A major service provider was drilling in a high angle East/West environment and was unable to tie in the MWD at the start of the 12 ¼" section of the well. Due to the widening Ellipse of Uncertainty (EOU) at the 8 ½" section, many of the proposed well designs were insufficient to continue operations and adhere to the anti-collision requirements.

Based on the performance and operational constraints of conventional magnetic and north-seeking survey systems, the options for reducing the overall positional uncertainty and achieving the necessary increase in separation factor were limited.

Gyrodata recommended that the GyroGuide All-Attitude system be deployed, as it surveys at all inclinations with significantly improved accuracy. This system was selected to perform an 8 ½" hole drop survey from TD at 3,212 m, back to surface, with surveys collected at every stand (30 m intervals).

The tangent section of well (from TD back to 884 m) was the main area of concern, measuring approximately 68° inclination and 280° azimuth.

**TECHNOLOGY + SERVICE SOLUTION**

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**RESULT + VALUE DELIVERED**

- An 80% (or factor >5) reduction in the lateral position uncertainty was achieved, ensuring the separation factor was within the anti-collision parameters. This allowed the customer to continue drilling safely, and place the well with extreme precision. The project was completed several days ahead of schedule saving the operator significant rig time and associated costs.

- By utilizing the GyroGuide system in drop mode, an extensive wireline operation was avoided. This saved an estimated 10 - 12 hours of rig time, and the cost of the additional equipment and personnel that would have otherwise been required.

- The operator is intending to use GyroGuide on future wells with similar high angle E/W profiles.