0                      | 7,236.4                    | 4,989.0                       | 4,908.2                        | 61.766            | SF         |
| Dechant State H36-20D - Original Drilling - Original Drilling -   | 13,107.4                      | 7,402.1                    | 4,900.4                       | 4,815.4                        | 57.643            | CC, ES     |
| Dechant State H36-20D - Original Drilling - Original Drilling -   | 14,700.0                      | 14,700.0                   | 5,152.6                       | 5,034.6                        | 43.649            | SF         |
| Dechant State H36-21D - Original Drilling - Original Drilling -   | 13,081.2                      | 7,041.9                    | 6,105.4                       | 6,020.5                        | 71.947            | CC         |
| Dechant State H36-21D - Original Drilling - Original Drilling -   | 13,100.0                      | 7,041.8                    | 6,105.4                       | 6,020.4                        | 71.803            | ES         |
| Dechant State H36-21D - Original Drilling - Original Drilling -   | 15,200.0                      | 7,049.0                    | 6,462.6                       | 6,362.4                        | 64.477            | SF         |
| Dechant State H36-24 - Original Drilling - Original Drilling -    | 14,290.0                      | 7,169.8                    | 6,170.4                       | 6,073.5                        | 63.679            | CC         |
| Dechant State H36-24 - Original Drilling - Original Drilling -    | 14,400.0                      | 7,168.5                    | 6,171.3                       | 6,073.4                        | 62.990            | ES         |
| Dechant State H36-24 - Original Drilling - Original Drilling -    | 15,507.8                      | 7,156.1                    | 6,289.4                       | 6,181.7                        | 58.388            | SF         |
| Dechant State H36-31D - Original Drilling - Original Drilling -   | 11,663.4                      | 7,078.1                    | 3,691.6                       | 3,620.8                        | 52.155            | CC         |
| Dechant State H36-31D - Original Drilling - Original Drilling -   | 11,700.0                      | 7,078.4                    | 3,691.8                       | 3,620.7                        | 51.930            | ES         |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Noble Energy, Inc.

## Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Summary  |                               |                            |                               |                                |                   |            |
|--|-------------------------------|----------------------------|-------------------------------|--------------------------------|-------------------|------------|
| Site Name  | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning    |
| H Section 36   |                               |                            |                               |                                |                   |            |
| Offset Well - Wellbore - Design                                      |                               |                            |                               |                                |                   |            |
| Dechant State H36-31D - Original Drilling - Original Drilling        | 12,700.0                      | 7,086.9                    | 3,834.4                       | 3,756.1                        | 48.948            | SF         |
| Dechant State H36-32D - Original Drilling - Original Drilling        | 12,915.6                      | 7,052.0                    | 3,671.1                       | 3,587.9                        | 44.141            | CC, ES     |
| Dechant State H36-32D - Original Drilling - Original Drilling        | 13,900.0                      | 7,072.1                    | 3,800.7                       | 3,709.6                        | 41.716            | SF         |
| Dechant State H36-33 - Original Drilling - Original Drilling         | 14,131.9                      | 7,389.7                    | 3,708.5                       | 3,612.2                        | 38.514            | CC         |
| Dechant State H36-33 - Original Drilling - Original Drilling         | 14,200.0                      | 7,389.7                    | 3,709.1                       | 3,612.1                        | 38.255            | ES         |
| Dechant State H36-33 - Original Drilling - Original Drilling         | 15,000.0                      | 7,391.6                    | 3,808.7                       | 3,705.2                        | 36.810            | SF         |
| HSR Dechant State 02-36 - Original Drilling - Original Drilling      | 10,774.8                      | 6,835.2                    | 6,652.9                       | 6,591.1                        | 107.606           | CC         |
| HSR Dechant State 02-36 - Original Drilling - Original Drilling      | 10,800.0                      | 6,836.0                    | 6,653.0                       | 6,590.9                        | 107.206           | ES         |
| HSR Dechant State 02-36 - Original Drilling - Original Drilling      | 14,100.0                      | 6,917.5                    | 7,437.3                       | 7,350.5                        | 85.705            | SF         |
| HSR Dechant/State 07-36 (PA) - Original Drilling - Original Drilling | 11,969.6                      | 6,949.0                    | 7,238.0                       | 7,050.0                        | 38.495            | CC         |
| HSR Dechant/State 07-36 (PA) - Original Drilling - Original Drilling | 12,000.0                      | 6,949.0                    | 7,238.1                       | 7,049.8                        | 38.438            | ES         |
| HSR Dechant/State 07-36 (PA) - Original Drilling - Original Drilling | 13,900.0                      | 6,949.0                    | 7,491.1                       | 7,286.8                        | 36.663            | SF         |
| Spike State GWS H36-03 - Original Drilling - Original Drilling       | 10,921.9                      | 10,921.9                   | 5,733.5                       | 5,656.0                        | 73.989            | CC, ES, SF |
| Spike State GWS H36-04 - Original Drilling - Original Drilling       | 10,757.1                      | 7,046.9                    | 4,231.9                       | 4,160.8                        | 59.523            | CC         |
| Spike State GWS H36-04 - Original Drilling - Original Drilling       | 10,800.0                      | 7,046.6                    | 4,232.1                       | 4,160.6                        | 59.205            | ES         |
| Spike State GWS H36-04 - Original Drilling - Original Drilling       | 12,200.0                      | 7,036.3                    | 4,471.1                       | 4,389.1                        | 54.500            | SF         |
| Spike State GWS H36-13 - Original Drilling - Original Drilling       | 15,084.7                      | 6,600.0                    | 4,103.9                       | 4,002.5                        | 40.492            | CC         |
| Spike State GWS H36-13 - Original Drilling - Original Drilling       | 15,100.0                      | 6,600.0                    | 4,103.9                       | 4,002.4                        | 40.433            | ES         |
| Spike State GWS H36-13 - Original Drilling - Original Drilling       | 15,507.8                      | 6,600.0                    | 4,125.6                       | 4,020.5                        | 39.255            | SF         |
| Spike State GWS H36-14 - Original Drilling - Original Drilling       | 15,077.5                      | 6,871.5                    | 5,781.9                       | 5,679.6                        | 56.489            | CC         |
| Spike State GWS H36-14 - Original Drilling - Original Drilling       | 15,100.0                      | 6,870.9                    | 5,782.0                       | 5,679.4                        | 56.370            | ES         |
| Spike State GWS H36-14 - Original Drilling - Original Drilling       | 15,507.8                      | 6,858.9                    | 5,797.9                       | 5,691.6                        | 54.546            | SF         |
| Spike State H36-02J - Original Drilling - Original Drilling          | 11,982.4                      | 6,901.3                    | 5,176.9                       | 5,072.5                        | 49.593            | CC         |
| Spike State H36-02J - Original Drilling - Original Drilling          | 12,000.0                      | 6,901.6                    | 5,176.9                       | 5,072.3                        | 49.510            | ES         |
| Spike State H36-02J - Original Drilling - Original Drilling          | 13,600.0                      | 6,929.3                    | 5,423.7                       | 5,305.6                        | 45.946            | SF         |
| Spike State H36-05 - Original Drilling - Original Drilling - A       | 12,157.9                      | 7,117.5                    | 4,168.3                       | 4,092.9                        | 55.275            | CC         |
| Spike State H36-05 - Original Drilling - Original Drilling - A       | 12,200.0                      | 7,117.4                    | 4,168.5                       | 4,092.7                        | 54.990            | ES         |
| Spike State H36-05 - Original Drilling - Original Drilling - A       | 13,400.0                      | 7,113.4                    | 4,349.4                       | 4,264.5                        | 51.231            | SF         |
| Spike State H36-11J - Original Drilling - Original Drilling - A      | 14,319.3                      | 6,926.8                    | 4,936.2                       | 4,840.9                        | 51.823            | CC         |
| Spike State H36-11J - Original Drilling - Original Drilling - A      | 14,400.0                      | 6,925.2                    | 4,936.8                       | 4,840.8                        | 51.415            | ES         |
| Spike State H36-11J - Original Drilling - Original Drilling - A      | 15,507.8                      | 6,902.0                    | 5,077.2                       | 4,972.6                        | 48.546            | SF         |
| Spike State H36-12 - Original Drilling - Original Drilling - A       | 13,426.7                      | 6,972.1                    | 4,056.8                       | 3,969.9                        | 46.682            | CC         |
| Spike State H36-12 - Original Drilling - Original Drilling - A       | 13,500.0                      | 6,971.3                    | 4,057.4                       | 3,969.8                        | 46.318            | ES         |
| Spike State H36-12 - Original Drilling - Original Drilling - A       | 14,500.0                      | 6,959.6                    | 4,196.4                       | 4,101.3                        | 44.158            | SF         |

