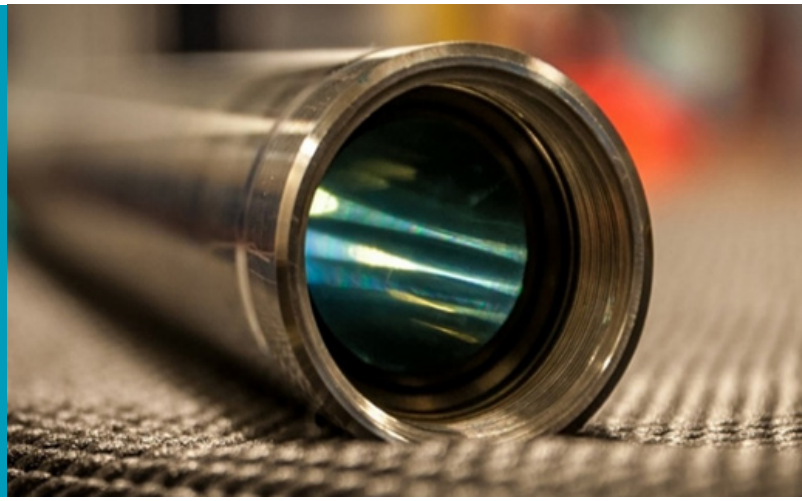
Expro Excellence

# Non-Reactive Sampler enhanced Mercury measurement

## Well Flow Management | Fluids



### Objectives and background

- Expro's client was appraising a new field in the North Sea for potential development
- With a history of mercury in the region, concerns were raised about the potential impact on the process facility design and export route
- Due to limitations on flaring, only a short Drill Stem Test (DST) was planned, which would limit the availability of representative samples at the surface
- Representative mercury measurements were a priority objective for the test, but a full program of sampling and onsite analysis was also planned

### Expro Excellence

- Expro provided the Non- Reactive Sampler (NRS) to be integrated within the DST string using Expro's sampling carrier
- Working with the client Expro's NRS was configured to ensure perfect integration with the 3rd party DST provider for triggering the samplers
- Multiple NRS samples were taken for mercury and hydrogen sulfide measurements, with analysis conducted immediately after tools were at the surface to minimize scavenging of reactive components
- Expro's multi-skilled crew were able to deliver all bottomhole sampling and chemistry requirements, negating the need for separate NRS operators and reducing POB

### Value to the client

- NRS measurements showed excellent agreement with each other
- Mercury measurements conducted from the separator were confirmed to be lower than those obtained from the downhole NRS tools
- The client had confidence in the concentrations reported from the NRS despite the short flow test
- The client was able to proceed with their field development plans, factoring in the reservoir contaminant concentrations
- NRS will now be included in all the client's future DSTs

**Insight**

**New technology**