

Project: Mustang
Site: D Section 23
Well: Gutteresen D23-711
Wellbore: Wellbore #1
Design: Plan #1

Northern Region - DJ Basin

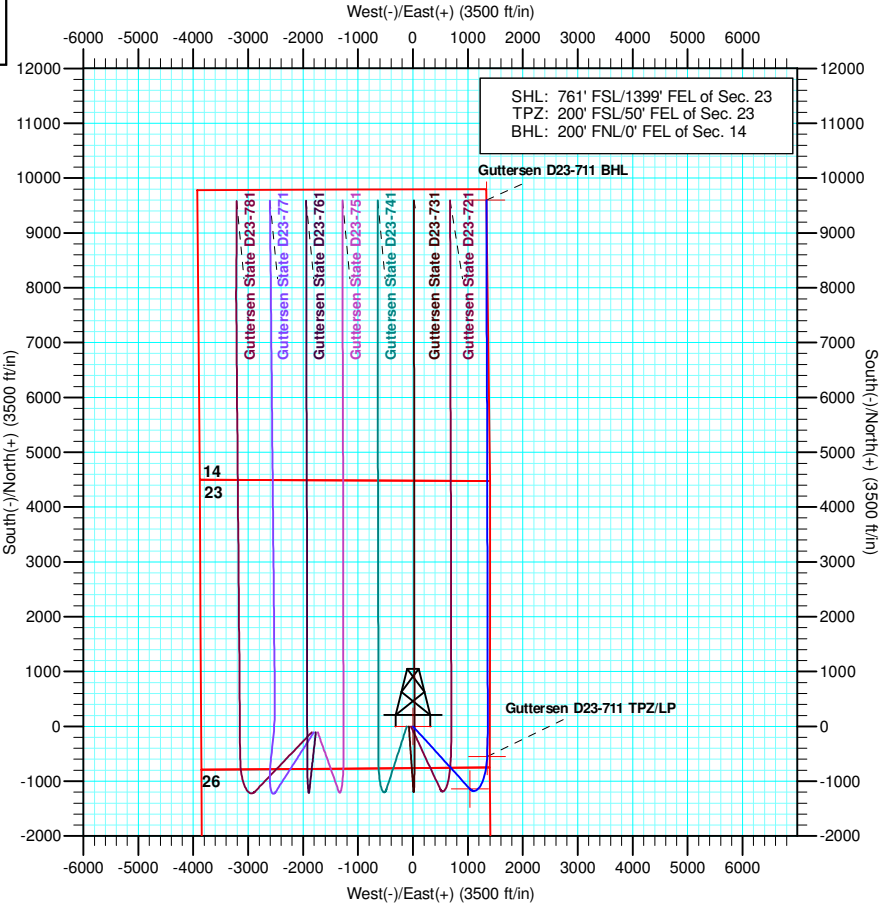
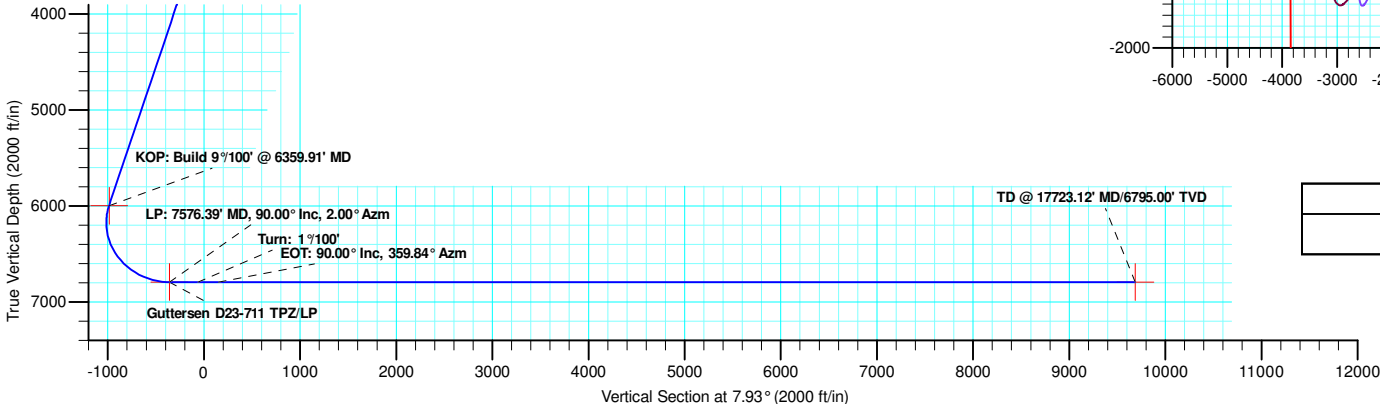
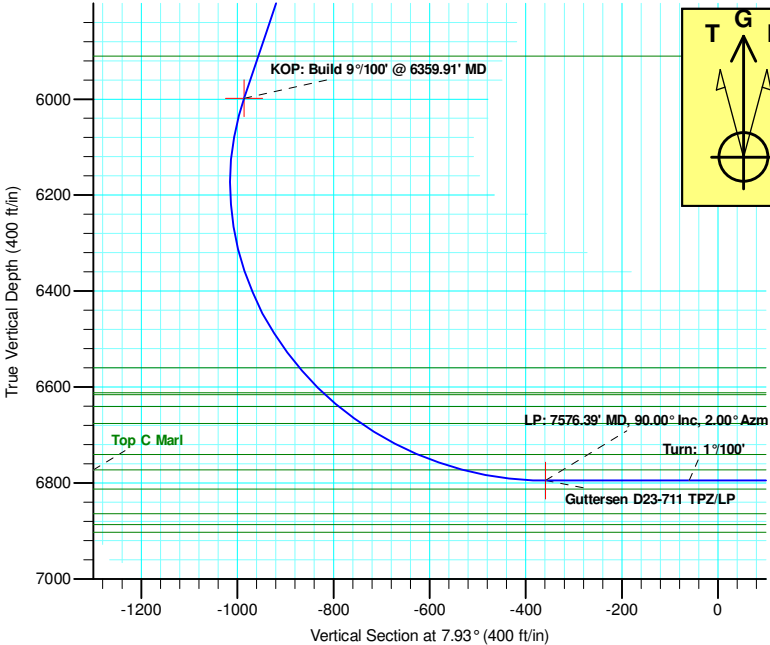
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level

SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSec | Target |
|-----|----------|-------|--------|---------|----------|---------|------|---------|---------|---------------------------|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 2600.00 | 0.00 | 0.00 | 2600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 3525.06 | 27.75 | 137.75 | 3489.32 | -162.61 | 147.72 | 3.00 | 137.75 | -140.68 | |
| 4 | 6359.91 | 27.75 | 137.75 | 5998.08 | -1139.66 | 1035.33 | 0.00 | 0.00 | -985.97 | |
| 5 | 7576.39 | 90.00 | 2.00 | 6795.00 | -550.07 | 1348.71 | 9.00 | -132.25 | -358.79 | Gutteresen D23-711 TPZ/LP |
| 6 | 7876.39 | 90.00 | 2.00 | 6795.00 | -250.25 | 1359.18 | 0.00 | 0.00 | -60.39 | |
| 7 | 8092.02 | 90.00 | 359.84 | 6795.00 | -34.66 | 1362.65 | 1.00 | -90.00 | 153.62 | |
| 8 | 17723.12 | 90.00 | 359.84 | 6795.00 | 9596.41 | 1336.37 | 0.00 | 0.00 | 9689.01 | Gutteresen D23-711 BHL |

WELL DETAILS: Gutteresen D23-711

| +N/-S | +E/-W | Northing | Ground Level: Easting | 4810.00 Latitude | Longitude | Slot |
|-------|-------|------------|--------------------------|---------------------|--------------|------|
| 0.00 | 0.00 | 1319304.72 | 3275346.51 | 40.2056870 | -104.5141651 | |



Plan: Plan #1 (Gutteresen D23-711/Wellbore #1)

Created By: Keith Noack Date: 14:59, August 15 2018

Northern Region - DJ Basin

Mustang

D Section 23

Guttersen D23-711

Wellbore #1

Plan: Plan #1

Standard Planning Report

15 August, 2018

Noble Energy, Inc.

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|------------------------|
| Database: | EDMP | Local Co-ordinate Reference: | Well Guttersen D23-711 |
| Company: | Northern Region - DJ Basin | TVD Reference: | KB @ 4840.00ft |
| Project: | Mustang | MD Reference: | KB @ 4840.00ft |
| Site: | D Section 23 | North Reference: | Grid |
| Well: | Guttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 | | |

| | | | |
|--------------------|-------------------------------|----------------------|----------------|
| Project | Mustang, Weld County Colorado | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| Site | | D Section 23 | | | |
|--|----------|--------------|-------------------|-------------------|--------------|
| Site Position: From: Position Uncertainty: | | Northing: | 1,319,071.18 usft | Latitude: | 40.2050590 |
| | Lat/Long | Easting: | 3,274,917.86 usft | Longitude: | -104.5157090 |
| | 0.00 ft | Slot Radius: | 13.200 in | Grid Convergence: | 0.64 |

| | | | | | | |
|----------------------|-------------------|-----------|---------------------|-------------------|---------------|--------------|
| Well | Guttersen D23-711 | | | | | |
| Well Position | +N-S | 233.54 ft | Northing: | 1,319,304.72 usft | Latitude: | 40.2056870 |
| | +E-W | 428.65 ft | Easting: | 3,275,346.51 usft | Longitude: | -104.5141651 |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | | Ground Level: | 4,810.00 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2015 | 4/16/2018 | 7.97 | 66.72 | 52,222.82784324 |

| | | | | |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| Design | Plan #1 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.00 | 0.00 | 0.00 | 7.93 |

| Plan Sections | | | | | | | | | | |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|-------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,600.00 | 0.00 | 0.00 | 2,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3,525.06 | 27.75 | 137.75 | 3,489.32 | -162.61 | 147.72 | 3.00 | 3.00 | 0.00 | 137.75 | |
| 6,359.91 | 27.75 | 137.75 | 5,998.08 | -1,139.66 | 1,035.33 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,576.39 | 90.00 | 2.00 | 6,795.00 | -550.07 | 1,348.71 | 9.00 | 5.12 | -11.16 | -132.25 | Guttersen D23-711 |
| 7,876.39 | 90.00 | 2.00 | 6,795.00 | -250.25 | 1,359.18 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 8,092.02 | 90.00 | 359.84 | 6,795.00 | -34.66 | 1,362.65 | 1.00 | 0.00 | -1.00 | -90.00 | |
| 17,723.12 | 90.00 | 359.84 | 6,795.00 | 9,596.41 | 1,336.37 | 0.00 | 0.00 | 0.00 | 0.00 | Guttersen D23-711 |

Noble Energy, Inc.

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|------------------------|
| Database: | EDMP | Local Co-ordinate Reference: | Well Guttersen D23-711 |
| Company: | Northern Region - DJ Basin | TVD Reference: | KB @ 4840.00ft |
| Project: | Mustang | MD Reference: | KB @ 4840.00ft |
| Site: | D Section 23 | North Reference: | Grid |
| Well: | Guttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 | | |

| Planned Survey | | | | | | | | | |
|--------------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 400.00 | 0.00 | 0.00 | 400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 800.00 | 0.00 | 0.00 | 800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,000.00 | 0.00 | 0.00 | 1,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,100.00 | 0.00 | 0.00 | 1,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 0.00 | 0.00 | 1,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 0.00 | 0.00 | 1,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 0.00 | 0.00 | 1,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 0.00 | 0.00 | 1,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 0.00 | 0.00 | 1,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 0.00 | 0.00 | 1,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 0.00 | 0.00 | 1,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 0.00 | 0.00 | 1,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 0.00 | 0.00 | 2,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 0.00 | 0.00 | 2,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 0.00 | 0.00 | 2,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 0.00 | 0.00 | 2,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 0.00 | 0.00 | 2,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 0.00 | 0.00 | 2,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 0.00 | 0.00 | 2,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Build: 3°/100' | | | | | | | | | |
| 2,700.00 | 3.00 | 137.75 | 2,699.95 | -1.94 | 1.76 | -1.68 | 3.00 | 3.00 | 0.00 |
| 2,800.00 | 6.00 | 137.75 | 2,799.63 | -7.74 | 7.04 | -6.70 | 3.00 | 3.00 | 0.00 |
| 2,900.00 | 9.00 | 137.75 | 2,898.77 | -17.40 | 15.81 | -15.06 | 3.00 | 3.00 | 0.00 |
| 3,000.00 | 12.00 | 137.75 | 2,997.08 | -30.89 | 28.06 | -26.73 | 3.00 | 3.00 | 0.00 |
| 3,100.00 | 15.00 | 137.75 | 3,094.31 | -48.17 | 43.76 | -41.67 | 3.00 | 3.00 | 0.00 |
| 3,200.00 | 18.00 | 137.75 | 3,190.18 | -69.19 | 62.85 | -59.86 | 3.00 | 3.00 | 0.00 |
| 3,300.00 | 21.00 | 137.75 | 3,284.43 | -93.89 | 85.30 | -81.23 | 3.00 | 3.00 | 0.00 |
| 3,400.00 | 24.00 | 137.75 | 3,376.81 | -122.21 | 111.03 | -105.73 | 3.00 | 3.00 | 0.00 |
| 3,500.00 | 27.00 | 137.75 | 3,467.06 | -154.08 | 139.97 | -133.30 | 3.00 | 3.00 | 0.00 |
| 3,525.06 | 27.75 | 137.75 | 3,489.32 | -162.61 | 147.72 | -140.68 | 3.00 | 3.00 | 0.00 |
| Hold: 27.75° Inc, 137.75° Azm | | | | | | | | | |
| 3,600.00 | 27.75 | 137.75 | 3,555.63 | -188.43 | 171.18 | -163.02 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 27.75 | 137.75 | 3,644.13 | -222.90 | 202.49 | -192.84 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 27.75 | 137.75 | 3,732.63 | -257.37 | 233.81 | -222.66 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 27.75 | 137.75 | 3,821.12 | -291.83 | 265.12 | -252.48 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 27.75 | 137.75 | 3,909.62 | -326.30 | 296.43 | -282.29 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 27.75 | 137.75 | 3,998.12 | -360.76 | 327.74 | -312.11 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 27.75 | 137.75 | 4,086.61 | -395.23 | 359.05 | -341.93 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 27.75 | 137.75 | 4,175.11 | -429.69 | 390.36 | -371.75 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 27.75 | 137.75 | 4,263.61 | -464.16 | 421.67 | -401.56 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 27.75 | 137.75 | 4,352.11 | -498.63 | 452.98 | -431.38 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 27.75 | 137.75 | 4,440.60 | -533.09 | 484.29 | -461.20 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 27.75 | 137.75 | 4,529.10 | -567.56 | 515.60 | -491.02 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 27.75 | 137.75 | 4,617.60 | -602.02 | 546.91 | -520.84 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 27.75 | 137.75 | 4,706.09 | -636.49 | 578.22 | -550.65 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 27.75 | 137.75 | 4,794.59 | -670.95 | 609.53 | -580.47 | 0.00 | 0.00 | 0.00 |

