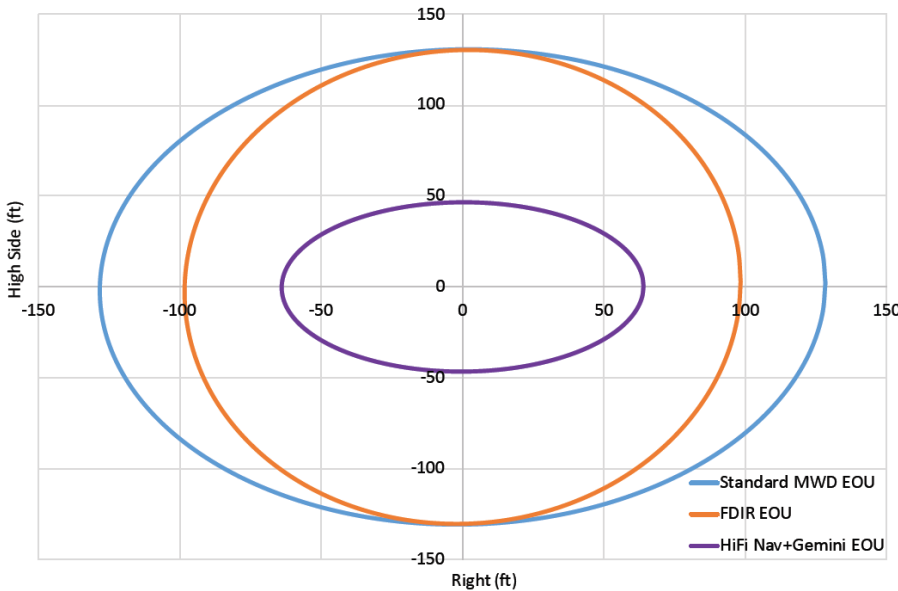


Case Study

50% Reduction in EOU* : GEMINI + HiFi Nav

THE FUTURE OF MAGNETIC SURVEYING AND WELLBORE PLACEMENT

* Ellipse of Uncertainty at Final Survey Station Excluding Global Declination Uncertainty (3 Std. Dev.)



THE PROCESS: Wellsite data is transferred through the cloud directly to the SQC data center where automated algorithms produce HiFi Nav results in under 10 seconds. Corrected data is automatically updated in the Noralis Integrated Software Environment (NISE) database requiring no user interaction.

****GEMINI:** The latest Noralis product evolution, a multi-probe system with a communication network between distributed sensor arrays. Edge computing of over 54 sensors in the arrays provides wellbore defining variables such as real-time build rate, walk rate, tortuosity and gross error detection.

****HIFI NAV:** High Fidelity Navigation is Superior QC's new algorithm that uses all available data (not just MWD surveys and pseudo surveys) to calculate a significantly more accurate wellbore shape and trajectory.

Operator Objective: Maximize acreage value through reduction in well-to-well spacing

Obstacle: Anti-Collision (A/C) risk was determined to compromise safe operations when drilling at reduced well-to-well spacing. Upon evaluation, the Ellipse of Uncertainty (EOU) size was determined to be the primary driver in the elevated A/C risk calculation

Solution: HiFi Nav** + Gemini** was deployed to reduce EOU size and allow the operator to safely drill wells at a tighter well-to-well spacing

Results: When compared to standard MWD surveying, HiFi Nav+Gemini yielded a reduction in the EOU size by 50% on the Semi-Major Axis!

