

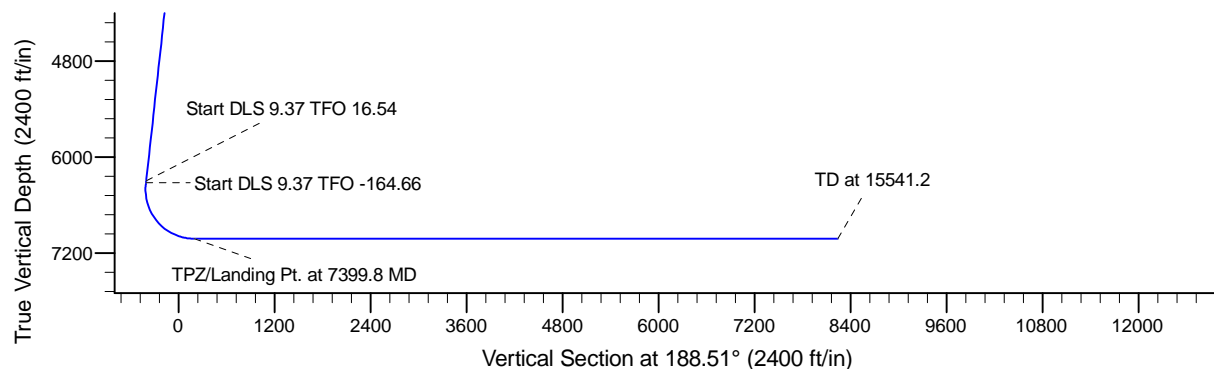
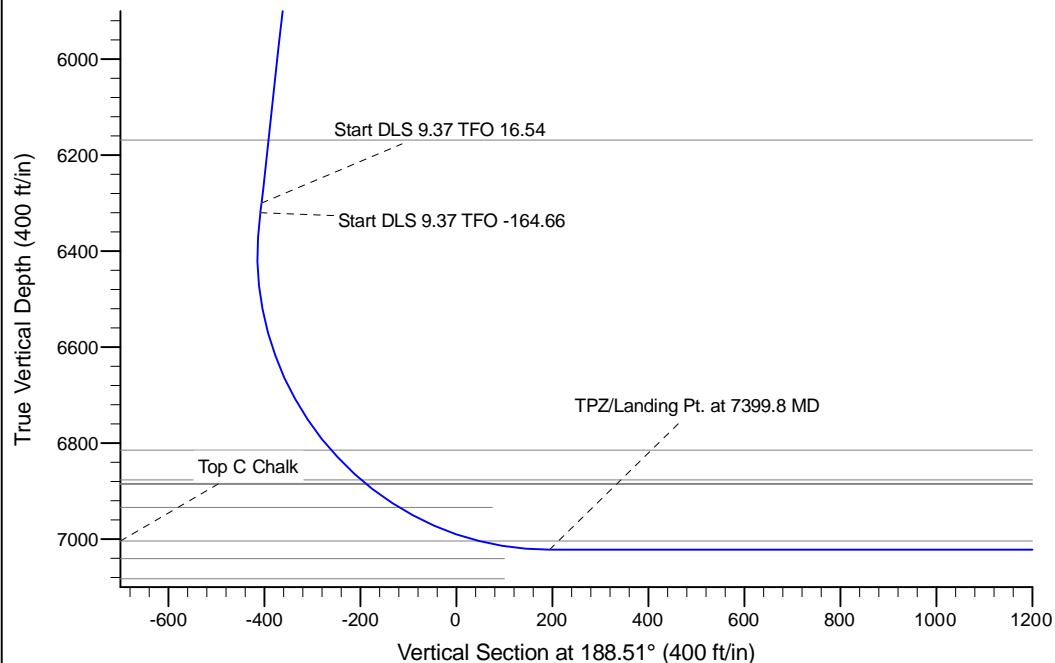
Project: Conceptual Wells
Site: DP 408
Well: Hurley H35-774
Wellbore: Wellbore #1
Design: Prelim - Rev 2

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

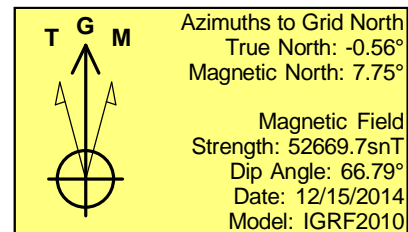
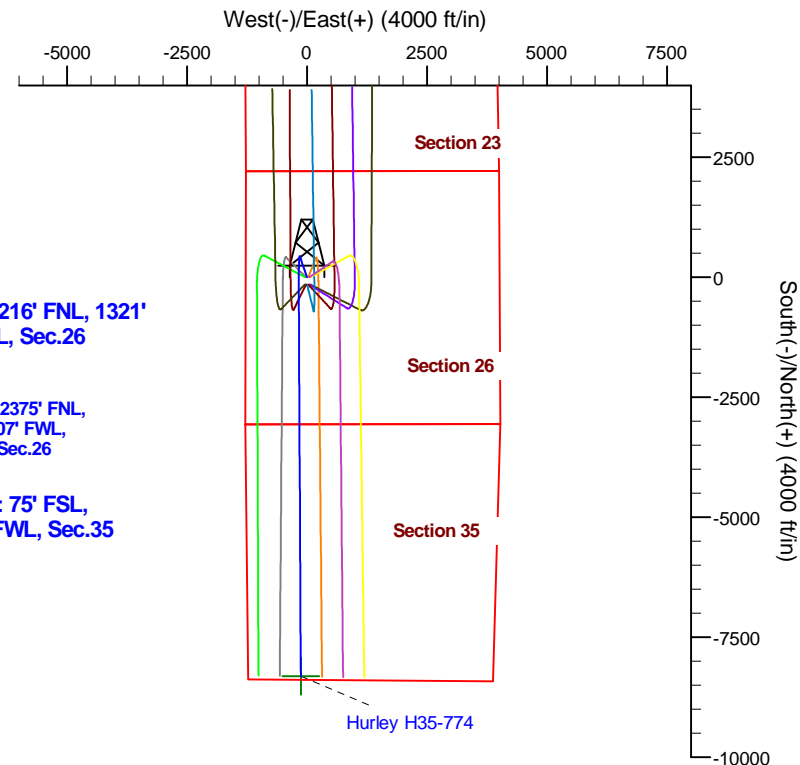
| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | Vsect | Target |
|-----|---------|-------|--------|--------|---------|--------|------|---------|--------|--------------------|
| 1 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2 | 2400.0 | 0.00 | 0.00 | 2400.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 3 | 2750.0 | 7.00 | 341.00 | 2749.1 | 20.2 | -7.0 | 2.00 | 341.00 | -18.9 | |
| 4 | 6327.5 | 7.00 | 341.00 | 6300.0 | 432.4 | -148.9 | 0.00 | 0.00 | -405.6 | |
| 5 | 6347.8 | 8.84 | 344.53 | 6320.1 | 435.1 | -149.7 | 9.37 | 16.54 | -408.2 | |
| 6 | 7399.8 | 90.00 | 179.69 | 7022.0 | -170.0 | -175.0 | 9.37 | -164.66 | 194.0 | |
| 7 | 15541.2 | 90.00 | 179.70 | 7022.0 | -8311.3 | -131.4 | 0.00 | 90.00 | 8239.3 | Hurley H35-774 BHL |



Surface: 2216' FNL, 1321' FWL, Sec.26

TPZ: 2375' FNL, 1107' FWL, Sec.26

BHL: 75' FSL, 1107' FWL, Sec.35



WELL DETAILS: Hurley H35-774

| | Ground Level: | 4822.0 | |
|--------|---------------|------------|-------------|
| 0.00.0 | Northings | Eastings | Longitudes |
| | 1315972.59 | 3241493.11 | -104.635480 |

Plan: Prelim - Rev 2 (Hurley H35-774/Wellbore #1)

Created By: Chad Stich Date: 14:21, October 30 2017
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: _____ Date: _____

Northern Region Drilling - Sandbox

Conceptual Wells

DP 408

Hurley H35-774

Wellbore #1

Plan: Prelim - Rev 2

Standard Planning Report

30 October, 2017

Noble Energy, Inc.

Planning Report

| | | | |
|------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Database: | EDMP | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Company: | Northern Region Drilling - Sandbox | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Project: | Conceptual Wells | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site: | DP 408 | North Reference: | Grid |
| Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Prelim - Rev 2 | | |

| | | | |
|--------------------|---------------------------|----------------------|-----------------------------|
| Project | Conceptual Wells | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | Using geodetic scale factor |

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

| | | | | | | |
|----------------------|----------------|-------------|---------------------|-------------------|---------------|-------------|
| Well | Hurley H35-774 | | | | | |
| Well Position | +N/-S | -2,212.2 ft | Northing: | 1,315,972.59 usft | Latitude: | 40.197510 |
| | +E/-W | 1,268.0 ft | Easting: | 3,241,493.11 usft | Longitude: | -104.635480 |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | 0.0 ft | Ground Level: | 4,822.0 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 12/15/2014 | 8.31 | 66.79 | 52,669.65977268 |

| | | | | |
|--------------------------|-------------------------|--------------|----------------------|------------------|
| Design | Prelim - Rev 2 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) | +N/-S | +E/-W | Direction |
| | (ft) | (ft) | (ft) | (°) |
| | 0.0 | 0.0 | 0.0 | 188.51 |

| Plan Sections | | | | | | | | | | |
|----------------------|-----------------|-------------|---------------------|------------|------------|-------------------------|------------------------|-----------------------|---------|--------------------|
| 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 | |
| 2,400.0 | 0.00 | 0.00 | 2,400.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,750.0 | 7.00 | 341.00 | 2,749.1 | 20.2 | -7.0 | 2.00 | 2.00 | 0.00 | 341.00 | |
| 6,327.5 | 7.00 | 341.00 | 6,300.0 | 432.4 | -148.9 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,347.8 | 8.84 | 344.53 | 6,320.1 | 435.1 | -149.7 | 9.37 | 9.06 | 17.35 | 16.54 | |
| 7,399.8 | 90.00 | 179.69 | 7,022.0 | -170.0 | -175.0 | 9.37 | 7.72 | -15.67 | -164.66 | |
| 15,541.2 | 90.00 | 179.70 | 7,022.0 | -8,311.3 | -131.4 | 0.00 | 0.00 | 0.00 | 90.00 | Hurley H35-774 BHL |

Noble Energy, Inc.

Planning Report

| | | | |
|------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Database: | EDMP | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Company: | Northern Region Drilling - Sandbox | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Project: | Conceptual Wells | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site: | DP 408 | North Reference: | Grid |
| Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | 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 | 2.00 | 341.00 | 2,500.0 | 1.7 | -0.6 | -1.5 | 2.00 | 2.00 | 0.00 |
| 2,600.0 | 4.00 | 341.00 | 2,599.8 | 6.6 | -2.3 | -6.2 | 2.00 | 2.00 | 0.00 |
| 2,700.0 | 6.00 | 341.00 | 2,699.5 | 14.8 | -5.1 | -13.9 | 2.00 | 2.00 | 0.00 |
| 2,750.0 | 7.00 | 341.00 | 2,749.1 | 20.2 | -7.0 | -18.9 | 2.00 | 2.00 | 0.00 |
| 2,800.0 | 7.00 | 341.00 | 2,798.8 | 26.0 | -8.9 | -24.3 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 7.00 | 341.00 | 2,898.0 | 37.5 | -12.9 | -35.2 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 7.00 | 341.00 | 2,997.3 | 49.0 | -16.9 | -46.0 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 7.00 | 341.00 | 3,096.5 | 60.5 | -20.8 | -56.8 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 7.00 | 341.00 | 3,195.8 | 72.0 | -24.8 | -67.6 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 7.00 | 341.00 | 3,295.0 | 83.6 | -28.8 | -78.4 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 7.00 | 341.00 | 3,394.3 | 95.1 | -32.7 | -89.2 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 7.00 | 341.00 | 3,493.5 | 106.6 | -36.7 | -100.0 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 7.00 | 341.00 | 3,592.8 | 118.1 | -40.7 | -110.8 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 7.00 | 341.00 | 3,692.0 | 129.7 | -44.6 | -121.6 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 7.00 | 341.00 | 3,791.3 | 141.2 | -48.6 | -132.4 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 7.00 | 341.00 | 3,890.6 | 152.7 | -52.6 | -143.2 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 7.00 | 341.00 | 3,989.8 | 164.2 | -56.5 | -154.1 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 7.00 | 341.00 | 4,089.1 | 175.8 | -60.5 | -164.9 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 7.00 | 341.00 | 4,188.3 | 187.3 | -64.5 | -175.7 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 7.00 | 341.00 | 4,287.6 | 198.8 | -68.5 | -186.5 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 7.00 | 341.00 | 4,386.8 | 210.3 | -72.4 | -197.3 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 7.00 | 341.00 | 4,486.1 | 221.8 | -76.4 | -208.1 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 7.00 | 341.00 | 4,585.3 | 233.4 | -80.4 | -218.9 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 7.00 | 341.00 | 4,684.6 | 244.9 | -84.3 | -229.7 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 7.00 | 341.00 | 4,783.8 | 256.4 | -88.3 | -240.5 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 7.00 | 341.00 | 4,883.1 | 267.9 | -92.3 | -251.3 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 7.00 | 341.00 | 4,982.4 | 279.5 | -96.2 | -262.1 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 7.00 | 341.00 | 5,081.6 | 291.0 | -100.2 | -273.0 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 7.00 | 341.00 | 5,180.9 | 302.5 | -104.2 | -283.8 | 0.00 | 0.00 | 0.00 |

Noble Energy, Inc.

Planning Report

| | | | |
|------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Database: | EDMP | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Company: | Northern Region Drilling - Sandbox | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Project: | Conceptual Wells | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site: | DP 408 | North Reference: | Grid |
| Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | 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 | 7.00 | 341.00 | 5,280.1 | 314.0 | -108.1 | -294.6 | 0.00 | 0.00 | 0.00 |
| 5,400.0 | 7.00 | 341.00 | 5,379.4 | 325.5 | -112.1 | -305.4 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 7.00 | 341.00 | 5,478.6 | 337.1 | -116.1 | -316.2 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 7.00 | 341.00 | 5,577.9 | 348.6 | -120.0 | -327.0 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 7.00 | 341.00 | 5,677.1 | 360.1 | -124.0 | -337.8 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 7.00 | 341.00 | 5,776.4 | 371.6 | -128.0 | -348.6 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 7.00 | 341.00 | 5,875.7 | 383.2 | -131.9 | -359.4 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 7.00 | 341.00 | 5,974.9 | 394.7 | -135.9 | -370.2 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 7.00 | 341.00 | 6,074.2 | 406.2 | -139.9 | -381.0 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 7.00 | 341.00 | 6,173.4 | 417.7 | -143.8 | -391.9 | 0.00 | 0.00 | 0.00 |
| 6,300.0 | 7.00 | 341.00 | 6,272.7 | 429.3 | -147.8 | -402.7 | 0.00 | 0.00 | 0.00 |
| 6,327.5 | 7.00 | 341.00 | 6,300.0 | 432.4 | -148.9 | -405.6 | 0.00 | 0.00 | 0.00 |
| 6,347.8 | 8.84 | 344.53 | 6,320.1 | 435.1 | -149.7 | -408.2 | 9.37 | 9.06 | 17.35 |
| 6,400.0 | 4.33 | 327.15 | 6,371.9 | 440.6 | -151.9 | -413.3 | 9.37 | -8.66 | -33.32 |
| 6,500.0 | 6.18 | 201.78 | 6,471.7 | 438.8 | -155.9 | -410.9 | 9.37 | 1.85 | -125.37 |
| 6,600.0 | 15.26 | 188.27 | 6,569.9 | 420.7 | -159.8 | -392.5 | 9.37 | 9.09 | -13.51 |
| 6,700.0 | 24.56 | 184.80 | 6,663.8 | 386.9 | -163.4 | -358.5 | 9.37 | 9.30 | -3.47 |
| 6,800.0 | 33.89 | 183.16 | 6,751.0 | 338.3 | -166.7 | -309.9 | 9.37 | 9.33 | -1.64 |
| 6,900.0 | 43.24 | 182.17 | 6,829.1 | 276.1 | -169.6 | -247.9 | 9.37 | 9.35 | -0.99 |
| 7,000.0 | 52.59 | 181.47 | 6,896.0 | 202.0 | -171.9 | -174.3 | 9.37 | 9.35 | -0.70 |
| 7,100.0 | 61.94 | 180.93 | 6,950.0 | 118.0 | -173.6 | -91.0 | 9.37 | 9.36 | -0.54 |
| 7,200.0 | 71.30 | 180.48 | 6,989.7 | 26.3 | -174.7 | -0.1 | 9.37 | 9.36 | -0.45 |
| 7,300.0 | 80.66 | 180.07 | 7,013.9 | -70.6 | -175.2 | 95.8 | 9.37 | 9.36 | -0.41 |
| 7,399.8 | 90.00 | 179.69 | 7,022.0 | -170.0 | -175.0 | 194.0 | 9.37 | 9.36 | -0.38 |
| 7,400.0 | 90.00 | 179.69 | 7,022.0 | -170.2 | -175.0 | 194.2 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 90.00 | 179.69 | 7,022.0 | -270.2 | -174.5 | 293.0 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 90.00 | 179.69 | 7,022.0 | -370.2 | -173.9 | 391.8 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 90.00 | 179.69 | 7,022.0 | -470.2 | -173.4 | 490.7 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 90.00 | 179.69 | 7,022.0 | -570.2 | -172.8 | 589.5 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 90.00 | 179.69 | 7,022.0 | -670.2 | -172.3 | 688.3 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 90.00 | 179.69 | 7,022.0 | -770.2 | -171.8 | 787.1 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 90.00 | 179.69 | 7,022.0 | -870.2 | -171.2 | 885.9 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 90.00 | 179.69 | 7,022.0 | -970.2 | -170.7 | 984.7 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 90.00 | 179.69 | 7,022.0 | -1,070.2 | -170.1 | 1,083.6 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 90.00 | 179.69 | 7,022.0 | -1,170.2 | -169.6 | 1,182.4 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 90.00 | 179.69 | 7,022.0 | -1,270.2 | -169.1 | 1,281.2 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 90.00 | 179.69 | 7,022.0 | -1,370.2 | -168.5 | 1,380.0 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 90.00 | 179.69 | 7,022.0 | -1,470.2 | -168.0 | 1,478.8 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 90.00 | 179.69 | 7,022.0 | -1,570.2 | -167.4 | 1,577.7 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 90.00 | 179.69 | 7,022.0 | -1,670.2 | -166.9 | 1,676.5 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 90.00 | 179.69 | 7,022.0 | -1,770.2 | -166.4 | 1,775.3 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 90.00 | 179.69 | 7,022.0 | -1,870.2 | -165.8 | 1,874.1 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 90.00 | 179.69 | 7,022.0 | -1,970.2 | -165.3 | 1,972.9 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 90.00 | 179.69 | 7,022.0 | -2,070.2 | -164.7 | 2,071.7 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 90.00 | 179.69 | 7,022.0 | -2,170.2 | -164.2 | 2,170.6 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 90.00 | 179.69 | 7,022.0 | -2,270.2 | -163.7 | 2,269.4 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 90.00 | 179.69 | 7,022.0 | -2,370.1 | -163.1 | 2,368.2 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 90.00 | 179.69 | 7,022.0 | -2,470.1 | -162.6 | 2,467.0 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 90.00 | 179.69 | 7,022.0 | -2,570.1 | -162.0 | 2,565.8 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 90.00 | 179.69 | 7,022.0 | -2,670.1 | -161.5 | 2,664.7 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 90.00 | 179.69 | 7,022.0 | -2,770.1 | -161.0 | 2,763.5 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 90.00 | 179.69 | 7,022.0 | -2,870.1 | -160.4 | 2,862.3 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 90.00 | 179.69 | 7,022.0 | -2,970.1 | -159.9 | 2,961.1 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 90.00 | 179.69 | 7,022.0 | -3,070.1 | -159.4 | 3,059.9 | 0.00 | 0.00 | 0.00 |

