
Question 64: Some crudes appear to have chlorides that are not readily removed in the desalter. What are sources for these un-desalted chlorides? How are the various un-desalted chlorides detected and mitigated?

Chris Claesen (NALCO Champion)

The main source seems to be crystalline salt. A relatively new method to determine total chlorides is the Chlora instrument, desaltable chlorides can be determined by the extraction method, and the difference is taken as un-desaltable chlorides. Crystalline salts can be seen as solids and any means to reduce solids can have an impact on the crystalline salt content, of course the particle size will have an influence. Adding water as far upstream as possible is also a technique that has been used with some success.

Phil Thornthwaite (NALCO Champion)

Another potential source can be chlorides that are bound within an asphaltene matrix, sometimes termed as asphaltene hydrochlorides. Contamination with these species can occur immediately after well acidizing activities upstream. These chloride species are in effect organic chlorides and the chlorine will be released when the oil has passed through the crude of vacuum furnace.

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