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HISTORY

A coil company, operating in Texas was on a multistage hydraulic fracturing pad using plug and perf completion method in the Delaware Basin. Coiled tubing was deployed to drill out the composite frac plugs where bottomhole temperatures approach 290 °F (143 °C). During the milling process the coil unit found itself stuck at 14,500 feet. Typical HCl blends have increased corrosion rates while limiting the working life of the bottomhole assembly at these high temperatures.

PROPOSAL

15% HCl acid is typically the most dangerous chemical on site in volume during these operations. “Hydrochloric Acid (and its fumes) will damage respiratory organs (irreversible), eyes, skin, and intestines and can cause death in some cases”. Enviro-Syn® HCR-7000™ Modified Acid™ was selected as a far safer, more environmentally friendly and technically advanced acid system for stuck pipe applications. Enviro-Syn® HCR-7000™ is part of the “environmentally responsible – technically advanced” Modified Acid™ system line that has superior performance properties compared to hydrochloric acid, without the extremely hazardous/negative exposure, transport, effluent, and corrosive properties.
OPERATIONS

With the inherent high temperature stability and extremely low corrosion properties of the Enviro-Syn® HCR-7000™ it was a natural fit to be used on this coiled tubing operation. Samples of the returns were tested using a field “bucket test” in the Enviro-Syn® HCR-7000™ and rate and volume were determined.

1000 gallons of non-regulated for transportation Enviro-Syn® HCR-7000™ was delivered to location and pumped down the coil to 14,500 feet. The Enviro-Syn® HCR-7000™ reacted immediately and efficiently freeing the coil tubing from being stuck. All involved were very impressed with the quick results our Modified Acid™ exhibited.

RESULTS

The coil unit was freed quickly and safely by using Enviro-Syn® HCR-7000™ without jeopardizing the integrity of the coil. The HS&E benefit and reduced liabilities was measurable, considering the large numbers of on-site personnel with potential to be exposed.

CONTACT DETAILS

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