Noble Energy, Inc.

Planning Report

| | | | |
|------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Database: | EDMP | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Company: | Northern Region Drilling - Sandbox | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Project: | Conceptual Wells | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site: | DP 408 | North Reference: | Grid |
| Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | 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) |
| 10,400.0 | 90.00 | 179.69 | 7,022.0 | -3,170.1 | -158.8 | 3,158.7 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 90.00 | 179.69 | 7,022.0 | -3,270.1 | -158.3 | 3,257.6 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 90.00 | 179.69 | 7,022.0 | -3,370.1 | -157.7 | 3,356.4 | 0.00 | 0.00 | 0.00 |
| 10,700.0 | 90.00 | 179.69 | 7,022.0 | -3,470.1 | -157.2 | 3,455.2 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 90.00 | 179.69 | 7,022.0 | -3,570.1 | -156.7 | 3,554.0 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 90.00 | 179.69 | 7,022.0 | -3,670.1 | -156.1 | 3,652.8 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 90.00 | 179.69 | 7,022.0 | -3,770.1 | -155.6 | 3,751.7 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 90.00 | 179.69 | 7,022.0 | -3,870.1 | -155.1 | 3,850.5 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 90.00 | 179.69 | 7,022.0 | -3,970.1 | -154.5 | 3,949.3 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 90.00 | 179.69 | 7,022.0 | -4,070.1 | -154.0 | 4,048.1 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 90.00 | 179.69 | 7,022.0 | -4,170.1 | -153.5 | 4,146.9 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 90.00 | 179.69 | 7,022.0 | -4,270.1 | -152.9 | 4,245.7 | 0.00 | 0.00 | 0.00 |
| 11,600.0 | 90.00 | 179.69 | 7,022.0 | -4,370.1 | -152.4 | 4,344.6 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 90.00 | 179.69 | 7,022.0 | -4,470.1 | -151.8 | 4,443.4 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 90.00 | 179.69 | 7,022.0 | -4,570.1 | -151.3 | 4,542.2 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 90.00 | 179.69 | 7,022.0 | -4,670.1 | -150.8 | 4,641.0 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 90.00 | 179.69 | 7,022.0 | -4,770.1 | -150.2 | 4,739.8 | 0.00 | 0.00 | 0.00 |
| 12,100.0 | 90.00 | 179.69 | 7,022.0 | -4,870.1 | -149.7 | 4,838.7 | 0.00 | 0.00 | 0.00 |
| 12,200.0 | 90.00 | 179.69 | 7,022.0 | -4,970.1 | -149.2 | 4,937.5 | 0.00 | 0.00 | 0.00 |
| 12,300.0 | 90.00 | 179.69 | 7,022.0 | -5,070.1 | -148.6 | 5,036.3 | 0.00 | 0.00 | 0.00 |
| 12,400.0 | 90.00 | 179.69 | 7,022.0 | -5,170.1 | -148.1 | 5,135.1 | 0.00 | 0.00 | 0.00 |
| 12,500.0 | 90.00 | 179.69 | 7,022.0 | -5,270.1 | -147.6 | 5,233.9 | 0.00 | 0.00 | 0.00 |
| 12,600.0 | 90.00 | 179.69 | 7,022.0 | -5,370.1 | -147.0 | 5,332.8 | 0.00 | 0.00 | 0.00 |
| 12,700.0 | 90.00 | 179.69 | 7,022.0 | -5,470.1 | -146.5 | 5,431.6 | 0.00 | 0.00 | 0.00 |
| 12,800.0 | 90.00 | 179.69 | 7,022.0 | -5,570.1 | -146.0 | 5,530.4 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 90.00 | 179.69 | 7,022.0 | -5,670.1 | -145.4 | 5,629.2 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 90.00 | 179.69 | 7,022.0 | -5,770.1 | -144.9 | 5,728.0 | 0.00 | 0.00 | 0.00 |
| 13,100.0 | 90.00 | 179.69 | 7,022.0 | -5,870.1 | -144.4 | 5,826.9 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 90.00 | 179.69 | 7,022.0 | -5,970.1 | -143.8 | 5,925.7 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 90.00 | 179.69 | 7,022.0 | -6,070.1 | -143.3 | 6,024.5 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 90.00 | 179.69 | 7,022.0 | -6,170.1 | -142.8 | 6,123.3 | 0.00 | 0.00 | 0.00 |
| 13,500.0 | 90.00 | 179.69 | 7,022.0 | -6,270.1 | -142.2 | 6,222.1 | 0.00 | 0.00 | 0.00 |
| 13,600.0 | 90.00 | 179.69 | 7,022.0 | -6,370.1 | -141.7 | 6,320.9 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 90.00 | 179.69 | 7,022.0 | -6,470.1 | -141.2 | 6,419.8 | 0.00 | 0.00 | 0.00 |
| 13,800.0 | 90.00 | 179.69 | 7,022.0 | -6,570.1 | -140.6 | 6,518.6 | 0.00 | 0.00 | 0.00 |
| 13,900.0 | 90.00 | 179.69 | 7,022.0 | -6,670.1 | -140.1 | 6,617.4 | 0.00 | 0.00 | 0.00 |
| 14,000.0 | 90.00 | 179.69 | 7,022.0 | -6,770.1 | -139.6 | 6,716.2 | 0.00 | 0.00 | 0.00 |
| 14,100.0 | 90.00 | 179.69 | 7,022.0 | -6,870.1 | -139.0 | 6,815.0 | 0.00 | 0.00 | 0.00 |
| 14,200.0 | 90.00 | 179.69 | 7,022.0 | -6,970.1 | -138.5 | 6,913.9 | 0.00 | 0.00 | 0.00 |
| 14,300.0 | 90.00 | 179.69 | 7,022.0 | -7,070.1 | -138.0 | 7,012.7 | 0.00 | 0.00 | 0.00 |
| 14,400.0 | 90.00 | 179.69 | 7,022.0 | -7,170.1 | -137.4 | 7,111.5 | 0.00 | 0.00 | 0.00 |
| 14,500.0 | 90.00 | 179.70 | 7,022.0 | -7,270.1 | -136.9 | 7,210.3 | 0.00 | 0.00 | 0.00 |
| 14,600.0 | 90.00 | 179.70 | 7,022.0 | -7,370.1 | -136.4 | 7,309.1 | 0.00 | 0.00 | 0.00 |
| 14,700.0 | 90.00 | 179.70 | 7,022.0 | -7,470.1 | -135.8 | 7,408.0 | 0.00 | 0.00 | 0.00 |
| 14,800.0 | 90.00 | 179.70 | 7,022.0 | -7,570.1 | -135.3 | 7,506.8 | 0.00 | 0.00 | 0.00 |
| 14,900.0 | 90.00 | 179.70 | 7,022.0 | -7,670.1 | -134.8 | 7,605.6 | 0.00 | 0.00 | 0.00 |
| 15,000.0 | 90.00 | 179.70 | 7,022.0 | -7,770.1 | -134.2 | 7,704.4 | 0.00 | 0.00 | 0.00 |
| 15,100.0 | 90.00 | 179.70 | 7,022.0 | -7,870.1 | -133.7 | 7,803.2 | 0.00 | 0.00 | 0.00 |
| 15,200.0 | 90.00 | 179.70 | 7,022.0 | -7,970.1 | -133.2 | 7,902.1 | 0.00 | 0.00 | 0.00 |
| 15,300.0 | 90.00 | 179.70 | 7,022.0 | -8,070.1 | -132.6 | 8,000.9 | 0.00 | 0.00 | 0.00 |
| 15,400.0 | 90.00 | 179.70 | 7,022.0 | -8,170.1 | -132.1 | 8,099.7 | 0.00 | 0.00 | 0.00 |
| 15,500.0 | 90.00 | 179.70 | 7,022.0 | -8,270.1 | -131.6 | 8,198.5 | 0.00 | 0.00 | 0.00 |
| 15,541.2 | 90.00 | 179.70 | 7,022.0 | -8,311.3 | -131.4 | 8,239.3 | 0.00 | 0.00 | 0.00 |

Noble Energy, Inc.

Planning Report

| | | | |
|------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Database: | EDMP | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Company: | Northern Region Drilling - Sandbox | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Project: | Conceptual Wells | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site: | DP 408 | North Reference: | Grid |
| Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Prelim - Rev 2 | | |

Design Targets

Target Name

| - hit/miss target | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|--|------------------|-----------------|-------------|---------------|---------------|--------------------|-------------------|-----------|-------------|
| - Shape | | | | | | | | | |
| Hurley H35-774 BHL - plan hits target center - Point | 0.00 | 0.00 | 7,022.0 | -8,311.3 | -131.4 | 1,307,661.65 | 3,241,361.76 | 40.174700 | -104.636240 |

Formations

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---------------------------|---------------------------|---------------------------|-----------|------------|-------------------------|
| 618.0 | 618.0 | Pierre | | | |
| 770.0 | 770.0 | Upper Pierre Aquifer Top | | | |
| 1,658.0 | 1,658.0 | Upper Pierre Aquifer Base | | | |
| 3,934.7 | 3,925.0 | Parkman | | | |
| 4,530.1 | 4,516.0 | Sussex | | | |
| 5,217.3 | 5,198.0 | Shannon | | | |
| 6,195.6 | 6,169.0 | Teepee Buttes | | | |
| 6,881.0 | 6,815.0 | Sharon Springs | | | |
| 6,969.6 | 6,877.0 | Top A Chalk | | | |
| 6,980.6 | 6,884.0 | Top A Marl | | | |
| 6,983.8 | 6,886.0 | Top B Chalk | | | |
| 7,067.5 | 6,934.0 | Top B Marl | | | |
| 7,251.0 | 7,004.0 | Top C Chalk | | | |

Plan Annotations

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
|---------------------------|---------------------------|-------------------|---------------|------------------------------|
| | | +N/-S (ft) | +E/-W (ft) | |
| 2,400.0 | 2,400.0 | 0.0 | 0.0 | KOP - Start Build 2.00 |
| 6,327.5 | 6,300.0 | 432.4 | -148.9 | Start DLS 9.37 TFO 16.54 |
| 6,347.8 | 6,320.1 | 435.1 | -149.7 | Start DLS 9.37 TFO -164.66 |
| 7,399.8 | 7,022.0 | -170.0 | -175.0 | TPZ/Landing Pt. at 7399.8 MD |
| 15,541.2 | 7,022.0 | -8,311.3 | -131.4 | TD at 15541.2 |

Northern Region Drilling - Sandbox

Conceptual Wells

DP 408

Hurley H35-774

Wellbore #1

Prelim - Rev 2

Anticollision Summary Report

30 October, 2017

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | Offset Datum |

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

| | | | | |
|----------------------------|----------------|------------------------------|------------------|---|
| Survey Tool Program | Date | 10/30/2017 | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description |
| 0.0 | 15,541.2 | 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 |
| Offset Well - Wellbore - Design | | | | | | |
| D Section 19 | | | | | | |
| Butterball H24-69HN - Original Drilling - Original Drilling - | | | | | | Out of range |
| DP 408 | | | | | | |
| Emmy H25-711 - Wellbore #1 - Prelim - Rev 2 | 2,000.0 | 1,983.0 | 7,963.8 | 7,955.2 | 919.585 | CC, ES |
| Emmy H25-711 - Wellbore #1 - Prelim - Rev 2 | 15,100.0 | 4,505.2 | 9,989.3 | 9,911.5 | 128.412 | SF |
| Emmy State H25-718 - Wellbore #1 - Prelim - Rev 2 | 2,400.0 | 2,383.0 | 7,943.0 | 7,932.5 | 759.485 | CC, ES |
| Emmy State H25-718 - Wellbore #1 - Prelim - Rev 2 | 15,500.0 | 5,106.7 | 9,986.1 | 9,905.1 | 123.329 | SF |
| Emmy State H25-724 - Wellbore #1 - Prelim - Rev 2 | 2,400.0 | 2,383.0 | 7,922.1 | 7,911.7 | 757.491 | CC, ES |
| Emmy State H25-724 - Wellbore #1 - Prelim - Rev 2 | 15,500.0 | 6,375.1 | 9,588.0 | 9,503.4 | 113.430 | SF |
| Emmy State H25-731 - Wellbore #1 - Prelim - Rev 2 | 10,457.2 | 6,423.2 | 7,842.6 | 7,793.8 | 160.706 | CC |
| Emmy State H25-731 - Wellbore #1 - Prelim - Rev 2 | 10,500.0 | 6,421.9 | 7,842.7 | 7,793.5 | 159.521 | ES |
| Emmy State H25-731 - Wellbore #1 - Prelim - Rev 2 | 15,100.0 | 6,400.0 | 9,113.8 | 9,032.8 | 112.545 | SF |
| Emmy State H25-738 - Wellbore #1 - Prelim - Rev 2 | 6,750.0 | 10,262.2 | 7,465.5 | 7,415.6 | 149.499 | ES |
| Emmy State H25-738 - Wellbore #1 - Prelim - Rev 2 | 6,761.8 | 10,256.4 | 7,465.5 | 7,415.6 | 149.635 | CC |
| Emmy State H25-738 - Wellbore #1 - Prelim - Rev 2 | 14,700.0 | 6,472.3 | 8,654.5 | 8,577.0 | 111.646 | SF |
| Emmy State H25-744 - Wellbore #1 - Prelim - Rev 2 | 6,760.8 | 10,306.1 | 7,008.0 | 6,957.5 | 138.773 | ES |
| Emmy State H25-744 - Wellbore #1 - Prelim - Rev 2 | 9,808.9 | 7,375.4 | 7,007.4 | 6,962.6 | 156.303 | CC |
| Emmy State H25-744 - Wellbore #1 - Prelim - Rev 2 | 14,400.0 | 6,600.0 | 8,139.7 | 8,063.7 | 107.146 | SF |
| Emmy State H25-751 - Wellbore #1 - Design #1 | 2,200.0 | 2,194.0 | 5,981.0 | 5,971.4 | 624.056 | CC, ES |
| Emmy State H25-751 - Wellbore #1 - Design #1 | 14,100.0 | 6,024.3 | 7,327.4 | 7,253.1 | 98.558 | SF |
| Emmy State H25-757 - Wellbore #1 - Design #1 | 2,400.0 | 2,394.0 | 5,961.3 | 5,950.9 | 568.663 | CC, ES |
| Emmy State H25-757 - Wellbore #1 - Design #1 | 13,900.0 | 6,318.8 | 7,041.0 | 6,967.6 | 95.947 | SF |
| Emmy State H25-764 - Wellbore #1 - Design #1 | 10,515.5 | 6,456.7 | 5,837.5 | 5,802.4 | 166.339 | CC |
| Emmy State H25-764 - Wellbore #1 - Design #1 | 10,600.0 | 6,456.4 | 5,838.1 | 5,802.3 | 163.035 | ES |
| Emmy State H25-764 - Wellbore #1 - Design #1 | 13,800.0 | 6,450.0 | 6,698.1 | 6,641.4 | 117.960 | SF |
| Emmy State H25-771 - Wellbore #1 - Design #1 | 6,750.0 | 10,408.2 | 5,428.4 | 5,377.2 | 106.062 | ES |
| Emmy State H25-771 - Wellbore #1 - Design #1 | 6,819.0 | 10,354.8 | 5,428.1 | 5,377.3 | 106.949 | CC |
| Emmy State H25-771 - Wellbore #1 - Design #1 | 13,100.0 | 6,500.0 | 6,052.0 | 5,985.1 | 90.419 | SF |
| Emmy State H25-777 - Wellbore #1 - Design #1 | 6,800.0 | 10,437.9 | 5,030.7 | 4,979.4 | 98.016 | ES |
| Emmy State H25-777 - Wellbore #1 - Design #1 | 6,848.9 | 10,409.1 | 5,030.6 | 4,979.5 | 98.473 | CC |
| Emmy State H25-777 - Wellbore #1 - Design #1 | 12,800.0 | 6,650.0 | 5,614.1 | 5,549.0 | 86.248 | SF |
| Emmy State H25-785 - Wellbore #1 - Prelim - Rev 2 | 6,882.2 | 10,409.9 | 4,525.7 | 4,475.1 | 89.374 | ES |
| Emmy State H25-785 - Wellbore #1 - Prelim - Rev 2 | 9,884.5 | 7,456.2 | 4,525.1 | 4,478.7 | 97.650 | CC |
| Emmy State H25-785 - Wellbore #1 - Prelim - Rev 2 | 12,400.0 | 6,800.0 | 4,997.9 | 4,934.8 | 79.205 | SF |
| Emmy State H36-753 - Wellbore #1 - Design #1 | 2,400.0 | 2,406.0 | 5,909.4 | 5,898.9 | 562.263 | CC, ES |
| Emmy State H36-753 - Wellbore #1 - Design #1 | 15,541.2 | 12,699.7 | 6,495.4 | 6,359.2 | 47.710 | SF |
| Emmy State H36-760 - Wellbore #1 - Design #1 | 2,400.0 | 2,365.0 | 5,889.6 | 5,879.1 | 563.506 | 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

