



DAV MX™ CircSub

DAV MX sets new record for highest concentration of LCM pumped

PROBLEM

During drilling operations, loss of circulation is a common problem which can result in no returns to surface. This issue threatens the stability of the well and must be resolved quickly to prevent the well from becoming dangerously underbalanced.

When a major UAE operator experienced total losses and complete loss of circulation, our DAV MX was activated to remediate the problem. Our downhole circulation bypass system is multi-function and multi-cycle with fast activating darts which can travel down through the drill string at up to 1,000ft per minute.

The DAV MX valve was deployed in the 12¼ section of the wellbore with standard diverter darts.

The standard diverter dart not only functions the tool to open, it also 100% isolates the lower BHA at the same time.

It successfully cycled to open and close two times and its robust design allowed it to handle a total of eight highly concentrated 140-300 PPB LCM pills, which were pumped through whilst 100% bypassing the BHA below.

The only way of spotting the LCM pills was through the DAVs large TFA ports making sure that the BHA below was not contaminated.

On each activation, the darts were pumped down at 200gsm, reaching the valve in less than 10 minutes.

With each pill, losses decreased gradually to reach a manageable level of 12bbls/h.

The DAV MX provided a fast and reliable solution in challenging circumstances, allowing the operator to complete the drilling section to total depth, with minimal disruption to the project schedule.

RESULTS

- Ability to handle high concentration 300 PPB LCM
- Darts successfully reached the valve in less than 10 minutes
- The simple to use tool allowed for quick and effective solution

