



ELECTRONIC COMPONENTS, PENNSYLVANIA

THE CHALLENGE

An electronic components manufacturer in the Midwest generates a small stream of a highly acidic (pH <1) copper concentrate. The concentration of copper in the waste is estimated at about a few thousand ppm. The facility is using a combination of caustic, sodium bisulfite, sodium hydrosulfite, sodium sulfide, alum, and flocculant to batch treat this waste.

THE SOLUTION

Due to the viscous nature of this waste and to facilitate efficient mixing, the waste is diluted at 1:1 ratio prior to treatment.

TABLE below shows that AQUASIL® has achieved almost 100% percent removal of heavy metals. Furthermore, the product simplifies the treatment as it replaces all chemicals with a single product, minimizes operator's intervention, generates less sludge and achieves higher quality effluent. Analytical data are shown in the table below.

Parameter	Daily Max. (mg/L)	AQUASIL® Treatment (mg/L)
Chromium	1.71	< 0.01
Copper	2.07	0.36
Nickel	2.38	< 0.01
Zinc	1.48	< 0.05
pH*	6.5 – 9.5	~ 8.5

Great Chemistry At Work™