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | 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 | | | | | | |
| DP 408 | | | | | | |
| Emmy State H36-760 - Wellbore #1 - Design #1 | 15,541.2 | 12,527.7 | 6,054.7 | 5,918.7 | 44.533 | SF |
| Emmy State H36-766 - Wellbore #1 - Design #1 | 15,042.9 | 12,453.6 | 5,603.5 | 5,473.7 | 43.153 | CC |
| Emmy State H36-766 - Wellbore #1 - Design #1 | 15,100.0 | 12,453.6 | 5,603.8 | 5,473.4 | 42.981 | ES |
| Emmy State H36-766 - Wellbore #1 - Design #1 | 15,541.2 | 12,453.6 | 5,625.7 | 5,491.6 | 41.980 | SF |
| Emmy State H36-773 - Wellbore #1 - Design #1 | 15,124.4 | 12,608.4 | 5,159.5 | 5,027.2 | 38.998 | CC |
| Emmy State H36-773 - Wellbore #1 - Design #1 | 15,200.0 | 12,608.4 | 5,160.1 | 5,027.1 | 38.811 | ES |
| Emmy State H36-773 - Wellbore #1 - Design #1 | 15,541.2 | 12,608.4 | 5,176.3 | 5,040.8 | 38.192 | SF |
| Emmy State H36-780 - Wellbore #1 - Design #1 | 15,130.1 | 12,543.0 | 4,720.9 | 4,588.7 | 35.702 | CC |
| Emmy State H36-780 - Wellbore #1 - Design #1 | 15,200.0 | 12,543.0 | 4,721.4 | 4,588.7 | 35.558 | ES |
| Emmy State H36-780 - Wellbore #1 - Design #1 | 15,541.2 | 12,543.0 | 4,738.8 | 4,603.7 | 35.089 | SF |
| Emmy State H36-787 - Wellbore #1 - Prelim - Rev 2 | 15,135.8 | 12,821.8 | 4,279.3 | 4,147.6 | 32.479 | CC, ES |
| Emmy State H36-787 - Wellbore #1 - Prelim - Rev 2 | 15,541.2 | 12,821.8 | 4,298.5 | 4,164.5 | 32.088 | SF |
| Hurley H26-712 - Wellbore #1 - Design #1 | 1,801.0 | 1,833.0 | 3,039.6 | 3,031.8 | 385.952 | CC |
| Hurley H26-712 - Wellbore #1 - Design #1 | 1,900.0 | 1,900.0 | 3,039.8 | 3,031.6 | 368.519 | ES |
| Hurley H26-712 - Wellbore #1 - Design #1 | 10,200.0 | 6,500.0 | 4,675.8 | 4,631.3 | 104.864 | SF |
| Hurley H26-717 - Wellbore #1 - Design #1 | 1,901.0 | 1,933.0 | 3,017.3 | 3,009.0 | 362.428 | CC |
| Hurley H26-717 - Wellbore #1 - Design #1 | 2,000.0 | 2,018.9 | 3,017.4 | 3,008.6 | 345.395 | ES |
| Hurley H26-717 - Wellbore #1 - Design #1 | 9,900.0 | 6,500.0 | 4,275.1 | 4,233.3 | 102.342 | SF |
| Hurley H26-724 - Wellbore #1 - Design #1 | 2,100.3 | 2,133.3 | 2,995.0 | 2,985.7 | 324.716 | CC |
| Hurley H26-724 - Wellbore #1 - Design #1 | 2,300.0 | 2,324.0 | 2,995.2 | 2,985.1 | 297.818 | ES |
| Hurley H26-724 - Wellbore #1 - Design #1 | 9,300.0 | 6,631.9 | 3,574.1 | 3,536.6 | 95.230 | SF |
| Hurley H26-730 - Wellbore #1 - Design #1 | 7,000.0 | 7,311.7 | 2,800.8 | 2,770.5 | 92.417 | ES |
| Hurley H26-730 - Wellbore #1 - Design #1 | 7,017.8 | 7,297.8 | 2,800.7 | 2,770.5 | 92.492 | CC |
| Hurley H26-730 - Wellbore #1 - Design #1 | 8,800.0 | 6,650.0 | 3,101.8 | 3,067.8 | 91.245 | SF |
| Hurley H26-736 - Wellbore #1 - Design #1 | 6,800.0 | 7,629.9 | 2,441.4 | 2,409.8 | 77.272 | SF |
| Hurley H26-736 - Wellbore #1 - Design #1 | 7,013.8 | 7,493.4 | 2,435.6 | 2,404.2 | 77.696 | CC, ES |
| Hurley H26-743 - Wellbore #1 - Prelim - Rev 2 | 6,750.0 | 7,904.9 | 1,963.9 | 1,930.6 | 59.104 | SF |
| Hurley H26-743 - Wellbore #1 - Prelim - Rev 2 | 7,050.0 | 7,708.2 | 1,952.0 | 1,919.4 | 59.973 | ES |
| Hurley H26-743 - Wellbore #1 - Prelim - Rev 2 | 7,065.1 | 7,679.0 | 1,951.9 | 1,919.5 | 60.082 | CC |
| Hurley H26-750 - Wellbore #1 - Prelim - Rev 2 | 2,400.0 | 2,400.0 | 162.6 | 152.1 | 15.490 | CC, ES |
| Hurley H26-750 - Wellbore #1 - Prelim - Rev 2 | 2,500.0 | 2,495.7 | 165.6 | 154.7 | 15.175 | SF |
| Hurley H26-756 - Wellbore #1 - Prelim - Rev 2 | 2,400.0 | 2,400.0 | 155.1 | 144.6 | 14.779 | CC, ES |
| Hurley H26-756 - Wellbore #1 - Prelim - Rev 2 | 2,600.0 | 2,599.8 | 162.1 | 150.7 | 14.226 | SF |
| Hurley H26-762 - Wellbore #1 - Prelim - Rev 2 | 2,400.0 | 2,401.0 | 150.6 | 140.1 | 14.348 | CC, ES |
| Hurley H26-762 - Wellbore #1 - Prelim - Rev 2 | 2,600.0 | 2,598.8 | 157.5 | 146.1 | 13.824 | SF |
| Hurley H26-768 - Wellbore #1 - Prelim - Rev 2 | 2,400.0 | 2,399.0 | 149.4 | 138.9 | 14.235 | CC, ES |
| Hurley H26-768 - Wellbore #1 - Prelim - Rev 2 | 7,153.4 | 7,566.3 | 320.9 | 290.2 | 10.461 | SF |
| Hurley H26-776 - Wellbore #1 - Prelim - Rev 2 | 2,200.0 | 2,199.0 | 151.5 | 141.9 | 15.785 | CC |
| Hurley H26-776 - Wellbore #1 - Prelim - Rev 2 | 7,465.0 | 7,257.2 | 166.8 | 135.9 | 5.400 | ES, SF |
| Hurley H26-783 - Wellbore #1 - Prelim - Rev 2 | 2,000.0 | 1,999.0 | 156.7 | 148.0 | 18.022 | CC, ES |
| Hurley H26-783 - Wellbore #1 - Prelim - Rev 2 | 7,545.8 | 7,147.9 | 476.8 | 445.4 | 15.187 | SF |
| Hurley H35-720 - Wellbore #1 - Design #1 | 2,100.2 | 2,133.2 | 3,019.0 | 3,009.8 | 327.325 | CC |
| Hurley H35-720 - Wellbore #1 - Design #1 | 2,200.0 | 2,223.1 | 3,019.1 | 3,009.4 | 312.888 | ES |
| Hurley H35-720 - Wellbore #1 - Design #1 | 15,541.2 | 15,979.1 | 3,390.3 | 3,223.6 | 20.336 | SF |
| Hurley H35-727 - Wellbore #1 - Design #1 | 15,541.2 | 15,763.0 | 2,948.9 | 2,781.9 | 17.660 | CC, ES, SF |
| Hurley H35-733 - Wellbore #1 - Design #1 | 15,541.2 | 15,790.0 | 2,510.0 | 2,343.0 | 15.026 | CC, ES, SF |
| Hurley H35-740 - Wellbore #1 - Design #1 | 15,541.2 | 15,834.9 | 2,068.6 | 1,901.7 | 12.397 | CC, ES, SF |
| Hurley H35-746 - Wellbore #1 - Prelim - Rev 2 | 15,541.2 | 15,798.2 | 1,629.7 | 1,462.5 | 9.751 | CC, ES, SF |
| Hurley H35-755 - Wellbore #1 - Prelim - Rev 2 | 2,400.0 | 2,400.0 | 67.0 | 56.5 | 6.387 | CC, ES |
| Hurley H35-755 - Wellbore #1 - Prelim - Rev 2 | 2,600.0 | 2,599.8 | 69.6 | 58.2 | 6.108 | SF |
| Hurley H35-761 - Wellbore #1 - Prelim - Rev 2 | 2,400.0 | 2,400.0 | 44.7 | 34.2 | 4.258 | CC, ES |
| Hurley H35-761 - Wellbore #1 - Prelim - Rev 2 | 2,500.0 | 2,500.0 | 45.3 | 34.3 | 4.137 | SF |
| Hurley H35-768 - Wellbore #1 - Prelim - Rev 2 | 2,400.0 | 2,400.0 | 22.3 | 11.9 | 2.129 | 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

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | 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 | | | | | | |
| DP 408 | | | | | | |
| Hurley H35-768 - Wellbore #1 - Prelim - Rev 2 | 2,500.0 | 2,500.0 | 23.0 | 12.0 | 2.098 | SF |
| Hurley H35-779 - Wellbore #1 - Prelim - Rev 2 | 2,200.0 | 2,199.0 | 22.6 | 13.0 | 2.360 | CC, ES, SF |
| Hurley H35-787 - Wellbore #1 - Prelim - Rev 2 | 2,000.0 | 1,999.0 | 44.8 | 36.1 | 5.157 | CC, ES |
| Hurley H35-787 - Wellbore #1 - Prelim - Rev 2 | 2,100.0 | 2,097.6 | 46.4 | 37.3 | 5.080 | SF |
| Hurley State H35-713 - Wellbore #1 - Design #1 | 1,901.0 | 1,933.0 | 3,041.3 | 3,033.0 | 365.315 | CC |
| Hurley State H35-713 - Wellbore #1 - Design #1 | 2,000.0 | 2,000.0 | 3,041.5 | 3,032.8 | 349.669 | ES |
| Hurley State H35-713 - Wellbore #1 - Design #1 | 15,541.2 | 15,707.5 | 3,829.2 | 3,662.1 | 22.922 | SF |
| H Section 13 | | | | | | |
| Karakakes H13-25 - Original Drilling - Original Drilling - A | 0.0 | 0.0 | 9,909.1 | | | |
| Karakakes H13-25 - Original Drilling - Original Drilling - A | 1,300.0 | 1,253.0 | 9,913.4 | 9,906.4 | 1,417.422 | ES |
| Karakakes H13-25 - Original Drilling - Original Drilling - A | 4,500.0 | 3,564.7 | 9,998.9 | 9,966.6 | 309.560 | SF |
| Karakakes H13-33 - Original Drilling - Original Drilling - A | 6,424.5 | 6,354.7 | 9,536.9 | 9,500.2 | 259.597 | CC |
| Karakakes H13-33 - Original Drilling - Original Drilling - A | 6,458.0 | 6,855.8 | 9,537.2 | 9,498.7 | 247.739 | ES |
| Karakakes H13-33 - Original Drilling - Original Drilling - A | 6,950.0 | 7,299.5 | 9,705.0 | 9,664.5 | 239.535 | SF |
| Karakakes H14-63HN - Original Drilling - Original Drilling | 6,479.3 | 10,956.1 | 8,564.5 | 8,442.1 | 69.975 | CC, ES |
| Karakakes H14-63HN - Original Drilling - Original Drilling | 6,600.0 | 10,960.5 | 8,577.2 | 8,454.4 | 69.860 | SF |
| Sarchet H13-75HN - Original Drilling - Original Drilling | 6,404.0 | 6,202.0 | 9,735.3 | 9,701.9 | 291.065 | CC, ES |
| Sarchet H13-75HN - Original Drilling - Original Drilling | 6,750.0 | 6,251.0 | 9,809.9 | 9,775.9 | 288.232 | SF |
| UPRC 13-13J - Original Drilling - Original Drilling - As Dri | 6,427.3 | 6,444.4 | 9,277.5 | 9,240.4 | 250.376 | CC, ES |
| UPRC 13-13J - Original Drilling - Original Drilling - As Dri | 6,950.0 | 7,118.3 | 9,446.4 | 9,406.5 | 236.703 | SF |
| UPRC 13-14J - Original Drilling - Original Drilling - As Dri | | | | | | Out of range |
| UPRC 13-15J - Original Drilling - Original Drilling - As Dri | | | | | | 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 | 6,423.8 | 6,390.6 | 8,902.3 | 8,759.8 | 62.477 | CC |
| UPRR 39 Pan Am B1 (PA) - Original Drilling - Original Dr | 6,450.0 | 6,416.8 | 8,902.8 | 8,759.7 | 62.232 | ES |
| UPRR 39 Pan Am B1 (PA) - Original Drilling - Original Dr | 7,000.0 | 6,891.0 | 9,118.0 | 8,965.0 | 59.582 | SF |
| H Section 14 | | | | | | |
| Bohlender H14-09 - Original Drilling - Original Drilling - A | 6,431.4 | 6,409.4 | 9,865.9 | 9,829.0 | 267.347 | CC, ES |
| Bohlender H14-09 - Original Drilling - Original Drilling - A | 6,850.0 | 7,005.5 | 9,987.2 | 9,947.8 | 253.323 | SF |
| Bohlender H14-15 - Original Drilling - Original Drilling - A | 6,408.6 | 6,075.8 | 7,714.0 | 7,678.3 | 216.069 | CC, ES |
| Bohlender H14-15 - Original Drilling - Original Drilling - A | 6,800.0 | 6,800.0 | 7,820.5 | 7,781.8 | 202.059 | SF |
| Bohlender H14-16 - Original Drilling - Original Drilling - A | 6,434.5 | 6,420.4 | 8,583.3 | 8,546.3 | 232.412 | CC, ES |
| Bohlender H14-16 - Original Drilling - Original Drilling - A | 6,850.0 | 6,709.1 | 8,713.7 | 8,675.3 | 226.819 | SF |
| Wilcox H14-03J - Original Drilling - Original Drilling - As D | 188.1 | 159.1 | 8,301.3 | 8,300.7 | 10,000.000 | CC |
| Wilcox H14-03J - Original Drilling - Original Drilling - As D | 6,420.1 | 6,533.6 | 8,304.8 | 8,209.4 | 87.116 | ES |
| Wilcox H14-03J - Original Drilling - Original Drilling - As D | 6,550.0 | 7,118.3 | 8,317.9 | 8,221.8 | 86.581 | SF |
| Wilcox H14-10 - Original Drilling - Original Drilling - As Dr | 1,286.8 | 1,257.8 | 8,366.0 | 8,359.0 | 1,201.035 | CC |
| Wilcox H14-10 - Original Drilling - Original Drilling - As Dr | 1,300.0 | 1,263.1 | 8,366.0 | 8,359.0 | 1,192.819 | ES |
| Wilcox H14-10 - Original Drilling - Original Drilling - As Dr | 6,900.0 | 7,322.3 | 9,626.9 | 9,585.8 | 234.211 | SF |
| Wilcox H14-11 - Original Drilling - Original Drilling - As Dr | 329.8 | 300.9 | 8,332.2 | 8,330.7 | 5,660.221 | CC |
| Wilcox H14-11 - Original Drilling - Original Drilling - As Dr | 929.9 | 918.6 | 8,333.1 | 8,328.1 | 1,674.102 | ES |
| Wilcox H14-11 - Original Drilling - Original Drilling - As Dr | 6,600.0 | 7,324.2 | 9,288.5 | 9,207.9 | 115.234 | SF |
| Wilcox H14-13 - Original Drilling - Original Drilling - As Dr | 6,432.1 | 6,951.8 | 7,815.7 | 7,643.6 | 45.426 | CC, ES |
| Wilcox H14-13 - Original Drilling - Original Drilling - As Dr | 6,550.0 | 7,414.8 | 7,826.0 | 7,653.6 | 45.399 | SF |
| H Section 19 | | | | | | |
| Butterball 13-19 - Original Drilling - Original Drilling - As D | | | | | | Out of range |
| H Section 21 | | | | | | |
| Moser 24-21 - Wellbore #1 - Wellbore #1 - As Drilled | 100.0 | 55.4 | 8,447.0 | 8,446.8 | 10,000.000 | CC |
| Moser 24-21 - Wellbore #1 - Wellbore #1 - As Drilled | 500.0 | 424.9 | 8,448.0 | 8,446.2 | 4,853.627 | ES |
| Moser 24-21 - Wellbore #1 - Wellbore #1 - As Drilled | 8,600.0 | 6,772.0 | 9,941.0 | 9,898.7 | 234.928 | SF |

