

Railroad Recovers Valuable Oil from Varied Waste

Problem

A major railroad company was unable to reduce the water content of oils recovered from oil-water separators, sumps, settling basins etc... The high level of soaps in the water, and the heavy loading of fine solids created stable chemical emulsions that resisted extended settling (even when heated).

Solution

2 RECOVEROL * demulsifiers were found to perform at different facilities; one in the absence of heat, the other with access to heating tanks. The demulsifiers destabilized the emulsions rapidly, consistently and at relatively low concentrations. The separated waters were clear to slightly hazy, the solids usually floated above the water and the oil was bright, red-black and of the highest quality experienced.

Results

Case I

At one facility, the oil averages at ~40% BS&W. ECO 53 is mixed in at 4-5 gallon per 1000 gallon by adding into a 1000 gallon basin, air-agitating for 15-30 minutes then pumping into a settling tank. Depending on ambient temperature (30°-100 ° F), the oil takes 1-3 days to treat to 2-5% BS&W.

Case II

At the second facility, where heat is available, the oil averages at 35-70% BS&W. ECO 47 is added to the cold oil at 2-3 gallon per 1000 gallon; mixed by injection into suction side of the transfer pump. The treated oil is then heated in cone bottom heating tanks to 100°-160° F. Water separates rapidly, and after 4-5 days the recovered oil analyzes at 1-2% BS&W.

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