REPacker™ Open-Hole Packer System

Case History – California

Cost-effective multilateral zone isolation in California

Project Details

Location: Mature, land-based oil-producing field, southern California
Setting Depth: 3,110 ft *(947 m)* and 3,805 ft *(1159 m)*
Open-Hole ID: 6.125 in.
Drilling Fluids: Water-based mud

REPackers: 4.5-in. x 5.625-in. x 6 ft; water-reactive rubber compund
Other Baker Oil Tools Equipment: WindowMaster™, Model B™ HOOK Hanger™

Challenge

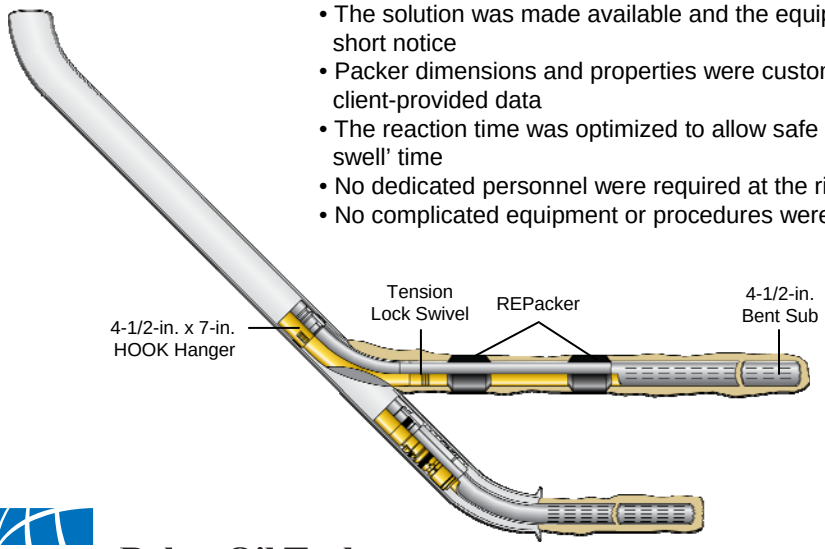
To improve reservoir contact in a mature field, Baker Oil Tools was contacted when a decision was made to drill and complete a new lateral leg using multilateral and open-hole wellbore isolation technology. The multilateral needed to be robust to avoid allowing water into the junction. To increase reservoir contact and increase production and net yield, the operator decided to drill a lateral section from the main wellbore, but they encountered a troublesome water zone just below the junction. It was then decided to run the REPacker ™ with the junction to isolation the newly discovered water inflow.

Solution

- The multilateral completion was installed after milling the WindowMaster profile casing exit to the new TD
- The hook-up included (from TD) slotted bent joint, slotted liner, one REPacker, blank liner, a second REPacker, tension lock swivel assembly, crossovers and HOOK Hanger
- The HOOK Hanger multilateral system was selected to provide maximum reservoir contact and solid external anchoring in the multilateral system
- The REPackers were chosen to isolate the water zone below the HOOK Hanger to avoid water inflow across the junction

Results

- The job was deemed an overall success because the water inflow was eliminated and the well was returned to production without incident
- The cost-effective solution saved two days' rig time and typically three squeeze cement jobs, and associated cost and risk
- The solution was made available and the equipment delivered to the rig site at very short notice
- Packer dimensions and properties were customized for the application based on client-provided data
- The reaction time was optimized to allow safe deployment with minimum 'wait on swell' time
- No dedicated personnel were required at the rig site
- No complicated equipment or procedures were required



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