

Expro Excellence

Expro delivers production optimization through enhanced mercury removal bed configuration

Well Flow Management | Fluids



Objectives and background

- Expro's client operated zinc oxide beds for offshore hydrogen sulfide (H₂S) and mercury removal, with two beds operating either in series or parallel
- Conflicting data from previous vendors raised doubts about the performance of the beds, and the optimum configuration to maximize mercury removal
- Removal of H₂S and mercury was required to meet export specifications and to maintain safe operations
- Expro were consulted to obtain a more detailed evaluation of treater bed performance

Expro Excellence

- Expro mobilized specialized equipment and expert chemists to perform an in-depth survey of mercury distribution across the platform
- Mercury concentrations were measured at multiple sample points across the process, with zinc oxide beds in varying operating configurations, to allow identification of the optimum arrangement
- Additional points were sampled after those originally planned were flagged by Expro's specialists as unsuitable or unlikely to give representative samples
- Expro's data gave clear indication as to the optimal treater bed configuration to maximize mercury removal
- Monitored mercury concentrations in export gas throughout the project

Value to the client

- Confirmed the optimum configuration of the zinc oxide beds for mercury removal, maximizing product value
- Identified the worst performing bed, allowing the client to proactively plan removal media replacement
- Client was able to provide accurate design parameters for treater bed upgrades
- Expro proposed a further analysis campaign which would deliver further value once bed switch-outs have been conducted

Insight



Innovative solution

