ZEROTIME
LOGGING WHILE WORKING

CASE STUDY

Getting smart with mechanical interventions delivers time and cost savings during batch completion campaign

THE CHALLENGE

A multi-national operator of a significant, mature North Sea field embarked on a multi-well infill drilling program to boost production and enhance the long-term recovery for one of their prized assets. With high operating costs and highly localised payload zones it was essential that these wells were delivered quickly and accurately to ensure maximum economic return for a minimised capital investment.

Having opted for a batch drilling process to optimise rig utilisation the challenge was now to complete and bring the wells online efficiently and cost effectively, but without compromise in long-term well performance.

THE SOLUTION

The READ team discussed the well delivery program with the operator and demonstrated how the application of a ZeroTime® logging while working solution would enable determination of optimised Tubing Conveyed Perforating (TCP) space out without the need for stand-alone wireline deployed logging runs. As a result a ZeroTime® service was integrated into preparatory clean-up and circulation operations performed with drill pipe.

The relative position of liner and formation acquired by the combination of ZeroTime® Gamma Ray (GR) and Casing Collar Locator (CCL) sensors would provide rapid and accurate determination of the space out requirements for subsequent TCP runs. In addition, borehole temperature profiles acquired by the ZeroTime® fast response temperature sensor would enable further optimisation of each perforated interval, thereby optimising the connection between well and reservoir.

CLIENT OVERVIEW

Multi-national operator in the North Sea region

SERVICES

Correlation for Tubing Conveyed Perforating (TCP)

TECHNOLOGY INVOLVED

ZeroTime® Drill Pipe System with Gamma Ray, Casing Collar Locator, Pressure and Temperature sensors.

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THE RESULTS

ZeroTime® delivered fast and accurate information of liner placement enabling the operator to ensure correct space out of perforating assemblies on subsequent TCP runs. In addition, the precision map of temperature versus depth enabled the operator to further optimise the perforating process by identifying areas where water flood had already reached and reveal potential sites of unexploited reserves.

Through the elimination of dedicated logging runs, ZeroTime® provided significant efficiency gains by providing a faster alternative to conventional wireline logging services. As a direct result, the time saving delivered by the ZeroTime® logging while working service equated to over 1.5 days of rig time over the duration of the campaign.

By eliminating the need for a dedicated wireline unit and operating crew, ZeroTime® dramatically reduced operating costs, simplified logistics and reduced Personnel On Board (POB) requirements. Through reduction in the number of entries into the well and reduction in personnel on the drill floor, operational hazards were removed resulting in reduced exposure to risk to personnel safety and to the environment.

KEY RESULTS

- Accurate, on-depth placement of TCP assemblies
- All wells successfully completed and brought online
- Reduced operating time by over 1.5 rig days
- Reduced costs through elimination of wireline unit and crew
- Reduced exposure to operational, safety and environmental risk

"We were very pleased with the accuracy and quality of the information we received. The performance of READ's technology and personnel exceed expectations."

Completions Engineer
Multi-national operator