

Subsea field abandonment planning using AGR's P1™ software



OVERVIEW

AGR's Well Management was contracted to support the abandonment of a series of subsea wells. The client needed to look at the most effective method of carrying out the abandonment and ensure that all of the Australian regulator requirements were met.

CHALLENGE

Evaluating options and project costs:

- A light intervention vessel could do some of the work but it would need a Mobile Offshore Drilling Unit (MODU) to carry out other areas.
- A jack-up could carry out all of the work or the remainder of the work that the intervention vessel could not complete. However a jack-up would have a higher risk of waiting on weather as it moved between the wells.
- A semi-submersible could carry out all of the work or the remainder of the work that the intervention vessel could not complete. The semi-submersible could kedge between wellheads so would not be affected by the weather, however there would be an additional cost that may not be offset by the possible time saved.
- The abandonment had to comply to internationally recognised standards for zonal isolation etc.

Contracting:

- Source and contract a rig for the operations
- Source and contract all the support services for the operation:
 - Vessels
 - Helicopters
 - Wellhead cutting tools
 - Fishing tools

Using AGR's P1™ probabilistic planning software and AGR's Well Delivery Process the client received:

- P1™ output a detailed analysis of the time and cost for the many permutations of intervention vessel, jack-up and semi-submersible. The probabilistic analysis took into account weather conditions, exchange rates, and rig rates among other elements to deliver a simple comparison and allow the client to make an informed choice on the best vessel for the operations.
- The AGR Well Delivery Process is traditionally used for drilling wells, however the process is just as applicable to preparing for a well abandonment. This gave the client an auditable and measurable method that AGR would utilise for designing and executing the well abandonment.

RESULT

- All options were reviewed with a clear basis for the decision on which vessel to use.
- A very complex decision that could have resulted in a lot of debate was distilled into an easily understandable choice.
- The well abandonment design followed a clear and auditable process.
- All contracts were organised and controlled by AGR.

AGR
Level 2, 16 Milligan Street,
6000 Perth,
Australia

T: +61 8 9360 4000
E: p1@agr.com

www.agr.com