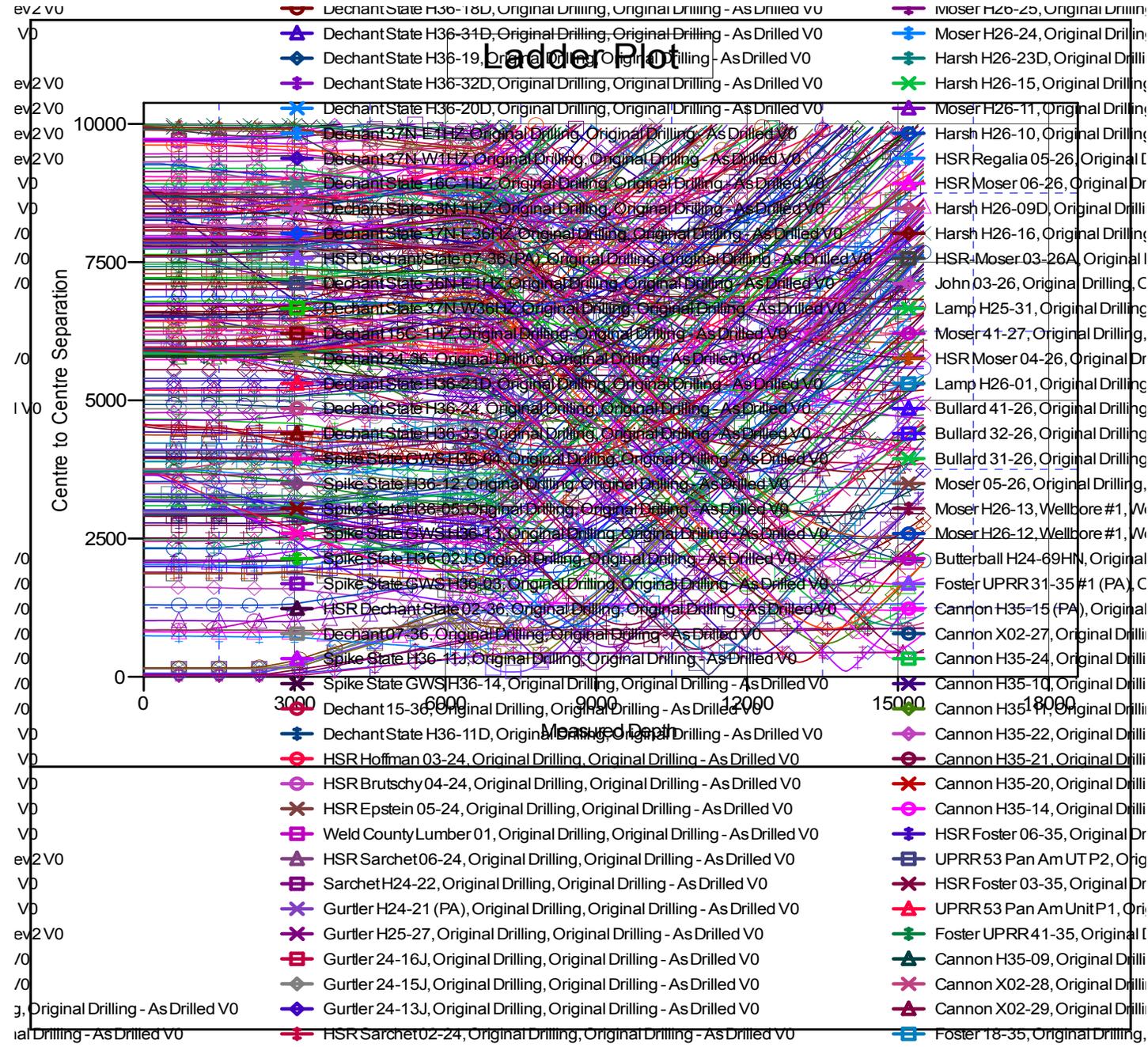
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Noble Energy, Inc.

## Anticollision Summary Report

|                           |                                    |                                     |                                      |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | Northern Region Drilling - Sandbox | <b>Local Co-ordinate Reference:</b> | Well Hurley H35-768                  |
| <b>Project:</b>           | Conceptual Wells                   | <b>TVD Reference:</b>               | WELL @ 4852.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | DP 408                             | <b>MD Reference:</b>                | WELL @ 4852.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0 ft                             | <b>North Reference:</b>             | Grid                                 |
| <b>Reference Well:</b>    | Hurley H35-768                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0 ft                             | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Wellbore #1                        | <b>Database:</b>                    | EDMP                                 |
| <b>Reference Design:</b>  | Prelim - Rev 2                     | <b>Offset TVD Reference:</b>        | Offset Datum                         |

Reference Depths are relative to WELL @ 4852.0ft (Original Well Elev)      Coordinates are relative to: Hurley H35-768  
 Offset Depths are relative to Offset Datum      Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Central Meridian is -105.500000      Grid Convergence at Surface is: 0.56°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

