

Retrievable Sand Screen Anchoring System Eliminates Leaks

Retrievable configuration creates a production path with twice the expected gas flow

Slickline configuration by Peak Well Systems avoids the need to run recompletion on well and reduces total service costs by 50%.

The operator's concerns

An oil and gas operator in Indonesia wanted to increase gas production from new perforation intervals in an existing 27°-deviation well with 4.5-in 13Cr-80 tubing. However, well deviation was expected to produce sand from the zones, and the operator also wanted to ensure there would be no leaks from the new sand screen assembly.

What they tried first

Coiled tubing (CT) deployment was considered, but that would have required a large equipment footprint on the platform deck, complex equipment mobilization, and significantly more field personnel. Because there was a personnel limit on board, this solution was not feasible.

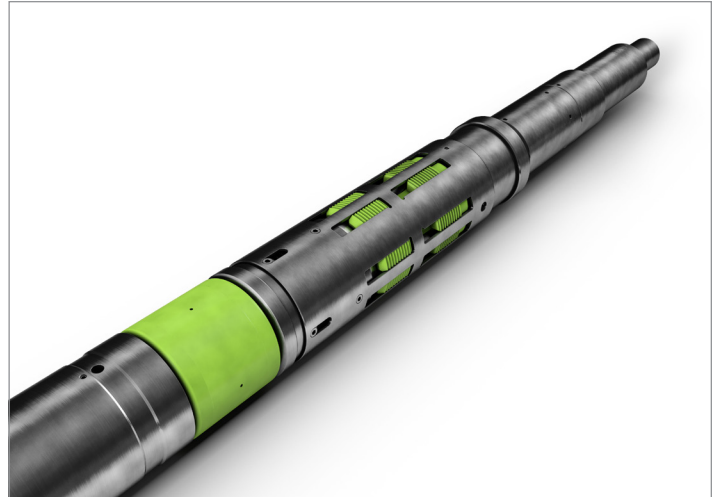
What was recommended

Peak Well Systems recommended using a retrievable sand screen anchoring system based on the SIM* sealing integrity management system deployed by slickline. Its stinger and receptacle latching and sealing system ensures no leak can occur from any of the sand screen assembly's joints. After the strings of sand screen are installed above the bottom anchor, the SIM system retrievable bridge plug is installed on the last run to seal off and isolate the upper section. The solution by Peak Well Systems would be significantly more cost effective and less complex than a CT operation.

What happened

Using the retrievable sand screen anchoring system by Peak Well Systems reduced the total service cost by 50% compared with the cost of a CT operation. It also eliminated the need to run recompletion to install new sand screen packs in existing completion strings. And it mitigated against future reruns of sand screen joints.

Beyond this, the retrievable configuration created a gas production path through the screen packs at 6 MMcf/d—approximately twice the expected flow rate of 3.1 MMcf/d. The method helped the operator maintain rigless operations for well intervention. It also reduced the number of personnel directly involved with the field installation from 10 people to 5. The operator chose this installation method as the preferred way for upcoming retrievable sand screen programs.



SIM system retrievable bridge plug by Peak Well Systems.

The latching system on the stinger and receptacle of Peak products can give a positive sealing indication on each retrievable sand screen joint, especially in a deviated well.

Operator's Well Intervention Engineer



Five joints of 20-ft sand screen were installed in the deviated well within three days without any HSE or operational issues.