



CASE STUDY

Added intelligence 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 utilization 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 the acquisition of a high resolution bottom hole temperature profile 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 borehole temperature profiles acquired by the ZeroTime® fast response temperature sensor would deliver valuable information to assist with the enhancement of reservoir models and enable the optimisation of each perforated interval, thereby helping the operator to optimise long-term well performance. In addition, the relative position of liner and formation acquired by the combination of ZeroTime® Gamma Ray (GR) and Casing Collar Locator (CCL) sensors would provide an accurate depth reference for well records and future intervention operations.

CLIENT OVERVIEW

Multi-national operator in the North Sea region

SERVICES

Intelligent drift survey

TECHNOLOGY INVOLVED

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



THE RESULTS

ZeroTime® delivered a precision map of temperature versus depth which the operator used to improve the accuracy of reservoir models. In addition, these fast, accurate answers enabled the operator to further optimise their well perforation programme by identifying areas where water flood had already reached and revealing sites of potentially 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 in excess of 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

- Acquisition of accurate, high resolution bottom hole temperature profile
- All wells successful completed and brought online
- Reduced operating time by over 1.5 rig days
- Reduced costs through elimination 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*