

AGR completes a seven well abandonment campaign in Puffin field



OVERVIEW



AGR's team in Australia were assigned to plan and execute the permanent well abandonment campaign of two production subsea wells and five suspended subsea wells in the Puffin field for Sinopec Oil and Gas Australia (SOGA). The Puffin field is located in Southern Timor Sea approximately 250 km off the coast of Australia.

Operations were executed between July – November 2014.

CHALLENGES

- All except one of the five suspended wells required the BOP stack to be run in order to pull the 9 5/8" slip and seal assembly to mitigate the risk of trapped annular gas. This was further complicated by the fact that a mixture of different wellhead types existed in the field. Three of the suspended wells had H4 type profile wellheads while all others had Cameron hub type profiles, which meant that the BOP required a connector change-out during the campaign

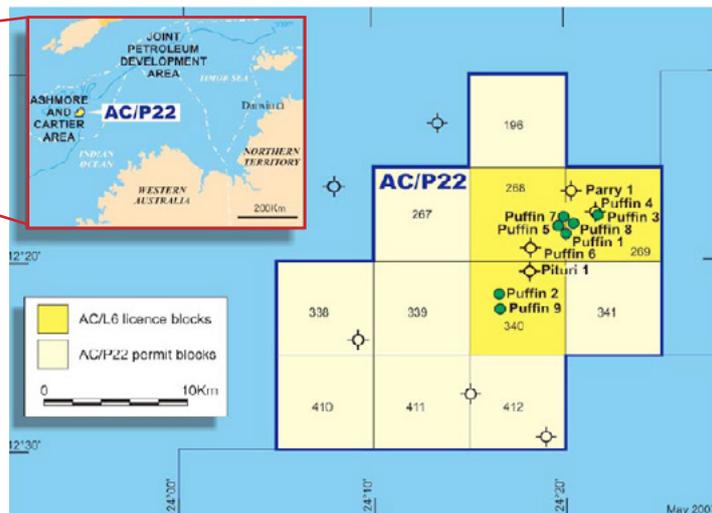


Image: Sinopec Oil and Gas Australia

CHALLENGES Con'd

- Logistical challenges: the field location 700km from the port of mobilisation (Darwin) and an additional 4,042 km by road to the main O&G hub (Perth)
- The two production wells had dual bore trees meaning a dual bore riser system had to be utilised, adding a large amount of equipment and complexity to the operations
- The production wells were designed as gas lift wells and approx. 1,600 psi gaslift gas was known to be present in the annulus, which would require flaring off
- Numerous drift runs on the Puffin-7 production well failed to reach the target depth due to corroded or broken tubing thus requiring contingency operations to be executed to P&A the Puffin 7 well.

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AGR APPROACH

AGR assembled a team of highly experienced personnel with a large amount of P&A experience. By keeping the group small with the right mixture of skills the team could keep focus and effectively deal with any issues in a swift and controlled manner.

The P&A operations were sequenced such that the BOP connector change out could be carried out off rig critical path.

Due to the presence of annulus gas and the possibility of hydrocarbons in the annulus, a decision was made to mobilize a bleed-off package and additional surge tanks. This decision proved critical to the campaign's success as large volumes of oil were found to be in the annulus of both production wells.

Tubing issues on the Puffin-7 well required deviation for the P&A programme, contingency operating procedures & contingency tooling had to be put in place. AGR's experienced P&A team were able to promptly devise alternative solutions and put procedures and equipment in place to complete the well P&A with minimal impact to the project schedule and budget.

VALUE ADDED

- P&A expertise from a technical, logistical, environmental and regulatory side
- Project planned and executed in a safe and efficient manner and budget kept as low as possible
- Daily operational meetings were held at the client's office thus ensuring the client had a clear understanding of what was happening throughout the campaign
- The expert solutions and contingency equipment provided by the AGR team to the client for the disintegrated tubing issue on the Puffin-7 well enabled the project to be continued without incurring non productive time.

RESULT

All seven wells were successfully plugged and abandoned with final cost coming in within 1% of AFE, considering the tubing issues encountered on Puffin-7 this was an outstanding result for the client.

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