

# PRE-SEPARATION: AN UNDER UTILIZED APPLICATION OF HYDROCYCLONES.

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## Abstract

In the oil production field, the production fluid is typically transported to Three- Phase or Two-Phase Separators in order to separate gas, oil and the produced water. The treated produced water may still contain excessive amount of oil for disposal or reuse. Liquid/Liquid Hydrocyclones have been successfully used to remove small amount (2,000 – 5000 ppm) of free oil from the produced water to low concentration for disposal/reinjection.

In an aging oil production field where volume of oil production is declining and produced water volume is increasing. The existing oil treatment facilities are often over-taxed and require expansion or modifications.

This paper will discuss the alternative use of L/L hydrocyclones in an aging oil production field. It is sometimes more economical to utilize “Pre-separation” rather than expanding the oil production facilities. Case studies for these alternative applications are examined. Crude oil as low as 15 API has been successfully applied.