

**EXPRO**

WELL FLOW MANAGEMENT™

/ Expro Excellence Production

Expro fast track avoids production shut down to meet environmental regulatory requirements after mercury is detected in flare gas



Objectives

- A platform in South East Asia noticed a gradual increase in mercury during routine sampling and analysis of flare gas
- The low GOR reservoir fluids were produced using electrical submersible pumps; low volumes of associate gas were either vented or flared further compounding the potential impact on the environment
- The removal of mercury from the gas was critical based on local environmental regulations (below 2.4 mg/m³)
- Expro was awarded the engineering and manufacturing for two mercury removal units
- Expro ExHg™ to be installed on offshore platform, on a fast track basis to avoid any production shut down

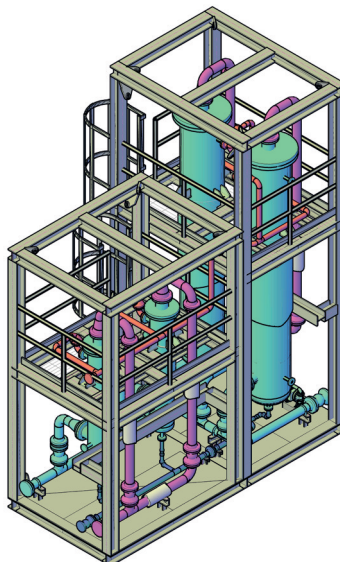
Expro Excellence

- Using Expro's in-house design teams and fabrication facility in Batam (Indonesia) facility, a small two skid footprint package was designed to fit offshore space constraints, which also alleviated weight challenges the crane would have had with any single lifts
- Fast track: the two skids were manufactured, packaged and stripped down for shipping within 12 weeks from contract award
- Using a new technique for South East Asia, mercury was removed using media contained with stainless steel basket arrangements, fitted with lifting eyes for easy handling and removal of the basket, which are then transported by loading into purpose-built shipping frames, sealed to prevent accidental exposure/contamination (contaminated media is handled by a specialist contractor)

- Efficient implementation: each skid was designed with a lead/lag dual vessel configuration in order to provide continuous operation, whilst the replacement of the spent media took place
- Each system individually designed to provide maximum mercury removal efficiency over a reasonable lifespan of the media

Value to client

- Risk of exposure to mercury to both people and the environment was removed
- Operating regulations for air emissions within local operating country can be confidently observed
- Using a media method to removed mercury as a new technique within the industry in South East Asia
- Dual vessel system enables flexibility to have one vessel in service and one vessel in standby mode, also allowing the change out of contaminated media without lengthy and costly shutdown



Contact

For further information, please contact:
production@exprogroup.com
www.exprogroup.com/production

**Expro Excellence**exprogroup.com**Production**