

Case Study:

Customised 560-963 High Expansion, V0 Rated Straddle for Large Bore Production ID Brings Well Back Online

Date: January 2024
Region: Australia



Key Capabilities

- Tailor made High Expansion Anchored Production Straddle
- ISO 14310:2008/V0
- Large Bore production ID
- Intervention friendly product
- Water production Zonal Isolation

Challenge

An operator in Western Australia experienced an increase in water production from a well. After testing the production zones it was determined that an intermediate zone was responsible for the surge in water production. The additional produced water represented a scale threat for the processing facilities, requiring the operator to suspend the well.

The completion design presented significant challenges with restrictions close to 50% of the production casings inner diameter. Only high expansion products could be deployed.

An intervention strategy was proposed to isolate the intermediate reservoir. The customer requested an optimised, large bore production inner diameter (ID) in a high expansion anchored production straddle (APS).

Solution

Interwell designed and manufactured a new 560-963 APS, tailored to meet the client's specific requirements. The newly designed 560-963 APS, based on the proven 520-963 HEX design, features an optimised production bore and provides a competent ISO 14310:2008/V0 rated barrier for zonal isolation.

To streamline the intervention process, the 560-963 APS was combined with the Electronic Setting Tool, one of the shortest setting tools on the market - reducing the length of the multi-run system.

Given the high deviation at the target depth and the overall length of the straddle, the Bottom Hole Assembly (BHA) was tractor deployed; a specialised large bore stinger/latch centralising system was required to facilitate effective latching between the modules of the APS in highly deviated and decentralised scenarios. In addition, a custom drift was constructed and deployed for the operation, and relevant system integration tests were conducted with all stakeholders involved.

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Value

The customized 560-963 APS was engineered, qualified and mobilised for the job within a short time frame, ensuring adherence to the client's intervention schedule. The APS was successfully rigged up, deployed to depth, set, and tested as planned, providing a permanent and competent V0 barrier for zonal isolation.

As a result, the operator successfully achieved the intervention objectives, eliminating zonal water production and bringing the well back on production.