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

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | 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 | | | | | | |
| H Section 22 | | | | | | |
| HSR Demeules 09-22 - Original Drilling - Original Drilling | 6,445.1 | 6,341.0 | 4,024.3 | 3,987.7 | 110.093 | CC |
| HSR Demeules 09-22 - Original Drilling - Original Drilling | 6,450.0 | 6,344.8 | 4,024.3 | 3,987.7 | 110.028 | ES |
| HSR Demeules 09-22 - Original Drilling - Original Drilling | 6,850.0 | 6,708.4 | 4,144.3 | 4,106.0 | 108.178 | SF |
| HSR Duryea - Wellbore #1 - Wellbore #1 - As Drilled | 6,446.4 | 6,316.1 | 3,570.7 | 3,534.2 | 97.959 | CC |
| HSR Duryea - Wellbore #1 - Wellbore #1 - As Drilled | 6,450.0 | 6,318.8 | 3,570.7 | 3,534.2 | 97.917 | ES |
| HSR Duryea - Wellbore #1 - Wellbore #1 - As Drilled | 6,750.0 | 6,571.7 | 3,630.0 | 3,592.3 | 96.244 | SF |
| Sarchet 16-22 - Wellbore #1 - Wellbore #1 - As Drilled | 6,449.8 | 6,346.1 | 2,891.4 | 2,854.7 | 78.690 | CC |
| Sarchet 16-22 - Wellbore #1 - Wellbore #1 - As Drilled | 6,450.0 | 6,346.3 | 2,891.4 | 2,854.7 | 78.688 | ES |
| Sarchet 16-22 - Wellbore #1 - Wellbore #1 - As Drilled | 6,750.0 | 6,640.3 | 2,946.8 | 2,908.6 | 77.282 | SF |

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | 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 | | | | | | |
| H Section 23 | | | | | | |
| Eachus 32-23 - Original Drilling - Original Drilling - As Dri | 6,405.3 | 6,175.0 | 5,529.8 | 5,493.7 | 153.363 | CC, ES |
| Eachus 32-23 - Original Drilling - Original Drilling - As Dri | 6,800.0 | 6,770.0 | 5,631.4 | 5,592.8 | 145.870 | SF |
| Eachus 41-23 (PA) - Original Drilling - Original Drilling - A | 6,425.2 | 6,384.1 | 7,150.9 | 7,008.6 | 50.232 | CC |
| Eachus 41-23 (PA) - Original Drilling - Original Drilling - A | 6,450.0 | 6,408.8 | 7,151.4 | 7,008.5 | 50.046 | ES |
| Eachus 41-23 (PA) - Original Drilling - Original Drilling - A | 6,950.0 | 6,851.1 | 7,336.7 | 7,184.5 | 48.198 | SF |
| Eachus UPRR 31-23 - Original Drilling - Original Drilling - | 6,425.8 | 6,317.5 | 6,741.3 | 6,666.9 | 90.682 | CC |
| Eachus UPRR 31-23 - Original Drilling - Original Drilling - | 6,450.0 | 6,341.6 | 6,741.7 | 6,666.5 | 89.633 | ES |
| Eachus UPRR 31-23 - Original Drilling - Original Drilling - | 7,200.0 | 6,908.0 | 7,146.6 | 7,051.2 | 74.938 | SF |
| Eachus UPRR 42-23 (PA) - Original Drilling - Original Dri | 6,421.4 | 6,390.2 | 6,048.3 | 5,905.8 | 42.450 | CC |
| Eachus UPRR 42-23 (PA) - Original Drilling - Original Dri | 6,450.0 | 6,418.8 | 6,048.9 | 5,905.8 | 42.270 | ES |
| Eachus UPRR 42-23 (PA) - Original Drilling - Original Dri | 6,900.0 | 6,826.1 | 6,194.2 | 6,042.5 | 40.834 | SF |
| HSR Alberstein 16-23 - Original Drilling - Original Drilling | 6,408.7 | 6,393.0 | 4,271.4 | 4,234.6 | 116.026 | CC, ES |
| HSR Alberstein 16-23 - Original Drilling - Original Drilling | 6,900.0 | 6,937.8 | 4,383.8 | 4,344.5 | 111.765 | SF |
| HSR Ashley 15-23A - Original Drilling - Original Drilling - | 6,405.1 | 6,295.3 | 3,374.3 | 3,337.8 | 92.397 | CC, ES |
| HSR Ashley 15-23A - Original Drilling - Original Drilling - | 6,750.0 | 6,691.8 | 3,447.3 | 3,408.9 | 89.926 | SF |
| HSR Benirschke 10-23 - Original Drilling - Original Drillin | 6,401.3 | 6,232.0 | 4,344.5 | 4,308.3 | 119.917 | CC, ES |
| HSR Benirschke 10-23 - Original Drilling - Original Drillin | 7,000.0 | 7,000.0 | 4,579.4 | 4,540.0 | 115.976 | SF |
| HSR Eachus 03-23 - Original Drilling - Original Drilling - A | 3,149.6 | 2,439.8 | 6,086.3 | 6,071.0 | 399.396 | CC, ES |
| HSR Eachus 03-23 - Original Drilling - Original Drilling - A | 6,750.0 | 6,868.0 | 6,529.8 | 6,486.6 | 151.339 | SF |
| HSR Eachus 04-23 - Original Drilling - Original Drilling - A | 100.0 | 55.5 | 6,070.1 | 6,069.9 | 10,000.000 | CC |
| HSR Eachus 04-23 - Original Drilling - Original Drilling - A | 1,000.0 | 936.6 | 6,072.5 | 6,067.3 | 1,163.334 | ES |
| HSR Eachus 04-23 - Original Drilling - Original Drilling - A | 6,500.0 | 6,835.0 | 6,422.9 | 6,314.0 | 58.936 | SF |
| HSR Eachus 05-23 - Original Drilling - Original Drilling - A | 6,428.0 | 6,731.9 | 5,092.2 | 4,963.4 | 39.522 | CC, ES |
| HSR Eachus 05-23 - Original Drilling - Original Drilling - A | 6,700.0 | 6,995.0 | 5,151.4 | 5,019.4 | 39.036 | SF |
| HSR Fruman 06-23 - Original Drilling - Original Drilling - A | 6,442.6 | 6,513.7 | 5,474.7 | 5,430.0 | 122.565 | CC, ES |
| HSR Fruman 06-23 - Original Drilling - Original Drilling - A | 6,650.0 | 6,654.0 | 5,510.5 | 5,465.1 | 121.523 | SF |
| HSR Grasshopper 09-23 - Original Drilling - Original Drill | 6,400.9 | 6,291.6 | 4,732.5 | 4,696.0 | 129.650 | CC, ES |
| HSR Grasshopper 09-23 - Original Drilling - Original Drill | 6,800.0 | 6,800.0 | 4,819.6 | 4,780.9 | 124.420 | SF |
| Ritchey 21-23 - Original Drilling - Original Drilling - As Dri | 6,433.0 | 6,386.5 | 6,017.6 | 5,980.7 | 163.360 | CC, ES |
| Ritchey 21-23 - Original Drilling - Original Drilling - As Dri | 6,800.0 | 6,747.7 | 6,119.9 | 6,081.4 | 158.798 | SF |
| Ritchey 24-23 - Original Drilling - Original Drilling - As Dri | 1,041.3 | 1,027.3 | 4,653.8 | 4,648.2 | 828.868 | CC |
| Ritchey 24-23 - Original Drilling - Original Drilling - As Dri | 1,600.0 | 1,556.1 | 4,656.6 | 4,647.9 | 534.417 | ES |
| Ritchey 24-23 - Original Drilling - Original Drilling - As Dri | 6,750.0 | 6,731.0 | 5,184.7 | 5,146.0 | 133.991 | SF |
| Ritchey 31-24 - Original Drilling - Original Drilling - As Dri | 1,403.0 | 1,400.0 | 6,553.1 | 6,545.3 | 848.709 | CC |
| Ritchey 31-24 - Original Drilling - Original Drilling - As Dri | 1,500.0 | 1,448.2 | 6,553.3 | 6,545.2 | 808.281 | ES |
| Ritchey 31-24 - Original Drilling - Original Drilling - As Dri | 6,800.0 | 6,855.8 | 7,100.4 | 7,053.6 | 151.594 | SF |
| UPRC 23-11J - Original Drilling - Original Drilling - As Dri | 6,434.7 | 6,362.3 | 3,746.3 | 3,709.5 | 102.017 | CC, ES |
| UPRC 23-11J - Original Drilling - Original Drilling - As Dri | 6,700.0 | 6,655.0 | 3,800.9 | 3,762.8 | 99.787 | SF |
| UPRC 23-12J - Original Drilling - Original Drilling - As Dri | 6,446.9 | 6,396.0 | 3,755.7 | 3,718.9 | 102.045 | CC |
| UPRC 23-12J - Original Drilling - Original Drilling - As Dri | 6,450.0 | 6,399.4 | 3,755.7 | 3,718.9 | 101.999 | ES |
| UPRC 23-12J - Original Drilling - Original Drilling - As Dri | 6,650.0 | 6,619.4 | 3,788.1 | 3,750.2 | 100.068 | SF |
| UPRC H23-13 - Wellbore #1 - Wellbore #1 - As Drilled | 6,435.4 | 6,330.4 | 2,616.8 | 2,580.2 | 71.415 | CC, ES |
| UPRC H23-13 - Wellbore #1 - Wellbore #1 - As Drilled | 6,650.0 | 6,522.2 | 2,653.4 | 2,615.7 | 70.525 | SF |
| UPRC H23-14J - Original Drilling - Original Drilling - As D | 6,410.8 | 6,274.3 | 2,581.9 | 2,545.5 | 70.866 | CC, ES |
| UPRC H23-14J - Original Drilling - Original Drilling - As D | 6,600.0 | 6,454.2 | 2,608.8 | 2,571.4 | 69.846 | SF |
| UPRC H23-24 - Original Drilling - Original Drilling - As Dr | 6,399.2 | 6,173.4 | 3,522.6 | 3,486.5 | 97.708 | CC |
| UPRC H23-24 - Original Drilling - Original Drilling - As Dr | 6,400.0 | 6,174.2 | 3,522.6 | 3,486.5 | 97.696 | ES |
| UPRC H23-24 - Original Drilling - Original Drilling - As Dr | 6,700.0 | 6,514.5 | 3,588.0 | 3,550.3 | 95.246 | SF |
| UPRR 53 Pan Am B#1 (PA) - Original Drilling - Original D | 6,440.1 | 6,366.0 | 2,756.8 | 2,614.8 | 19.422 | CC |
| UPRR 53 Pan Am B#1 (PA) - Original Drilling - Original D | 6,450.0 | 6,375.8 | 2,756.9 | 2,614.7 | 19.393 | ES |
| UPRR 53 Pan Am B#1 (PA) - Original Drilling - Original D | 6,700.0 | 6,617.8 | 2,811.1 | 2,663.8 | 19.080 | SF |
| UPRR 53 Pan Am UT V#1 - Original Drilling - Original Dr | 6,440.0 | 6,541.1 | 6,223.1 | 6,185.7 | 166.601 | CC, ES |
| UPRR 53 Pan Am UT V#1 - Original Drilling - Original Dr | 6,800.0 | 6,772.0 | 6,316.9 | 6,278.3 | 163.680 | SF |

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

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | 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

