Customer challenge

- Expro was approached by the customer who was experiencing gas influx in the B-annulus in a well which caused the well to be shut in.

- To remove the shut in casing pressure, the annulus fluid was replaced with 1.5 SG of brine. The lub and bleed option was considered too time-consuming due to the high viscosity of oil based mud in the annulus.

- Our intelligent integrity solution was seen as a cost-effective alternative to re-completing the well.

Expro Excellence

- Expro diagnosed the problem and solved it with a bespoke tailor-made solution to run a 6mm OD WellSpring system for the operation due to the low clearance between the B-annulus casings.

- It was deployed to 49 metres underneath the B-annulus inlet allowing the brine to enter the annulus, while allowing the old annulus fluid to be circulated out of the annulus.

- The operation lasted 25 days, with 40,000 litres of brine being pumped into the annulus. Returns showed that a total of 27,000 litres of annulus fluid was replaced.

- Our minimally intrusive equipment allowed the remediation of annular integrity issues without the use of a heavy workover rig. The alternative for the customer would have been to recomplete the well.

- Expro’s Annulus Intervention service can remove the requirement for more arduous work to repair well integrity. Therefore reducing the emissions that would be generated from retrieving casing strings and re-completing the well.

Value to the client

- Expro have the only system that can intervene the annulus.

- No spills or NPTs occurred during the project.

- A total of 27,000 litres of annulus fluid was displaced to 1.5 SG brine.

- The well is back producing from January 2020 and continues to produce with bleed-offs from the annulus every three days.

- The customer was extremely satisfied with the project and they have identified future candidates for future wells.

Contact

For further information please contact: wellintervention@exprogroup.com or visit exprogroup.com/wellintervention.