Noble Energy, Inc.

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|-------------------------|
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| Company: | Northern Region - DJ Basin | TVD Reference: | KB @ 4840.00ft |
| Project: | Mustang | MD Reference: | KB @ 4840.00ft |
| Site: | D Section 23 | North Reference: | Grid |
| Well: | Gutttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 | | |

| Planned Survey | | | | | | | | | |
|---|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 5,100.00 | 27.75 | 137.75 | 4,883.09 | -705.42 | 640.84 | -610.29 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 27.75 | 137.75 | 4,971.59 | -739.89 | 672.16 | -640.11 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 27.75 | 137.75 | 5,060.08 | -774.35 | 703.47 | -669.92 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 27.75 | 137.75 | 5,148.58 | -808.82 | 734.78 | -699.74 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 27.75 | 137.75 | 5,237.08 | -843.28 | 766.09 | -729.56 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 27.75 | 137.75 | 5,325.58 | -877.75 | 797.40 | -759.38 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 27.75 | 137.75 | 5,414.07 | -912.21 | 828.71 | -789.20 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 27.75 | 137.75 | 5,502.57 | -946.68 | 860.02 | -819.01 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 27.75 | 137.75 | 5,591.07 | -981.15 | 891.33 | -848.83 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 27.75 | 137.75 | 5,679.56 | -1,015.61 | 922.64 | -878.65 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 27.75 | 137.75 | 5,768.06 | -1,050.08 | 953.95 | -908.47 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 27.75 | 137.75 | 5,856.56 | -1,084.54 | 985.26 | -938.28 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 27.75 | 137.75 | 5,945.06 | -1,119.01 | 1,016.57 | -968.10 | 0.00 | 0.00 | 0.00 |
| 6,359.91 | 27.75 | 137.75 | 5,998.08 | -1,139.66 | 1,035.33 | -985.97 | 0.00 | 0.00 | 0.00 |
| KOP: Build 9°/100' @ 6359.91' MD | | | | | | | | | |
| 6,400.00 | 25.46 | 131.52 | 6,033.92 | -1,152.28 | 1,048.06 | -996.71 | 9.00 | -5.73 | -15.52 |
| 6,450.00 | 23.03 | 122.27 | 6,079.53 | -1,164.63 | 1,064.38 | -1,006.70 | 9.00 | -4.85 | -18.51 |
| 6,500.00 | 21.26 | 111.28 | 6,125.86 | -1,173.15 | 1,081.11 | -1,012.82 | 9.00 | -3.55 | -21.98 |
| 6,550.00 | 20.30 | 98.86 | 6,172.63 | -1,177.78 | 1,098.13 | -1,015.06 | 9.00 | -1.92 | -24.84 |
| 6,600.00 | 20.27 | 85.86 | 6,219.55 | -1,178.49 | 1,115.35 | -1,013.39 | 9.00 | -0.05 | -26.01 |
| 6,650.00 | 21.18 | 73.38 | 6,266.34 | -1,175.28 | 1,132.65 | -1,007.82 | 9.00 | 1.82 | -24.96 |
| 6,700.00 | 22.92 | 62.29 | 6,312.70 | -1,168.16 | 1,149.93 | -998.39 | 9.00 | 3.47 | -22.17 |
| 6,750.00 | 25.31 | 52.94 | 6,358.35 | -1,157.19 | 1,167.09 | -985.16 | 9.00 | 4.78 | -18.70 |
| 6,800.00 | 28.19 | 45.25 | 6,403.01 | -1,142.43 | 1,184.01 | -968.21 | 9.00 | 5.76 | -15.39 |
| 6,850.00 | 31.42 | 38.94 | 6,446.40 | -1,123.97 | 1,200.60 | -947.63 | 9.00 | 6.47 | -12.61 |
| 6,900.00 | 34.91 | 33.74 | 6,488.26 | -1,101.92 | 1,216.74 | -923.57 | 9.00 | 6.98 | -10.40 |
| 6,950.00 | 38.59 | 29.40 | 6,528.32 | -1,076.43 | 1,232.35 | -896.16 | 9.00 | 7.35 | -8.69 |
| 7,000.00 | 42.40 | 25.71 | 6,566.34 | -1,047.64 | 1,247.33 | -865.59 | 9.00 | 7.62 | -7.37 |
| 7,050.00 | 46.31 | 22.53 | 6,602.09 | -1,015.74 | 1,261.58 | -832.02 | 9.00 | 7.83 | -6.36 |
| 7,100.00 | 50.30 | 19.75 | 6,635.34 | -980.91 | 1,275.01 | -795.68 | 9.00 | 7.98 | -5.57 |
| 7,150.00 | 54.36 | 17.27 | 6,665.90 | -943.39 | 1,287.55 | -756.79 | 9.00 | 8.10 | -4.96 |
| 7,200.00 | 58.45 | 15.03 | 6,693.56 | -903.39 | 1,299.11 | -715.58 | 9.00 | 8.19 | -4.48 |
| 7,250.00 | 62.58 | 12.98 | 6,718.17 | -861.17 | 1,309.62 | -672.31 | 9.00 | 8.26 | -4.10 |
| 7,300.00 | 66.74 | 11.08 | 6,739.56 | -816.98 | 1,319.02 | -627.24 | 9.00 | 8.32 | -3.80 |
| 7,350.00 | 70.92 | 9.29 | 6,757.61 | -771.10 | 1,327.26 | -580.67 | 9.00 | 8.36 | -3.57 |
| 7,400.00 | 75.12 | 7.60 | 6,772.21 | -723.81 | 1,334.27 | -532.86 | 9.00 | 8.39 | -3.39 |
| 7,450.00 | 79.33 | 5.97 | 6,783.26 | -675.40 | 1,340.02 | -484.12 | 9.00 | 8.42 | -3.26 |
| 7,500.00 | 83.55 | 4.38 | 6,790.70 | -626.17 | 1,344.48 | -434.75 | 9.00 | 8.44 | -3.17 |
| 7,550.00 | 87.77 | 2.82 | 6,794.49 | -576.43 | 1,347.60 | -385.05 | 9.00 | 8.44 | -3.12 |
| 7,576.39 | 90.00 | 2.00 | 6,795.00 | -550.07 | 1,348.71 | -358.79 | 9.00 | 8.45 | -3.10 |
| LP: 7576.39' MD, 90.00° Inc, 2.00° Azm | | | | | | | | | |
| 7,600.00 | 90.00 | 2.00 | 6,795.00 | -526.47 | 1,349.54 | -335.30 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 90.00 | 2.00 | 6,795.00 | -426.53 | 1,353.03 | -235.84 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 90.00 | 2.00 | 6,795.00 | -326.59 | 1,356.52 | -136.37 | 0.00 | 0.00 | 0.00 |
| 7,876.39 | 90.00 | 2.00 | 6,795.00 | -250.25 | 1,359.18 | -60.39 | 0.00 | 0.00 | 0.00 |
| Turn: 1°/100' | | | | | | | | | |
| 7,900.00 | 90.00 | 1.76 | 6,795.00 | -226.65 | 1,359.96 | -36.91 | 1.00 | 0.00 | -1.00 |
| 8,000.00 | 90.00 | 0.76 | 6,795.00 | -126.68 | 1,362.16 | 62.41 | 1.00 | 0.00 | -1.00 |
| 8,092.02 | 90.00 | 359.84 | 6,795.00 | -34.66 | 1,362.65 | 153.62 | 1.00 | 0.00 | -1.00 |
| EOT: 90.00° Inc, 359.84° Azm | | | | | | | | | |
| 8,100.00 | 90.00 | 359.84 | 6,795.00 | -26.68 | 1,362.63 | 161.52 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 90.00 | 359.84 | 6,795.00 | 73.32 | 1,362.36 | 260.53 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 90.00 | 359.84 | 6,795.00 | 173.32 | 1,362.09 | 359.53 | 0.00 | 0.00 | 0.00 |

Noble Energy, Inc.

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|------------------------|
| Database: | EDMP | Local Co-ordinate Reference: | Well Guttersen D23-711 |
| Company: | Northern Region - DJ Basin | TVD Reference: | KB @ 4840.00ft |
| Project: | Mustang | MD Reference: | KB @ 4840.00ft |
| Site: | D Section 23 | North Reference: | Grid |
| Well: | Guttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 | | |

