

Expro Excellence

Expro delivers fast-track bespoke production enhancement solution in South East Asia

Production



Objectives and background

- Expro supplied two produced water treatment packages to a long standing customer in the last 18 months. The customer contacted us to discuss a pollution solution for de-bottlenecking the topsides in order to handle higher produced water rates
- Expro conducted offshore bulk water separation trials and concluded that the most suitable solution to meet the customer's higher water requirements, was to have a two stage compact flotation skidded package. This was determined to be the most appropriate technology to process and treat the additional 15,000 bpd produced water flowrate. There was a requirement to maintain the target oil production at the increasing water cuts whilst meeting the required oil-in-water injection specifications.

Value to the client

- De-bottleneck on the existing topside separation equipment, allowed spare capacity enabling increased oil production
- An additional produced water treatment capacity (15,000 bpd on top of existing bottlenecked 30,000 bpd)
- Fast-track delivery of package in compliance with the client's specifications in addition to international standards
- Proven results by early mobilisation of personnel and trial equipment to guarantee results for our customer
- Expro delivered a bespoke simplified solution and design, which was adapted to our customer's needs based on the findings of our offshore visit, equipment design and the performance data we collected during the offshore trials

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- Expro personnel first mobilised offshore with a bulk water separation field test unit to carry out field trials and evaluate the suitability of the technology, the effectiveness of the chemicals and the tendency of certain wells to form emulsions difficult to break and separate. After evaluating the results, it was concluded that a two stage compact flotation unit would be best suited for this application
- The hydraulic and performance data obtained during the trials was used for designing the compact flotation units, selecting a suitable chemical injection regime, and the package was supplied in a record time of 14 weeks
- The bespoke package was fabricated in Expro's fabrication yard in Batam Island in Indonesia. This decision was based on the experience acquired over the years manufacturing similar skidded packages with very tight deadlines
- Equipment retrofit on the existing platform was a challenge due to the footprint and crane lifting capacity. The package was designed so that it could be disassembled and reassembled offshore with ease
- The package was commissioned and site acceptance tested, meeting the specifications set by the client and those achieved during the field trials
- This two stage compact flotation unit operates in parallel to one of our competitors and exceeded their performance





Contact

For further information please contact: production@exprogroup.com or visit exprogroup.com/production