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | 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 | | | | | | |
| H Section 24 | | | | | | |
| Gurtler 24-09J - Original Drilling - Original Drilling - As Dr | 100.0 | 0.0 | 9,423.2 | | | |
| Gurtler 24-09J - Original Drilling - Original Drilling - As Dr | 5,400.0 | 5,163.2 | 9,423.9 | 9,393.8 | 313.138 | ES |
| Gurtler 24-09J - Original Drilling - Original Drilling - As Dr | 6,900.0 | 6,900.0 | 9,519.4 | 9,480.4 | 243.802 | SF |
| Gurtler 24-10J - Original Drilling - Original Drilling - As Dr | 3,731.0 | 3,500.0 | 8,298.0 | 8,277.7 | 408.507 | CC |
| Gurtler 24-10J - Original Drilling - Original Drilling - As Dr | 4,000.0 | 3,718.6 | 8,298.6 | 8,276.9 | 382.409 | ES |
| Gurtler 24-10J - Original Drilling - Original Drilling - As Dr | 9,600.0 | 6,964.8 | 9,971.1 | 9,924.9 | 215.965 | SF |
| Gurtler 24-11J - Original Drilling - Original Drilling - As Dr | 6,400.4 | 6,367.6 | 7,047.8 | 7,011.2 | 192.104 | CC, ES |
| Gurtler 24-11J - Original Drilling - Original Drilling - As Dr | 6,700.0 | 6,700.0 | 7,084.4 | 7,046.2 | 185.309 | SF |
| Gurtler 24-12J - Original Drilling - Original Drilling - As Dr | 6,405.0 | 6,363.0 | 6,062.0 | 6,025.3 | 165.244 | CC, ES |
| Gurtler 24-12J - Original Drilling - Original Drilling - As Dr | 6,550.0 | 6,506.6 | 6,072.6 | 6,035.2 | 162.304 | SF |
| Gurtler 24-12J - Original Drilling - ST01 - ST01 Original D | 6,407.1 | 6,378.4 | 6,065.8 | 6,030.1 | 169.672 | CC, ES |
| Gurtler 24-12J - Original Drilling - ST01 - ST01 Original D | 6,950.0 | 6,950.1 | 6,203.8 | 6,165.3 | 161.486 | SF |
| Gurtler 24-13J - Original Drilling - Original Drilling - As Dr | 6,062.7 | 5,930.9 | 5,336.1 | 5,301.7 | 155.205 | CC, ES |
| Gurtler 24-13J - Original Drilling - Original Drilling - As Dr | 6,750.0 | 7,416.5 | 5,376.8 | 5,332.3 | 120.658 | SF |
| Gurtler 24-15J - Original Drilling - Original Drilling - As Dr | 100.0 | 33.5 | 7,757.2 | 7,757.1 | 10,000.000 | CC |
| Gurtler 24-15J - Original Drilling - Original Drilling - As Dr | 6,356.0 | 6,254.4 | 7,776.5 | 7,740.3 | 214.979 | ES |
| Gurtler 24-15J - Original Drilling - Original Drilling - As Dr | 11,000.0 | 7,086.1 | 9,941.8 | 9,887.1 | 181.720 | SF |
| Gurtler 24-16J - Original Drilling - Original Drilling - As Dr | 5,151.8 | 5,100.0 | 8,725.0 | 8,695.8 | 298.358 | CC |
| Gurtler 24-16J - Original Drilling - Original Drilling - As Dr | 6,373.5 | 6,362.3 | 8,725.7 | 8,689.1 | 238.579 | ES |
| Gurtler 24-16J - Original Drilling - Original Drilling - As Dr | 9,700.0 | 6,963.8 | 9,961.0 | 9,912.4 | 205.336 | SF |
| Gurtler H24-14 - Original Drilling - Original Drilling - As D | 2,058.8 | 2,035.0 | 6,575.9 | 6,564.5 | 574.911 | CC |
| Gurtler H24-14 - Original Drilling - Original Drilling - As D | 3,100.0 | 2,973.5 | 6,576.6 | 6,559.6 | 386.381 | ES |
| Gurtler H24-14 - Original Drilling - Original Drilling - As D | 10,800.0 | 6,849.7 | 8,877.8 | 8,826.4 | 172.585 | SF |
| Gurtler H24-21 (PA) - Original Drilling - Original Drilling - | 3,995.1 | 3,700.0 | 7,945.5 | 7,923.9 | 367.182 | CC |
| Gurtler H24-21 (PA) - Original Drilling - Original Drilling - | 4,100.0 | 3,751.7 | 7,945.9 | 7,923.9 | 360.154 | ES |
| Gurtler H24-21 (PA) - Original Drilling - Original Drilling - | 6,950.0 | 6,797.6 | 8,102.5 | 8,063.8 | 209.307 | SF |
| Gurtler H24-23 - Original Drilling - Original Drilling - As D | 6,377.8 | 6,307.8 | 8,599.4 | 8,563.0 | 236.205 | CC, ES |
| Gurtler H24-23 - Original Drilling - Original Drilling - As D | 9,600.0 | 6,900.0 | 9,982.6 | 9,935.6 | 212.671 | SF |
| Gurtler H24-24 - Original Drilling - Original Drilling - As D | 4,001.0 | 3,834.2 | 7,414.2 | 7,392.1 | 335.026 | CC |
| Gurtler H24-24 - Original Drilling - Original Drilling - As D | 4,100.0 | 3,900.0 | 7,414.7 | 7,392.1 | 328.180 | ES |
| Gurtler H24-24 - Original Drilling - Original Drilling - As D | 10,900.0 | 6,547.6 | 9,996.2 | 9,945.5 | 197.035 | SF |
| Gurtler H24-99HZ - Wellbore #1 - Original Drilling | 6,492.9 | 11,118.0 | 5,488.8 | 5,415.8 | 75.261 | CC, ES |
| Gurtler H24-99HZ - Wellbore #1 - Original Drilling | 8,900.0 | 11,118.0 | 6,885.5 | 6,785.9 | 69.129 | SF |
| Gurtler H25-27 - Original Drilling - Original Drilling - As D | 6,217.9 | 6,233.5 | 8,195.8 | 8,158.7 | 220.907 | CC |
| Gurtler H25-27 - Original Drilling - Original Drilling - As D | 6,359.6 | 6,360.4 | 8,195.9 | 8,158.0 | 216.497 | ES |
| Gurtler H25-27 - Original Drilling - Original Drilling - As D | 10,900.0 | 7,020.5 | 9,987.3 | 9,931.2 | 178.166 | SF |
| Gurtler Russell L1 (PA) - Original Drilling - Original Drilling | 0.0 | 0.0 | 6,271.2 | | | |
| Gurtler Russell L1 (PA) - Original Drilling - Original Drilling | 6,386.7 | 6,340.6 | 6,271.9 | 6,235.3 | 171.362 | ES |
| Gurtler Russell L1 (PA) - Original Drilling - Original Drilling | 7,300.0 | 7,034.2 | 6,537.4 | 6,488.0 | 132.202 | SF |
| HSR Brutschy 04-24 - Original Drilling - Original Drilling - | 6,399.5 | 6,168.4 | 7,882.2 | 7,846.1 | 218.791 | CC |
| HSR Brutschy 04-24 - Original Drilling - Original Drilling - | 6,400.0 | 6,168.8 | 7,882.2 | 7,846.1 | 218.776 | ES |
| HSR Brutschy 04-24 - Original Drilling - Original Drilling - | 6,900.0 | 6,900.0 | 8,035.9 | 7,996.8 | 205.506 | SF |
| HSR Epstein 05-24 - Original Drilling - Original Drilling - A | 6,391.1 | 6,147.8 | 7,624.2 | 7,588.3 | 212.263 | CC |
| HSR Epstein 05-24 - Original Drilling - Original Drilling - A | 6,400.0 | 6,156.5 | 7,624.2 | 7,588.3 | 211.986 | ES |
| HSR Epstein 05-24 - Original Drilling - Original Drilling - A | 6,850.0 | 6,715.2 | 7,739.9 | 7,701.5 | 201.500 | SF |
| HSR Hoffman 03-24 - Original Drilling - Original Drilling - | 6,428.6 | 6,527.8 | 8,818.1 | 8,777.7 | 218.321 | CC, ES |
| HSR Hoffman 03-24 - Original Drilling - Original Drilling - | 7,200.0 | 7,124.2 | 9,124.7 | 9,077.7 | 194.296 | SF |
| HSR Sarchet 02-24 - Original Drilling - Original Drilling - A | 6,414.6 | 6,416.7 | 9,806.5 | 9,769.6 | 265.721 | CC, ES |
| HSR Sarchet 02-24 - Original Drilling - Original Drilling - A | 7,000.0 | 6,816.7 | 9,978.1 | 9,939.3 | 257.099 | SF |
| HSR Sarchet 06-24 - Original Drilling - Original Drilling - A | 6,374.2 | 6,064.6 | 7,987.5 | 7,951.9 | 224.390 | CC, ES |
| HSR Sarchet 06-24 - Original Drilling - Original Drilling - A | 7,000.0 | 7,000.0 | 8,173.8 | 8,134.3 | 207.195 | 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 |

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

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | 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 | | | | | | |
| H Section 24 | | | | | | |
| Nopens H24-08 - Original Drilling - Original Drilling - As D | 4,114.8 | 3,780.9 | 9,984.3 | 9,962.1 | 449.706 | CC |
| Nopens H24-08 - Original Drilling - Original Drilling - As D | 4,200.0 | 3,830.3 | 9,984.5 | 9,961.9 | 442.288 | ES |
| Nopens H24-08 - Original Drilling - Original Drilling - As D | 5,900.0 | 5,500.0 | 10,000.0 | 9,967.5 | 307.781 | SF |
| Sarchet H24-22 - Original Drilling - Original Drilling - As D | 4,022.4 | 3,700.0 | 9,124.9 | 9,103.2 | 420.571 | CC |
| Sarchet H24-22 - Original Drilling - Original Drilling - As D | 6,383.3 | 6,200.0 | 9,125.4 | 9,089.3 | 252.868 | ES |
| Sarchet H24-22 - Original Drilling - Original Drilling - As D | 6,900.0 | 6,621.5 | 9,233.0 | 9,194.9 | 242.393 | SF |
| Weld County Lumber 01 - Original Drilling - Original Drilling | 6,398.7 | 6,279.5 | 9,396.3 | 9,359.8 | 257.938 | CC |
| Weld County Lumber 01 - Original Drilling - Original Drilling | 6,400.0 | 6,280.6 | 9,396.3 | 9,359.8 | 257.890 | ES |
| Weld County Lumber 01 - Original Drilling - Original Drilling | 6,850.0 | 6,819.3 | 9,487.5 | 9,448.7 | 244.627 | SF |

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | 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 | | | | | | |
| H Section 25 | | | | | | |
| Dechant 21-25 - Original Drilling - Original Drilling - As D | 576.0 | 554.0 | 5,811.6 | 5,808.6 | 1,996.682 | CC |
| Dechant 21-25 - Original Drilling - Original Drilling - As D | 1,400.0 | 1,358.0 | 5,812.5 | 5,804.9 | 768.037 | ES |
| Dechant 21-25 - Original Drilling - Original Drilling - As D | 12,400.0 | 7,240.8 | 9,064.0 | 8,997.9 | 137.029 | SF |
| Dechant D30-33D - Original Drilling - Original Drilling - As | 100.0 | 33.5 | 8,398.0 | 8,397.9 | 10,000.000 | CC, ES |
| Dechant D30-33D - Original Drilling - Original Drilling - As | 12,900.0 | 6,811.9 | 9,996.4 | 9,919.4 | 129.842 | SF |
| Dechant D31-30D - Original Drilling - Original Drilling - As | 100.0 | 36.8 | 8,401.5 | 8,401.4 | 10,000.000 | CC, ES |
| Dechant D31-30D - Original Drilling - Original Drilling - As | 14,100.0 | 7,088.9 | 9,971.7 | 9,878.4 | 106.864 | SF |
| Dechant H25-64-1HN - Original Drilling - Original Drilling | 8,736.9 | 6,423.0 | 4,234.2 | 4,192.4 | 101.199 | CC, ES |
| Dechant H25-64-1HN - Original Drilling - Original Drilling | 10,700.0 | 6,423.0 | 4,667.2 | 4,614.0 | 87.659 | SF |
| Dechant H25-65HN - Original Drilling - Original Drilling | 4,301.5 | 4,614.0 | 4,143.4 | 4,118.8 | 168.164 | CC, ES |
| Dechant H25-65HN - Original Drilling - Original Drilling | 10,200.0 | 6,417.0 | 4,870.1 | 4,819.7 | 96.675 | SF |
| HSR Cohn 03-25 - Original Drilling - Original Drilling - As | 3,676.6 | 3,717.6 | 5,941.3 | 5,920.3 | 283.539 | CC |
| HSR Cohn 03-25 - Original Drilling - Original Drilling - As | 3,900.0 | 3,914.9 | 5,942.1 | 5,919.9 | 268.099 | ES |
| HSR Cohn 03-25 - Original Drilling - Original Drilling - As | 10,800.0 | 6,876.6 | 7,805.1 | 7,751.9 | 146.784 | SF |
| HSR Crowe 06-25 - Original Drilling - Original Drilling - A | 2,307.5 | 2,285.6 | 5,806.8 | 5,794.0 | 451.940 | CC |
| HSR Crowe 06-25 - Original Drilling - Original Drilling - A | 2,400.0 | 2,360.6 | 5,807.0 | 5,793.6 | 436.012 | ES |
| HSR Crowe 06-25 - Original Drilling - Original Drilling - A | 11,400.0 | 7,114.2 | 7,385.7 | 7,325.8 | 123.446 | SF |
| HSR Dechant 04-25 - Original Drilling - Original Drilling - | 2,678.9 | 2,969.0 | 4,914.0 | 4,885.2 | 171.122 | CC |
| HSR Dechant 04-25 - Original Drilling - Original Drilling - | 4,724.0 | 5,200.0 | 4,919.6 | 4,865.0 | 90.016 | ES |
| HSR Dechant 04-25 - Original Drilling - Original Drilling - | 6,700.0 | 7,080.1 | 4,987.8 | 4,925.8 | 80.542 | SF |
| HSR Dechant 05-25 - Original Drilling - Original Drilling - | 1,999.9 | 1,989.9 | 4,794.1 | 4,783.0 | 430.901 | CC |
| HSR Dechant 05-25 - Original Drilling - Original Drilling - | 2,600.0 | 2,645.5 | 4,795.7 | 4,781.0 | 324.936 | ES |
| HSR Dechant 05-25 - Original Drilling - Original Drilling - | 10,300.0 | 7,065.1 | 5,883.6 | 5,830.6 | 111.070 | SF |
| KY Blue D30-32 - Original Drilling - Original Drilling - As D | 2,418.0 | 2,381.8 | 8,937.2 | 8,923.8 | 665.453 | CC, ES |
| KY Blue D30-32 - Original Drilling - Original Drilling - As D | 11,800.0 | 6,919.1 | 9,995.2 | 9,928.5 | 150.009 | SF |
| KY Blue H25-04J - Original Drilling - Original Drilling - As | 9,292.3 | 6,970.0 | 8,328.8 | 8,291.6 | 223.826 | CC |
| KY Blue H25-04J - Original Drilling - Original Drilling - As | 9,400.0 | 6,970.0 | 8,329.5 | 8,291.5 | 219.044 | ES |
| KY Blue H25-04J - Original Drilling - Original Drilling - As | 14,800.0 | 6,970.0 | 9,985.4 | 9,910.8 | 133.892 | SF |
| KY Blue H25-09 - Original Drilling - Original Drilling - As D | 2,191.4 | 2,136.4 | 8,538.7 | 8,526.6 | 707.815 | CC |
| KY Blue H25-09 - Original Drilling - Original Drilling - As D | 2,300.0 | 2,200.0 | 8,538.9 | 8,526.3 | 681.489 | ES |
| KY Blue H25-09 - Original Drilling - Original Drilling - As D | 13,300.0 | 6,919.2 | 9,976.6 | 9,900.1 | 130.552 | SF |
| KY Blue H25-10 - Original Drilling - Original Drilling - As D | 100.0 | 38.1 | 7,030.5 | 7,030.4 | 10,000.000 | CC |
| KY Blue H25-10 - Original Drilling - Original Drilling - As D | 2,400.0 | 2,330.0 | 7,041.2 | 7,028.0 | 532.216 | ES |
| KY Blue H25-10 - Original Drilling - Original Drilling - As D | 13,100.0 | 7,049.8 | 8,742.7 | 8,669.9 | 119.942 | SF |
| KY Blue H25-11 - Original Drilling - Original Drilling - As D | 292.2 | 257.2 | 5,988.9 | 5,987.7 | 4,843.024 | CC |
| KY Blue H25-11 - Original Drilling - Original Drilling - As D | 8,308.8 | 7,074.1 | 6,020.7 | 5,946.4 | 81.028 | ES |
| KY Blue H25-11 - Original Drilling - Original Drilling - As D | 11,000.0 | 7,031.5 | 6,594.7 | 6,503.5 | 72.345 | SF |
| KY Blue H25-12 - Original Drilling - Original Drilling - As D | 2,527.7 | 2,629.4 | 4,476.1 | 4,461.2 | 301.076 | CC, ES |
| KY Blue H25-12 - Original Drilling - Original Drilling - As D | 10,700.0 | 6,874.6 | 5,168.8 | 5,112.4 | 91.678 | SF |
| KY Blue H25-14 - Original Drilling - Original Drilling - As D | 9,795.0 | 6,890.0 | 6,094.5 | 6,041.6 | 115.093 | CC |
| KY Blue H25-14 - Original Drilling - Original Drilling - As D | 9,800.0 | 6,890.0 | 6,094.5 | 6,041.6 | 115.006 | ES |
| KY Blue H25-14 - Original Drilling - Original Drilling - As D | 13,700.0 | 13,700.0 | 7,238.1 | 7,136.3 | 71.070 | SF |
| KY Blue H25-15 - Original Drilling - Original Drilling - As D | 9,619.2 | 6,916.4 | 7,155.5 | 7,103.8 | 138.623 | CC |
| KY Blue H25-15 - Original Drilling - Original Drilling - As D | 9,700.0 | 6,916.1 | 7,155.9 | 7,103.7 | 136.944 | ES |
| KY Blue H25-15 - Original Drilling - Original Drilling - As D | 13,800.0 | 6,893.2 | 8,287.4 | 8,207.1 | 103.272 | SF |
| KY H25-24 - Original Drilling - Original Drilling - As Drilled | 8,972.7 | 7,017.8 | 6,752.8 | 6,705.9 | 143.930 | CC |
| KY H25-24 - Original Drilling - Original Drilling - As Drilled | 9,000.0 | 7,018.5 | 6,752.9 | 6,705.8 | 143.348 | ES |
| KY H25-24 - Original Drilling - Original Drilling - As Drilled | 13,200.0 | 7,090.5 | 7,966.7 | 7,890.1 | 104.124 | SF |
| Moore UPRC H25-01 - Original Drilling - Original Drilling | 2,484.6 | 2,452.1 | 8,705.0 | 8,691.1 | 628.413 | CC |
| Moore UPRC H25-01 - Original Drilling - Original Drilling | 2,600.0 | 2,563.8 | 8,705.3 | 8,690.8 | 600.453 | ES |
| Moore UPRC H25-01 - Original Drilling - Original Drilling | 10,300.0 | 6,922.5 | 9,962.4 | 9,908.9 | 186.272 | SF |
| Moore UPRC H25-02 - Original Drilling - Original Drilling | 1,325.6 | 1,283.6 | 7,310.9 | 7,303.7 | 1,022.710 | CC |
| Moore UPRC H25-02 - Original Drilling - Original Drilling | 2,600.0 | 2,578.3 | 7,311.2 | 7,296.6 | 503.471 | ES |

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

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | 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 | | | | | | |
| H Section 25 | | | | | | |
| Moore UPRC H25-02 - Original Drilling - Original Drilling | 12,400.0 | 6,920.2 | 9,968.4 | 9,905.2 | 157.601 | SF |
| Moser 25-32 - Original Drilling - Original Drilling - As Drill | 2,614.8 | 2,736.3 | 6,889.9 | 6,874.8 | 456.179 | CC, ES |
| Moser 25-32 - Original Drilling - Original Drilling - As Drill | 12,600.0 | 7,059.8 | 8,945.3 | 8,877.7 | 132.320 | SF |
| Moser 25-42 - Original Drilling - Original Drilling - As Drill | 775.7 | 715.7 | 8,543.0 | 8,539.0 | 2,177.530 | CC |
| Moser 25-42 - Original Drilling - Original Drilling - As Drill | 2,300.0 | 2,194.8 | 8,546.6 | 8,534.1 | 682.920 | ES |
| Moser 25-42 - Original Drilling - Original Drilling - As Drill | 11,700.0 | 6,946.6 | 9,989.6 | 9,925.3 | 155.380 | SF |
| UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling | 2,594.4 | 2,652.7 | 5,563.2 | 5,548.4 | 376.739 | CC |
| UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling | 2,600.0 | 2,657.0 | 5,563.2 | 5,548.4 | 376.045 | ES |
| UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling | 10,800.0 | 6,700.0 | 7,180.3 | 7,126.7 | 134.000 | SF |
| UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dr | 2,400.0 | 2,341.0 | 7,935.4 | 7,883.4 | 152.404 | CC |
| UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dr | 2,700.0 | 2,640.5 | 7,939.2 | 7,880.5 | 135.205 | ES |
| UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dr | 9,500.0 | 6,963.0 | 8,596.9 | 8,432.6 | 52.325 | SF |
| Von Feldt 1-25B - Original Drilling - Original Drilling - As D | 9,364.6 | 7,051.3 | 5,133.2 | 5,083.0 | 102.193 | CC |
| Von Feldt 1-25B - Original Drilling - Original Drilling - As D | 9,400.0 | 7,052.6 | 5,133.3 | 5,082.8 | 101.645 | ES |
| Von Feldt 1-25B - Original Drilling - Original Drilling - As D | 11,900.0 | 7,141.9 | 5,724.5 | 5,656.8 | 84.472 | SF |

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | 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 | | | | | | |
| H Section 26 | | | | | | |
| Bullard 31-26 - Original Drilling - Original Drilling - As Dril | 5,008.5 | 4,890.4 | 2,441.4 | 2,413.1 | 86.551 | CC |
| Bullard 31-26 - Original Drilling - Original Drilling - As Dril | 6,400.0 | 6,353.1 | 2,442.1 | 2,405.5 | 66.627 | ES |
| Bullard 31-26 - Original Drilling - Original Drilling - As Dril | 6,650.0 | 6,575.3 | 2,471.8 | 2,434.1 | 65.425 | SF |
| Bullard 32-26 - Original Drilling - Original Drilling - As Dril | 2,121.0 | 2,121.3 | 1,995.9 | 1,984.0 | 168.212 | CC |
| Bullard 32-26 - Original Drilling - Original Drilling - As Dril | 2,200.0 | 2,187.7 | 1,996.1 | 1,983.8 | 162.635 | ES |
| Bullard 32-26 - Original Drilling - Original Drilling - As Dril | 7,300.0 | 7,018.1 | 2,233.1 | 2,193.5 | 56.437 | SF |
| Bullard 41-26 - Original Drilling - Original Drilling - As Dril | 6,371.4 | 6,379.4 | 3,120.7 | 3,084.0 | 85.060 | CC, ES |
| Bullard 41-26 - Original Drilling - Original Drilling - As Dril | 7,000.0 | 6,967.4 | 3,208.6 | 3,169.3 | 81.631 | SF |
| Dechant H25-29D - Original Drilling - Original Drilling - As | 112.1 | 131.3 | 3,773.5 | 3,773.1 | 9,147.321 | CC |
| Dechant H25-29D - Original Drilling - Original Drilling - As | 200.0 | 197.1 | 3,773.8 | 3,773.0 | 4,480.273 | ES |
| Dechant H25-29D - Original Drilling - Original Drilling - As | 10,400.0 | 10,400.0 | 7,808.3 | 7,728.2 | 97.506 | SF |
| Dechant H25-33D - Original Drilling - Original Drilling - As | 2,445.1 | 2,622.3 | 3,680.6 | 3,659.9 | 178.121 | CC |
| Dechant H25-33D - Original Drilling - Original Drilling - As | 2,500.0 | 2,655.6 | 3,680.9 | 3,659.8 | 174.524 | ES |
| Dechant H25-33D - Original Drilling - Original Drilling - As | 10,400.0 | 10,400.0 | 4,483.3 | 4,378.0 | 42.601 | SF |
| Harsh H26-09D - Original Drilling - Original Drilling - As D | 2,492.5 | 2,563.8 | 3,496.5 | 3,482.3 | 245.318 | CC |
| Harsh H26-09D - Original Drilling - Original Drilling - As D | 2,500.0 | 2,569.4 | 3,496.5 | 3,482.2 | 244.690 | ES |
| Harsh H26-09D - Original Drilling - Original Drilling - As D | 9,800.0 | 7,041.2 | 3,912.1 | 3,860.9 | 76.428 | SF |
| Harsh H26-10 - Original Drilling - Original Drilling - As Dr | 8,103.8 | 7,033.6 | 2,302.7 | 2,260.9 | 55.095 | CC, ES |
| Harsh H26-10 - Original Drilling - Original Drilling - As Dr | 8,700.0 | 7,031.9 | 2,378.6 | 2,334.1 | 53.442 | SF |
| Harsh H26-15 - Original Drilling - Original Drilling - As Dr | 9,546.7 | 6,985.4 | 2,235.6 | 2,184.3 | 43.612 | CC, ES |
| Harsh H26-15 - Original Drilling - Original Drilling - As Dr | 10,100.0 | 6,991.5 | 2,303.0 | 2,248.3 | 42.076 | SF |
| Harsh H26-16 - Original Drilling - Original Drilling - As Dr | 9,624.2 | 6,991.7 | 3,298.6 | 3,246.6 | 63.523 | CC, ES |
| Harsh H26-16 - Original Drilling - Original Drilling - As Dr | 10,700.0 | 7,005.1 | 3,469.5 | 3,410.4 | 58.705 | SF |
| Harsh H26-23D - Original Drilling - Original Drilling - As D | 1,056.0 | 1,074.0 | 2,347.4 | 2,342.7 | 496.004 | CC |
| Harsh H26-23D - Original Drilling - Original Drilling - As D | 1,100.0 | 1,108.5 | 2,347.5 | 2,342.6 | 474.534 | ES |
| Harsh H26-23D - Original Drilling - Original Drilling - As D | 9,900.0 | 7,130.2 | 3,082.4 | 3,025.7 | 54.352 | SF |
| HSR Moser 04-26 - Original Drilling - Original Drilling - As | 6,432.6 | 6,336.4 | 1,539.8 | 1,503.1 | 42.013 | CC, ES |
| HSR Moser 04-26 - Original Drilling - Original Drilling - As | 6,550.0 | 6,451.9 | 1,549.9 | 1,512.7 | 41.627 | SF |
| HSR Moser 06-26 - Original Drilling - Original Drilling - As | 1,787.9 | 1,770.0 | 826.6 | 816.7 | 83.568 | CC |
| HSR Moser 06-26 - Original Drilling - Original Drilling - As | 2,500.0 | 2,483.2 | 828.4 | 814.4 | 59.292 | ES |
| HSR Moser 06-26 - Original Drilling - Original Drilling - As | 7,100.0 | 6,934.9 | 1,081.4 | 1,042.3 | 27.631 | SF |
| HSR Regalia 05-26 - Original Drilling - Original Drilling - A | 6,449.4 | 6,394.7 | 280.3 | 243.5 | 7.611 | CC |
| HSR Regalia 05-26 - Original Drilling - Original Drilling - A | 6,450.0 | 6,395.3 | 280.3 | 243.5 | 7.610 | ES, SF |
| HSR-Moser 03-26A - Original Drilling - Original Drilling - A | 6,395.1 | 6,286.6 | 1,690.5 | 1,654.0 | 46.357 | CC |
| HSR-Moser 03-26A - Original Drilling - Original Drilling - A | 6,400.0 | 6,291.7 | 1,690.5 | 1,654.0 | 46.324 | ES |
| HSR-Moser 03-26A - Original Drilling - Original Drilling - A | 6,550.0 | 6,430.5 | 1,705.8 | 1,668.6 | 45.836 | SF |
| John 03-26 - Original Drilling - Original Drilling - As Drille | 6,420.2 | 6,371.9 | 1,421.0 | 1,384.3 | 38.681 | CC, ES |
| John 03-26 - Original Drilling - Original Drilling - As Drille | 6,550.0 | 6,483.4 | 1,431.9 | 1,394.5 | 38.354 | SF |
| Lamp H25-31 - Original Drilling - Original Drilling - As Dri | 487.7 | 494.7 | 3,912.1 | 3,909.6 | 1,560.996 | CC |
| Lamp H25-31 - Original Drilling - Original Drilling - As Dri | 3,100.0 | 3,136.2 | 3,913.2 | 3,895.6 | 222.527 | ES |
| Lamp H25-31 - Original Drilling - Original Drilling - As Dri | 7,150.0 | 7,070.0 | 4,100.2 | 4,060.6 | 103.471 | SF |
| Lamp H26-01 - Original Drilling - Original Drilling - As Dri | 5,761.4 | 5,831.6 | 3,808.4 | 3,770.6 | 100.752 | CC |
| Lamp H26-01 - Original Drilling - Original Drilling - As Dri | 5,800.0 | 5,859.6 | 3,808.5 | 3,770.5 | 100.300 | ES |
| Lamp H26-01 - Original Drilling - Original Drilling - As Dri | 6,850.0 | 6,858.4 | 3,887.2 | 3,844.5 | 90.946 | SF |
| Lamp H26-08 - Original Drilling - Original Drilling - As Dri | 2,699.1 | 2,782.0 | 3,306.0 | 3,290.6 | 213.710 | CC |
| Lamp H26-08 - Original Drilling - Original Drilling - As Dri | 2,750.0 | 2,821.7 | 3,306.2 | 3,290.5 | 210.309 | ES |
| Lamp H26-08 - Original Drilling - Original Drilling - As Dri | 7,399.8 | 6,893.5 | 3,594.6 | 3,555.4 | 91.675 | SF |
| Lamp H26-22 - Original Drilling - Original Drilling - As Dri | 7,500.0 | 7,186.8 | 2,830.4 | 2,784.1 | 61.045 | SF |
| Lamp H26-22 - Original Drilling - Original Drilling - As Dri | 7,681.3 | 7,187.6 | 2,824.6 | 2,778.4 | 61.093 | CC, ES |
| Moser 05-26 - Original Drilling - Original Drilling - As Drill | 7,153.9 | 6,949.4 | 549.0 | 509.8 | 13.993 | CC, ES, SF |
| Moser 41-27 - Original Drilling - Original Drilling - As Drill | 937.0 | 908.6 | 822.7 | 817.7 | 165.589 | CC, ES |
| Moser 41-27 - Original Drilling - Original Drilling - As Drill | 6,650.0 | 6,701.6 | 1,311.2 | 1,271.1 | 32.683 | SF |
| Moser H26-11 - Original Drilling - Original Drilling - As Dr | 8,104.4 | 6,994.3 | 667.6 | 625.9 | 16.038 | 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

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | Offset Datum |

Summary

| Site Name Offset Well - Wellbore - Design | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Between Ellipses (ft) | Separation Factor | Warning |
|--|--|-------------------------------------|--|-----------------------------|----------------------|---------------------|
| H Section 26 | | | | | | |
| Moser H26-12 - Wellbore #1 - Wellbore #1 - As Drilled | 8,326.0 | 6,999.2 | 473.4 | 430.6 | 11.066 | CC, ES |
| Moser H26-12 - Wellbore #1 - Wellbore #1 - As Drilled | 8,400.0 | 7,001.2 | 479.1 | 435.8 | 11.063 | SF |
| Moser H26-13 - Wellbore #1 - Wellbore #1 - As Drilled | 9,635.9 | 7,002.3 | 519.0 | 466.9 | 9.964 | CC, ES |
| Moser H26-13 - Wellbore #1 - Wellbore #1 - As Drilled | 9,700.0 | 7,005.5 | 522.9 | 470.2 | 9.923 | SF |
| Moser H26-14 - Original Drilling - Original Drilling - As Dr | 9,833.5 | 7,057.7 | 1,013.7 | 959.8 | 18.807 | CC, ES |
| Moser H26-14 - Original Drilling - Original Drilling - As Dr | 9,900.0 | 7,057.0 | 1,015.9 | 961.6 | 18.718 | SF |
| Moser H26-18D - Original Drilling - Original Drilling - As D | 6,374.1 | 6,794.8 | 1,648.8 | 1,608.3 | 40.664 | CC, ES |
| Moser H26-18D - Original Drilling - Original Drilling - As D | 6,700.0 | 7,103.2 | 1,673.4 | 1,631.5 | 39.967 | SF |
| Moser H26-24 - Original Drilling - Original Drilling - As Dr | 8,819.9 | 7,001.4 | 1,329.2 | 1,283.3 | 28.986 | CC, ES |
| Moser H26-24 - Original Drilling - Original Drilling - As Dr | 9,000.0 | 7,004.0 | 1,341.3 | 1,294.5 | 28.651 | SF |
| Moser H26-25 - Original Drilling - Original Drilling - As Dr | 9,022.6 | 7,005.1 | 528.5 | 481.2 | 11.171 | CC, ES, SF |
| Moser H26-27D - Original Drilling - Original Drilling - As D | 6,404.1 | 6,540.6 | 3,338.3 | 3,295.4 | 77.951 | CC, ES |
| Moser H26-27D - Original Drilling - Original Drilling - As D | 6,700.0 | 6,830.4 | 3,373.9 | 3,329.9 | 76.662 | SF |
| Moser H26-28D - Original Drilling - Original Drilling - As D | 6,415.4 | 6,967.6 | 2,342.6 | 2,276.8 | 35.555 | CC, ES |
| Moser H26-28D - Original Drilling - Original Drilling - As D | 6,500.0 | 7,056.6 | 2,347.2 | 2,281.0 | 35.460 | SF |
| Moser H26-29D - Original Drilling - Original Drilling - As D | 6,418.3 | 7,360.0 | 1,911.3 | 1,821.8 | 21.357 | CC, ES |
| Moser H26-29D - Original Drilling - Original Drilling - As D | 6,500.0 | 7,446.3 | 1,916.8 | 1,826.8 | 21.297 | SF |
| Moser, Wesley E. G. U. B1 (PA) - Original Drilling - Origin | 9,315.9 | 7,002.0 | 119.5 | -45.7 | 0.723 | Level 1, CC, ES, SF |
| H Section 27 | | | | | | |
| HSR Moser 1-27 - Original Drilling - Original Drilling - As | 6,452.9 | 6,350.0 | 2,135.7 | 2,099.1 | 58.310 | CC, ES |
| HSR Moser 1-27 - Original Drilling - Original Drilling - As | 6,700.0 | 6,564.3 | 2,168.6 | 2,130.9 | 57.545 | SF |
| HSR Moser 16-27 - Original Drilling - Original Drilling - As | 9,795.6 | 7,002.7 | 1,615.7 | 1,562.4 | 30.273 | CC |
| HSR Moser 16-27 - Original Drilling - Original Drilling - As | 9,800.0 | 7,002.7 | 1,615.7 | 1,562.3 | 30.249 | ES |
| HSR Moser 16-27 - Original Drilling - Original Drilling - As | 10,100.0 | 7,004.2 | 1,644.1 | 1,588.2 | 29.417 | SF |
| Moser 09-27X (PA) - Original Drilling - Original Drilling - A | 8,381.1 | 7,010.9 | 1,662.3 | 1,616.7 | 36.433 | CC |
| Moser 09-27X (PA) - Original Drilling - Original Drilling - A | 8,400.0 | 7,010.6 | 1,662.4 | 1,616.7 | 36.348 | ES |
| Moser 09-27X (PA) - Original Drilling - Original Drilling - A | 8,700.0 | 7,005.3 | 1,692.6 | 1,645.1 | 35.613 | SF |
| Moser 24-27 - Original Drilling - Original Drilling - As Drill | 850.9 | 818.9 | 2,044.3 | 2,039.8 | 459.325 | CC |
| Moser 24-27 - Original Drilling - Original Drilling - As Drill | 900.0 | 858.4 | 2,044.4 | 2,039.7 | 435.008 | ES |
| Moser 24-27 - Original Drilling - Original Drilling - As Drill | 8,200.0 | 7,047.4 | 2,439.4 | 2,395.8 | 56.020 | SF |
| H Section 34 | | | | | | |
| Moser H34-09 - Wellbore #1 - Wellbore #1 - As Drilled | 13,615.9 | 7,021.5 | 1,687.3 | 1,599.0 | 19.120 | CC, ES |
| Moser H34-09 - Wellbore #1 - Wellbore #1 - As Drilled | 13,800.0 | 7,022.0 | 1,697.3 | 1,607.4 | 18.886 | SF |
| Moser H34-16 - Wellbore #1 - Wellbore #1 - As Drilled | 14,864.6 | 7,008.6 | 1,693.3 | 1,593.1 | 16.912 | CC, ES |
| Moser H34-16 - Wellbore #1 - Wellbore #1 - As Drilled | 15,000.0 | 7,004.9 | 1,698.7 | 1,597.3 | 16.760 | SF |
| Moser H34-31 - Wellbore #1 - Wellbore #1 - As Drilled | 11,606.1 | 7,101.0 | 6,340.6 | 6,270.9 | 90.946 | CC |
| Moser H34-31 - Wellbore #1 - Wellbore #1 - As Drilled | 11,700.0 | 7,104.0 | 6,341.3 | 6,270.7 | 89.797 | ES |
| Moser H34-31 - Wellbore #1 - Wellbore #1 - As Drilled | 14,500.0 | 7,168.1 | 6,969.3 | 6,877.3 | 75.752 | SF |