| Planned Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 8,400.00 | 90.00 | 359.84 | 6,795.00 | 273.32 | 1,361.81 | 458.54 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 90.00 | 359.84 | 6,795.00 | 373.32 | 1,361.54 | 557.54 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 90.00 | 359.84 | 6,795.00 | 473.32 | 1,361.27 | 656.55 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 90.00 | 359.84 | 6,795.00 | 573.32 | 1,360.99 | 755.56 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 90.00 | 359.84 | 6,795.00 | 673.32 | 1,360.72 | 854.56 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 90.00 | 359.84 | 6,795.00 | 773.32 | 1,360.45 | 953.57 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 90.00 | 359.84 | 6,795.00 | 873.32 | 1,360.18 | 1,052.58 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 90.00 | 359.84 | 6,795.00 | 973.32 | 1,359.90 | 1,151.58 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 90.00 | 359.84 | 6,795.00 | 1,073.32 | 1,359.63 | 1,250.59 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 90.00 | 359.84 | 6,795.00 | 1,173.32 | 1,359.36 | 1,349.59 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 90.00 | 359.84 | 6,795.00 | 1,273.32 | 1,359.08 | 1,448.60 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 90.00 | 359.84 | 6,795.00 | 1,373.32 | 1,358.81 | 1,547.61 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 90.00 | 359.84 | 6,795.00 | 1,473.32 | 1,358.54 | 1,646.61 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 90.00 | 359.84 | 6,795.00 | 1,573.32 | 1,358.26 | 1,745.62 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 90.00 | 359.84 | 6,795.00 | 1,673.31 | 1,357.99 | 1,844.63 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 90.00 | 359.84 | 6,795.00 | 1,773.31 | 1,357.72 | 1,943.63 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 90.00 | 359.84 | 6,795.00 | 1,873.31 | 1,357.45 | 2,042.64 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 90.00 | 359.84 | 6,795.00 | 1,973.31 | 1,357.17 | 2,141.64 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 90.00 | 359.84 | 6,795.00 | 2,073.31 | 1,356.90 | 2,240.65 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 90.00 | 359.84 | 6,795.00 | 2,173.31 | 1,356.63 | 2,339.66 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 90.00 | 359.84 | 6,795.00 | 2,273.31 | 1,356.35 | 2,438.66 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 90.00 | 359.84 | 6,795.00 | 2,373.31 | 1,356.08 | 2,537.67 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 90.00 | 359.84 | 6,795.00 | 2,473.31 | 1,355.81 | 2,636.68 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 90.00 | 359.84 | 6,795.00 | 2,573.31 | 1,355.54 | 2,735.68 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 90.00 | 359.84 | 6,795.00 | 2,673.31 | 1,355.26 | 2,834.69 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 90.00 | 359.84 | 6,795.00 | 2,773.31 | 1,354.99 | 2,933.69 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 90.00 | 359.84 | 6,795.00 | 2,873.31 | 1,354.72 | 3,032.70 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 90.00 | 359.84 | 6,795.00 | 2,973.31 | 1,354.44 | 3,131.71 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 90.00 | 359.84 | 6,795.00 | 3,073.31 | 1,354.17 | 3,230.71 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 90.00 | 359.84 | 6,795.00 | 3,173.31 | 1,353.90 | 3,329.72 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 90.00 | 359.84 | 6,795.00 | 3,273.31 | 1,353.63 | 3,428.73 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 90.00 | 359.84 | 6,795.00 | 3,373.31 | 1,353.35 | 3,527.73 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 90.00 | 359.84 | 6,795.00 | 3,473.31 | 1,353.08 | 3,626.74 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 90.00 | 359.84 | 6,795.00 | 3,573.31 | 1,352.81 | 3,725.74 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 90.00 | 359.84 | 6,795.00 | 3,673.31 | 1,352.53 | 3,824.75 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 90.00 | 359.84 | 6,795.00 | 3,773.31 | 1,352.26 | 3,923.76 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 90.00 | 359.84 | 6,795.00 | 3,873.31 | 1,351.99 | 4,022.76 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 90.00 | 359.84 | 6,795.00 | 3,973.31 | 1,351.72 | 4,121.77 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 90.00 | 359.84 | 6,795.00 | 4,073.31 | 1,351.44 | 4,220.78 | 0.00 | 0.00 | 0.00 |
| 12,300.00 | 90.00 | 359.84 | 6,795.00 | 4,173.31 | 1,351.17 | 4,319.78 | 0.00 | 0.00 | 0.00 |
| 12,400.00 | 90.00 | 359.84 | 6,795.00 | 4,273.31 | 1,350.90 | 4,418.79 | 0.00 | 0.00 | 0.00 |
| 12,500.00 | 90.00 | 359.84 | 6,795.00 | 4,373.30 | 1,350.62 | 4,517.79 | 0.00 | 0.00 | 0.00 |
| 12,600.00 | 90.00 | 359.84 | 6,795.00 | 4,473.30 | 1,350.35 | 4,616.80 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 90.00 | 359.84 | 6,795.00 | 4,573.30 | 1,350.08 | 4,715.81 | 0.00 | 0.00 | 0.00 |
| 12,800.00 | 90.00 | 359.84 | 6,795.00 | 4,673.30 | 1,349.81 | 4,814.81 | 0.00 | 0.00 | 0.00 |
| 12,900.00 | 90.00 | 359.84 | 6,795.00 | 4,773.30 | 1,349.53 | 4,913.82 | 0.00 | 0.00 | 0.00 |
| 13,000.00 | 90.00 | 359.84 | 6,795.00 | 4,873.30 | 1,349.26 | 5,012.83 | 0.00 | 0.00 | 0.00 |
| 13,100.00 | 90.00 | 359.84 | 6,795.00 | 4,973.30 | 1,348.99 | 5,111.83 | 0.00 | 0.00 | 0.00 |
| 13,200.00 | 90.00 | 359.84 | 6,795.00 | 5,073.30 | 1,348.71 | 5,210.84 | 0.00 | 0.00 | 0.00 |
| 13,300.00 | 90.00 | 359.84 | 6,795.00 | 5,173.30 | 1,348.44 | 5,309.84 | 0.00 | 0.00 | 0.00 |
| 13,400.00 | 90.00 | 359.84 | 6,795.00 | 5,273.30 | 1,348.17 | 5,408.85 | 0.00 | 0.00 | 0.00 |
| 13,500.00 | 90.00 | 359.84 | 6,795.00 | 5,373.30 | 1,347.90 | 5,507.86 | 0.00 | 0.00 | 0.00 |
| 13,600.00 | 90.00 | 359.84 | 6,795.00 | 5,473.30 | 1,347.62 | 5,606.86 | 0.00 | 0.00 | 0.00 |
| 13,700.00 | 90.00 | 359.84 | 6,795.00 | 5,573.30 | 1,347.35 | 5,705.87 | 0.00 | 0.00 | 0.00 |

Noble Energy, Inc.

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|------------------------|
| Database: | EDMP | Local Co-ordinate Reference: | Well Guttersen D23-711 |
| Company: | Northern Region - DJ Basin | TVD Reference: | KB @ 4840.00ft |
| Project: | Mustang | MD Reference: | KB @ 4840.00ft |
| Site: | D Section 23 | North Reference: | Grid |
| Well: | Guttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 | | |

| Planned Survey | | | | | | | | | |
|--------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 13,800.00 | 90.00 | 359.84 | 6,795.00 | 5,673.30 | 1,347.08 | 5,804.88 | 0.00 | 0.00 | 0.00 |
| 13,900.00 | 90.00 | 359.84 | 6,795.00 | 5,773.30 | 1,346.80 | 5,903.88 | 0.00 | 0.00 | 0.00 |
| 14,000.00 | 90.00 | 359.84 | 6,795.00 | 5,873.30 | 1,346.53 | 6,002.89 | 0.00 | 0.00 | 0.00 |
| 14,100.00 | 90.00 | 359.84 | 6,795.00 | 5,973.30 | 1,346.26 | 6,101.89 | 0.00 | 0.00 | 0.00 |
| 14,200.00 | 90.00 | 359.84 | 6,795.00 | 6,073.30 | 1,345.99 | 6,200.90 | 0.00 | 0.00 | 0.00 |
| 14,300.00 | 90.00 | 359.84 | 6,795.00 | 6,173.30 | 1,345.71 | 6,299.91 | 0.00 | 0.00 | 0.00 |
| 14,400.00 | 90.00 | 359.84 | 6,795.00 | 6,273.30 | 1,345.44 | 6,398.91 | 0.00 | 0.00 | 0.00 |
| 14,500.00 | 90.00 | 359.84 | 6,795.00 | 6,373.30 | 1,345.17 | 6,497.92 | 0.00 | 0.00 | 0.00 |
| 14,600.00 | 90.00 | 359.84 | 6,795.00 | 6,473.30 | 1,344.89 | 6,596.92 | 0.00 | 0.00 | 0.00 |
| 14,700.00 | 90.00 | 359.84 | 6,795.00 | 6,573.30 | 1,344.62 | 6,695.93 | 0.00 | 0.00 | 0.00 |
| 14,800.00 | 90.00 | 359.84 | 6,795.00 | 6,673.30 | 1,344.35 | 6,794.94 | 0.00 | 0.00 | 0.00 |
| 14,900.00 | 90.00 | 359.84 | 6,795.00 | 6,773.30 | 1,344.08 | 6,893.94 | 0.00 | 0.00 | 0.00 |
| 15,000.00 | 90.00 | 359.84 | 6,795.00 | 6,873.30 | 1,343.80 | 6,992.95 | 0.00 | 0.00 | 0.00 |
| 15,100.00 | 90.00 | 359.84 | 6,795.00 | 6,973.30 | 1,343.53 | 7,091.96 | 0.00 | 0.00 | 0.00 |
| 15,200.00 | 90.00 | 359.84 | 6,795.00 | 7,073.29 | 1,343.26 | 7,190.96 | 0.00 | 0.00 | 0.00 |
| 15,300.00 | 90.00 | 359.84 | 6,795.00 | 7,173.29 | 1,342.98 | 7,289.97 | 0.00 | 0.00 | 0.00 |
| 15,400.00 | 90.00 | 359.84 | 6,795.00 | 7,273.29 | 1,342.71 | 7,388.97 | 0.00 | 0.00 | 0.00 |
| 15,500.00 | 90.00 | 359.84 | 6,795.00 | 7,373.29 | 1,342.44 | 7,487.98 | 0.00 | 0.00 | 0.00 |
| 15,600.00 | 90.00 | 359.84 | 6,795.00 | 7,473.29 | 1,342.17 | 7,586.99 | 0.00 | 0.00 | 0.00 |
| 15,700.00 | 90.00 | 359.84 | 6,795.00 | 7,573.29 | 1,341.89 | 7,685.99 | 0.00 | 0.00 | 0.00 |
| 15,800.00 | 90.00 | 359.84 | 6,795.00 | 7,673.29 | 1,341.62 | 7,785.00 | 0.00 | 0.00 | 0.00 |
| 15,900.00 | 90.00 | 359.84 | 6,795.00 | 7,773.29 | 1,341.35 | 7,884.01 | 0.00 | 0.00 | 0.00 |
| 16,000.00 | 90.00 | 359.84 | 6,795.00 | 7,873.29 | 1,341.07 | 7,983.01 | 0.00 | 0.00 | 0.00 |
| 16,100.00 | 90.00 | 359.84 | 6,795.00 | 7,973.29 | 1,340.80 | 8,082.02 | 0.00 | 0.00 | 0.00 |
| 16,200.00 | 90.00 | 359.84 | 6,795.00 | 8,073.29 | 1,340.53 | 8,181.02 | 0.00 | 0.00 | 0.00 |
| 16,300.00 | 90.00 | 359.84 | 6,795.00 | 8,173.29 | 1,340.26 | 8,280.03 | 0.00 | 0.00 | 0.00 |
| 16,400.00 | 90.00 | 359.84 | 6,795.00 | 8,273.29 | 1,339.98 | 8,379.04 | 0.00 | 0.00 | 0.00 |
| 16,500.00 | 90.00 | 359.84 | 6,795.00 | 8,373.29 | 1,339.71 | 8,478.04 | 0.00 | 0.00 | 0.00 |
| 16,600.00 | 90.00 | 359.84 | 6,795.00 | 8,473.29 | 1,339.44 | 8,577.05 | 0.00 | 0.00 | 0.00 |
| 16,700.00 | 90.00 | 359.84 | 6,795.00 | 8,573.29 | 1,339.16 | 8,676.06 | 0.00 | 0.00 | 0.00 |
| 16,800.00 | 90.00 | 359.84 | 6,795.00 | 8,673.29 | 1,338.89 | 8,775.06 | 0.00 | 0.00 | 0.00 |
| 16,900.00 | 90.00 | 359.84 | 6,795.00 | 8,773.29 | 1,338.62 | 8,874.07 | 0.00 | 0.00 | 0.00 |
| 17,000.00 | 90.00 | 359.84 | 6,795.00 | 8,873.29 | 1,338.35 | 8,973.07 | 0.00 | 0.00 | 0.00 |
| 17,100.00 | 90.00 | 359.84 | 6,795.00 | 8,973.29 | 1,338.07 | 9,072.08 | 0.00 | 0.00 | 0.00 |
| 17,200.00 | 90.00 | 359.84 | 6,795.00 | 9,073.29 | 1,337.80 | 9,171.09 | 0.00 | 0.00 | 0.00 |
| 17,300.00 | 90.00 | 359.84 | 6,795.00 | 9,173.29 | 1,337.53 | 9,270.09 | 0.00 | 0.00 | 0.00 |
| 17,400.00 | 90.00 | 359.84 | 6,795.00 | 9,273.29 | 1,337.25 | 9,369.10 | 0.00 | 0.00 | 0.00 |
| 17,500.00 | 90.00 | 359.84 | 6,795.00 | 9,373.29 | 1,336.98 | 9,468.11 | 0.00 | 0.00 | 0.00 |
| 17,600.00 | 90.00 | 359.84 | 6,795.00 | 9,473.29 | 1,336.71 | 9,567.11 | 0.00 | 0.00 | 0.00 |
| 17,700.00 | 90.00 | 359.84 | 6,795.00 | 9,573.29 | 1,336.44 | 9,666.12 | 0.00 | 0.00 | 0.00 |
| 17,723.12 | 90.00 | 359.84 | 6,795.00 | 9,596.41 | 1,336.37 | 9,689.01 | 0.00 | 0.00 | 0.00 |
| TD @ 17723.12' MD/6795.00' TVD | | | | | | | | | |

Noble Energy, Inc.

Planning Report

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|------------------|----------------------------|-------------------------------------|------------------------|
| Database: | EDMP | Local Co-ordinate Reference: | Well Guttersen D23-711 |
| Company: | Northern Region - DJ Basin | TVD Reference: | KB @ 4840.00ft |
| Project: | Mustang | MD Reference: | KB @ 4840.00ft |
| Site: | D Section 23 | North Reference: | Grid |
| Well: | Guttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 | | |

| Design Targets | | | | | | | | | |
|--|-----------|----------|----------|-----------|----------|--------------|--------------|------------|--------------|
| Target Name | Dip Angle | Dip Dir. | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| - hit/miss target | (°) | (°) | (ft) | (ft) | (ft) | (usft) | (usft) | | |
| - Shape | | | | | | | | | |
| Guttersen D23-711 SI - plan hits target center - Point | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1,319,304.72 | 3,275,346.51 | 40.2056870 | -104.5141651 |
| Guttersen D23-711 KI - plan hits target center - Point | 0.00 | 0.00 | 5,998.07 | -1,139.66 | 1,035.33 | 1,318,165.06 | 3,276,381.84 | 40.2025271 | -104.5105041 |
| Guttersen D23-711 TI - plan hits target center - Point | 0.00 | 0.00 | 6,795.00 | -550.07 | 1,348.71 | 1,318,754.65 | 3,276,695.22 | 40.2041358 | -104.5093587 |
| Guttersen D23-711 BI - plan hits target center - Point | 0.00 | 0.00 | 6,795.00 | 9,596.41 | 1,336.37 | 1,328,901.11 | 3,276,682.88 | 40.2319876 | -104.5089969 |

| Plan Annotations | | | | |
|------------------|----------------|-------------------|----------|--|
| Measured Depth | Vertical Depth | Local Coordinates | | Comment |
| (ft) | (ft) | +N/-S | +E/-W | |
| | | (ft) | (ft) | |
| 2,600.00 | 2,600.00 | 0.00 | 0.00 | Build: 3°/100' |
| 3,525.06 | 3,489.32 | -162.61 | 147.72 | Hold: 27.75° Inc, 137.75° Azm |
| 6,359.91 | 5,998.08 | -1,139.66 | 1,035.33 | KOP: Build 9°/100' @ 6359.91' MD |
| 7,576.39 | 6,795.00 | -550.07 | 1,348.71 | LP: 7576.39' MD, 90.00° Inc, 2.00° Azm |
| 7,876.39 | 6,795.00 | -250.25 | 1,359.18 | Turn: 1°/100' |
| 8,092.02 | 6,795.00 | -34.66 | 1,362.65 | EOT: 90.00° Inc, 359.84° Azm |
| 17,723.12 | 6,795.00 | 9,596.41 | 1,336.37 | TD @ 17723.12' MD/6795.00' TVD |

Northern Region - DJ Basin

Mustang

D Section 23

Guttersen D23-711

Wellbore #1

Plan #1

Anticollision Summary Report

15 August, 2018

Noble Energy, Inc.

