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WATER TESTING:
Mail-In Style

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Sales Force
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Water Testing Mail-In Style



Richard Stump, lab director for Suburban Water Testing, performs a water analysis procedure.

Mailing a water sample to a lab for analysis is convenient and makes testing accessible to water treatment dealers who don't have a testing facility in their area. But when using the mail-in method, special procedures must be followed in order to ensure the validity of the water sample.

By Susan Mayer

Water—the universal solvent. It's capable of picking up anything and everything it comes in contact with, like arsenic, nitrates, coliform, iron and a long, long list of other

Metals, in particular iron and manganese, tend to plate out on the sides of the sampling container.

undesireables. Sometimes sensory perception of sight, taste and smell tells us there's something in the water that shouldn't be. But there are countless other contaminants that can't be detected by the senses. If you want to know what's in the water, you've got to have it tested.

Water testing can be a valuable sales tool for water treatment dealers. Not to mention the fact that before they can sell a piece of equipment, they have to know what's in the water that has to be taken out.

There are two ways a water sample gets to a laboratory for analysis, either it's mailed in or walked in. It sounds simple enough, but unless correct procedures are followed, you can end up with a useless sample and inaccurate test results. The chances of this happening are much greater with mail-in, yet, the mail-in method makes water testing more accessible to more people.

Franchise companies usually have a testing service available through the manufacturer. But says Don

Saltman, owner of Suburban Water Testing Laboratories in Frederick, Pennsylvania, "There are a lot of assemblers in this business, and there's no backup for those dealers." For this reason, Saltman is building up his mail-in business and specifically targeting it to these dealers.

Currently, about 70 percent of his business is derived from walk-in accounts, while mail-in makes up only 10 percent. But that is expected to change after Saltman implements a new mail-in advertising campaign.

Walk-in business, where the water sample is either personally delivered by the customer to the lab or personally collected at the site by a lab technician, is a more controlled method than mail-in. The microbiological validity of a water sample is affected by several variables which are more difficult to control when using the mail-in method. Special attention must be



WaterTest Corp. provided custom designed mail-in water testing kits.

given to timeliness, temperature (chilling), acidification and the way the sample is collected.

In order to be microbiologically valid, a sample must be received no later than 30 hours after collection. This requires shipping samples by express mail, if mailed from an area outside of next day post office delivery. Laboratory forms that are returned with the sample should ask for the time of sample collection so that its exact age can be determined. Saltman recommends that any sample being tested for coliform, because it's perishable, be personally delivered to the closest laboratory.

According to Gene Rosov, who operates Waterfest Corp. in New Hampshire, the Federal Environmental Protection Agency (EPA) requires samples to be kept at 4°C en route to the lab and that all samples analyzed for metal be acidified to keep the metals in solution to ensure accurate test results. Metals, in particular iron and manganese, tend to plate out on the sides of the sampling container. Nitric acid must be added, but it is dangerous to ship and requires special labeling and ground transportation only. A nitrate sample must be treated with sulfuric acid to stop the growth of nitrifying or denitrifying bacteria, which will affect the actual nitrate level of the sample and produce inaccurate test results.

Waterfest Corp., which mainly handles mail-in business, has figured out a way to control these problems through the design of its sampling containers and packaging. The company provides five separate containers and a specially shaped chill pack that is wrapped around the microbiological container. There are special bottles for metals and nitrates which have been acidified in a way that allows them to be shipped by express mail without violating any regulations. A custom designed styrofoam block surrounds the samples to ensure arrival in proper condition.

Collection of the sample by customers is a concern of Suburban Water's Don Saltman. It's very important that laboratories offer detailed instructions on the correct method of sample collection. For example, a container with a sample that is to be tested for volatile contamination must be completely filled to the top

with no air head. Otherwise, the volatile organics will end up in the air and test results will be inaccurate. On the other hand, bacteria samples must have an air space so that the bottle can be shaken to dislodge bacteria that may be hanging on the sides of the container.

When drawing the sample the water should run full force from the tap for about five minutes so you don't get the water that has been laying in the pipes. Some distribution pipelines are lead, and water that has been sitting in them for a while may pick up some lead contamination, which actually isn't present in the source water. The water should run until a temperature change occurs.

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which indicates that the water that was sitting in the pipeline has passed. The sample should be taken first thing in the morning in order to perceive the temperature change.

If there is a screen or aerator at the end of the faucet, it should be removed before taking the sample. A screen can be contaminated with bacteria and pass it on to the water.

"I feel that basic preservation techniques aren't observed in mail-in business," says Dr. Earl Hess, president of Lancaster Labs in Lancaster, Pennsylvania. "And erroneous test data are more dangerous than having no test data." Lancaster gets 90 percent of its water testing business

by personally collecting it within a 50-70 mile radius. Hess emphasizes the personal touch of the walk-in method. "Non-technical customers need interpretation of the significance of the test data, which is difficult to do with mail-in," he comments.

Mail-in operations have a reputation of not providing any backup information with the computer print-out of test results given to customers. The print-out itself may not mean much to a lot of people. However, Suburban Water and Waterfest are out to change that. Both companies offer interpretation of test results and recommend methods of treatment for water problems.

The walk-in procedure enables customers to ask more questions, which helps to find out what contaminants they need their water tested for. Says Hess, "A customer will say they want you to test the water for everything, and they don't realize how much everything is." Testing can be tailored for individual needs. Testing parameters can be narrowed down by asking if there are such problems as stains on laundry, suds on the water, funny taste or odor, if they live near a landfill or if they're in an agricultural area.

Waterfest offers standard testing for parameters oriented toward the Federal Safe Drinking Water Act. According to Rosov, other labs would charge a standard price of \$600 for the same battery of testing he does for \$78. "Waterfest charges so little because we only test drinking water and we are able to achieve economies of scale," Rosov explains.

Most labs charge by the contaminant being tested for. For example, Stiefel Research Institute, Inc. in Oak Hill, New York, charges \$15 for a bacteriologic test, \$25 for arsenic, \$12.50 each for iron, sodium and lead, and \$6.25 for hardness.

Having a lab send someone out to pick up a sample can add to the cost, which is why the mail-in method may be more appealing for some people. While the walk-in procedure is safer, mail-in is convenient for a water treatment dealer who is located in an area which lacks a lab that can analyze water samples. And, if all collection and mailing procedures are followed correctly, the mail-in method will get you accurate results. □