



# Weatherford®

## REAL RESULTS

### Renaissance™ System Retrofits Well With Chemical Injection System, Removes Asphaltene Deposits, Maintains SCSSV Functionality

#### Objectives

- Remove the asphaltene deposits restricting production. Without treatment, asphaltene deposits would build up in the well and choke back production.
- Prevent further deposits by installing a continuous downhole injection system to test different chemicals. Injection chemicals dissolve the asphaltenes and prevent further deposits from forming, which increases production compared to a well without chemical injection.

#### Results

- The new Optimax™ surface-controlled subsurface safety valve (SCSSV) provided a conduit for injection fluid around the valve while using the existing control line to function open and close. When combined with the rest of the *Renaissance* system, it enabled downhole chemical injection without compromising master valve or SCSSV functionality.
- The CLH was landed in the Weatherford QN nipple profile in a spool section below the lower master valve. A Type-H profile was provided above the CLH for installation of a backpressure valve (BPV) in the future.
- Weatherford project managed the whole operation, including the post-installation of the chemical injection module and solar panel to remote power the module.

#### Value to Client

- Weatherford's *Renaissance* system enabled the operator to retrospectively install a chemical injection system down through the existing tubing and around a safety valve without requiring the operator to kill the well, pull the tubing, or perform a major rig workover.
- The Renaissance system enabled the operator to trial continuous chemical injection at different rates to test their effect on asphaltene removal and build-up prevention to increase production.



Weatherford's WCS system enabled trailing of a number of chemicals to dissolve and prevent reformation of asphaltene deposits, increasing production.

**Location**  
Abu Dhabi

**Well Type**  
Onshore, oil

**Casing Size**  
3-1/2 in.

**Depth**  
8,200 ft (2499 m)

#### Products/Services

- Project management of completions, wellheads capillary and artificial lift components.
- Surface chemical injection module
- Solar panel
- Wellhead spool
- Control line hanger
- Optimax SCSSV
- Well control sub
- Chemical injection valve
- 3/8-in. capillary services

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