Anticollision Summary Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|------------------------|
| Company: | Northern Region - DJ Basin | Local Co-ordinate Reference: | Well Guttersen D23-711 |
| Project: | Mustang | TVD Reference: | KB @ 4840.00ft |
| Reference Site: | D Section 23 | MD Reference: | KB @ 4840.00ft |
| Site Error: | 0.00 ft | North Reference: | Grid |
| Reference Well: | Guttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Reference | Plan #1 | | |
|------------------------------|---|----------------|---------------------|
| 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 10,000.00 ft | Error Surface: | Pedal Curve |
| Warning Levels Evaluated at: | 2.00 Sigma | Casing Method: | Not applied |

| Survey Tool Program | | Date | 7/31/2018 | | |
|---------------------|-----------|-----------------------|---------------|--|--|
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 0.00 | 17,723.12 | Plan #1 (Wellbore #1) | 2_MWD+IFR1+MS | A008Mb: IFR dec & multi-station analysis | |

| 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 14 | | | | | | |
| Spike D 14-09 (SI) - Wellbore #1 - Gyro Surveys | 14,804.81 | 6,723.16 | 458.52 | 369.54 | 5.153 | CC, ES, SF |
| Spike State D 14-13 (SI) - Wellbore #1 - Gyro Surveys | 13,192.11 | 6,826.94 | 4,607.21 | 4,529.78 | 59.500 | CC |
| Spike State D 14-13 (SI) - Wellbore #1 - Gyro Surveys | 13,200.00 | 6,826.95 | 4,607.22 | 4,529.73 | 59.461 | ES |
| Spike State D 14-13 (SI) - Wellbore #1 - Gyro Surveys | 14,300.00 | 6,878.31 | 4,738.53 | 4,655.14 | 56.823 | SF |
| Dalbey D 14-1 (SI) - Wellbore #1 - Gyro Surveys | 17,227.46 | 6,719.54 | 745.08 | 637.57 | 6.930 | CC, ES, SF |
| Dalbey D 14-2 (SI) - Wellbore #1 - Gyro Surveys | 16,981.65 | 6,725.83 | 1,660.37 | 1,554.71 | 15.714 | CC, ES |
| Dalbey D 14-2 (SI) - Wellbore #1 - Gyro Surveys | 17,100.00 | 6,726.61 | 1,664.58 | 1,558.47 | 15.688 | SF |
| Dalbey D 14-3 (SI) - Wellbore #1 - Gyro Surveys | 17,198.04 | 6,770.03 | 3,094.70 | 2,987.15 | 28.775 | CC |
| Dalbey D 14-3 (SI) - Wellbore #1 - Gyro Surveys | 17,200.00 | 6,770.03 | 3,094.70 | 2,987.14 | 28.771 | ES |
| Dalbey D 14-3 (SI) - Wellbore #1 - Gyro Surveys | 17,500.00 | 6,771.00 | 3,109.40 | 3,000.25 | 28.489 | SF |
| Dalbey D 14-6 (SI) - Wellbore #1 - Gyro Surveys | 16,033.38 | 6,748.26 | 3,302.72 | 3,204.43 | 33.600 | CC, ES |
| Dalbey D 14-6 (SI) - Wellbore #1 - Gyro Surveys | 16,500.00 | 6,748.64 | 3,335.52 | 3,234.85 | 33.132 | SF |
| Dalbey D 14-7 (SI) - Wellbore #1 - Gyro Surveys | 15,901.18 | 6,750.62 | 2,044.46 | 1,947.01 | 20.981 | CC, ES |
| Dalbey D 14-7 (SI) - Wellbore #1 - Gyro Surveys | 16,000.00 | 6,750.85 | 2,046.84 | 1,948.91 | 20.901 | SF |
| Dalbey D 14-8 (SI) - Wellbore #1 - Gyro Surveys | 15,941.13 | 6,720.49 | 792.34 | 694.73 | 8.117 | CC, ES, SF |
| Guttersen State D 14-23 (SI) - Wellbore #1 - Gyro Survey | 13,864.09 | 6,776.02 | 1,244.77 | 1,162.38 | 15.108 | CC, ES |
| Guttersen State D 14-23 (SI) - Wellbore #1 - Gyro Survey | 13,900.00 | 6,775.95 | 1,245.29 | 1,162.76 | 15.090 | SF |
| Guttersen State D 14-24 (PR) - Wellbore #1 - Gyro Surve | 13,979.67 | 6,752.78 | 2,707.98 | 2,625.20 | 32.712 | CC |
| Guttersen State D 14-24 (PR) - Wellbore #1 - Gyro Surve | 14,000.00 | 6,752.72 | 2,708.06 | 2,625.15 | 32.665 | ES |
| Guttersen State D 14-24 (PR) - Wellbore #1 - Gyro Surve | 14,300.00 | 6,751.84 | 2,726.86 | 2,642.48 | 32.318 | SF |
| Guttersen State D 14-33 (PR) - Wellbore #1 - Gyro Surve | 14,048.04 | 6,894.18 | 4,968.22 | 4,884.18 | 59.111 | CC |
| Guttersen State D 14-33 (PR) - Wellbore #1 - Gyro Surve | 14,100.00 | 6,893.84 | 4,968.50 | 4,884.11 | 58.877 | ES |
| Guttersen State D 14-33 (PR) - Wellbore #1 - Gyro Surve | 15,200.00 | 6,887.19 | 5,100.02 | 5,009.76 | 56.504 | SF |
| HSR-Guttersen State 4-14 (PA) - Wellbore #1 - Gyro Sur | 17,170.32 | 6,784.16 | 4,568.78 | 4,462.02 | 42.795 | CC |
| HSR-Guttersen State 4-14 (PA) - Wellbore #1 - Gyro Sur | 17,200.00 | 6,784.05 | 4,568.87 | 4,461.91 | 42.715 | ES |
| HSR-Guttersen State 4-14 (PA) - Wellbore #1 - Gyro Sur | 17,723.12 | 6,782.01 | 4,602.10 | 4,492.09 | 41.833 | SF |
| HSR-Guttersen State 5-14 (PA) - Wellbore #1 - Gyro Sur | 15,974.43 | 6,749.58 | 4,538.98 | 4,441.79 | 46.704 | CC |
| HSR-Guttersen State 5-14 (PA) - Wellbore #1 - Gyro Sur | 16,000.00 | 6,749.51 | 4,539.05 | 4,441.69 | 46.622 | ES |
| HSR-Guttersen State 5-14 (PA) - Wellbore #1 - Gyro Sur | 16,800.00 | 6,747.53 | 4,613.44 | 4,511.73 | 45.357 | SF |
| Spike D 14-16 (SI) - Wellbore #1 - Gyro Surveys | 13,172.32 | 6,748.39 | 512.43 | 435.32 | 6.645 | CC, ES, SF |
| Spike State D 14-11 (PR) - Wellbore #1 - Gyro Surveys | 14,808.41 | 6,774.57 | 3,076.45 | 2,987.37 | 34.534 | CC, ES |
| Spike State D 14-11 (PR) - Wellbore #1 - Gyro Surveys | 15,200.00 | 6,771.24 | 3,101.27 | 3,010.19 | 34.047 | SF |
| Spike State D 14-12 (PR) - Wellbore #1 - Gyro Surveys | 14,768.89 | 6,778.05 | 4,606.43 | 4,517.58 | 51.842 | CC |
| Spike State D 14-12 (PR) - Wellbore #1 - Gyro Surveys | 14,800.00 | 6,778.02 | 4,606.54 | 4,517.48 | 51.723 | ES |
| Spike State D 14-12 (PR) - Wellbore #1 - Gyro Surveys | 15,700.00 | 6,777.25 | 4,699.60 | 4,605.67 | 50.036 | SF |
| Spike State D 14-14 (SI) - Wellbore #1 - Gyro Surveys | 13,114.30 | 6,773.61 | 3,111.04 | 3,034.46 | 40.624 | CC, ES |
| Spike State D 14-14 (SI) - Wellbore #1 - Gyro Surveys | 13,600.00 | 6,775.87 | 3,148.72 | 3,069.68 | 39.835 | 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 - DJ Basin | Local Co-ordinate Reference: | Well Guttersen D23-711 |
| Project: | Mustang | TVD Reference: | KB @ 4840.00ft |
| Reference Site: | D Section 23 | MD Reference: | KB @ 4840.00ft |
| Site Error: | 0.00 ft | North Reference: | Grid |
| Reference Well: | Guttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Plan #1 | 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 | | | | | | |
| D Section 14 | | | | | | |
| Spike State D 14-15 (SI) - Wellbore #1 - Gyro Surveys | 13,222.52 | 6,840.40 | 1,785.83 | 1,707.85 | 22.900 | CC, ES |
| Spike State D 14-15 (SI) - Wellbore #1 - Gyro Surveys | 13,400.00 | 6,837.66 | 1,794.63 | 1,715.96 | 22.813 | SF |
| Spike State D14-13J (SI) - Wellbore #1 - Gyro Surveys | 13,980.87 | 6,801.29 | 4,152.55 | 4,069.46 | 49.978 | CC |
| Spike State D14-13J (SI) - Wellbore #1 - Gyro Surveys | 14,000.00 | 6,801.29 | 4,152.59 | 4,069.38 | 49.904 | ES |
| Spike State D14-13J (SI) - Wellbore #1 - Gyro Surveys | 14,800.00 | 6,801.22 | 4,232.56 | 4,145.11 | 48.400 | SF |
| Spike State GWS D 14-10 (SI) - Wellbore #1 - Gyro Surv | 14,465.35 | 6,754.40 | 1,898.23 | 1,811.71 | 21.940 | CC, ES |
| Spike State GWS D 14-10 (SI) - Wellbore #1 - Gyro Surv | 14,600.00 | 6,751.50 | 1,903.00 | 1,815.89 | 21.847 | SF |

Noble Energy, Inc.

Anticollision Summary Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-------------------------|
| Company: | Northern Region - DJ Basin | Local Co-ordinate Reference: | Well Guttersten D23-711 |
| Project: | Mustang | TVD Reference: | KB @ 4840.00ft |
| Reference Site: | D Section 23 | MD Reference: | KB @ 4840.00ft |
| Site Error: | 0.00 ft | North Reference: | Grid |
| Reference Well: | Guttersten D23-711 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

