

Tip of the Week

February 7, 2005



A Place for Everything

There are a 1000 things that can go wrong on a stack test. Over the last few years, a common one has been sample mislabeling. Given the number of samples that we generate, and the hectic environment that often descends upon the field lab, this isn't necessarily a surprise. Unfortunately, switching sample labels on just one set of bottles out of 500 correctly-labeled ones can cast a shadow of doubt over the entire test program.

Lab errors are often human errors, which are impossible to fully eliminate. In these cases, we must look for root causes and change our processes to avoid those causes entirely.

One root cause of lab errors is the commingling of sample jars from multiple test methods and/or test locations. Not only does this lead to potential sample label switching, but it also increases the chances of sample and reagent contamination.

A good practice is to always set up separate work stations in the lab for each method, and to further divide these locations according to test location. Each station has its own set of labels, squeeze bottles, sample jars, chain-of-custody forms, etc., and never the twain shall mix. Of course, there are obvious limitations in doing this effectively in a small space, which is often the case in our tiny lab trailers. Nevertheless, any level of segregation, even if it is just a line drawn on the counter, helps with mental isolation of similar work tasks. This goes a long way towards keeping like things together and unlike things apart.