Case study: United Arab Emirates

SealBond system reduced severe losses

An operator in the UAE planned a water supply well by drilling a 12 1/4 in hole section to a final depth of 4,985 ft (1520 m) with a 9 5/8 in cemented liner. Based on geological data, the client was expecting to drill 50 ft (15 m) into one of the most severe lost circulation formations in the area, Simsima. During previous jobs in that formation, the losses reached more than 100 bbl/hr. Cementing the liner without curing the loss zone would have compromised the integrity of the zonal isolation around the zones of interest.

In the past, a similar water supply well was cemented in the same formation, using a conventional spacer. The results were disappointing, as the cement bond log showed a lack of zonal isolation in the zone of interests. Moreover, the operator had to perform several remedial cementing jobs in order to isolate the affected zones.

The operator enlisted Baker Hughes to solve the problem. It was recommended that the Baker Hughes SealBond™ cement spacer system be used ahead of the cement instead of the conventional spacer. Since SealBond has proven its capabilities in similar applications, the operator agreed to use it.

As this was a 2,000 ft (610 m) liner cement job, 80 bbl of the SealBond system was pumped ahead of the cement. Approximately 120 bbl of 11.4 ppg lightweight lead slurry and ±100 bbl of 15.8 ppg tail slurry were then pumped into the well.

The job was executed successfully. It was not necessary to perform any remedial cementing jobs, the zone of interest was effectively isolated, and the operator saw both cost and time savings.

Challenges
• Drill 50 ft (15 m) into severe lost circulation formation
• Manage losses > 100 bbl/hr

Results
• Executed job successfully
• Required no remedial cementing jobs
• Achieved effective zonal isolation