

Rendering Facility #2 Case Study

The facility renders animals and restaurant grease as a means to recover protein. The facility generates wastewater at 125,000 gal/day with the following analytical data as shown below.

	Untreated	Treated	% Reduction
Ammonia (NH ₃ -N)	290	56	80.6%
Biochemical Oxygen Demand (BOD)	13,000	1600	87.7%
Chemical Oxygen Demand (COD)	22,000	4400	80%
Nitrate (NO ₃)	ND	ND	N/A
Nitrogen – Total Kjeldahl (TKN)	750	420	44%
Total Solids (TS)	7,700	2000	74%
Total Suspended Solids (TSS)	4000	40	99%
Total Volatile Solids (TVS)	7,200	770	89.3%

*units in mg/L = ppm

The jar test used Floccin 1103 at a dosage of 1.5 grams/liter which equates to 12.5 lbs/1,000 gallons. Actual dosages will be adjusted depending on the final pond effluent water quality and RWQCB permitted levels. The photos of Untreated and Treated are shown below:

