

COILED TUBING & PUMPING

Multi-disciplined crew and integrated services provides time and cost savings for North Sea client

Country: UK
Year: 2018
Technologies: **RtC** ● **SelectFire Plug/ Punch** ● **Radial Bond Tool – Cement Bond Logging** ● **3 3/8" CONNEX Perforating Guns**

MAKING INTERVENTION
SMARTER

CHALLENGE

The operator was experiencing issues with a water injection well in the North Sea and required an integrated service to allow reduction in POB whilst achieving all job objectives. The well was experiencing sub-optimal water injection performance. The root cause of the low injectivity was believed to be a result of formation damage caused by an ineffective chemical breaker designed to remove the drilling mud filter cake. In addition, the mechanical packers installed on the lower completion were not adequately isolating separate formation zones. Tracer analysis, injection tests and pressure transient analysis indicated that the well was in communications with the overlying formations/wells through the leaking annulus/packers.

SOLUTION

Altus Intervention mobilised their coiled tubing and Real-time Coil (RtC) equipment with an experienced multi-disciplined crew who were able to utilise their skills across both e-line and coiled tubing tasks. The RtC combined with intelligent tools allowed for vital well data to be captured and also maximized the capability and efficiency of a single trip downhole. Highlights from the job included:

- 22 RIH completed
- Plug/punch was completed by RtC in a single run
- 150bbls of cement pumped through RtC CT
- Cementing carried out using 3 different techniques:
 1. Squeeze
 2. Pump and pull
 3. Hesitation squeeze
- 15% HCl reservoir stimulation treatment placed using CT
- Three composite plugs set and milled as required
- 400m perforating completed over four runs, firing 140m in a single run

RESULTS

The coiled tubing was operational for 6 weeks, undertaking over 450,000 running feet and pumping 23,500 bbls of a variety of fluids. The first single run plug/punch was completed on RtC, combining what is normally a two-run operation into a single run. There was 400m of new perforations added and Altus Intervention achieved our longest ever single run at 140m. The project was completed to schedule and on budget, with no accidents or incidents and has successfully increased field production.

