



## Chicken Processor

This chicken slaughter and processing facility has a wastewater system that treats 1.2 MGD. Their process uses ferric chloride as the coagulant, caustic to stabilize the pH and an anionic polymer prior to separation in the DAF units. The facility also does some further processing with addition of seasoning and brines which add TDS/EC to the water. The ferric/anionic polymer combination is hindered in its ability to handle the brine water causing spikes in effluent BOD/TSS and increased surcharges. Their treatment costs are at \$2.50/1,000 gallons.

Integrated Engineers, Inc. was asked to evaluate the Floccin 1105 with their wastewater. The performance of the Floccin 1105 is not effected by the brine water. Jar tests indicate an improvement in effluent water quality, larger floc size and an improvement in the DAF performances at the same cost of \$2.50/1,000 gallons.

Constituent	Untreated	Ferric/anionic	Floccin 1105
BOD	1,100	230	190
COD	2,000	290	270
TSS	2,600	38	31
TDS	960	1190	970

The Ferric/anionic water has a higher level of TDS. The local POTW is going to start surcharging for levels of TDS for industries in excess of 500 ppm over the potable water going to the facility. The simplification of using 1 chemical, it's wider operating pH range and performance over the ferric makes a savings in reduced surcharges, labor, and consistent treatment.

