

Kickstart of a wellbore with damaged screens North Sea, May 2018

>99%

Separation efficiency

7,817 kgs

Total solids removed

560 Sm³/day

Provided average oil production

250 days

Conservative estimates of production days for a full year

\$58M USD

Conservative estimate of total earnings

Challenge

A major Norwegian oil and gas producer experienced a screen collapse in one of their highest producing wells. This caused a significant volume of sand to enter the wellbore, which then entered the production facility itself. The well was immediately shut in due to operator's sand handling limitations topside.

In an attempt to overcome this, a wireline operation was performed but was held up at a shallow depth. The next step would have seen a scheduled plug and abandonment (P&A) operation, followed by the drilling of a side-track well to regain production.

However, before the P&A operation could be executed, the wellbore had to be cleaned down to the appropriate depth to allow for setting of barrier plugs. FourPhase were approached to undertake this work.

Solution

After an evaluation of coiled tubing as the method to clean out the wellbore, it was decided that a 5K psi DualFlow desander would be used to kick start the well, removing the sand at the wellbore's surface. The DualFlow unit was installed and soon operational, connecting to more than 40 wells via the test manifold in the production system.

Result

The well was able to be kick-started and the sand causing a blockage was removed. This removed an anticipated costs of \$3.5m, had a full coiled tubing cleaning operation taken place. Ultimately, FourPhase's technology completely removed the need for P&A activity, as it returned the wells to full production. The DualFlow desander then maintained and delivered significantly enhanced production. The total production earning generated through recovered oil during the initial production recovery stage was \$1.4m.

