

FURTHERING THE PROCESSING OF DRILLING FLUID IN SENSITIVE ENVIRONMENTS



DWU-150 Dewatering Unit

NOV FluidControl provides dewatering equipment and services which can remove almost all colloidal particles, producing nearly clear water by using chemical treatment (polymer), a manifold system and a centrifuge. Most dewatering applications occur in areas of zero discharge, where closed-loop systems are required. In closed-loop systems, dewatering is the final step of the mud-processing process, following the separation of liquid from solids provided by the shale shakers, hydrocyclones and centrifuges.

Dewatering services may also be required where there is a high cost or potential future liability associated with fluid and/or solids disposal. Finally, dewatering may also be performed when the active mud system's volume needs to be reduced. This is done for a cement job, a well change, or displacement.

In a dewatering project, the drilling fluid will be processed from the mud system, and the resulting solids will be discharged for disposal, bio-remediation or landfarming, while the clean fluid

can be stored in a frac tank onsite for later use on the existing well or may be brought to a new well for drill-out. In certain instances, the clean fluid may be disposed to ground, if allowed. Whichever situation is encountered, the NOV FluidControl dewatering service reduces mud dilution, mud costs and unwanted liquid waste on the location, as well as produces clean, reusable water.

The dewatering process uses a precisely-regulated polymer feed, which is used to coagulate and then flocculate the solids, allowing for easy removal by the centrifuge. The dewatering skid (typically a DWU-150) utilizes two polymer tanks (one for back-up) to ensure that no downtime is realized while mixing the polymer. The centrifuge feed pump takes suction from the active mud system, moving the fluid through the injection manifold to the dewatering centrifuge for processing. The manifold system controls the amount of polymer and, if necessary, ph reducer that is injected into the fluid being processed.

| FEATURES | BENEFITS |
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| Dewatering services | Removes nearly all colloidal particles, producing nearly clear water that can be reused or often disposed of to ground <ul style="list-style-type: none"> • Provides cost savings related to fluid disposal and replacement • Reduces unwanted liquid waste and mud dilution • Ensures environmental compliance in areas of strict regulations |
| Manifold-controlled injection of polymer and ph reducer | Injects the proper amount of polymer (and ph reducer, if necessary) into the fluid stream |
| Precisely-regulated polymer feed | Coagulates and then flocculates solids with high efficiency and effectiveness |
| Two polymer tanks (one for back-up) | Ensures that no downtime is realized while the unit is operating |