Summary

| Site Name Offset Well - Wellbore - Design | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
|--|--|-------------------------------------|--|---|----------------------|------------|
| D Section 15 | | | | | | |
| Cally Blue D 15-12 (PR) - Wellbore #1 - Gyro Surveys | 14,732.17 | 6,770.84 | 9,977.64 | 9,889.14 | 112.743 | CC |
| Cally Blue D 15-12 (PR) - Wellbore #1 - Gyro Surveys | 14,800.00 | 6,770.61 | 9,977.87 | 9,888.89 | 112.135 | ES |
| Cally Blue D 15-12 (PR) - Wellbore #1 - Gyro Surveys | 15,400.00 | 6,768.65 | 9,999.96 | 9,906.81 | 107.350 | SF |
| Cally Blue D 15-14 (PR) - Wellbore #1 - Gyro Surveys | 13,150.86 | 6,774.31 | 8,436.38 | 8,359.52 | 109.766 | CC |
| Cally Blue D 15-14 (PR) - Wellbore #1 - Gyro Surveys | 13,200.00 | 6,774.34 | 8,436.52 | 8,359.33 | 109.297 | ES |
| Cally Blue D 15-14 (PR) - Wellbore #1 - Gyro Surveys | 16,700.00 | 6,776.31 | 9,152.54 | 9,055.96 | 94.766 | SF |
| Cally Blue D15-04J - Wellbore #1 - Wellbore #1- As Drille | 13,645.62 | 6,832.15 | 6,208.69 | 6,127.95 | 76.896 | CC |
| Cally Blue D15-04J - Wellbore #1 - Wellbore #1- As Drille | 13,700.00 | 6,831.81 | 6,208.93 | 6,127.83 | 76.556 | ES |
| Cally Blue D15-04J - Wellbore #1 - Wellbore #1- As Drille | 15,500.00 | 6,820.95 | 6,479.69 | 6,388.75 | 71.251 | SF |
| Cally Blue D15-09 - Wellbore #1 - Wellbore #1- As Drille | 14,524.08 | 6,849.48 | 6,003.24 | 5,915.92 | 68.751 | CC |
| Cally Blue D15-09 - Wellbore #1 - Wellbore #1- As Drille | 14,600.00 | 6,849.31 | 6,003.72 | 5,915.89 | 68.353 | ES |
| Cally Blue D15-09 - Wellbore #1 - Wellbore #1- As Drille | 16,200.00 | 6,845.04 | 6,232.79 | 6,136.24 | 64.556 | SF |
| Cally Blue D15-10 - Wellbore #1 - Wellbore #1- As Drille | 14,641.68 | 6,796.44 | 7,249.81 | 7,161.88 | 82.452 | CC |
| Cally Blue D15-10 - Wellbore #1 - Wellbore #1- As Drille | 14,700.00 | 6,796.74 | 7,250.04 | 7,161.71 | 82.075 | ES |
| Cally Blue D15-10 - Wellbore #1 - Wellbore #1- As Drille | 17,000.00 | 6,809.26 | 7,623.73 | 7,522.47 | 75.290 | SF |
| Cally Blue D15-11 (PA) - Wellbore #1 - Gyro Surveys | 14,779.07 | 6,816.26 | 8,461.41 | 8,372.36 | 95.019 | CC |
| Cally Blue D15-11 (PA) - Wellbore #1 - Gyro Surveys | 14,800.00 | 6,816.16 | 8,461.44 | 8,372.24 | 94.862 | ES |
| Cally Blue D15-11 (PA) - Wellbore #1 - Gyro Surveys | 17,723.12 | 6,801.89 | 8,958.95 | 8,852.97 | 84.534 | SF |
| Cally Blue D15-15 - Wellbore #1 - Wellbore #1- As Drille | 13,337.35 | 6,749.72 | 7,207.35 | 7,129.25 | 92.281 | CC |
| Cally Blue D15-15 - Wellbore #1 - Wellbore #1- As Drille | 13,400.00 | 6,750.08 | 7,207.62 | 7,129.10 | 91.789 | ES |
| Cally Blue D15-15 - Wellbore #1 - Wellbore #1- As Drille | 15,900.00 | 6,766.87 | 7,649.36 | 7,556.94 | 82.762 | SF |
| Cally D15-02 - Wellbore #1 - Wellbore #1-As Drilled | 17,275.33 | 6,754.94 | 7,181.42 | 7,073.48 | 66.536 | CC |
| Cally D15-02 - Wellbore #1 - Wellbore #1-As Drilled | 17,300.00 | 6,754.81 | 7,181.46 | 7,073.35 | 66.427 | ES |
| Cally D15-02 - Wellbore #1 - Wellbore #1-As Drilled | 17,723.12 | 6,752.57 | 7,195.36 | 7,084.35 | 64.814 | SF |
| Cally White D15-01 - Wellbore #1 - Wellbore #1- As Drille | 17,220.82 | 6,794.29 | 5,877.73 | 5,770.01 | 54.565 | CC |
| Cally White D15-01 - Wellbore #1 - Wellbore #1- As Drille | 17,300.00 | 6,793.70 | 5,878.26 | 5,769.99 | 54.292 | ES |
| Cally White D15-01 - Wellbore #1 - Wellbore #1- As Drille | 17,723.12 | 6,790.60 | 5,899.15 | 5,788.16 | 53.150 | SF |
| Cally White D15-07 - Wellbore #1 - Wellbore #1- As Drille | 15,964.55 | 6,829.91 | 7,322.38 | 7,224.25 | 74.617 | CC |
| Cally White D15-07 - Wellbore #1 - Wellbore #1- As Drille | 16,000.00 | 6,829.24 | 7,322.47 | 7,224.09 | 74.429 | ES |
| Cally White D15-07 - Wellbore #1 - Wellbore #1- As Drille | 17,723.12 | 6,791.62 | 7,530.54 | 7,422.05 | 69.415 | SF |
| Cally White D15-08 - Wellbore #1 - Wellbore #1- As Drille | 15,940.67 | 6,825.59 | 5,847.84 | 5,749.85 | 59.675 | CC |
| Cally White D15-08 - Wellbore #1 - Wellbore #1- As Drille | 16,000.00 | 6,825.36 | 5,848.15 | 5,749.74 | 59.430 | ES |
| Cally White D15-08 - Wellbore #1 - Wellbore #1- As Drille | 17,300.00 | 6,820.28 | 6,003.75 | 5,898.13 | 56.844 | SF |
| Chandler State D15-72-1HN - Original Drilling - Original I | 14,169.53 | 10,184.17 | 5,555.25 | 5,459.65 | 58.115 | CC |
| Chandler State D15-72-1HN - Original Drilling - Original I | 15,900.00 | 15,900.00 | 5,581.84 | 5,453.17 | 43.382 | ES, SF |
| Chandler State D15-73-1HN - Original Drilling - Original I | 12,704.24 | 11,629.00 | 6,109.06 | 6,013.93 | 64.216 | CC, ES |
| Chandler State D15-73-1HN - Original Drilling - Original I | 15,700.00 | 15,700.00 | 6,183.55 | 6,049.22 | 46.032 | SF |
| Chandler State D15-74-1HN - Original Drilling - Original I | 14,500.00 | 14,500.00 | 6,886.04 | 6,691.23 | 35.347 | SF |
| Chandler State D15-74-1HN - Original Drilling - Original I | 17,723.12 | 5,418.68 | 6,711.97 | 6,608.08 | 64.606 | CC, ES |
| Chandler State D23-79HN - Original Drilling - Original Dr | 5,281.77 | 12,200.02 | 4,863.56 | 4,756.87 | 45.585 | CC |
| Chandler State D23-79HN - Original Drilling - Original Dr | 5,300.00 | 12,200.02 | 4,863.59 | 4,756.73 | 45.514 | ES |
| Chandler State D23-79HN - Original Drilling - Original Dr | 7,800.00 | 12,200.02 | 5,152.74 | 5,032.18 | 42.741 | SF |
| Duff D15-5 (PR) - Wellbore #1 - Gyro Surveys | 15,921.36 | 7,046.57 | 9,909.47 | 9,811.51 | 101.151 | CC |
| Duff D15-5 (PR) - Wellbore #1 - Gyro Surveys | 16,000.00 | 7,044.50 | 9,909.79 | 9,811.25 | 100.573 | ES |
| Duff D15-5 (PR) - Wellbore #1 - Gyro Surveys | 17,200.00 | 7,012.92 | 9,991.57 | 9,884.90 | 93.665 | SF |
| Guttersten D 15-21 (PR) - Wellbore #1 - Gyro Surveys | 15,191.09 | 6,810.97 | 7,796.02 | 7,703.90 | 84.634 | CC |
| Guttersten D 15-21 (PR) - Wellbore #1 - Gyro Surveys | 15,200.00 | 6,811.02 | 7,796.02 | 7,703.84 | 84.576 | ES |
| Guttersten D 15-21 (PR) - Wellbore #1 - Gyro Surveys | 17,723.12 | 6,824.97 | 8,196.88 | 8,090.25 | 76.871 | SF |
| Guttersten D 15-24 (PR) - Wellbore #1 - Gyro Surveys | 13,971.50 | 6,818.01 | 7,896.90 | 7,813.93 | 95.176 | CC |
| Guttersten D 15-24 (PR) - Wellbore #1 - Gyro Surveys | 14,000.00 | 6,817.94 | 7,896.95 | 7,813.79 | 94.952 | ES |
| Guttersten D 15-24 (PR) - Wellbore #1 - Gyro Surveys | 16,900.00 | 6,810.15 | 8,422.42 | 8,323.00 | 84.719 | SF |
| Guttersten D 15-29 (SI) - Wellbore #1 - Gyro Surveys | 17,723.12 | 6,686.23 | 9,195.99 | 9,084.84 | 82.732 | CC, ES, SF |
| Guttersten D 22-28 (PR) - Wellbore #1 - Gyro Surveys | 12,757.21 | 6,802.24 | 7,987.71 | 7,913.49 | 107.622 | 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 - DJ Basin | Local Co-ordinate Reference: | Well Guttersen D23-711 |
| Project: | Mustang | TVD Reference: | KB @ 4840.00ft |
| Reference Site: | D Section 23 | MD Reference: | KB @ 4840.00ft |
| Site Error: | 0.00 ft | North Reference: | Grid |
| Reference Well: | Guttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

