

Sludge Reduced Using BIO ENERGIZER®

CASE STUDY

Location: Municipal Wastewater Treatment Plant in Rural Colorado

Situation

The wastewater treatment plant superintendent for a rural Colorado town of about 500 people noticed that the plant's three wastewater lagoons were filling with sludge, but he was dealing with budget constraints. The town's population fluctuates throughout the year, and the varied loading was affecting system performance. In addition, the aeration systems were not keeping up with the oxygen demand in the ponds. The superintendent decided to try a bioremediation approach to sludge reduction, using BIO ENERGIZER®, before embarking on the expensive process of mechanically dredging, hauling, and disposing of the sludge.

Solution

Treatment with BIO ENERGIZER® was initiated to Pond #1 only, at a rate of 5–7 ppm that continued for 8 months.

Results

As can be seen in the following 3 graphics, the greatest benefit was seen in Pond #1, with substantial residual effect in Pond #2 and minimum residual effect in Pond #3. Following the 8-month treatment program, dosing was reduced to a maintenance level of 1–2 ppm. For greater effect on ponds #2 and #3, it would be recommended to dose directly into those ponds rather than relying on residual effects from Pond #1.

Figure 1. 47% Overall Sludge Blanket Reduction in Pond #1

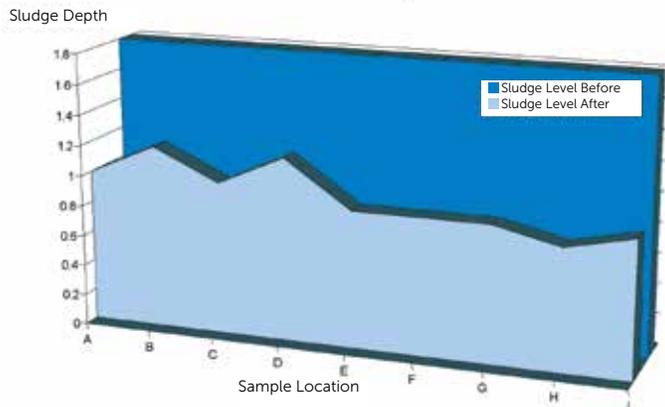


Figure 2. 41% Overall Sludge Blanket Reduction in Pond #2

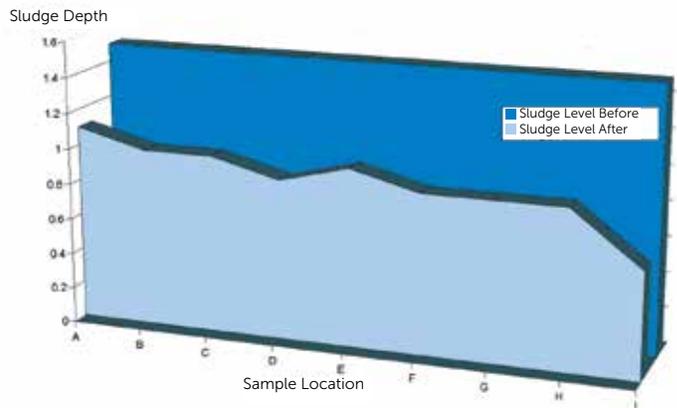
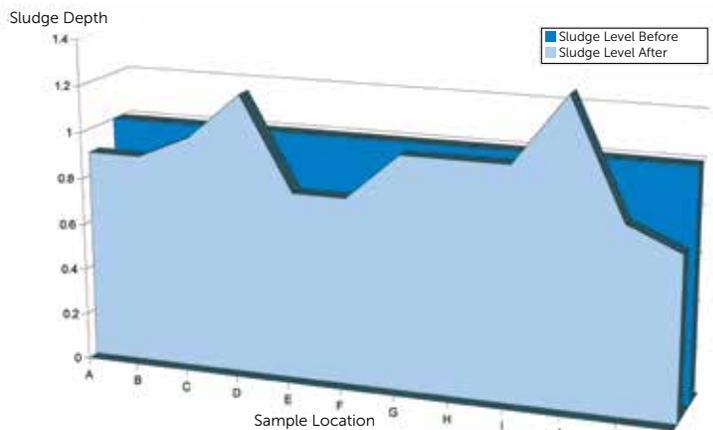


Figure 3. 12% Overall Sludge Blanket Reduction in Pond #3



Conclusion

Using BIO ENERGIZER® is saving the city thousands of dollars in mechanical dredging, hauling, and disposal costs. Lagoon desludging using BIO ENERGIZER® is typically one-fifth to one-tenth of the cost of mechanical dredging and land-applying or land-filling sludge.

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 neither a bacterium nor an inoculum.

For many years, wastewater operators have continued to use BIO ENERGIZER® to cut 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 ecosystems 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.

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