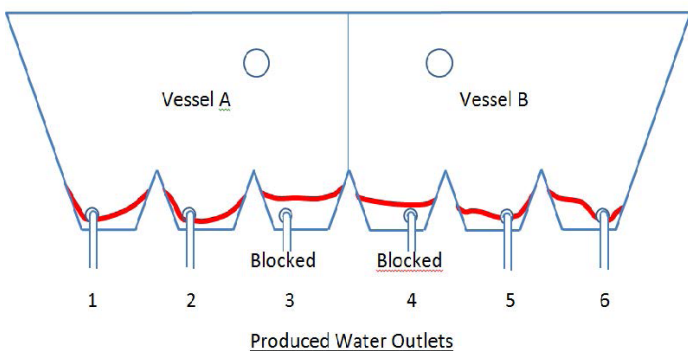
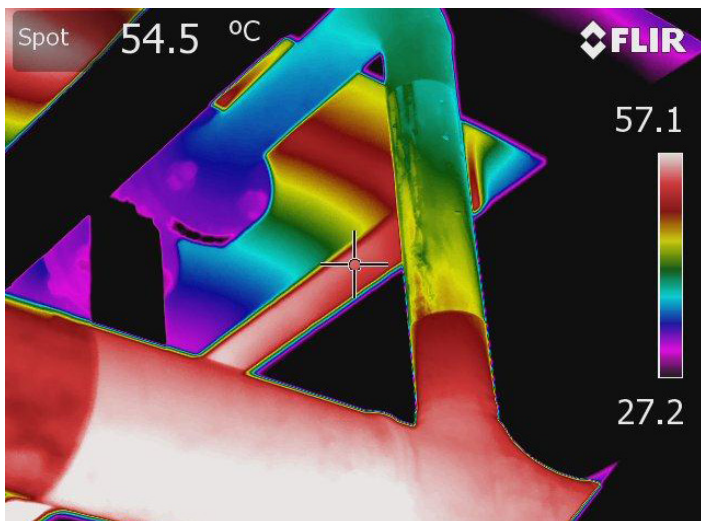


Integrity Monitoring

Discovery of Blocked Produced Water Outlets Using Thermography



Scope

Our client required a non-intrusive inspection method capable of identifying the presence of sand/solid levels believed to be present within a tilt plate separator. The separator was located on an offshore production facility which has been in operation since 1986. The production system present on the facility is capable of processing 31,000 bpd.

Conduct a full thermography survey of the accessible areas of the tilt plate separator and report on the presence and location of any sand/solid build up within the separator.

by identifying the most suitable locations to collect useful inspection footage and collating the findings to obtain an overall sand/solids quantity.

Solution

ICR mobilised an experienced thermographer to conduct the inspection using the latest infrared thermal imaging technology.

The survey was conducted under normal operating conditions. The production fluids within the separator had a temperature of around 60°C.

Results & Benefits

- Sand/solid deposits were visible in the infra-red spectrum due to their insulating effect on the surface temperature of the separator wall. The thermal images captured indicated the presence of significant sand/solid deposits in the lower parts of the separator.
- In addition; during the survey it was found that two of the produced water outlets were partially or fully blocked. ICR suggested that these images be used as a baseline to be referenced during repeat inspections scheduled at regular intervals.