

A circuit board manufacturer was having difficulty with copper and zinc in their wastewater stream. The metals come from etching and plating processes at the facility. Integrated Engineers treated the water with IE-061 (a metal precipitant), and Floccin-1105.



The photo on the left shows untreated and treated water samples. Note the clarity of the water in the treated sample. The photo on the right is a larger jar containing 500 mL of the wastewater sample. The jar was treated with 2 mL of IE-061 and 4 g Floccin-1105. The contents of the jar were then passed through a 70-micron filter and submitted to a lab for analysis, along with an untreated sample for comparison.

**Analytical Results**

Component	Untreated	Treated	Reduction
Copper	1.1 ppm	.013 ppm	98.8%
Zinc	23 ppm	.73 ppm	96.8%