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | Offset Datum |

Summary

| Site Name | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Between Ellipses (ft) | Separation Factor | Warning |
|---|--|-------------------------------------|--|-----------------------------|----------------------|---------------------|
| Offset Well - Wellbore - Design | | | | | | |
| H Section 35 | | | | | | |
| Cannon Farms 01-35C - Original Drilling - Original Drilling | 14,521.2 | 7,018.5 | 2,965.5 | 2,868.5 | 30.586 | CC, ES |
| Cannon Farms 01-35C - Original Drilling - Original Drilling | 15,000.0 | 7,010.7 | 3,003.9 | 2,903.7 | 29.989 | SF |
| Cannon H35-03D - Original Drilling - Original Drilling - As | 14,009.9 | 7,070.4 | 537.3 | 445.0 | 5.823 | CC, ES, SF |
| Cannon H35-09 - Original Drilling - Original Drilling - As D | 13,590.5 | 7,049.6 | 3,343.6 | 3,250.1 | 35.767 | CC |
| Cannon H35-09 - Original Drilling - Original Drilling - As D | 13,600.0 | 7,049.4 | 3,343.6 | 3,250.0 | 35.737 | ES |
| Cannon H35-09 - Original Drilling - Original Drilling - As D | 14,200.0 | 7,036.5 | 3,398.6 | 3,301.0 | 34.830 | SF |
| Cannon H35-10 - Original Drilling - Original Drilling - As D | 13,702.3 | 7,017.2 | 2,103.0 | 2,014.0 | 23.619 | CC, ES |
| Cannon H35-10 - Original Drilling - Original Drilling - As D | 14,000.0 | 7,016.2 | 2,124.0 | 2,033.1 | 23.355 | SF |
| Cannon H35-11 - Original Drilling - Original Drilling - As D | 13,587.9 | 7,048.9 | 1,033.3 | 945.2 | 11.727 | CC |
| Cannon H35-11 - Original Drilling - Original Drilling - As D | 13,600.0 | 7,049.0 | 1,033.3 | 945.1 | 11.717 | ES, SF |
| Cannon H35-12 - Original Drilling - Original Drilling - As D | 13,692.4 | 7,010.9 | 431.5 | 342.6 | 4.852 | CC |
| Cannon H35-12 - Original Drilling - Original Drilling - As D | 13,700.0 | 7,011.0 | 431.6 | 342.5 | 4.847 | ES, SF |
| Cannon H35-13 - Wellbore #1 - Wellbore #1 - As Drilled | 14,884.1 | 7,016.6 | 491.5 | 391.2 | 4.899 | CC, ES |
| Cannon H35-13 - Wellbore #1 - Wellbore #1 - As Drilled | 14,900.0 | 7,016.2 | 491.8 | 391.3 | 4.893 | SF |
| Cannon H35-14 - Original Drilling - Original Drilling - As D | 14,915.6 | 7,021.4 | 901.9 | 794.3 | 8.382 | CC, ES, SF |
| Cannon H35-15 (PA) - Original Drilling - Original Drilling - | 14,950.0 | 7,014.0 | 2,118.4 | 1,901.5 | 9.766 | CC, ES |
| Cannon H35-15 (PA) - Original Drilling - Original Drilling - | 15,100.0 | 7,014.0 | 2,123.7 | 1,905.7 | 9.741 | SF |
| Cannon H35-20 - Original Drilling - Original Drilling - As D | 13,091.5 | 7,025.5 | 166.3 | 83.0 | 1.996 | CC, ES, SF |
| Cannon H35-21 - Original Drilling - Original Drilling - As D | 13,170.7 | 7,011.7 | 1,588.1 | 1,504.1 | 18.907 | CC, ES |
| Cannon H35-21 - Original Drilling - Original Drilling - As D | 13,300.0 | 7,012.6 | 1,593.4 | 1,508.5 | 18.777 | SF |
| Cannon H35-22 - Original Drilling - Original Drilling - As D | 13,087.6 | 6,857.3 | 2,516.3 | 2,433.6 | 30.429 | CC |
| Cannon H35-22 - Original Drilling - Original Drilling - As D | 13,100.0 | 6,857.2 | 2,516.3 | 2,433.5 | 30.390 | ES |
| Cannon H35-22 - Original Drilling - Original Drilling - As D | 13,500.0 | 6,856.6 | 2,549.9 | 2,464.3 | 29.810 | SF |
| Cannon H35-24 - Original Drilling - Original Drilling - As D | 14,358.9 | 7,062.7 | 1,384.8 | 1,289.3 | 14.504 | CC, ES |
| Cannon H35-24 - Original Drilling - Original Drilling - As D | 14,500.0 | 7,063.9 | 1,392.0 | 1,295.7 | 14.463 | SF |
| Cannon X02-27 - Original Drilling - Original Drilling - As D | 15,432.8 | 7,006.0 | 2,540.0 | 2,434.5 | 24.070 | CC, ES |
| Cannon X02-27 - Original Drilling - Original Drilling - As D | 15,541.2 | 7,006.2 | 2,542.3 | 2,436.0 | 23.900 | SF |
| Cannon X02-28 - Original Drilling - Original Drilling - As D | 15,203.1 | 7,045.1 | 1,355.2 | 1,251.7 | 13.094 | CC, ES |
| Cannon X02-28 - Original Drilling - Original Drilling - As D | 15,300.0 | 7,045.2 | 1,358.7 | 1,254.6 | 13.055 | SF |
| Cannon X02-29 - Original Drilling - Original Drilling - As D | 15,288.8 | 7,037.4 | 30.0 | -74.5 | 0.287 | Level 1, CC, ES, SF |
| Foster 18-35 - Original Drilling - Original Drilling - As Drill | 11,427.4 | 7,008.2 | 38.2 | -29.6 | 0.564 | Level 1, CC, ES, SF |
| Foster UPRR 31-35 #1 (PA) - Original Drilling - Original D | 10,846.8 | 7,026.0 | 2,167.0 | 1,988.5 | 12.141 | CC, ES |
| Foster UPRR 31-35 #1 (PA) - Original Drilling - Original D | 11,000.0 | 7,026.0 | 2,172.4 | 1,992.8 | 12.093 | SF |
| Foster UPRR 32-35 - Original Drilling - Original Drilling - | 12,180.5 | 7,018.2 | 2,036.7 | 1,962.0 | 27.247 | CC |
| Foster UPRR 32-35 - Original Drilling - Original Drilling - | 12,200.0 | 7,018.3 | 2,036.8 | 1,961.9 | 27.191 | ES |
| Foster UPRR 32-35 - Original Drilling - Original Drilling - | 12,500.0 | 7,019.5 | 2,061.6 | 1,984.8 | 26.836 | SF |
| Foster UPRR 41-35 - Original Drilling - Original Drilling - | 11,066.3 | 7,006.7 | 3,495.2 | 3,421.1 | 47.198 | CC |
| Foster UPRR 41-35 - Original Drilling - Original Drilling - | 11,100.0 | 7,006.9 | 3,495.3 | 3,421.0 | 47.018 | ES |
| Foster UPRR 41-35 - Original Drilling - Original Drilling - | 12,000.0 | 7,011.8 | 3,617.7 | 3,537.0 | 44.815 | SF |
| Foster UPRR 42-35 #2 - Original Drilling - Original Drilling | 12,156.6 | 6,866.9 | 3,448.3 | 3,374.4 | 46.640 | CC |
| Foster UPRR 42-35 #2 - Original Drilling - Original Drilling | 12,200.0 | 6,867.5 | 3,448.6 | 3,374.3 | 46.407 | ES |
| Foster UPRR 42-35 #2 - Original Drilling - Original Drilling | 13,000.0 | 6,879.6 | 3,549.9 | 3,470.0 | 44.435 | SF |
| HSR Foster 03-35 - Original Drilling - Original Drilling - A | 11,063.6 | 7,003.7 | 926.3 | 861.8 | 14.377 | CC, ES |
| HSR Foster 03-35 - Original Drilling - Original Drilling - A | 11,100.0 | 7,002.6 | 927.0 | 862.3 | 14.340 | SF |
| HSR Foster 04-35 - Wellbore #1 - Wellbore #1 - As Drille | 10,763.2 | 6,944.0 | 747.3 | 685.8 | 12.140 | CC, ES |
| HSR Foster 04-35 - Wellbore #1 - Wellbore #1 - As Drille | 10,800.0 | 6,942.2 | 748.2 | 686.3 | 12.077 | SF |
| HSR Foster 05-35 - Wellbore #1 - Wellbore #1 - As Drille | 12,354.3 | 6,976.3 | 537.2 | 460.9 | 7.045 | CC, ES |
| HSR Foster 05-35 - Wellbore #1 - Wellbore #1 - As Drille | 12,400.0 | 6,976.8 | 539.1 | 462.4 | 7.028 | SF |
| HSR Foster 06-35 - Original Drilling - Original Drilling - A | 12,244.5 | 7,026.3 | 837.0 | 761.6 | 11.106 | CC, ES |
| HSR Foster 06-35 - Original Drilling - Original Drilling - A | 12,300.0 | 7,026.9 | 838.8 | 763.2 | 11.090 | SF |
| UPRR 53 Pan Am Unit P1 - Original Drilling - Original Dri | 11,652.6 | 7,026.8 | 2,940.0 | 2,870.1 | 42.065 | CC |
| UPRR 53 Pan Am Unit P1 - Original Drilling - Original Dri | 11,700.0 | 7,026.6 | 2,940.4 | 2,870.1 | 41.834 | ES |
| UPRR 53 Pan Am Unit P1 - Original Drilling - Original Dri | 12,300.0 | 7,024.6 | 3,010.4 | 2,936.1 | 40.491 | SF |

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

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | 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 | | | | | | |
| H Section 35 | | | | | | |
| UPRR 53 Pan Am UT P2 - Original Drilling - Original Drill | 11,283.0 | 7,031.1 | 458.2 | 391.7 | 6.886 | CC, ES |
| UPRR 53 Pan Am UT P2 - Original Drilling - Original Drill | 11,300.0 | 7,030.9 | 458.5 | 391.9 | 6.886 | SF |

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | 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 | | | | | | |
| H Section 36 | | | | | | |
| Dechant 07-36 - Original Drilling - Original Drilling - As D | 12,551.0 | 6,850.8 | 7,128.1 | 7,050.5 | 91.872 | CC |
| Dechant 07-36 - Original Drilling - Original Drilling - As D | 12,600.0 | 6,851.0 | 7,128.2 | 7,050.2 | 91.351 | ES |
| Dechant 07-36 - Original Drilling - Original Drilling - As D | 15,500.0 | 6,862.5 | 7,714.0 | 7,615.0 | 77.923 | SF |
| Dechant 13N-1HZ - Original Drilling - Original Drilling - A | 15,541.2 | 7,085.8 | 4,558.5 | 4,450.3 | 42.123 | CC, ES, SF |
| Dechant 14C-1HZ - Original Drilling - Original Drilling - A | 15,411.5 | 6,423.6 | 6,018.6 | 5,914.8 | 57.999 | CC |
| Dechant 14C-1HZ - Original Drilling - Original Drilling - A | 15,500.0 | 6,425.7 | 6,019.2 | 5,914.6 | 57.548 | ES |
| Dechant 14C-1HZ - Original Drilling - Original Drilling - A | 15,541.2 | 6,426.9 | 6,020.0 | 5,915.0 | 57.363 | SF |
| Dechant 15-36 - Original Drilling - Original Drilling - As D | 15,004.6 | 6,956.3 | 7,121.2 | 7,002.8 | 60.101 | CC |
| Dechant 15-36 - Original Drilling - Original Drilling - As D | 15,100.0 | 6,956.8 | 7,121.9 | 7,002.5 | 59.659 | ES |
| Dechant 15-36 - Original Drilling - Original Drilling - As D | 15,541.2 | 6,958.6 | 7,141.4 | 7,018.2 | 57.929 | SF |
| Dechant 15C-1HZ - Original Drilling - Original Drilling - A | 15,541.2 | 11,910.8 | 7,268.0 | 7,092.1 | 41.320 | CC, ES, SF |
| Dechant 24-36 - Original Drilling - Original Drilling - As D | 12,885.7 | 7,127.9 | 7,818.3 | 7,734.3 | 93.115 | CC |
| Dechant 24-36 - Original Drilling - Original Drilling - As D | 13,000.0 | 7,127.9 | 7,819.1 | 7,734.0 | 91.850 | ES |
| Dechant 24-36 - Original Drilling - Original Drilling - As D | 15,541.2 | 7,128.9 | 8,257.0 | 8,149.5 | 76.812 | SF |
| Dechant 35N-E1HZ - Original Drilling - Original Drilling - | 15,541.2 | 6,731.6 | 5,720.1 | 5,614.1 | 53.939 | CC, ES, SF |
| Dechant 35N-W1HZ - Original Drilling - Original Drilling - | 15,541.2 | 6,936.3 | 5,118.5 | 5,011.6 | 47.862 | CC, ES, SF |
| Dechant 36N-W1HZ - Original Drilling - Original Drilling - | 15,406.9 | 6,181.7 | 6,258.0 | 6,155.1 | 60.798 | CC |
| Dechant 36N-W1HZ - Original Drilling - Original Drilling - | 15,500.0 | 6,181.8 | 6,258.7 | 6,154.9 | 60.301 | ES |
| Dechant 36N-W1HZ - Original Drilling - Original Drilling - | 15,541.2 | 6,181.8 | 6,259.5 | 6,155.3 | 60.107 | SF |
| Dechant 37N-E1HZ - Original Drilling - Original Drilling - | 15,393.7 | 5,008.8 | 8,033.1 | 7,934.7 | 81.697 | CC |
| Dechant 37N-E1HZ - Original Drilling - Original Drilling - | 15,500.0 | 5,009.3 | 8,033.8 | 7,934.5 | 80.889 | ES |
| Dechant 37N-E1HZ - Original Drilling - Original Drilling - | 15,541.2 | 5,009.5 | 8,034.4 | 7,934.8 | 80.608 | SF |
| Dechant 37N-W1HZ - Original Drilling - Original Drilling - | 15,398.3 | 5,885.2 | 7,566.3 | 7,464.7 | 74.444 | CC |
| Dechant 37N-W1HZ - Original Drilling - Original Drilling - | 15,500.0 | 5,885.3 | 7,567.0 | 7,464.4 | 73.766 | ES |
| Dechant 37N-W1HZ - Original Drilling - Original Drilling - | 15,541.2 | 5,885.3 | 7,567.7 | 7,464.8 | 73.520 | SF |
| Dechant State 16C-1HZ - Original Drilling - Original Drilling | 15,541.2 | 12,676.7 | 8,461.7 | 8,275.7 | 45.491 | CC, ES, SF |
| Dechant State 36N-E1HZ - Original Drilling - Original Drilling | 15,541.2 | 11,737.2 | 6,989.7 | 6,814.2 | 39.834 | CC, ES, SF |
| Dechant State 37N-E36HZ - Original Drilling - Original Drilling | 15,166.8 | 11,401.3 | 8,209.0 | 8,044.8 | 50.011 | CC |
| Dechant State 37N-E36HZ - Original Drilling - Original Drilling | 15,200.0 | 11,401.3 | 8,209.0 | 8,044.6 | 49.928 | ES |
| Dechant State 37N-E36HZ - Original Drilling - Original Drilling | 15,541.2 | 11,401.3 | 8,217.5 | 8,050.4 | 49.184 | SF |
| Dechant State 37N-W36HZ - Original Drilling - Original Drilling | 15,183.5 | 11,489.0 | 7,613.1 | 7,447.1 | 45.858 | CC |
| Dechant State 37N-W36HZ - Original Drilling - Original Drilling | 15,300.0 | 11,489.0 | 7,614.0 | 7,446.8 | 45.544 | ES |
| Dechant State 37N-W36HZ - Original Drilling - Original Drilling | 15,541.2 | 11,489.0 | 7,621.5 | 7,452.1 | 44.979 | SF |
| Dechant State 38N-1HZ - Original Drilling - Original Drilling | 15,541.2 | 11,654.5 | 8,915.3 | 8,741.5 | 51.291 | CC, ES, SF |
| Dechant State H36-11D - Original Drilling - Original Drilling | 13,742.6 | 6,922.7 | 5,963.2 | 5,874.0 | 66.917 | CC |
| Dechant State H36-11D - Original Drilling - Original Drilling | 13,800.0 | 6,922.0 | 5,963.4 | 5,873.8 | 66.533 | ES |
| Dechant State H36-11D - Original Drilling - Original Drilling | 15,541.2 | 6,900.0 | 6,228.4 | 6,126.2 | 60.912 | SF |
| Dechant State H36-18D - Original Drilling - Original Drilling | 11,688.2 | 7,095.6 | 6,528.9 | 6,457.7 | 91.673 | CC |
| Dechant State H36-18D - Original Drilling - Original Drilling | 11,800.0 | 7,099.7 | 6,529.9 | 6,457.6 | 90.321 | ES |
| Dechant State H36-18D - Original Drilling - Original Drilling | 14,800.0 | 7,246.5 | 7,231.3 | 7,134.9 | 74.985 | SF |
| Dechant State H36-19 - Original Drilling - Original Drilling | 11,349.3 | 7,265.3 | 5,121.9 | 5,053.9 | 75.371 | CC |
| Dechant State H36-19 - Original Drilling - Original Drilling | 11,400.0 | 7,266.0 | 5,122.1 | 5,053.7 | 74.890 | ES |
| Dechant State H36-19 - Original Drilling - Original Drilling | 13,300.0 | 7,293.6 | 5,480.7 | 5,399.0 | 67.051 | SF |
| Dechant State H36-20D - Original Drilling - Original Drilling | 12,600.0 | 12,600.0 | 5,357.7 | 5,262.3 | 56.177 | SF |
| Dechant State H36-20D - Original Drilling - Original Drilling | 13,136.6 | 7,424.0 | 5,330.8 | 5,245.8 | 62.768 | CC |
| Dechant State H36-20D - Original Drilling - Original Drilling | 13,200.0 | 7,424.0 | 5,331.1 | 5,245.7 | 62.387 | ES |
| Dechant State H36-21D - Original Drilling - Original Drilling | 13,105.5 | 7,063.8 | 6,538.4 | 6,453.8 | 77.324 | CC |
| Dechant State H36-21D - Original Drilling - Original Drilling | 13,200.0 | 7,063.7 | 6,539.1 | 6,453.7 | 76.599 | ES |
| Dechant State H36-21D - Original Drilling - Original Drilling | 15,500.0 | 7,061.4 | 6,963.1 | 6,862.2 | 69.011 | SF |
| Dechant State H36-24 - Original Drilling - Original Drilling | 14,313.8 | 7,210.4 | 6,607.4 | 6,510.7 | 68.376 | CC |
| Dechant State H36-24 - Original Drilling - Original Drilling | 14,400.0 | 7,209.1 | 6,607.9 | 6,510.5 | 67.820 | ES |
| Dechant State H36-24 - Original Drilling - Original Drilling | 15,541.2 | 7,194.1 | 6,720.4 | 6,613.4 | 62.780 | SF |
| Dechant State H36-31D - Original Drilling - Original Drilling | 11,696.5 | 7,104.4 | 4,119.8 | 4,049.3 | 58.375 | CC |

