

Weatherford®

REAL RESULTS

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

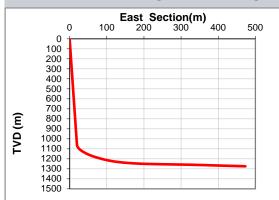
- Weatherford installed a Rotaflex 900 long-stroke pumping unit to reduce the pumping speed, friction loads, and mechanical wear of the sucker-rod string and rod pump. To further reduce friction loads allocated in the deviated zone, a 2 7/8-in. tubing with Policore® 2-in. internal diameter (ID) internal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



Weatherford's unique-designed Rotaflex long stroke pumping units feature a stroke length of up to 25.5 ft (7.8 m) and an innovative 100%-mechanical reversing-mechanism design.



The table above illustrates the deviation survey for this well.

| Extraction Date | Installation Date | Run Life (days) |
|--------------------|--------------------|-----------------|
| January 14, 2012 | August 13, 2010 | 519 |
| August 13, 2010 | October 11, 2009 | 306 |
| October 11, 2009 | September 14, 2009 | 27 |
| September 14, 2009 | December 20, 2008 | 268 |
| December 20, 2008 | July 11, 2008 | 162 |
| July 11, 2008 | March 11, 2008 | 122 |
| March 11, 2008 | September 7, 2007 | 186 |

The table shows the run life history of the well. The average run life for the well is 178 days.

Location

Argentina

Well Type

Onshore, horizontal oil

Pump Depths

- 4,180 ft (1274 m) TVD
- 5,325 ft (1623 m) TMD

Products/Services

Rotaflex 900 long-stroke pump unit

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