



# \$321,388 in Sludge Disposal Saved Using BIO ENERGIZER<sup>®</sup>

## FIELD REPORT

Location: Municipal Treatment Facility in California

### Project Summary

For years the wastewater lagoon system in a city in California has been receiving domestic and industrial wastewater. The industrial wastewater is composed of whey, disinfectants, cleaners, and other difficult to digest cheese manufacturing waste.

### Situation

After many years of operation, the sludge blanket reached the surface of the pond. Concerned about this loss of capacity, the City began looking for ways to remove sludge from pond # 2. Dredging, drying, and removal cost were estimated at about \$341 per dry ton. Pond # 2 contained about 3,502 dry tons of sludge which brought estimated removal costs to about \$1,194,000. To keep the lagoon on line, and to save money, the City decided to use BIO ENERGIZER<sup>®</sup> to oxidize the sludge in place.

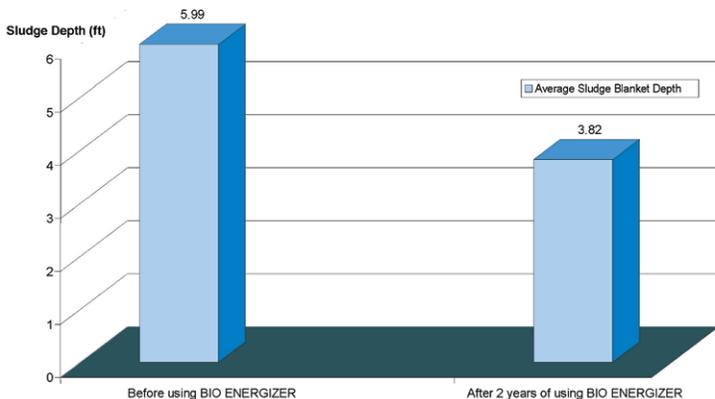
### Solution

After 2 years, BIO ENERGIZER<sup>®</sup> removed 1,268 dry tons of domestic and cheese waste sludge, for a savings of \$321,388. Shown below is a before and after profile of the sludge blanket in Pond # 2.

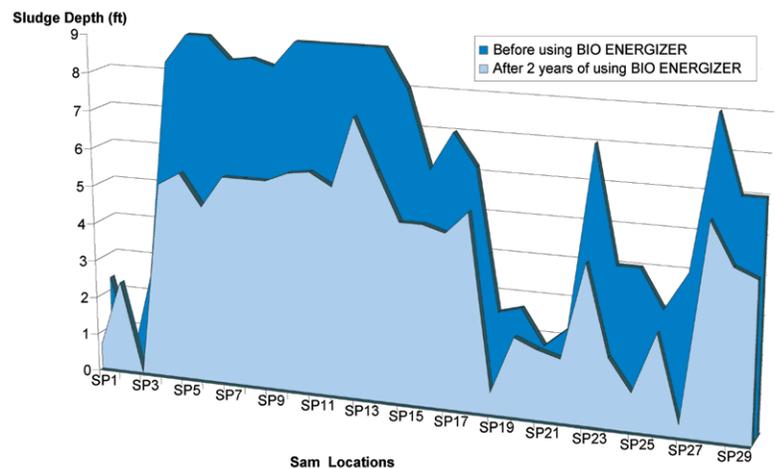
It is impressive to note that this sludge blanket reduction was accomplished while Pond # 2 was kept on line and continued to receive its normal daily load. With the help of BIO ENERGIZER<sup>®</sup>, Pond # 2 not only removed 1,268 tons of existing sludge, but for 2 years, destroyed all the new sludge added to it for an average net sludge blanket reduction of over 2 feet.



**Sludge Blanket Wastewater Pond**



**Pond #2 Sludge Blanket Profile Over a 2 Year Period Using BIO ENERGIZER<sup>®</sup>**



## Probiotic Solutions® Product Information

BIO ENERGIZER® is a broad-spectrum bio-activator containing over 30 essential microbial growth-promoting ingredients. By design, BIO ENERGIZER® is a balanced formulation of vitamins, trace nutrients, enzymes, organic acids, and biostimulants that motivate the existing microbial community to greater metabolic capacity and efficiency. BIO ENERGIZER® is not a bacterium nor an inoculum.

For many years, wastewater operators have continued to use BIO ENERGIZER® to cut their sludge hauling costs.

### Operators Using BIO ENERGIZER® Report:

- 1) Increases in BOD removal efficiency.** BIO ENERGIZER® improves treatment plant removal efficiency to increase plant treatment capacity and more easily meet effluent requirements.
- 2) The elimination of expensive dredging costs.** BIO ENERGIZER® converts sludge into gases and water, reducing sludge accumulations. No draining, drying, excavating, or inconvenient down time.
- 3) The reduction of odors and aeration costs.** BIO ENERGIZER® enhances aerobic and facultative biological eco-systems to reduce the production of objectionable and offensive odors. BIO ENERGIZER® also increases the dissolved oxygen levels which decreases the need for aeration.

BIO ENERGIZER® enhances endogenous respiration for faster and more complete oxidation of sludge into carbon dioxide and water.



## Our Probiotic Solutions® Products

are Highly Efficient and Effective Due to Our Unique Delivery System

*Call Toll Free Today for Your Free Quote and System Evaluation.*

**1 (800) 961-1220**