



# Weatherford®

## REAL RESULTS

### Shut-in Vertical Well Turned into Best Producer in the Field Using Expandable Sand Screens (ESS®)

#### Objectives

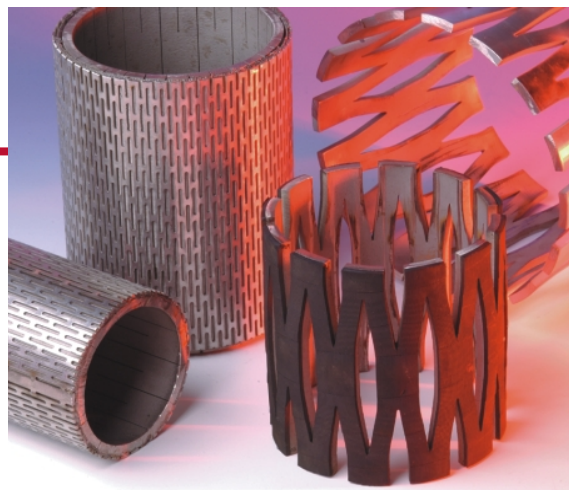
- Sidetrack from an existing vertical well, which had been shut in as a result of low oil production and high water cut, to target a lower, untapped sand package with a thin oil column. Downhole sand control was considered essential.
- An active underlying aquifer made it imperative to limit the potential for water coning into the thin oil rim and to limit friction pressure loss along the lateral to an absolute minimum.
- Pinpoint, treat and/or isolate water production once breakthrough occurs.

#### Results

- The workover involved plugback of the 7-in. liner, directional drilling of the sidetrack, openhole logging to verify extent of contact with the oil rim, installation and expansion of ESS systems, and installation of an upper electric submersible pump (ESP) completion.
- Nodal analysis proved large ESS system ID would maintain a uniform pressure profile in the lateral.
- The ESS well turned in the best productivity index of any well in the field.
- Fast-track procurement of ESS sandface equipment was achieved, with delivery within 12 weeks.

#### Value to Client

- Production increased to >4,900 bbl/d of dry oil, with well deliverability exceeding the capacity of its ESP.
- Weatherford's unique ability to compliantly expand the ESS system to fully contact the wellbore helped demonstrate the numerous solutions available from our Intervention Services group for combating water production.
- Client is performing production logging of a number of horizontal wells, with different types of sandface completions, and plans to compare the inflow profiles. Plans are also being made to use ESS systems in many other Middle Eastern wells.



#### Location

Middle East

#### Well Type

Oil producer, sidetrack

#### Hole Size

6 in.

#### Hole Angle

Horizontal

#### Length

982 ft (299 m)

#### Products/Services

4-in., 230-micron, ESS systems