

**EXPRO**

WELL FLOW MANAGEMENT™

/ Expro Excellence

Well Testing

Expro deliver first closed loop milling returns system in South Texas, ensuring zero uncontrolled H2S releases, whilst saving time and increasing safety



Objectives

- The client had recently purchased a field that contained H2S concentrations of up to 30% - they anticipated concentrations of approximately 8% during initial completion stages
- Unexpected and dangerously high levels of H2S were experienced when drilling into a new part of the reservoir, therefore drilling operations were managed by drilling the wells overbalanced and at times with H2S gas alarms causing drilling shut downs which extended the drilling and completion operations adding additional costs to well construction activities
- With over 25 wells to mill out frac plugs, the client wanted to avoid any unnecessary risk to well site personnel, and without the flexibility of a drilling rig wanted to avoid any potential risks of shutting down with coiled tubing in the well while milling and circulating solids
- Expro were approached to provide a closed loop milling returns system, typical to those Expro had supplied in Canada and West Dakota where these types of sour operations are common – this was to be a first for South Texas where returns are sent to open top tanks

Expro Excellence

- Provided well testing equipment throughout the completion stages, including frac support (standby in case of screen outs), plug drill out and 24 hour well test
- Client could not mill overbalanced, rather the requirement is to mill at, or just under, balance and use the well energy as a supplemental lift mechanism for the milling fluids and associated debris

- Key to Expro's success was the 4-phase test separator and experience in managing solids at the well site, combined with a highly competent crew used to dealing with high levels of H2S
- Expro also provided the client with a solution to sweeten the returns allowing them to be recycled at site and further reduce the logistics involved with milling out the frac plugs
- Expro successfully managed milling fluids on 25 wells across six well pads with each operation taking between 14 – 18 hours of milling – the closed loop package could be rigged up in 10 hours or less, excluding purging

Value to client

- Post-milling, Expro were able to utilise the same 4-phase separators to perform a production test and validate the production rates were as expected given the wells were drilled overbalanced
- Operations were performed without incident or release of H2S to the environment
- Expro provided a small footprint package, allowing easy transport and rapid rig up across the client's 6 well pads on this part of the field
- Saved time by eliminating shut downs
- Increased safety on location

Other customers in the South Texas Eagle Ford are looking at the closed loop system as a safer and more environmental method for managing gas vented to atmospheric tanks on non-H2S wells

Contact

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