Summary

| Site Name Offset Well - Wellbore - Design | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
|--|--|-------------------------------------|--|---|----------------------|--------------|
| D Section 15 | | | | | | |
| Guttersen D 22-28 (PR) - Wellbore #1 - Gyro Surveys | 12,800.00 | 6,802.28 | 7,987.82 | 7,913.32 | 107.216 | ES |
| Guttersen D 22-28 (PR) - Wellbore #1 - Gyro Surveys | 16,000.00 | 6,805.67 | 8,620.85 | 8,528.70 | 93.555 | SF |
| Guttersen D14-32 - Wellbore #1 - Wellbore #1- As Drillec | 15,388.62 | 6,823.55 | 5,391.79 | 5,298.07 | 57.529 | CC |
| Guttersen D14-32 - Wellbore #1 - Wellbore #1- As Drillec | 15,400.00 | 6,823.68 | 5,391.80 | 5,298.00 | 57.480 | ES |
| Guttersen D14-32 - Wellbore #1 - Wellbore #1- As Drillec | 16,600.00 | 6,836.52 | 5,526.18 | 5,425.65 | 54.969 | SF |
| Guttersen D15-17 - Wellbore #1 - Wellbore #1- As Drillec | 16,668.06 | 6,836.16 | 6,557.44 | 6,453.80 | 63.274 | CC |
| Guttersen D15-17 - Wellbore #1 - Wellbore #1- As Drillec | 16,700.00 | 6,836.47 | 6,557.52 | 6,453.65 | 63.135 | ES |
| Guttersen D15-17 - Wellbore #1 - Wellbore #1- As Drillec | 17,723.12 | 6,846.08 | 6,641.76 | 6,531.51 | 60.240 | SF |
| Guttersen D15-18 (SI) - Wellbore #1 - Gyro Surveys | 16,804.79 | 6,876.96 | 7,711.91 | 7,607.19 | 73.644 | CC |
| Guttersen D15-18 (SI) - Wellbore #1 - Gyro Surveys | 16,900.00 | 6,876.49 | 7,712.50 | 7,607.10 | 73.172 | ES |
| Guttersen D15-18 (SI) - Wellbore #1 - Gyro Surveys | 17,723.12 | 6,872.39 | 7,766.40 | 7,655.55 | 70.066 | SF |
| Guttersen D15-20 (PR) - Wellbore #1 - Gyro Surveys | 15,354.99 | 6,873.21 | 9,267.35 | 9,173.81 | 99.082 | CC |
| Guttersen D15-20 (PR) - Wellbore #1 - Gyro Surveys | 15,400.00 | 6,873.21 | 9,267.45 | 9,173.60 | 98.743 | ES |
| Guttersen D15-20 (PR) - Wellbore #1 - Gyro Surveys | 17,723.12 | 6,873.32 | 9,565.13 | 9,456.73 | 88.242 | SF |
| Guttersen D15-22 - Wellbore #1 - Wellbore #1- As Drillec | 15,074.05 | 6,847.18 | 6,567.69 | 6,476.25 | 71.819 | CC |
| Guttersen D15-22 - Wellbore #1 - Wellbore #1- As Drillec | 15,100.00 | 6,847.43 | 6,567.74 | 6,476.11 | 71.678 | ES |
| Guttersen D15-22 - Wellbore #1 - Wellbore #1- As Drillec | 17,000.00 | 6,862.98 | 6,844.25 | 6,742.00 | 66.937 | SF |
| Guttersen D15-28 (SI) - Wellbore #1 - Gyro Surveys | 17,723.12 | 6,869.99 | 7,897.26 | 7,785.36 | 70.572 | CC, ES, SF |
| Guttersen D15-30 (SI) - Wellbore #1 - Gyro Surveys | | | | | | Out of range |
| Guttersen D22-27 - Wellbore #1 - Wellbore #1- As Drillec | 12,846.81 | 6,821.71 | 6,599.92 | 6,524.96 | 88.040 | CC |
| Guttersen D22-27 - Wellbore #1 - Wellbore #1- As Drillec | 12,900.00 | 6,821.59 | 6,600.14 | 6,524.83 | 87.639 | ES |
| Guttersen D22-27 - Wellbore #1 - Wellbore #1- As Drillec | 15,100.00 | 6,817.24 | 6,973.94 | 6,886.68 | 79.925 | SF |
| Guttersen D23-69HN - Plan A - Plan A | 12,532.59 | 11,450.02 | 485.29 | 406.05 | 6.125 | CC |
| Guttersen D23-69HN - Plan A - Plan A | 12,600.00 | 11,450.02 | 489.94 | 403.57 | 5.672 | ES |
| Guttersen D23-69HN - Plan A - Plan A | 12,800.00 | 11,450.02 | 554.08 | 437.84 | 4.766 | SF |
| HSR Guttersen 03-15 (SI) - Wellbore #1 - Gyro Surveys | 17,254.04 | 6,771.17 | 8,551.79 | 8,443.95 | 79.305 | CC |
| HSR Guttersen 03-15 (SI) - Wellbore #1 - Gyro Surveys | 17,300.00 | 6,771.59 | 8,551.91 | 8,443.74 | 79.059 | ES |
| HSR Guttersen 03-15 (SI) - Wellbore #1 - Gyro Surveys | 17,723.12 | 6,775.37 | 8,564.64 | 8,453.46 | 77.034 | SF |
| HSR Guttersen 6-15 (SI) - Wellbore #1 - Gyro Surveys | 15,800.30 | 6,871.81 | 8,378.90 | 8,281.98 | 86.449 | CC |
| HSR Guttersen 6-15 (SI) - Wellbore #1 - Gyro Surveys | 15,900.00 | 6,872.03 | 8,379.50 | 8,281.86 | 85.824 | ES |
| HSR Guttersen 6-15 (SI) - Wellbore #1 - Gyro Surveys | 17,723.12 | 6,827.99 | 8,596.71 | 8,487.85 | 78.971 | SF |
| Mills UPRC D 15-04 (SI) - Wellbore #1 - Gyro Surveys | 16,952.34 | 6,738.54 | 9,522.48 | 9,417.12 | 90.381 | CC |
| Mills UPRC D 15-04 (SI) - Wellbore #1 - Gyro Surveys | 17,000.00 | 6,738.78 | 9,522.60 | 9,416.89 | 90.082 | ES |
| Mills UPRC D 15-04 (SI) - Wellbore #1 - Gyro Surveys | 17,723.12 | 6,742.20 | 9,553.62 | 9,442.81 | 86.216 | SF |
| Two E Ranch 1-15B (SI) - Wellbore #1 - Gyro Surveys | 13,597.92 | 6,707.38 | 9,529.36 | 9,449.81 | 119.800 | CC |
| Two E Ranch 1-15B (SI) - Wellbore #1 - Gyro Surveys | 13,700.00 | 6,707.32 | 9,529.90 | 9,449.65 | 118.756 | ES |
| Two E Ranch 1-15B (SI) - Wellbore #1 - Gyro Surveys | 16,600.00 | 6,705.59 | 9,991.05 | 9,893.21 | 102.112 | 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 - DJ Basin | Local Co-ordinate Reference: | Well Guttersen D23-711 |
| Project: | Mustang | TVD Reference: | KB @ 4840.00ft |
| Reference Site: | D Section 23 | MD Reference: | KB @ 4840.00ft |
| Site Error: | 0.00 ft | North Reference: | Grid |
| Reference Well: | Guttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Plan #1 | 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 |
| D Section 23 | | | | | | |
| Guttersen 23-20 (SI) - Wellbore #1 - Gyro Surveys | 1,660.97 | 1,667.08 | 3,248.38 | 3,237.00 | 285.474 | CC |
| Guttersen 23-20 (SI) - Wellbore #1 - Gyro Surveys | 2,000.00 | 1,978.21 | 3,249.38 | 3,235.70 | 237.504 | ES |
| Guttersen 23-20 (SI) - Wellbore #1 - Gyro Surveys | 11,100.00 | 6,811.52 | 4,044.78 | 3,982.74 | 65.202 | SF |
| Guttersen 23-32 (SI) - Wellbore #1 - Gyro Surveys | 10,646.61 | 6,810.03 | 1,772.28 | 1,711.41 | 29.116 | CC, ES |
| Guttersen 23-32 (SI) - Wellbore #1 - Gyro Surveys | 10,800.00 | 6,809.69 | 1,778.90 | 1,717.42 | 28.935 | SF |
| Guttersen 23-41 (PR) - Wellbore #1 - Gyro Surveys | 11,957.04 | 6,746.87 | 616.26 | 547.50 | 8.963 | CC, ES, SF |
| Guttersen 31-23 (PR) - Wellbore #1 - Gyro Surveys | 11,942.90 | 6,837.78 | 1,956.98 | 1,888.03 | 28.387 | CC, ES |
| Guttersen 31-23 (PR) - Wellbore #1 - Gyro Surveys | 12,100.00 | 6,834.64 | 1,963.27 | 1,893.65 | 28.199 | SF |
| Guttersen 42-23 (PR) - Wellbore #1 - Gyro Surveys | 10,620.48 | 6,773.41 | 639.78 | 579.40 | 10.596 | CC, ES, SF |
| Guttersen D35-720 - Wellbore #1 - Plan #1 | 2,891.37 | 2,909.56 | 119.11 | 99.05 | 5.937 | CC |
| Guttersen D35-720 - Wellbore #1 - Plan #1 | 2,900.00 | 2,918.16 | 119.12 | 99.00 | 5.920 | ES |
| Guttersen D35-720 - Wellbore #1 - Plan #1 | 3,000.00 | 3,017.99 | 121.20 | 100.38 | 5.822 | SF |
| Guttersen D35-730 - Wellbore #1 - Plan #1 | 2,853.36 | 2,872.79 | 148.05 | 128.33 | 7.505 | CC, ES |
| Guttersen D35-730 - Wellbore #1 - Plan #1 | 2,900.00 | 2,919.33 | 148.64 | 128.61 | 7.418 | SF |
| Guttersen D35-740 - Wellbore #1 - Plan #1 | 2,625.98 | 2,629.04 | 181.31 | 163.05 | 9.932 | CC, ES |
| Guttersen D35-740 - Wellbore #1 - Plan #1 | 2,700.00 | 2,702.31 | 183.04 | 164.28 | 9.760 | SF |
| Guttersen D35-750 - Wellbore #1 - Plan #1 | 2,927.31 | 3,146.00 | 1,677.73 | 1,656.81 | 80.171 | CC, ES |
| Guttersen D35-750 - Wellbore #1 - Plan #1 | 6,700.00 | 7,470.67 | 2,418.07 | 2,366.12 | 46.550 | SF |
| Guttersen D35-760 - Wellbore #1 - Plan #1 | 2,400.00 | 2,419.00 | 1,769.65 | 1,752.84 | 105.282 | CC |
| Guttersen D35-760 - Wellbore #1 - Plan #1 | 2,600.00 | 2,610.14 | 1,770.13 | 1,751.97 | 97.493 | ES |
| Guttersen D35-760 - Wellbore #1 - Plan #1 | 6,850.00 | 6,849.18 | 3,090.63 | 3,040.99 | 62.260 | SF |
| Guttersen D35-770 - Wellbore #1 - Plan #1 | 2,308.85 | 2,327.85 | 1,807.13 | 1,790.98 | 111.861 | CC |
| Guttersen D35-770 - Wellbore #1 - Plan #1 | 2,400.00 | 2,412.32 | 1,807.17 | 1,790.39 | 107.679 | ES |
| Guttersen D35-770 - Wellbore #1 - Plan #1 | 6,800.00 | 7,726.39 | 3,723.50 | 3,671.13 | 71.099 | SF |
| Guttersen D35-780 - Wellbore #1 - Plan #1 | 2,108.85 | 2,127.85 | 1,844.62 | 1,829.90 | 125.303 | CC |
| Guttersen D35-780 - Wellbore #1 - Plan #1 | 2,200.00 | 2,200.00 | 1,844.72 | 1,829.41 | 120.522 | ES |
| Guttersen D35-780 - Wellbore #1 - Plan #1 | 6,850.00 | 5,553.89 | 4,090.24 | 4,047.01 | 94.604 | SF |
| Guttersen State D23-721 - Wellbore #1 - Plan #1 | 2,600.00 | 2,599.00 | 37.50 | 19.33 | 2.064 | CC, ES |
| Guttersen State D23-721 - Wellbore #1 - Plan #1 | 2,700.00 | 2,699.55 | 38.53 | 19.68 | 2.044 | SF |
| Guttersen State D23-731 - Wellbore #1 - Plan #1 | 2,568.60 | 2,567.69 | 74.85 | 56.95 | 4.181 | CC |
| Guttersen State D23-731 - Wellbore #1 - Plan #1 | 2,600.00 | 2,599.02 | 74.88 | 56.76 | 4.133 | ES |
| Guttersen State D23-731 - Wellbore #1 - Plan #1 | 2,700.00 | 2,698.60 | 76.95 | 58.18 | 4.098 | SF |
| Guttersen State D23-741 - Wellbore #1 - Plan #1 | 2,600.00 | 2,600.00 | 112.51 | 94.34 | 6.191 | CC, ES |
| Guttersen State D23-741 - Wellbore #1 - Plan #1 | 2,700.00 | 2,700.05 | 114.28 | 95.40 | 6.054 | SF |
| Guttersen State D23-751 - Wellbore #1 - Plan #1 | 2,787.33 | 2,912.91 | 1,721.25 | 1,701.55 | 87.377 | CC |
| Guttersen State D23-751 - Wellbore #1 - Plan #1 | 2,800.00 | 2,927.46 | 1,721.27 | 1,701.48 | 86.981 | ES |
| Guttersen State D23-751 - Wellbore #1 - Plan #1 | 17,723.12 | 17,577.53 | 2,620.70 | 2,443.56 | 14.794 | SF |
| Guttersen State D23-761 - Wellbore #1 - Plan #1 | 2,509.35 | 2,527.35 | 1,772.30 | 1,754.71 | 100.761 | CC |
| Guttersen State D23-761 - Wellbore #1 - Plan #1 | 2,600.00 | 2,616.28 | 1,772.31 | 1,754.08 | 97.221 | ES |
| Guttersen State D23-761 - Wellbore #1 - Plan #1 | 17,723.12 | 17,486.34 | 3,280.58 | 3,104.02 | 18.581 | SF |
| Guttersen State D23-771 - Wellbore #1 - Plan #1 | 2,309.84 | 2,326.84 | 1,809.74 | 1,793.58 | 112.022 | CC |
| Guttersen State D23-771 - Wellbore #1 - Plan #1 | 2,400.00 | 2,412.40 | 1,809.76 | 1,792.98 | 107.834 | ES |
| Guttersen State D23-771 - Wellbore #1 - Plan #1 | 17,723.12 | 17,638.13 | 3,940.50 | 3,764.32 | 22.366 | SF |
| Guttersen State D23-781 - Wellbore #1 - Plan #1 | 2,109.35 | 2,127.35 | 1,847.18 | 1,832.46 | 125.477 | CC |
| Guttersen State D23-781 - Wellbore #1 - Plan #1 | 2,200.00 | 2,212.22 | 1,847.21 | 1,831.86 | 120.351 | ES |
| Guttersen State D23-781 - Wellbore #1 - Plan #1 | 17,723.12 | 17,664.60 | 4,550.35 | 4,374.23 | 25.837 | SF |
| Guttersen State D35-790 - Wellbore #1 - Plan #1 | 7,430.84 | 7,170.89 | 55.34 | 1.36 | 1.025 | Level 2, CC, ES, SF |
| Guttersen USX D 23-17 (PR) - Wellbore #1 - Gyro Surveys | 11,298.62 | 6,790.07 | 1,362.58 | 1,298.05 | 21.117 | CC |
| Guttersen USX D 23-17 (PR) - Wellbore #1 - Gyro Surveys | 11,300.00 | 6,790.07 | 1,362.58 | 1,298.04 | 21.115 | ES |
| Guttersen USX D 23-17 (PR) - Wellbore #1 - Gyro Surveys | 11,400.00 | 6,789.70 | 1,366.34 | 1,301.45 | 21.054 | SF |
| Parker Blue D 23-09 (SI) - Wellbore #1 - Gyro Surveys | 8,983.32 | 6,735.03 | 375.70 | 323.30 | 7.170 | CC, ES, SF |
| Parker Blue D 23-10 (SI) - Wellbore #1 - Gyro Surveys | 427.83 | 393.84 | 1,075.45 | 1,072.95 | 429.518 | CC |
| Parker Blue D 23-10 (SI) - Wellbore #1 - Gyro Surveys | 2,600.00 | 2,561.25 | 1,082.19 | 1,064.33 | 60.592 | 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 - DJ Basin | Local Co-ordinate Reference: | Well Gutttersen D23-711 |
| Project: | Mustang | TVD Reference: | KB @ 4840.00ft |
| Reference Site: | D Section 23 | MD Reference: | KB @ 4840.00ft |
| Site Error: | 0.00 ft | North Reference: | Grid |
| Reference Well: | Gutttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Plan #1 | 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 |
|---|--|-------------------------------------|--|-----------------------------|----------------------|---------|
| D Section 23 | | | | | | |
| Parker Blue D 23-10 (SI) - Wellbore #1 - Gyro Surveys | 9,300.00 | 6,761.26 | 1,645.67 | 1,592.09 | 30.713 | SF |
| Parker Blue D 23-11 (SI) - Wellbore #1 - Gyro Surveys | 459.01 | 455.01 | 2,212.72 | 2,209.89 | 781.847 | CC |
| Parker Blue D 23-11 (SI) - Wellbore #1 - Gyro Surveys | 1,000.00 | 978.31 | 2,214.47 | 2,207.87 | 335.880 | ES |
| Parker Blue D 23-11 (SI) - Wellbore #1 - Gyro Surveys | 10,200.00 | 6,808.29 | 3,175.19 | 3,117.70 | 55.230 | SF |
| Parker Blue D 23-13 (SI) - Wellbore #1 - Gyro Surveys | 0.00 | 0.00 | 3,256.16 | | | |
| Parker Blue D 23-13 (SI) - Wellbore #1 - Gyro Surveys | 1,200.00 | 1,183.83 | 3,259.82 | 3,251.79 | 405.805 | ES |
| Parker Blue D 23-13 (SI) - Wellbore #1 - Gyro Surveys | 9,800.00 | 6,752.05 | 4,860.00 | 4,805.09 | 88.520 | SF |
| Parker Blue D 23-14 (SI) - Wellbore #1 - Gyro Surveys | 0.00 | 0.00 | 1,749.02 | | | |
| Parker Blue D 23-14 (SI) - Wellbore #1 - Gyro Surveys | 2,000.00 | 1,979.11 | 1,754.51 | 1,740.82 | 128.162 | ES |
| Parker Blue D 23-14 (SI) - Wellbore #1 - Gyro Surveys | 8,800.00 | 6,796.94 | 3,189.51 | 3,137.53 | 61.361 | SF |
| Parker Blue D 23-15 (SI) - Wellbore #1 - Gyro Surveys | 696.08 | 665.13 | 481.81 | 477.39 | 109.019 | CC |
| Parker Blue D 23-15 (SI) - Wellbore #1 - Gyro Surveys | 1,300.00 | 1,266.19 | 485.31 | 476.62 | 55.881 | ES |
| Parker Blue D 23-15 (SI) - Wellbore #1 - Gyro Surveys | 3,300.00 | 3,241.22 | 555.03 | 532.47 | 24.600 | SF |
| Parker Blue D 23-3J (SI) - Wellbore #1 - Gyro Surveys | 2,064.24 | 2,069.36 | 3,051.32 | 3,037.08 | 214.305 | CC |
| Parker Blue D 23-3J (SI) - Wellbore #1 - Gyro Surveys | 2,500.00 | 2,484.05 | 3,053.36 | 3,036.12 | 177.121 | ES |
| Parker Blue D 23-3J (SI) - Wellbore #1 - Gyro Surveys | 10,500.00 | 6,851.10 | 4,271.62 | 4,209.41 | 68.660 | SF |
| Parker Red D 23-05 (PR) - Wellbore #1 - Gyro Surveys | 1,916.73 | 1,928.77 | 4,056.06 | 4,042.86 | 307.229 | CC |
| Parker Red D 23-05 (PR) - Wellbore #1 - Gyro Surveys | 2,602.50 | 2,619.86 | 4,056.34 | 4,038.27 | 224.391 | ES |
| Parker Red D 23-05 (PR) - Wellbore #1 - Gyro Surveys | 12,000.00 | 6,782.43 | 4,780.25 | 4,713.51 | 71.624 | SF |
| Parker Red D 23-2J (SI) - Wellbore #1 - Gyro Surveys | 471.86 | 477.87 | 3,667.55 | 3,664.59 | 1,241.140 | CC |
| Parker Red D 23-2J (SI) - Wellbore #1 - Gyro Surveys | 2,000.00 | 1,973.99 | 3,674.77 | 3,661.12 | 269.083 | ES |
| Parker Red D 23-2J (SI) - Wellbore #1 - Gyro Surveys | 11,900.00 | 6,705.70 | 3,856.05 | 3,789.83 | 58.230 | SF |
| Parker Red D 23-3 (PR) - Wellbore #1 - Gyro Surveys | 11,955.56 | 6,721.74 | 3,265.08 | 3,196.90 | 47.893 | CC, ES |
| Parker Red D 23-3 (PR) - Wellbore #1 - Gyro Surveys | 12,600.00 | 6,704.49 | 3,328.03 | 3,256.80 | 46.718 | SF |
| Parker Red D 23-4 (SI) - Wellbore #1 - Gyro Surveys | 11,862.18 | 6,777.59 | 4,599.77 | 4,531.80 | 67.682 | CC |
| Parker Red D 23-4 (SI) - Wellbore #1 - Gyro Surveys | 11,900.00 | 6,777.86 | 4,599.92 | 4,531.73 | 67.458 | ES |
| Parker Red D 23-4 (SI) - Wellbore #1 - Gyro Surveys | 13,100.00 | 6,786.55 | 4,763.40 | 4,689.03 | 64.050 | SF |
| Two E Ranch 1-23 (SI) - Wellbore #1 - Gyro Surveys | 3,303.93 | 3,272.15 | 575.11 | 552.38 | 25.305 | CC, ES |
| Two E Ranch 1-23 (SI) - Wellbore #1 - Gyro Surveys | 8,500.00 | 6,767.17 | 871.18 | 820.06 | 17.042 | SF |

