

# AGR Petroleum Services drills four wells for the planned cost of three



## CHALLENGE

AGR Petroleum Services was engaged by a Canadian-based independent exploration company to drill three deviated appraisal wells in the North Sea.

### Complicating Factors

Previous wells drilled in the area, including AGR wells drilled for several clients, were viewed by the client as expensive. The challenge was to drill these wells with a 30% reduction in the historical time and cost.

## SOLUTION

Using the experience gained from a 2006 appraisal well (211/23d-17z) on the same structure, and previous wells drilled in the region with other clients, AGR re-designed the wells to a slimhole design, removing the 20" casing string and extending the 8½" hole section to run from the top of the Shetland Group to TD beneath the Brent group of formations. All aspects were reviewed in the planning stages to enable an improvement in performance, which included a change in the drilling fluid type as well as engineers working with drill-bit designers to enhance drilling performance in the more challenging sections of the wells.

## RESULT

The results were even better than anticipated. Ultimately the client was able to drill four wells for the planned cost of the three slim wells (which already had a planned cost of 30% less than the wells drilled the previous year).

The well times from spud to TD were reduced from ± 40 days to ± 20 days.

A consistent improvement was evident over the four wells with a best time of 14½ days from spud to TD being achieved.

The 2007 campaign for the client comprised four deviated appraisal wells. These wells were drilled with the Transocean Prospect semi-submersible on long-term contract to AGR PS from the same moored location which formed a four-well cluster of suspended wells, two of which were tested during the operational phase.

This performance has resulted in the full appraisal of the reservoir for less than the anticipated cost, adding one further well to the programme within the original budget, and leaving all the wells suspended with wellheads at a central location pending future completion for production and water injection purposes once development sanction is given.

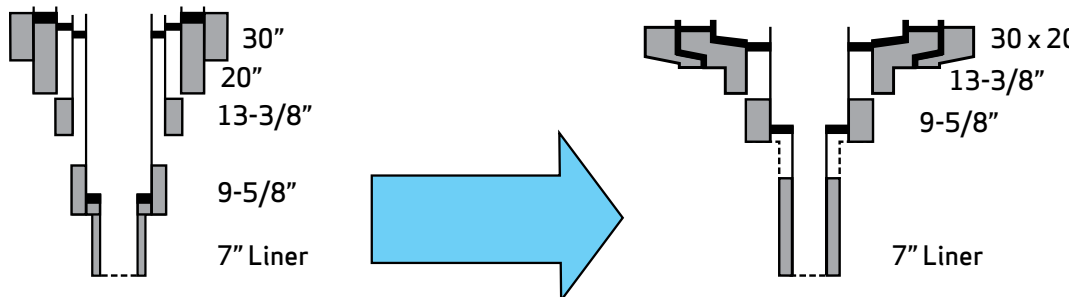
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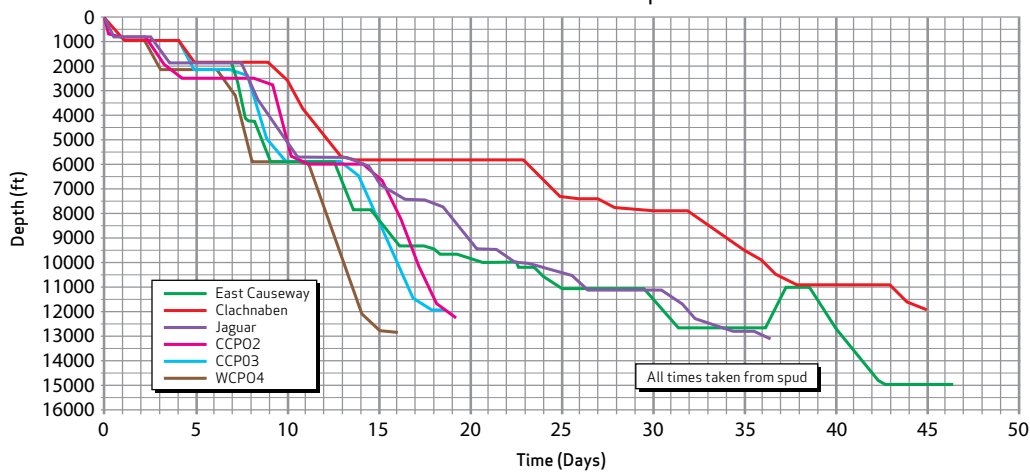
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TECHNICAL NOTES



Time vs Depth Curve  
Block 211 Wells Comparison



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