



Easy Solution for Removing Oil and Solids from Wastewater

Problem

A major West Coast refinery faced the buildup of thousands of barrels of high oil/high solids wastewater that was so laden with sulfides that it presented a problem to conventional stripping and/or oxidation.

Solution

ECA* 10, a versatile and effective water clarification product, was selected for removal of oil and solids from the black wastewater. Added at 750 ppm and followed by pH adjustment to 8.5-9, floc formation and separation resulted within minutes.

Results

Within hours of mixing ECA 10 by tank circulation and injection at the discharge side of the pump, deoiling and floc separation were evident. The mixture was settled for two days.

Before treatment: 9% oil, 7% solids.

After treatment: <100 ppm oil and solids.

7% oil was recovered as a distinct layer above the flocculated solids. It was clear that 2% oil recovery would pay for the chemical. Most dramatically, total sulfides were reduced from several hundred ppm to less than 0.5 ppm, after pH adjustment to 9.

Success Hint

For maximum oil and sulfide removal, ECA 10 should be rapidly mixed in, followed by pH adjustment and quiescent settling. The treated water should be discharged soon after settling.

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