M-I SWACO
A Schlumberger Company

California Boring Reduces Waste by 32% Using Enhanced Fluid Recycling

Conventional mud recycling system failed to remove fine solids and reduce waste disposal

After a conventional mud system did not remove fine solids or reduce costs, California Boring employed an M-I SWACO enhanced fluid recycling solution to reduce wastes by 32%, prolong equipment life, decrease water and additive usage, and mitigate environmental impact.

California Boring's concerns

California Boring incurred high costs for cuttings waste disposal and water usage. A conventional mud recycling system did not solve the problem and could not remove fine solids, which caused excessive wear on equipment, pumps, and seals. California Boring wanted a system to reduce disposable waste, remove fine solids, and increase the amount of recyclable drilling fluid.

Handle higher mud processing rates

An M-I SWACO sales representative working with Cal Boring recommended a more efficient closed-loop mud recycling system. The enhanced fluid recycling solution includes the 518 HV* high-volume, high-speed decanting centrifuge, which has a variable frequency drive and handles higher mud processing rates at finer cut points.

Increase mud quality, reduce costs, and mitigate environmental impact

The M-I SWACO sales representative deployed the equipment and trained the customer on optimal operation. Within the first 2 hours, the enhanced fluid recycling solution removed over 400 lbm of fine silt and cut the mud weight from 9.7 to 8.6 lbm/galUS. The cleaner drilling fluid has doubled the life of California Boring's pumps. The solution retained more additives, resulting in a 35% reduction in bentonite consumption.

The enhanced fluid recycling solution decreased California Boring's waste fluid by an estimated 32%, resulting in significant waste disposal savings. By creating a drier cutting than traditional mud recycling systems, the solution enabled Cal Boring to dispose of waste using dump trucks instead of water trucks, reducing trucking costs by 70%. The recycled drilling fluid required less dilution for the next drilling job, decreasing overall water usage by 15%.

The mud recycling system gives California Boring the ability to clean, mix, and prepare drilling fluid at a central location. This enables deployed units to arrive at the job site with a clean batch of mud ready to drill each day, resulting in significant time savings.

The enhanced fluid recycling solution has enabled California Boring to recycle significantly more fluid compared with conventional systems. The solution has produced less waste, prolonged equipment life, and reduced emissions by requiring less trucking.

> **"We expected (the enhanced fluid recycling solution) to solve our recycling and waste problems, but it's been working even better than we anticipated. This system will pay for itself within the first year, and its reliability will ensure benefits for many years to come."**
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> California Boring VP of Operations

California Boring reduced wastes by 32% using an M-I SWACO enhanced fluid recycling solution.