Noble Energy, Inc.

Anticollision Summary Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-------------------------|
| Company: | Northern Region - DJ Basin | Local Co-ordinate Reference: | Well Guttersten D23-711 |
| Project: | Mustang | TVD Reference: | KB @ 4840.00ft |
| Reference Site: | D Section 23 | MD Reference: | KB @ 4840.00ft |
| Site Error: | 0.00 ft | North Reference: | Grid |
| Reference Well: | Guttersten D23-711 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Plan #1 | 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 |
| D Section 26 | | | | | | |
| Adam Red D 26-11 (PR) - Wellbore #1 - Gyro Surveys | 6,172.45 | 5,748.96 | 4,236.13 | 4,192.15 | 96.304 | CC |
| Adam Red D 26-11 (PR) - Wellbore #1 - Gyro Surveys | 6,300.00 | 5,841.60 | 4,236.88 | 4,191.95 | 94.293 | ES |
| Adam Red D 26-11 (PR) - Wellbore #1 - Gyro Surveys | 6,800.00 | 6,564.95 | 4,344.10 | 4,294.64 | 87.830 | SF |
| Adam Red D 26-12 (PR) - Wellbore #1 - Gyro Surveys | 4,845.04 | 4,676.91 | 5,113.64 | 5,078.34 | 144.857 | CC |
| Adam Red D 26-12 (PR) - Wellbore #1 - Gyro Surveys | 5,100.00 | 4,901.58 | 5,115.06 | 5,077.20 | 135.079 | ES |
| Adam Red D 26-12 (PR) - Wellbore #1 - Gyro Surveys | 7,000.00 | 6,579.16 | 5,392.16 | 5,335.84 | 95.746 | SF |
| Adam Red D 26-13 (PR) - Wellbore #1 - Gyro Surveys | 6,380.16 | 6,076.80 | 5,757.91 | 5,711.76 | 124.761 | CC, ES |
| Adam Red D 26-13 (PR) - Wellbore #1 - Gyro Surveys | 7,400.00 | 7,400.00 | 6,261.66 | 6,208.73 | 118.312 | SF |
| Adam Red D 26-14 (PR) - Wellbore #1 - Gyro Surveys | 6,437.13 | 6,072.70 | 4,882.32 | 4,832.80 | 98.578 | CC |
| Adam Red D 26-14 (PR) - Wellbore #1 - Gyro Surveys | 6,450.00 | 6,084.59 | 4,882.44 | 4,832.79 | 98.330 | ES |
| Adam Red D 26-14 (PR) - Wellbore #1 - Gyro Surveys | 6,900.00 | 6,493.90 | 5,022.67 | 4,969.28 | 94.069 | SF |
| Coors Energy 14-25H (PR) - Wellbore #1 - MWD Survey | 6,581.68 | 6,043.38 | 3,711.30 | 3,667.30 | 84.348 | CC, ES |
| Coors Energy 14-25H (PR) - Wellbore #1 - MWD Survey | 6,900.00 | 6,446.48 | 3,792.39 | 3,746.06 | 81.850 | SF |
| Heyde 1-26 (PR) - Wellbore #1 - Gyro Surveys | 6,375.60 | 5,990.88 | 820.63 | 774.78 | 17.897 | CC, ES |
| Heyde 1-26 (PR) - Wellbore #1 - Gyro Surveys | 6,450.00 | 6,054.69 | 824.60 | 778.17 | 17.758 | SF |
| Heyde 26ND (PR) - Wellbore #1 - MWD Surveys | 5,321.64 | 5,388.37 | 2,281.68 | 2,236.63 | 50.646 | CC, ES |
| Heyde 26ND (PR) - Wellbore #1 - MWD Surveys | 6,550.00 | 6,345.30 | 2,406.59 | 2,354.31 | 46.033 | SF |
| Heyde 26RD (PR) - Wellbore #1 - MWD Surveys | 4,683.93 | 4,576.94 | 453.83 | 417.70 | 12.561 | CC |
| Heyde 26RD (PR) - Wellbore #1 - MWD Surveys | 4,700.00 | 4,589.88 | 453.92 | 417.64 | 12.511 | ES |
| Heyde 26RD (PR) - Wellbore #1 - MWD Surveys | 4,800.00 | 4,671.85 | 458.73 | 421.59 | 12.351 | SF |
| Heyde 26VD (PR) - Wellbore #1 - MWD Surveys | 6,634.17 | 6,359.56 | 925.67 | 875.94 | 18.615 | CC, ES |
| Heyde 26VD (PR) - Wellbore #1 - MWD Surveys | 6,750.00 | 6,463.32 | 936.94 | 886.09 | 18.424 | SF |
| Heyde 31-26 (PR) - Wellbore #1 - No Surveys | 4,111.34 | 3,968.00 | 1,560.19 | 1,531.95 | 55.244 | CC |
| Heyde 31-26 (PR) - Wellbore #1 - No Surveys | 4,200.00 | 4,046.66 | 1,560.74 | 1,531.85 | 54.023 | ES |
| Heyde 31-26 (PR) - Wellbore #1 - No Surveys | 6,450.00 | 6,050.32 | 1,900.35 | 1,854.62 | 41.555 | SF |
| Heyde 32-26 (SI) - Wellbore #1 - Gyro Surveys | 6,374.05 | 6,034.93 | 2,323.14 | 2,277.13 | 50.491 | CC, ES |
| Heyde 32-26 (SI) - Wellbore #1 - Gyro Surveys | 6,650.00 | 6,280.69 | 2,369.01 | 2,320.96 | 49.305 | SF |
| Heyde 41-26 (PR) - Wellbore #1 - Gyro Surveys | 6,211.42 | 5,844.32 | 223.76 | 179.19 | 5.020 | CC, ES, SF |
| Heyde 42-26 (PR) - Wellbore #1 - Gyro Surveys | 6,538.11 | 6,148.95 | 1,540.35 | 1,494.03 | 33.256 | CC, ES |
| Heyde 42-26 (PR) - Wellbore #1 - Gyro Surveys | 6,700.00 | 6,291.83 | 1,561.76 | 1,514.24 | 32.865 | SF |
| HSR-Waste Services 10-26 (SI) - Wellbore #1 - No Surve | 6,487.07 | 6,119.82 | 3,389.72 | 3,242.11 | 22.963 | CC |
| HSR-Waste Services 10-26 (SI) - Wellbore #1 - No Surve | 6,500.00 | 6,131.86 | 3,389.85 | 3,241.94 | 22.918 | ES |
| HSR-Waste Services 10-26 (SI) - Wellbore #1 - No Surve | 6,800.00 | 6,409.01 | 3,461.23 | 3,306.67 | 22.394 | SF |
| HSR-Waste Services 15-26 (SI) - Wellbore #1 - No Surve | 6,497.46 | 6,145.49 | 4,402.70 | 4,254.61 | 29.729 | CC |
| HSR-Waste Services 15-26 (SI) - Wellbore #1 - No Surve | 6,500.00 | 6,147.86 | 4,402.71 | 4,254.55 | 29.717 | ES |
| HSR-Waste Services 15-26 (SI) - Wellbore #1 - No Surve | 6,900.00 | 6,510.26 | 4,520.46 | 4,363.72 | 28.840 | SF |
| HSR-Waste Services 16-26 (SI) - Wellbore #1 - Gyro Su | 6,571.21 | 6,258.52 | 4,111.36 | 4,064.82 | 88.323 | CC, ES |
| HSR-Waste Services 16-26 (SI) - Wellbore #1 - Gyro Su | 6,850.00 | 6,504.41 | 4,173.04 | 4,124.67 | 86.263 | SF |
| HSR-Waste Services 9-26 (PA) - Wellbore #1 - Gyro Sur | 6,572.31 | 6,220.60 | 2,842.28 | 2,795.85 | 61.224 | CC, ES |
| HSR-Waste Services 9-26 (PA) - Wellbore #1 - Gyro Sur | 6,800.00 | 6,415.59 | 2,883.96 | 2,836.00 | 60.133 | SF |
| Waste Management 11-26 (PR) - Wellbore #1 - Gyro Sur | 0.00 | 0.00 | 3,622.29 | | | |
| Waste Management 11-26 (PR) - Wellbore #1 - Gyro Sur | 2,700.00 | 2,721.00 | 3,630.25 | 3,611.49 | 193.501 | ES |
| Waste Management 11-26 (PR) - Wellbore #1 - Gyro Sur | 7,050.00 | 6,449.82 | 4,523.42 | 4,474.92 | 93.265 | SF |
| Waste Management 12-26 (PR) - Wellbore #1 - Gyro Sur | 3,334.20 | 3,434.58 | 4,328.85 | 4,305.49 | 185.246 | CC |
| Waste Management 12-26 (PR) - Wellbore #1 - Gyro Sur | 3,400.00 | 3,479.09 | 4,329.11 | 4,305.36 | 182.245 | ES |
| Waste Management 12-26 (PR) - Wellbore #1 - Gyro Sur | 6,850.00 | 6,363.09 | 4,796.04 | 4,747.58 | 98.957 | SF |
| Waste Management 12-26A (PR) - Wellbore #1 - Gyro S | 0.00 | 0.00 | 3,453.62 | | | |
| Waste Management 12-26A (PR) - Wellbore #1 - Gyro S | 3,100.00 | 3,129.23 | 3,470.23 | 3,448.70 | 161.205 | ES |
| Waste Management 12-26A (PR) - Wellbore #1 - Gyro S | 6,800.00 | 6,300.59 | 3,983.34 | 3,935.37 | 83.042 | SF |
| Waste Management 21-26 (PR) - Wellbore #1 - Gyro Sur | 2,224.40 | 2,224.49 | 2,227.56 | 2,212.21 | 145.139 | CC |
| Waste Management 21-26 (PR) - Wellbore #1 - Gyro Sur | 2,600.00 | 2,584.17 | 2,228.77 | 2,210.83 | 124.206 | ES |
| Waste Management 21-26 (PR) - Wellbore #1 - Gyro Sur | 6,800.00 | 6,422.10 | 2,963.47 | 2,915.45 | 61.710 | SF |
| Waste Management 22-26 (PR) - Wellbore #1 - Gyro Sur | 4,783.09 | 4,631.93 | 3,250.88 | 3,217.38 | 97.042 | 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 - DJ Basin | Local Co-ordinate Reference: | Well Guttersen D23-711 |
| Project: | Mustang | TVD Reference: | KB @ 4840.00ft |
| Reference Site: | D Section 23 | MD Reference: | KB @ 4840.00ft |
| Site Error: | 0.00 ft | North Reference: | Grid |
| Reference Well: | Guttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

