



## FIELD REPORT City in Illinois

### Results After Using BIO ENERGIZER®

#### Profile

**Location:** Illinois  
**Service Population:** 3,300  
**Number of Lagoons:** 2  
**Flow:** 700,000 gpd

#### Solution

In May, the city decided to solve these problems by desludging their lagoons with BIO ENERGIZER®. After 14 months of BIO ENERGIZER® treatment, 70% of the sludge blanket was removed.

The city's Wastewater Superintendent had this to say about BIO ENERGIZER'S performance:

"Prior to using BIO ENERGIZER® half my lagoon capacity was lost to sludge. Sludge depth averaged 41 inches. After using BIO ENERGIZER® my average sludge depth dropped to 12 inches. Not only did it cost about 1/10th the cost of dredging, it also satisfied the local I.E.P.A. I highly recommend this product to anyone."

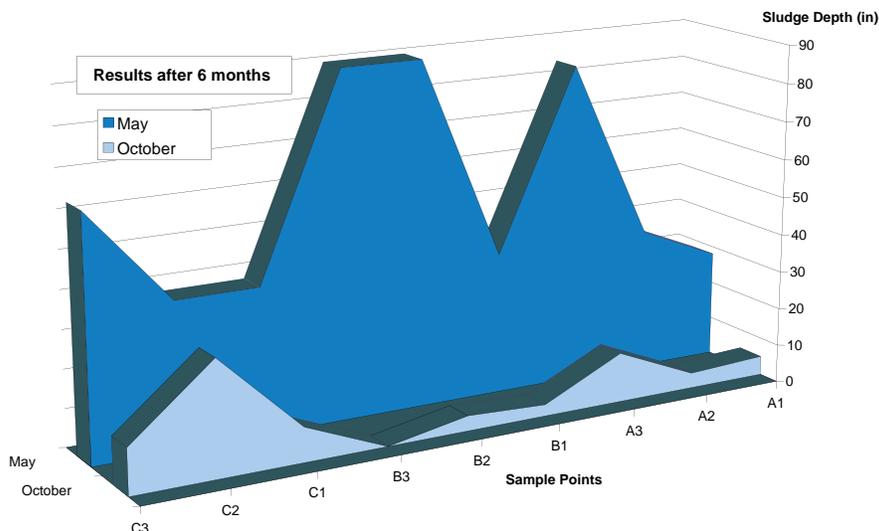
#### Project Summary

Sludge in the city in Illinois Pond # 1 was taking up valuable treatment capacity and causing odors. Sludge had accumulated to the point where part of the sludge blanket was exposed to the surface allowing odors to escape. State regulators were also demanding improvements because BOD5 test results were too high.

#### Situation

Sludge accumulation creates several different problems for lagoon operators. About 2 mg/l of oxygen should be maintained over a sludge blanket to ensure odor free operations. If sludge is exposed to the atmosphere, odors are free to escape. In addition to causing odor problems, a sludge blanket can also exert a substantial oxygen demand as it releases ammonia, organic acids, and other anaerobically generated by-products back to the water column. This phenomenon is responsible for recurring algae blooms causing TSS problems and elevated BOD5's.

**Sludge Blanket Profile Before and After BIO ENERGIZER®  
Usage at the Lagoon System**



---

Ammonia released from the sludge blanket feeds algae which become a source of BOD as they consume oxygen under dark conditions in the BOD5 test bottle. Not only do algae consume oxygen at night, but when they die, they release their cellular material back into the BOD5 bottle or lagoon water column feeding other algae and bacteria. In shallow ponds, accumulated sludge itself can slough off into the effluent adding further to TSS and BOD problems. The solution to these problems is to remove the sludge.

## Product Info

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 bio-stimulants 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 and enhances dissolved oxygen levels. 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 Pond Evaluation and Sludge Removal Quote

**1 (800) 961-1220**