



CASE HISTORY

SURVEY MANAGEMENT ELIMINATES RESURVEYING AND MITIGATES COLLISION RISK

APPLICATION

Legacy Well Analysis & Survey Correction

SERVICE

Survey Management

LOCATION

Middle East

CUSTOMER CHALLENGE

The customer needed to review approximately 1,800 existing wells in a highly congested field to prepare for new drilling campaigns. They were challenged with well data that was managed in various locations and formats, with surveys dating back more than 45 years. It was discovered that certain surface location data was incorrect and several legacy wells were not entered in the directional drilling database. In addition, several database entries of past surveys were assigned incorrect IPM models compared to the instruments used, generating inaccurate Ellipse of Uncertainty (EOU).

SCIENTIFIC SOLUTION

Scientific Drilling's Survey Management solution delivered dedicated technical experts, partnering with the customer to improve the data within the directional drilling database and ensure the location of each well was established with a well-defined positional certainty. SDI also collaborated to ensure the customer's in-house data sets were consistent for all users and auditable processes and procedures were maintained to meet all future objectives. All required improvements were incorporated into the database and IPM models were matched with the accurate EOU's, while also creating unique verification records for the individual wellbores.

CUSTOMER VALUE

SDI has verified over 500 wells, correcting 55 surface locations in the directional drilling database, with all corrections validated from original cartography data. The use of Survey Management and the ability of the team to assign realistic error models to the tools actually run has reduced resurvey requirements by **70%**, **saving around \$700,000** in resurveying costs alone. By eliminating the need to resurvey, the customer has saved an **estimated \$3M in lost or delayed production** by avoiding the shutdown of wells for resurveying, which can take up to five days. In addition, 73 wells were discovered as missing and added to the database, ultimately mitigating significant collision and HSE related risks.

CUSTOMER TESTIMONIAL

"Scientific Drilling has shown an exceptional commitment by dedicating survey management advisors for this project. Their performance has been excellent and based on the progress, we hope to finish this project on time, achieving all deliverables with high quality"

- Drilling Survey Engineer, Major Oil & Gas Producer

PROJECT DETAILS	
Project Scope	1,800 Wells
Verified	500 Wells
Corrected	55 Surface Locations
Discovered	73 Wells
Customer Savings	\$700,000 in Resurveying Costs \$3M in Lost or Delayed Production

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