Summary

| Site Name Offset Well - Wellbore - Design | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
|--|--|-------------------------------------|--|---|----------------------|---------|
| D Section 26 | | | | | | |
| Waste Management 22-26 (PR) - Wellbore #1 - Gyro Sur | 4,900.00 | 4,727.24 | 3,251.47 | 3,217.10 | 94.615 | ES |
| Waste Management 22-26 (PR) - Wellbore #1 - Gyro Sur | 6,750.00 | 6,371.56 | 3,453.29 | 3,404.78 | 71.181 | SF |
| Waste Management 26FD (PR) - Wellbore #1 - MWD Su | 798.64 | 823.00 | 3,521.36 | 3,516.23 | 686.235 | CC, ES |
| Waste Management 26FD (PR) - Wellbore #1 - MWD Su | 7,050.00 | 6,778.18 | 5,168.46 | 5,117.09 | 100.617 | SF |
| Waste Management 26KD (PR) - Wellbore #1 - MWD Su | 954.13 | 957.21 | 3,507.75 | 3,501.59 | 568.936 | CC, ES |
| Waste Management 26KD (PR) - Wellbore #1 - MWD Su | 6,700.00 | 6,432.00 | 4,297.68 | 4,242.94 | 78.517 | SF |
| Waste Management D 26-25 (SI) - Wellbore #1 - Gyro S | 6,403.00 | 6,173.94 | 4,938.25 | 4,891.65 | 105.956 | CC, ES |
| Waste Management D 26-25 (SI) - Wellbore #1 - Gyro S | 6,950.00 | 6,634.81 | 5,114.81 | 5,064.78 | 102.233 | SF |
| Waste Mangement 26JD (PR) - Wellbore #1 - MWD Surv | 2,711.03 | 2,782.21 | 2,683.71 | 2,663.67 | 133.944 | CC |
| Waste Mangement 26JD (PR) - Wellbore #1 - MWD Surv | 2,900.00 | 3,021.39 | 2,685.06 | 2,663.11 | 122.341 | ES |
| Waste Mangement 26JD (PR) - Wellbore #1 - MWD Surv | 7,400.00 | 6,837.60 | 3,864.20 | 3,810.85 | 72.419 | SF |

Noble Energy, Inc.

Anticollision Summary Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|------------------------|
| Company: | Northern Region - DJ Basin | Local Co-ordinate Reference: | Well Guttersen D23-711 |
| Project: | Mustang | TVD Reference: | KB @ 4840.00ft |
| Reference Site: | D Section 23 | MD Reference: | KB @ 4840.00ft |
| Site Error: | 0.00 ft | North Reference: | Grid |
| Reference Well: | Guttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to KB @ 4840.00ft

Offset Depths are relative to Offset Datum

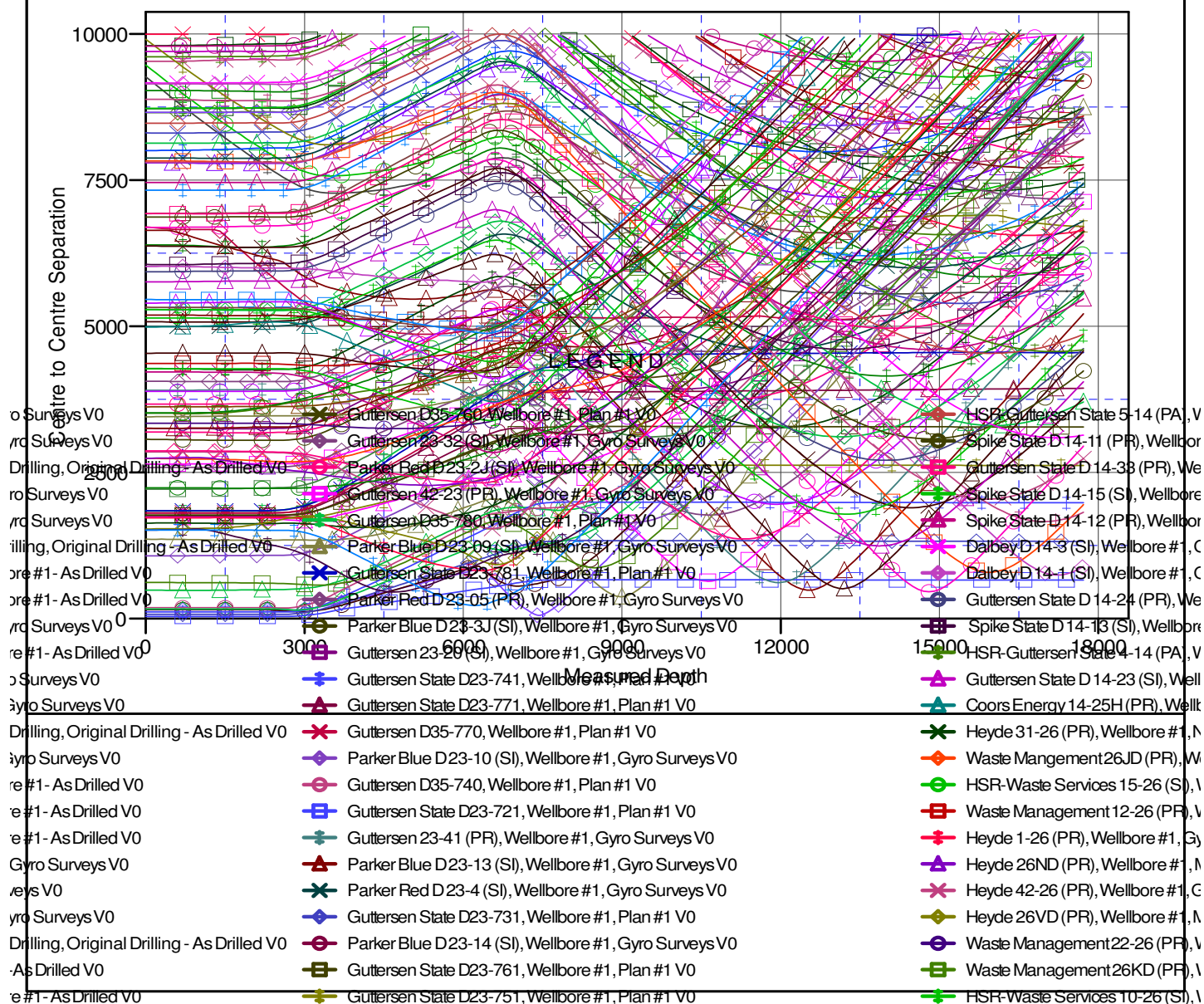
Central Meridian is -105.5000000

Coordinates are relative to: Guttersen D23-711

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.64°

Ladder Plot



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

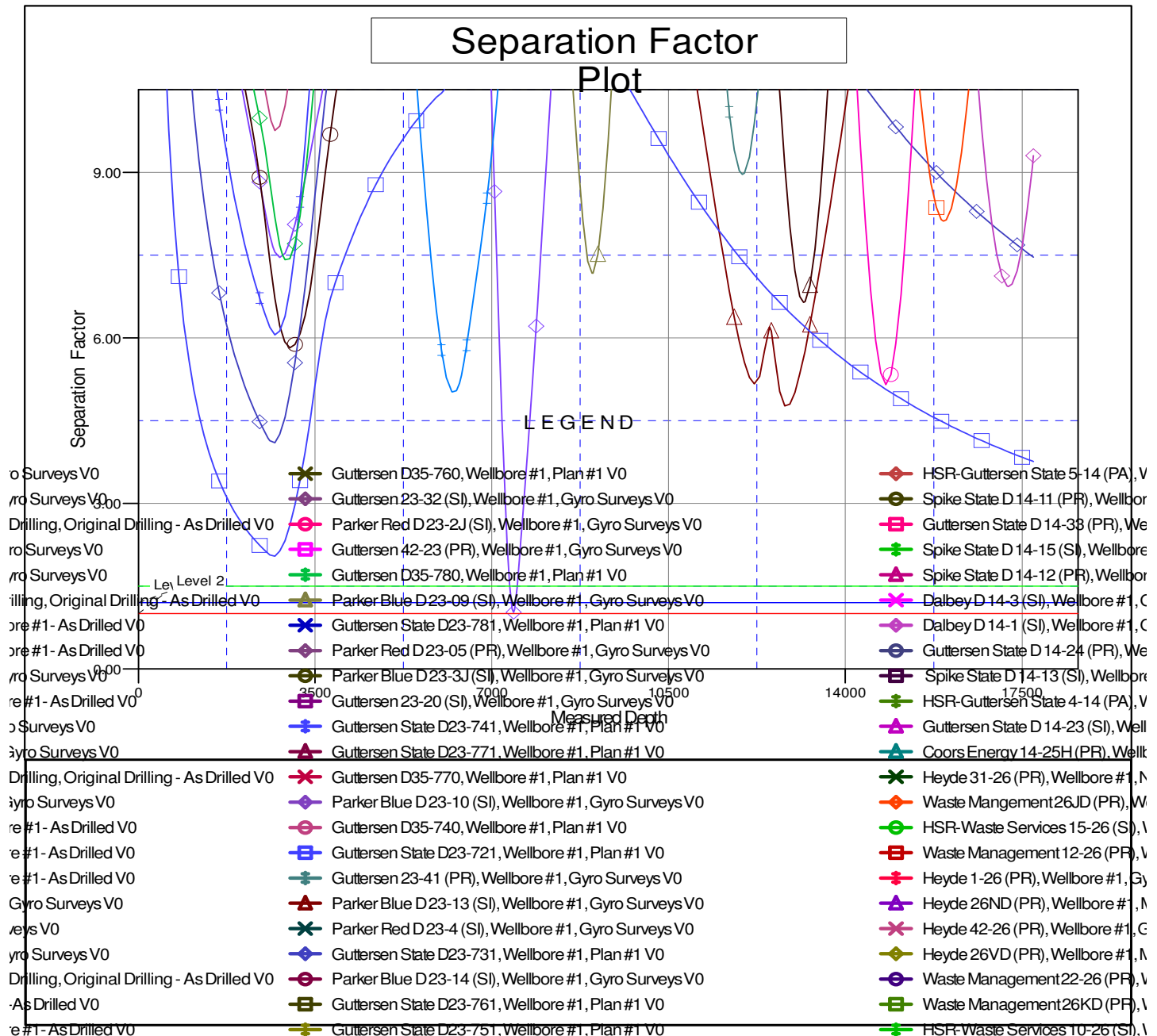
Noble Energy, Inc.

Anticollision Summary Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|------------------------|
| Company: | Northern Region - DJ Basin | Local Co-ordinate Reference: | Well Guttersen D23-711 |
| Project: | Mustang | TVD Reference: | KB @ 4840.00ft |
| Reference Site: | D Section 23 | MD Reference: | KB @ 4840.00ft |
| Site Error: | 0.00 ft | North Reference: | Grid |
| Reference Well: | Guttersen D23-711 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Wellbore #1 | Database: | EDMP |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to KB @ 4840.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: Guttersen D23-711
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.64°



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