Information Bulletin No. 14

On How the Better Demulsifiers Also Reduce Metals

Introduction

Demulsifiers used for waste oil treatment must be able to remove fine suspended solids, and not only the emulsified water. The fuel oil thus recovered will have a very low ash content.

Recent emphasis on metal removal from reclaimed oil has focused attention on the correlation between solids removal and metal reduction.

Results of a study conducted by the U. S. Navy not only confirm this correlation, but also point the way to a simple, effective way to meet metal specifications; namely a thorough demulsification process.

Application

A waste oil mixture, consisting of 75% lube oil and 25% fuel oil, was treated with 1000-1500 ppm of ECO* 9 at 160° F. Analysis of the oil before and after treatment illustrates the value of using optimum demulsifiers to achieve meaningful reductions in solids and in metal content.

	Wet Oil	Dry Oil
Water	2.4%	0.3%
Solids	0.7%	0.1%
Chloride (ppm)	44.0	2.0
Iron (ppm)	358.0	17.0
Lead (ppm)	16.0	5.0
Copper (ppm)	3.0	1.0
Nickel (ppm)	2.4	0.6

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