Weatherford®

REAL RESULTS

Expandable Sand Screen (ESS®) Overcomes Sand Plugging, High BHT, Severe Corrosion

Objectives

- Drill a new well to boost gas production and overcome problems experienced with solid exclusion systems in neighboring wells. Gravel packs in these high-temperature (350°F/177°C), highly corrosive wells were prone to rapid plugging, resulting in drastic production losses. Some gravel packs had been perforated to regain partial productivity.
- Avoid differential sticking during system deployment and expansion across an underpressured reservoir.
- Optimize gas production *and* sustain well productivity over time.

Results

- Weatherford successfully installed its *ESS* system, made totally of corrosion-resistant alloy, to prevent sand production, provide borehole support, and combat aggressive corrosion conditions.
- Specially selected seals were used in deployment and expansion to cope with the high bottomhole temperature. The post-expansion caliper log confirmed that the *ESS* system had been compliantly expanded against the borehole wall with the use of the ACE® axial compliant expansion tool.
- Stringent well cleanup aided lift-off of filter cake through the *ESS* system and prevented stimulation of fines production.

Value to Client

- Early well productivity is promising, with no apparent signs of screen plugging.
- The success of this first *ESS* system installation in Pakistan has led to a decision by the operator to install another *ESS* system in the next well.

Location
Onshore southern Pakistan

Well Type
Open-hole gas producer

Bottomhole Temperature
350°F (177°C)

Corrosive Agents
- 11% carbon dioxide (CO_2)
- 100 ppm hydrogen sulfide (H_2S)
- 100,000 ppm chloride (Cl)

Hole Size/Angle
6 in. vertical

Depth
11,105 ft (3,285 m)

Products/Services
- Two 76-ft (23-m), 4.5-in. slotted *ESS* joints
- *ACE* axial compliant expansion tool

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Real Result RR3584.00