BioHygenic

BioAmp case study

Company	**Thwaites**
Location	**Blackburn - UK**
Industry	**Brewery**

Thwaites Brewery

Daniel Thwaites is a large independent Brewery based in Blackburn, UK. The Brewery is located in the centre of the city and neighbours commercial, industrial and residential areas.

The Brewery operation includes brewing and conditioning of Ales and Lagers. They have progressed over two centuries to become one of the UK's Top 10 Brewers.

Brewery Problems

One of the usual problems experienced with Breweries is that the volumes and strength of the waste water to be treated varies considerably over time in line with production. This presents a significant challenge to any process engineering and chemical treatment programme.

PROBLEM:

Waste water at Thwaites Brewery contained high levels of COD (Chemical Oxygen Demand) and SS (Suspended Solids).

This is very expensive as charges are levied by the local utility company. Fines can also be charged if the levels exceed those set by the authorities.

SOLUTION:

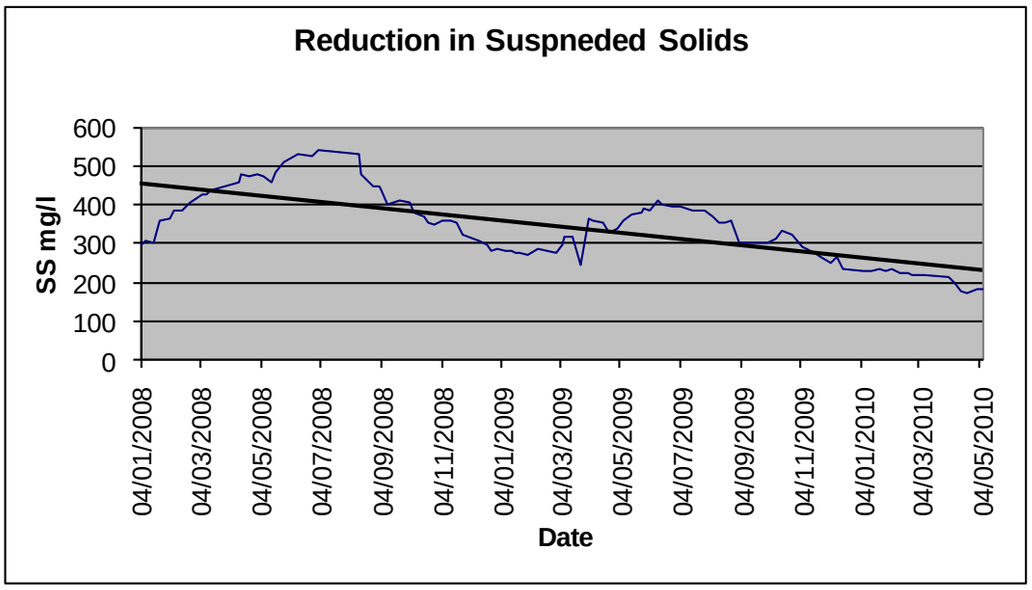
Working closely with the Projects and Utilities Manager at Thwaites Brewery, NCH installed four of our unique patented BioAmp units in July 2009. The system which produces over 30 TRILLION live and active bacteria is suitable for the digestion of organic waste associated with Brewery waste.

RESULT:

Weekly samples were taken by the utility company from a 24hour composite sampler. There is usually a seasonal trend of decline in COD values in the winter and this was experienced again. However this trend continued downwards into the Spring which was not apparent in 2008.This is even more apparent with SS.

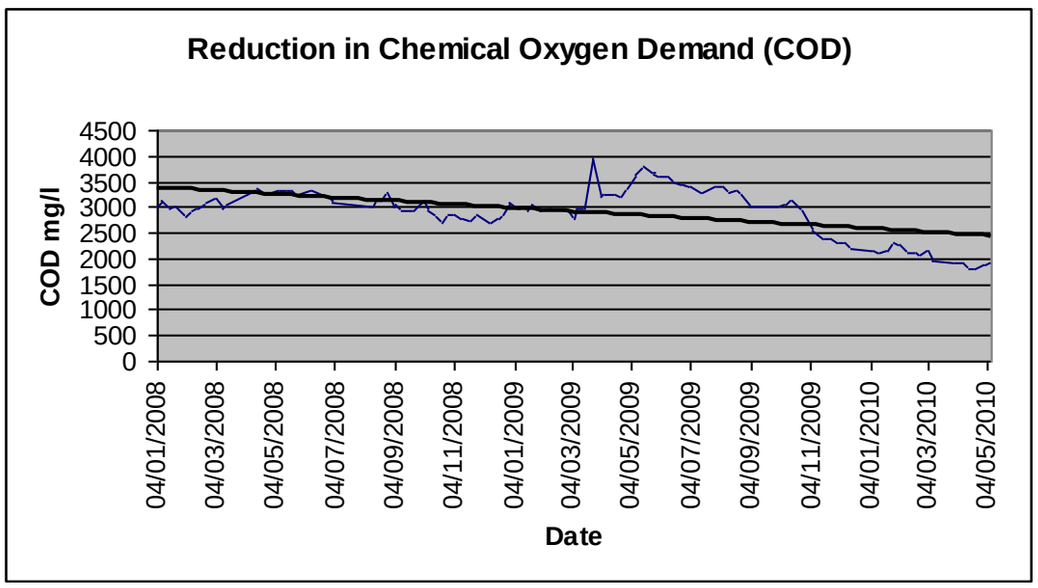
Weekly costs for charges decreased dramatically in October 2009.Despite an increase in utility charges generally, Thwaites are currently paying much less per cubic meter of waste in 2010 than 2009. By the end of the year the savings totalled £63,578 after cost of the BioAmp system.

Actual results obtained show improvement in COD and SS



Reduction in Suspended Solids.

SS Figures continue to reduce despite normal seasonal trend upwards



Reduction in Chemical Oxygen Demand.

Figures continue to reduce despite normal seasonal trend upwards

Despite increase in waste effluent utility charges figures show considerable savings as a result of reduction in COD and SS when compared to same period previous year.

By the end of the year the savings totalled £63,578 after cost of the BioAmp system.

Location of units next to open Beer Vats demonstrates safety of Freeflow Bacteria (NSF approval).