

DUALFLOW

98% SEPARATION EFFICIENCY

CASE STUDY

CASE STUDY: WELL CLEANOUT – WEST CHIRAG

CASPIAN SEA

APRIL 2016

CHALLENGE

A well was completed in April 2014 and put online a day after completion. However, it was shut-in shortly after due to a production trip. Massive sand production (2000 pounds per thousand barrels) was observed during the restart of the well. Sand free production could not be achieved by performing multiple choke reductions. Finally, the choke had to be closed completely. Later, special conditioning was applied for a very slow bean-up speed giving a gradual increase in the well production rate. However, this was interrupted by multiple unplanned production trips. The sand shut-off intervention failed and distributed acoustic sensing indicated multiple sand entry points along the wellbore.

Operational considerations:

- Massive sand production during the first restart of the well (2000 pptb)
- Uncontrolled release of hydrocarbons
- Particle size down to 10 micron

SOLUTION

Replace previously used sand filtration system with a FourPhase DualFlow solids removal system and a custom designed state of the art filter unit for a higher separation efficiency and a more compact design (footprint 2 x 2 m) in order to remove solids after concentric coiled tubing cleanout operation.

RESULT

- No recorded HSE incidents.
- No recorded equipment downtime
- Significant cost saving due to reduced rig-up/down time, simpler and more efficient separation technology and reduced POB
- Considerably increased well production rate over time
- 269,4kg of solids separated during the cleanout operation of which 67,4kg was captured by the filter unit.



FourPhase NO
Hegglandsdalsveien 271
N-5211 OS

FourPhase AS
mail@fourphase.com
+47 56 57 67 70
www.fourphase.com

FourPhase UK
15 Albert St,
Aberdeen
AB25 1XX, UK