

# USE OF DE-ASHING ACID WATER

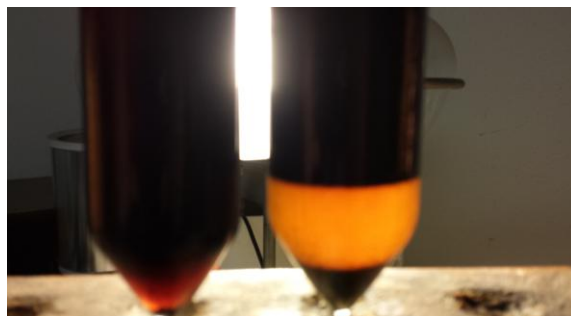
### Introduction

De-ashing of used motor oil is now a standard procedure for ash reduction/demetallization, and several customers routinely produce high-quality fuel oil with ash values close to, and sometimes under, 0.05%. [See Information Bulletin #15]

The separated acid water may be re-used several times, then neutralized to remove metals and used again. In some cases, however, disposal of the acid water, pH ~1, becomes a logistical necessity.

### Solution

Tests were conducted on untreated used oil utilizing the acid water as a demulsification aid.



In the picture above, the left hand tube shows conventional cold-treatment of used oil with ~8% BS&W after 1-2 days settling using 3000-4000 ppm demulsifier.

In the tube on the right, the same oil was vigorously agitated with 15% by volume of the acid water, followed by ECO\* demulsifier and settling.

Overnight, 2000-3000ppm of demulsifier removed virtually all the water, and caused some ash removal (seen as greyish solids below the water phase).

Successive use of the acid water results in gradual acid neutralization and eventual disposal of water at pH 6-7.

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