CASE HISTORY

SDI's gyro INCREASES SURVEY CONFIDENCE AND MITIGATES COLLISION RISK

APPLICATION
Pad Drilling (Multi-Well)

TECHNOLOGY
Wireline Keeper Gyro

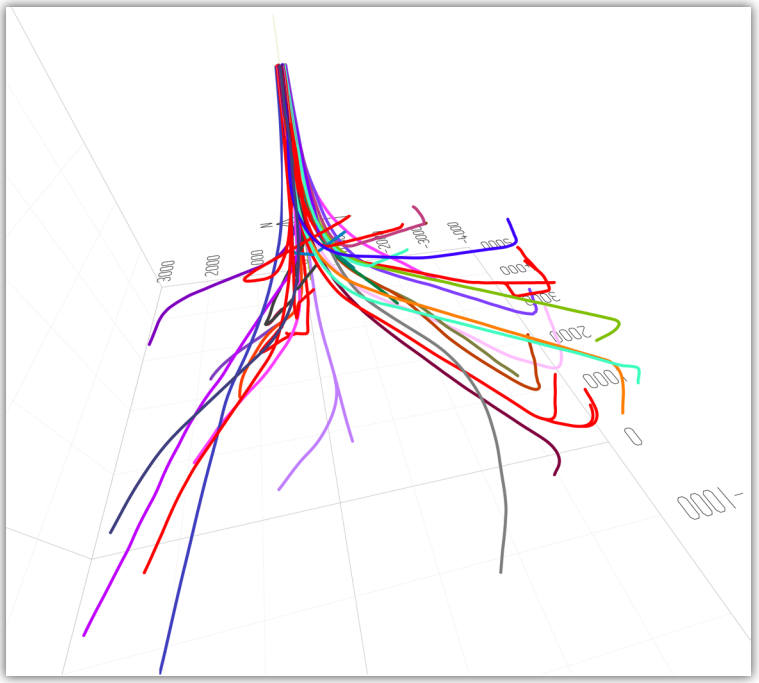
LOCATION
Azerbaijan (Caspian Sea)

CUSTOMER CHALLENGE

Densely packed slots on a multi-well platform in the Caspian Sea resulted in collision concerns when driving the conductors. The customer wanted to measure the actual uncertainty of physical survey measurements in order to validate the correct error model was utilized. This would require high accuracy surveying, while driving the conductors to mitigate collision risks with existing and future planned well paths from a neighboring slot.

SCIENTIFIC SOLUTION

SDI's Keeper Gyro was run on wireline in a 1.85" flask with centrollers for optimized centralization. The gyro was utilized to provide both single and multi-shot surveys to conductors where multiple runs were performed in hole. The single shot surveys were gathered in hole from 5 m to TD. The multi-shot surveys were taken once the conductor had reached TD and each time the tool was pulled out of hole, following a single shot. After initialization, the tool was run out of hole to tie-on depth of 136.29 m, then surveyed back to TD. An outrun was performed back to tie-on line at 136.29 m. Gathering of additional data allowed SDI to analyze the positional uncertainty.



Actual plot

Congested slots on the platform showcasing significant collision risk

CUSTOMER VALUE

SDI's Wireline Keeper Gyro was able to provide the customer with a survey database for statistical analysis to ensure optimal wellbore positioning during conductor driving operations. The data sets compiled and analyzed proved no significant alignment errors within the Keeper gyro centroller surveying system. The customer now has increased confidence in SDI's accurate surveying capabilities that will allow SDI to drill additional wells from each platform to ultimately help the customer increase production.

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