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

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | 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 | | | | | | |
| H Section 36 | | | | | | |
| Dechant State H36-31D - Original Drilling - Original Drilling | 11,700.0 | 7,104.4 | 4,119.8 | 4,049.2 | 58.352 | ES |
| Dechant State H36-31D - Original Drilling - Original Drilling | 12,900.0 | 7,113.9 | 4,292.0 | 4,213.4 | 54.566 | SF |
| Dechant State H36-32D - Original Drilling - Original Drilling | 12,949.1 | 7,077.6 | 4,103.4 | 4,020.4 | 49.468 | CC |
| Dechant State H36-32D - Original Drilling - Original Drilling | 13,000.0 | 7,078.2 | 4,103.7 | 4,020.3 | 49.189 | ES |
| Dechant State H36-32D - Original Drilling - Original Drilling | 14,000.0 | 7,090.7 | 4,235.8 | 4,144.9 | 46.597 | SF |
| Dechant State H36-33 - Original Drilling - Original Drilling | 14,165.5 | 7,460.6 | 4,142.4 | 4,046.0 | 42.984 | CC |
| Dechant State H36-33 - Original Drilling - Original Drilling | 14,200.0 | 7,461.2 | 4,142.5 | 4,045.8 | 42.845 | ES |
| Dechant State H36-33 - Original Drilling - Original Drilling | 15,300.0 | 15,300.0 | 4,295.0 | 4,163.2 | 32.606 | SF |
| HSR Dechant State 02-36 - Original Drilling - Original Drilling | 10,797.6 | 6,859.7 | 7,078.1 | 7,016.6 | 115.046 | CC |
| HSR Dechant State 02-36 - Original Drilling - Original Drilling | 10,900.0 | 6,862.7 | 7,078.8 | 7,016.4 | 113.407 | ES |
| HSR Dechant State 02-36 - Original Drilling - Original Drilling | 14,400.0 | 6,934.5 | 7,941.7 | 7,854.4 | 91.018 | SF |
| HSR Dechant/State 07-36 (PA) - Original Drilling - Original Drilling | 11,989.8 | 6,979.0 | 7,667.0 | 7,478.8 | 40.734 | CC |
| HSR Dechant/State 07-36 (PA) - Original Drilling - Original Drilling | 12,100.0 | 6,979.0 | 7,667.8 | 7,478.6 | 40.526 | ES |
| HSR Dechant/State 07-36 (PA) - Original Drilling - Original Drilling | 14,100.0 | 6,979.0 | 7,952.2 | 7,746.9 | 38.747 | SF |
| Spike State GWS H36-03 - Original Drilling - Original Drilling | 10,951.0 | 7,050.2 | 6,158.5 | 6,094.8 | 96.800 | CC |
| Spike State GWS H36-03 - Original Drilling - Original Drilling | 11,000.0 | 7,052.6 | 6,158.6 | 6,094.6 | 96.151 | ES |
| Spike State GWS H36-03 - Original Drilling - Original Drilling | 13,800.0 | 7,187.7 | 6,784.2 | 6,700.1 | 80.648 | SF |
| Spike State GWS H36-04 - Original Drilling - Original Drilling | 10,787.7 | 7,085.7 | 4,655.8 | 4,584.5 | 65.307 | CC |
| Spike State GWS H36-04 - Original Drilling - Original Drilling | 10,800.0 | 7,085.6 | 4,655.9 | 4,584.5 | 65.213 | ES |
| Spike State GWS H36-04 - Original Drilling - Original Drilling | 12,400.0 | 7,073.9 | 4,927.1 | 4,844.4 | 59.608 | SF |
| Spike State GWS H36-13 - Original Drilling - Original Drilling | 15,116.4 | 6,600.0 | 4,544.9 | 4,444.0 | 45.071 | CC, ES |
| Spike State GWS H36-13 - Original Drilling - Original Drilling | 15,541.2 | 6,600.0 | 4,564.7 | 4,460.3 | 43.741 | SF |
| Spike State GWS H36-14 - Original Drilling - Original Drilling | 14,000.0 | 14,000.0 | 6,319.1 | 6,203.3 | 54.573 | SF |
| Spike State GWS H36-14 - Original Drilling - Original Drilling | 15,101.6 | 6,900.0 | 6,222.5 | 6,120.5 | 60.995 | CC |
| Spike State GWS H36-14 - Original Drilling - Original Drilling | 15,200.0 | 6,900.0 | 6,223.3 | 6,120.4 | 60.470 | ES |
| Spike State H36-02J - Original Drilling - Original Drilling | 12,010.4 | 6,926.4 | 5,606.2 | 5,501.4 | 53.479 | CC |
| Spike State H36-02J - Original Drilling - Original Drilling | 12,100.0 | 6,928.0 | 5,606.9 | 5,501.3 | 53.060 | ES |
| Spike State H36-02J - Original Drilling - Original Drilling | 13,800.0 | 6,957.3 | 5,884.9 | 5,765.8 | 49.400 | SF |
| Spike State H36-05 - Original Drilling - Original Drilling - A | 12,189.0 | 7,162.8 | 4,596.6 | 4,521.3 | 61.011 | CC |
| Spike State H36-05 - Original Drilling - Original Drilling - A | 12,200.0 | 7,162.8 | 4,596.6 | 4,521.2 | 60.933 | ES |
| Spike State H36-05 - Original Drilling - Original Drilling - A | 13,600.0 | 7,158.4 | 4,808.3 | 4,723.0 | 56.345 | SF |
| Spike State H36-11J - Original Drilling - Original Drilling | 14,347.4 | 6,959.4 | 5,373.7 | 5,278.8 | 56.573 | CC |
| Spike State H36-11J - Original Drilling - Original Drilling | 14,400.0 | 6,958.4 | 5,374.0 | 5,278.5 | 56.295 | ES |
| Spike State H36-11J - Original Drilling - Original Drilling | 15,541.2 | 6,935.5 | 5,504.7 | 5,400.7 | 52.942 | SF |
| Spike State H36-12 - Original Drilling - Original Drilling - A | 13,458.1 | 7,000.5 | 4,491.0 | 4,404.3 | 51.808 | CC |
| Spike State H36-12 - Original Drilling - Original Drilling - A | 13,500.0 | 7,000.2 | 4,491.2 | 4,404.1 | 51.589 | ES |
| Spike State H36-12 - Original Drilling - Original Drilling - A | 14,600.0 | 6,990.7 | 4,633.9 | 4,539.0 | 48.849 | SF |

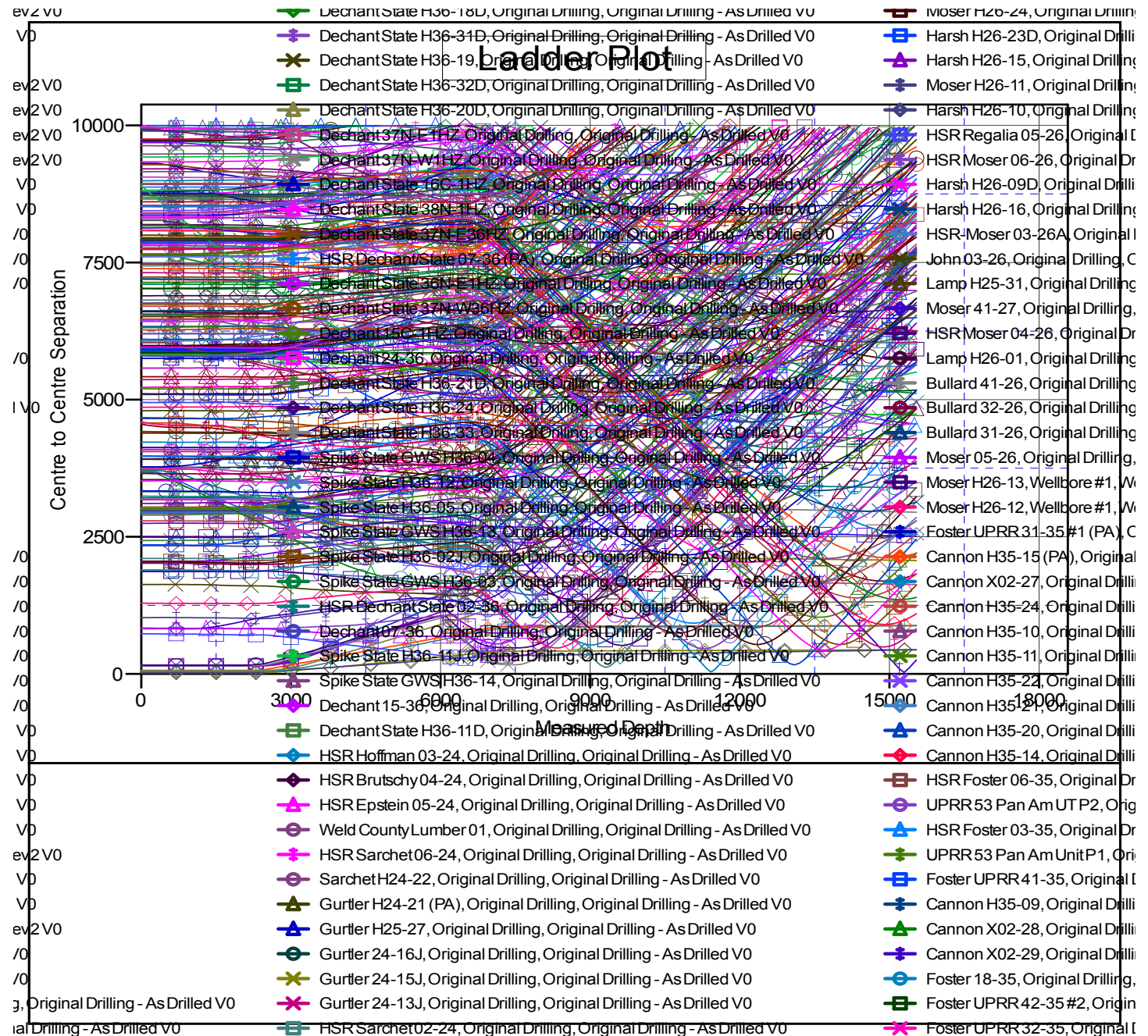
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to WELL @ 4852.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: Hurley H35-774
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.56°



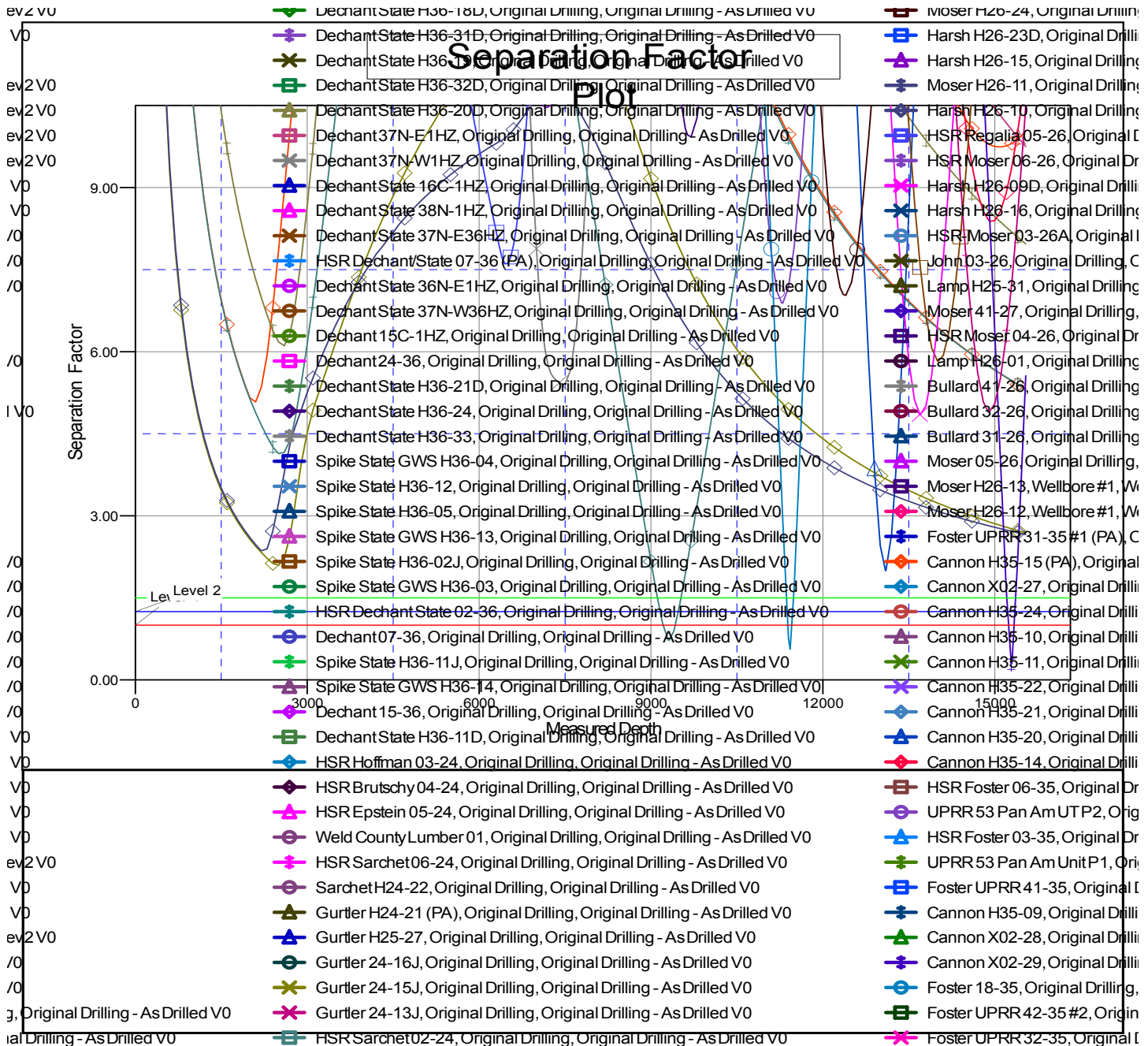
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Noble Energy, Inc.
Anticollision Summary Report

| | | | |
|---------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Northern Region Drilling - Sandbox | Local Co-ordinate Reference: | Well Hurley H35-774 |
| Project: | Conceptual Wells | TVD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Reference Site: | DP 408 | MD Reference: | WELL @ 4852.0ft (Original Well Elev) |
| Site Error: | 0.0 ft | North Reference: | Grid |
| Reference Well: | Hurley H35-774 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Prelim - Rev 2 | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to WELL @ 4852.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: Hurley H35-774
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.56°



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