

IPI Remedial Cementing Packers

Inflatable Packers International Pty Ltd of Perth Australia recently provided two Remedial Cementing Packers (“RCP”) as a contingency to an offshore rig in New Zealand. The packer system is designed for plugging lost-circulation zones (“LCZ”) encountered while drilling. The ability to plug an LCZ without running and cementing casing can result in substantial time and cost savings to the operator.

The customer initially wanted a drillable inflatable open-hole packer. The RCP was offered to them as a stand-alone retrievable system, as opposed to their original plan of leaving behind a drillable packer.

The RCP is run in on drill pipe and can be circulated through while running in the hole and prior to setting. Packer inflation is activated by dropping and pressuring up against a phenolic ball. Once fully inflated, an over-pressure is applied, shearing out the phenolic ball and a drillable ball seat sleeve which drop out the bottom of the packer (although they can be captured in a tailpipe sub if required). In this case a short fibreglass pipe stinger was run below the packer. At this point, remedial foam cementing can commence. After the cement is set, the packer is deflated by applying over-pull which shears release pins that allow the packer to deflate. Once deflated an overpull is generally required to part the fibreglass pipe below the packer. A plastic shroud around the bottom of the packer is the contact point between the packer body and cement. If this is cemented in place it ‘shears’ off (and is easily drillable), thus minimizing risk that the packer itself could become cemented in place.



The loss circulation zones intersected during drilling were successfully plugged using the RCP. The RCP was deflated and retrieved. The photo below shows a parted 1.5m stump of fibre glass tubing below the packer (the first of three successful jobs). The plastic shroud below the packer stayed in place. The packer was set at a MD of 3500m (TVD 1400m). The packer system is simple to use and was operated by the rig crew.

The successful cement job allowed drilling to continue. The second RCP unit was deployed after encountering a second lost circulation zone. While the back-up RCP was being run, the primary RCP went back onshore to be serviced by IPI.

“IPI provided us with the equipment we needed in a timely manner. The RCP worked as designed and allowed us to get the well to depth without damaging the already drilled reservoir section above the packer depth” said the Operator.