



BIOMIN Inc.

Organoclay Solves Environmental Problem

A Case History

Biomim Technical Bulletin #42

A document "[Organoclay Solves Environmental Problem](#)" is available at [Biomim Technical Bulletin #42](#)

A New York manufacturer of pharmaceutical creams and ointments products is required to clean its equipment daily with soap and hot water. This waste water is collected in a grease trap separator, from which it passes into a sump pit where a surface oil skimmer removes floating oil and grease. This waste water then passes through an oil magnet filter for discharge into the New York City sewer.

The New York City regulations stipulate a discharge level of no more than 50 ppm petroleum hydrocarbons, a level frequently exceeded by the laboratory. The oil phase consists of white petroleum, stearic acid, fatty acid stearates, fatty alcohols, mineral oils, and oxyethylene ethers and stearates, which are emulsified. The average concentrations of emulsified oil is 5-400 ppm. Average daily discharge is 3110 gallons.

Two trains of carbon canisters were set up in parallel. The lead unit in each contains 350 lbs. of EC-100 organoclay, followed by 190 lbs of a blend of a bituminous and coconut shell activated carbon.

Some 250,000 gallons of waste water have already been passed through the above mentioned system, with no hydrocarbons detected in monitoring test results.

These superb results were achieved by installing an \$8,000 filtration system using organically modified clay (organoclay) and activated carbon. Filtration provided an 80% savings over the \$40,000 ultrafiltration system they had initially considered. Biomim filtration lowered the pharmaceutical company's capitalization costs by at least \$32,000.

The second Biomim customer benefit is that the filtration media

changeout is once a year.

To purchase organoclay or bone char, please contact [Biomin, Inc.](#)

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