Solids Control and Waste Management

BaraMesh™ Shaker Screens Help Major Operator Reduce Disposal Volume and Recover Invert Emulsion Fluid for Reuse

Location: Southern Region, US

Challenge
To lower disposal costs, the operator wanted to reduce the overall waste stream volume generated at the rigsite while recovering as much reusable drilling fluid as possible.

Halliburton’s Solution
Based on the results of a series of field comparisons throughout the region, the Baroid team recommended that the rig shakers be equipped with high-performance BaraMesh™ shaker screens.

The BaraMesh screen incorporates a strong three-layer design with larger wire diameter than conventional equivalent screens. The rectangular aspect ratio of approximately 1.6:1 provides increased fluid conductivity and screen life, while maximizing low gravity solids separation and removal.

The BaraMesh screens reduced the mud retained on cuttings (ROC) by 0.67%, helping to lower the total waste volume and recover whole drilling fluid for reuse. As an additional benefit, the BaraMesh screens lasted 27% longer than comparable competitor screens.

Economic Value Created
The 0.67% ROC reduction achieved with the BaraMesh screens allowed the operator to recover 11.3 bbl of reusable invert emulsion fluid (IEF), valued at $1,460. Over the 16-day duration of the well, shakers equipped with competitor screens required three additional screen replacements compared to the shaker equipped with BaraMesh screens. This lowered solids control costs from $0.76/bbl for the competitor screen to $0.55/bbl for the BaraMesh screens.

Based on these savings, the operator can expect to reduce solids control and waste treatment costs by up to $5,400 per well in this area.

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<th>CHALLENGE</th>
<th>SOLUTION</th>
<th>RESULT</th>
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<td>Lower total waste volume and recover drilling fluid for reuse</td>
<td>BaraMesh shaker screens provided by Baroid</td>
<td>Mud retained on cuttings decreased by 0.67%, with 11+ bbl of IEF recovered and less total waste volume for disposal</td>
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