Rotaflex® Long-Stroke Pumping Unit Achieves Run Life Almost Three Times Historical Average

Objectives

• Extend the run life while maintaining the same production level in a well plagued with valve malfunctions due to the rod pump working on a deviated zone. The average run life for the well was 178 days.

Results

• Weatherford installed a Rotaflex 900 long-stroke pumping unit to reduce the pumping speed, friction loads, and mechanical wear of the sucker-rod string and rod pump. To further reduce friction loads allocated in the deviated zone, a 2 7/8-in. tubing with Policore® 2-in. internal diameter (ID) internal coating was used.

• To achieve the target production of 250 BFPD (39.75 m³/d) with minimum friction, Weatherford personnel installed a special tubing pump that consisted of the following:
  – Special standing and traveling valve cage for deviated wells
  – Plunger, spray metal, 4-ft with a 0.003 in. clearance
  – Connector, on-off AT-90
  – Special upper connector to 2 7/8-in. - 8RD pipe

• The pump was positioned at 4,180 ft (1274 m) total vertical depth (TVD) and 5,325 ft (1623 m) total measured depth (TMD).

Value to Client

• The installation of Weatherford’s Rotaflex unit achieved a run life of 519 days, a 213-day increase over the previous rod pump and 341 days more than the well’s average run life at the same production level of 250 BFPD.

• Due to the extended run life, the client saved US$150,000 in pulling savings, three pulls less than the run life average of 178 days.