

Asian Refinery Uses Predator Embreak* 2W2151 as Desalting Aid to Process Doba Crude

Challenge

An Asian refinery wanted to maximize the addition of Doba crude to the crude slate. Because Doba crude contains a high content of calcium, as calcium naphthenates, there was a concern about desalter operation and the impact of the calcium on downstream operations. These adverse effects were seen with as little as 2 to 3% of Doba in the total crude charge.

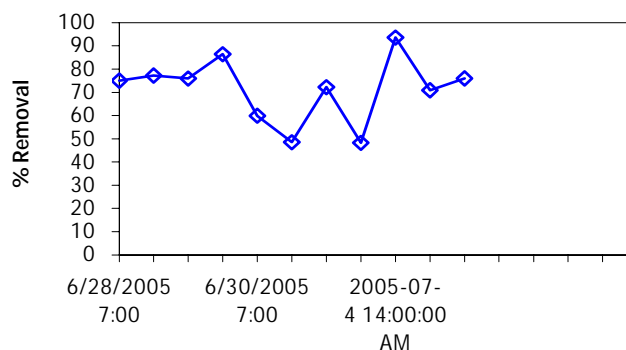
Solution

GE Infrastructure Water & Process Technologies' engineers introduced new technology, Embreak 2W2151, that was designed to maximize calcium transfer to the desalter brine. This chemistry is an adjunct to the primary emulsion breaker used in the desalter. Embreak 2W2151 was recommended to be fed to the desalter wash water ahead of the mix valve. In addition, a calcium dispersant was recommended for the desalter effluent brine to prevent calcium fouling of brine exchangers and other downstream equipment.

Results

The refinery found that they were able to:

- Stabilize desalter operation when processing high calcium naphthenic crudes
- Maximize calcium removal without adverse effects to wastewater treatment plant operations
- Minimize negative effects of processing crudes treated with H₂S scavengers



Ca Removal

