

## **Reuse of Washing Water Used in Dehydration and Desalted Process of Crude Oil**

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### **ABSTRACT.**

During the dehydration and desalting process of crude oil is used water to eliminate impurities coming from the producing well, such impurities are organic and inorganic types. Generally the impurities of organic type as such as naftenic acids, carboxílicos acids, etc. are dragged remaining in the same sine of the hydrocarbon. The inorganic impurities which are of the order of 1% in weight are eliminate in their majority during the dehydration and desalting process of crude oil in the stages of extraction, operation and refinement. The mainly present impurities of inorganic type are: chlorides, sulfides, carbonates sulphates, silica, vanadatos and clays.

In the present work describe us the use of water to wash the inorganic impurities of crude oil also describe us the separation (recovery) of the oil by means of separators API and flotation system, separation of solid precipitate and the selection of reverse osmosis like an end stage of the treatment. We include the costs of treatment on scale pilot, equipment, methodology and the basic design of the plant without complaining with the ecological Mexican Standar established for the waste water.

The results obtained in this paper show to the viability of the system of treatment for reuse and recovery of washing water necessary in the national oil industry as such as the importance today in day of the saving in the water consumption.