



# Weatherford®

## REAL RESULTS

### Kuwait: ACP™ Tool and Sub-Surface Release™ System Mitigate Losses From Damaged Casing, Saving \$730,000

#### Objectives

- Repair a leak in a damaged 13 3/8-in. casing of a deviated onshore well experiencing a total loss of oil.
- Improve the integrity of the wellbore and bring the well back into production.

#### Results

- A workover was performed on the well in 2009 to evaluate and repair a damaged interval of 13 3/8-in. casing. The casing was cement-squeezed to repair the damaged interval from 3,055 ft (931 m) to 3,182 ft (970 m); however, adequate integrity was not achieved.
- Weatherford's 9 5/8-in. annulus casing packer (ACP) tool was deployed and successfully isolated the leak in the damaged 13 3/8-in. casing.
- A 9 5/8-in. E-series mechanical liner hanger (EMRH), with integrated liner-top packer and polished-bore receptacle (PBR), was used to section off the damaged area above and below the leak.
- Cement was pumped into the damaged section, using the Model 754PD hydraulic stage tool and a 9 5/8-in. Sub-Surface Release cementing plug system.
- The repaired section passed pressure tests, as requested by the operator.

#### Value to Client

- The ACP tool helped eliminate the need to run 5,000 ft (1,524 m) of casing to the surface, saving considerable time and associated costs.
- The use of Weatherford's 9 5/8-in. EMRH with liner-top packer and PBR saved the client over US\$730,000, compared to alternative methods.

Weatherford's EMRH has welded cones and is an ideal hanger for shallow liners in vertical wells that do not require reaming or drilling down.



**Location**  
Kuwait

**Well Type**  
Deviated onshore

**Well Depth**  
• 6,679 ft (2,036 m) MD  
• 1,585 ft (483 m) openhole section

**Casing Size**  
13-3/8 in.

**Products/Services**  
• ACP annulus casing packer  
• EMRH E-series mechanical-set liner hanger with packer  
• Sub-Surface Release plug system  
• Model 754PD hydraulic stage tool

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