

CASE STUDY

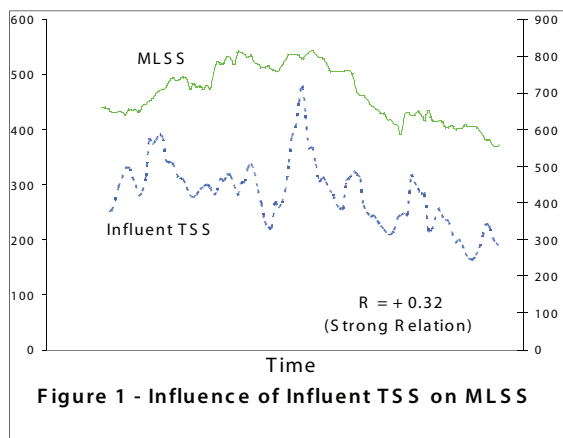
cATP™:

A Superior Measure of Active Biomass



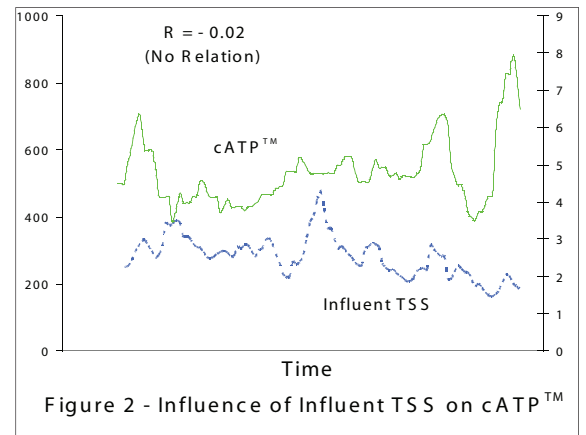
Traditionally, biological wastewater treatment plants use Mixed Liquor Suspended Solids (MLSS) or Mixed Liquor Volatile Suspended Solids (MLVSS) to monitor biomass concentration within a biological wastewater treatment process.

It is widely understood, however, that both of these parameters measure much more than just living microorganisms present in the treatment system – major interferences include non-biological solids and dead or dying biomass.



As shown in Figure 1, samples collected from an aerated lagoon system showed that MLSS correlates well with the concentration of Total Suspended Solids (TSS) entering the bioreactor. However, the solids contained in the raw effluent from this process were comprised of mostly inert organic materials and inorganic solids, and virtually no micro-organisms. Since it is obviously subject to such interferences, it can be concluded that MLSS is not an effective measure of active biomass.

LuminUltra™ has developed the technology to quickly and directly measure the active biomass concentration in a biological treatment plant.



As seen in Figure 2, samples taken from the same system and tested using LuminUltra™'s cATP™ protocol showed a negligible correlation with influent TSS. These results clearly demonstrate the advantage of using LuminUltra™'s cATP™ protocol as a measure of the active biomass concentration in a treatment system over conventional techniques.



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