

**CASE STUDY:** Dual eRED® valves save operator \$386,000 in rig time on two wells

## Completion Solutions

### Dual eRED® valves save 30+ hours of rig time for two wells

Location: Offshore Vung Tau, Vietnam



#### Overview

In the Rong Doi field, Korea National Oil Corporation (KNOC) wanted to test against a plug above the packer to ensure tubing integrity before setting the packer on wells RD-9P and RD-8P in Block 11-2. After a good tubing test was determined, KNOC would then set the packer against the plug that sits below the packer. However, repeatedly setting and removing the plug and prong in the landing string can take up a lot of valuable rig time.

KNOC chose to save time by using two Halliburton eRED® remotely operated valves for testing tubing integrity and also for setting the packer.

The eRED valves were more reliable than traditional plug and prong systems, working as programmed without any issues and, thus, saving rig time.

CHALLENGE	SOLUTIONS	RESULTS
<ul style="list-style-type: none"><li>• <b>KNOC required installation of two plugs:</b> one above the packer for tubing integrity testing, and another one to help set the packer without using conventional plugs and prongs</li></ul>	<ul style="list-style-type: none"><li>• <b>Dual eRED® valves</b> pre-installed inside X®/XN® assemblies, and run-in-hole (RIH) as tubing parts</li><li>• Both eRED valves were <b>remotely controlled</b> as per the operator's requirement</li></ul>	<ul style="list-style-type: none"><li>• <b>Valves successful closed as barriers</b> after tubing integrity test and packer set</li><li>• <b>Saved 30+ hours of rig time</b> for two wells by removing conventional plug and prong systems</li><li>• <b>Avoided potential HSE risks</b> involved with multiple wireline runs</li></ul>

### **Solution**

The Halliburton solution employed two eRED remotely operated valves. One was installed above the packer and the second was installed below the packer. Both the valves were run in hole along with the tubing in the open position. The upper eRED valve closed on a hydrostatic pressure trigger when it reached the required depth. The tubing was tested and the upper eRED valve was opened with a pressure command from the surface. The lower eRED valve was later closed and used to set the packer. It was then opened to test the packer. The eRED valve closed to act as a barrier when the blowout preventer (BOP) was removed and the christmas tree was installed. Both the eRED valves were opened and pulled out of hole on wireline.

### **Benefits**

By using two eRED valves, KNOC was able to save 15 1/2 hours of rig time, equating to approximately \$193,000 in savings, for each of two wells. Overall combined savings were 30+ hours of rig time, and approximately \$386,000. It also helped eliminate the health, safety, and environmental (HSE) risks involved when running wireline.

