

EnerLITE[†] RECOVER Maximizes Savings of EnerLITE in Lea County



CHALLENGES

Extend the cost savings of EnerLITE

Minimize diesel consumption required for density control



SOLUTION

EnerLITE RECOVER to enhance solids removal efficiency

Careful density management to minimize risk of losses



RESULTS

- Oil consumption reduced by 38%
- Over 7,800 feet of 12 ¼" hole drilled in 3.5 days
- Fluid transferred to next well for reuse

OVERVIEW

An operator working in the Delaware basin has used the EnerLITE system to eliminate numerous casing strings. A critical component to the system is density management. As drilled solids accumulate, more diesel oil is required to maintain the density target to prevent losses.

AES Drilling Fluids recommended EnerLITE RECOVER to improve solids removal. Minimizing drilled solids ultimately lowers diesel requirements for the 9.1 to 9.3 lbm/gal mud weight.

The salt sections were drilled with brine and the well was displaced on the fly to EnerLITE at 6,400'. The remaining 12 ¼" section was drilled to a total depth of 8,928', drilling the interval in 3.5 days.

A review of 28 similar wells drilled with EnerLITE shows the average oil consumption reduced by 38% from the enhanced solids removal provided by EnerLITE RECOVER.

DETAILS

Before introducing EnerLITE RECOVER for the first time, an AES Drilling Fluids solids control specialist inspects the rigsite solids control equipment to verify the setup is optimized for EnerLITE RECOVER.

The EnerLITE system was received from another well and supplemental volume was built at the rigsite. The 13 ⅝" surface casing shoe was drilled out with a 12 ¼" bit using saturated field brine, and the well was displaced on the fly to EnerLITE at 6,400'.

Upon displacing, mud weight was rapidly lowered from 9.7 to 9.1 lbm/gal and controlled between 9.1 and 9.3 lbm/gal using API 200 screens, the EnerLITE RECOVER service, and small additions of oil, as necessary.

Prior to starting the EnerLITE RECOVER process, the centrifuge effluent was weighed to compare with the performance during treatment. EnerLITE RECOVER consistently reduced effluent density by 0.3 lbm/gal, meaning far fewer solids were returned to the active system. Compared to 28 similar wells drilled with EnerLITE, EnerLITE RECOVER reduced oil consumption by 38%.

The EnerLITE system continues to eliminate a casing string and deliver superior drilling performance. The intermediate section was drilled in 3.5 days to a total depth of 8,928' with one planned bit trip prior to kickoff point. 9 ⅝" casing was run to bottom with no issues and cemented.



Solids removed from drilling fluid using EnerLITE RECOVER service



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