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Comments

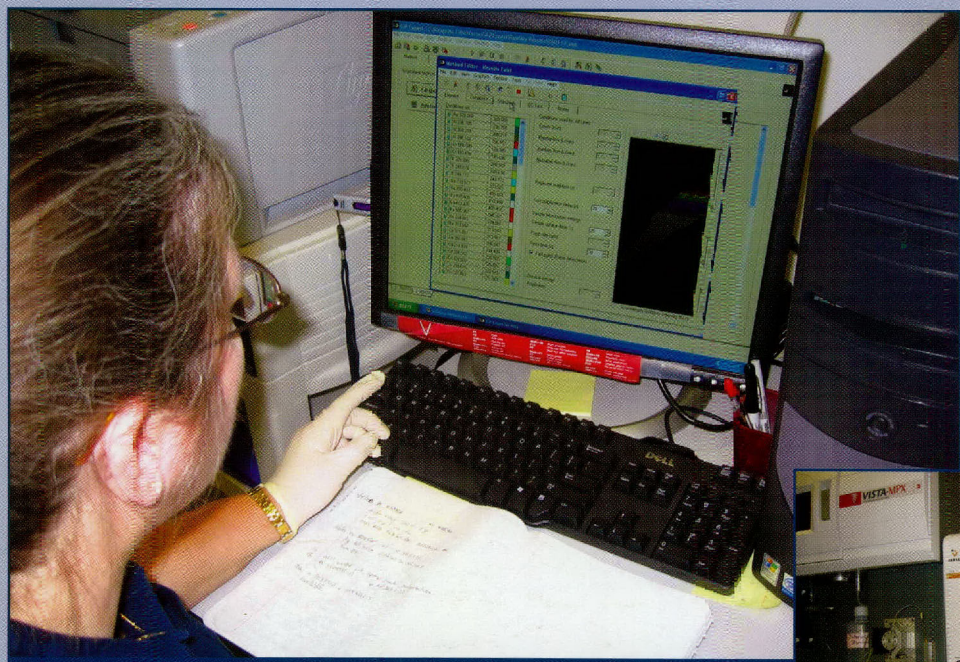
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Lab Gear ID's Trace Metals



Lisa Robinson, Metals Lab Coordinator, reviews results from Central Laboratory's new ICP metals analyzer.

"and we are better able to control for interferences that could cloud our results." She added that the new device will analyze for two elements that weren't even covered by the older equipment.

With the new ICP, Central Lab can run up to 30 elements at a time with better results and in less time than was possible previously.



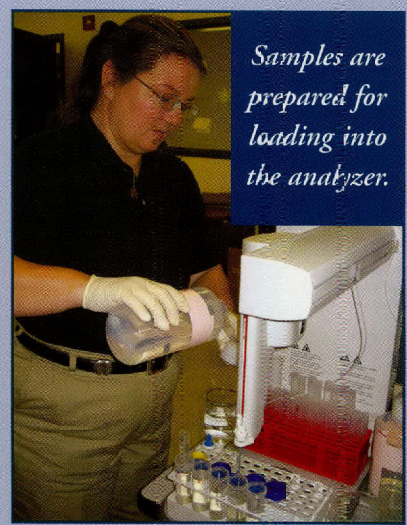
Central Lab's Inductively Coupled Plasma Spectrometer.

In September of last year, GCA's Central Laboratory began analyzing metals samples with a new piece of equipment. "We added a new model ICP to replace the one purchased more than 15 years ago," said Lab Manager Terri Strachan.

An Inductively Coupled Plasma Spectrometer, or ICP for short, is a device that is able to detect trace metals in wastewater samples.

Without getting really technical, the ICP heats a sample to 8000 degrees Centigrade. At this temperature, and with other conditions created in the ICP, the elements in the sample give off distinctive wavelengths of light. The emitted light is converted to an electrical signal that can be measured.

"The new ICP has allowed us to identify compounds at lower levels than we could previously," Strachan said,



Samples are prepared for loading into the analyzer.

“Could I borrow a cup of bugs?”



Pumper trucks can pull right up to this loading area at Washburn Tunnel Facility when another treatment facility needs an injection of hard-working micro-organisms.

OK, that's not really the question that occasionally gets asked of the staff at Washburn Tunnel Facility (WTF). The request is more likely to be for a tank truck full of the tiny critters that make wastewater treatment plants work.

Greg Seay, Operations Supervisor, at WTF is usually the first contact when some other entity needs to re-seed a wastewater treatment plant with the micro-organisms, or bugs, that break down organic compounds. “If a plant operator needs a new population of bugs, we are able to load them up with activated sludge to replace their biomass,” Seay said.

“These micro-organisms occur naturally,” Seay explained. “They're in the water and the soil all around us and do nature's work of breaking down and

recycling organic material. These are the same kinds of microscopic bugs that make compost.”

In a treatment plant such as WTF, some of the micro-organisms work to break up long chains of hydrocarbon molecules, others consume key components of pollutants and reduce their toxicity, Seay added. When a mix of these organisms is introduced, they can convert something that would be a problem if it was released into the environment untreated into harmless by-products.

“The job of the staff at a wastewater treatment plant is to maintain an environment that is favorable to keeping these bugs alive and productive. We have to see that they get just the right amount of oxygen . . . the right temperature . . . enough to eat but

not too much at once and a number of other things that keep them happy,” Seay stated.

People who aren't part of the treatment business often ask what sludge is and where it comes from. Seay explained that sludge is mostly these same micro-organisms that do all the work cleaning the water. “Every day you grow billions of new bugs so, eventually, you have too many and you need to get rid of some of them. Also, anything that is not organic, like sand for instance, can be in the water, and it won't be broken down. The inorganics and the micro-organisms build up to become sludge. In the case of WTF, this sludge is non-toxic and simply is transported to a landfill.”

“It's this same micro-organism filled sludge that is so valuable to a plant operator when something has upset his existing bug population. They can come to us for a fresh supply.”

Another of those treatment industry terms that casual visitors find amusing is “sludge cake.” Before sludge is taken to the landfill, it is sent through a series of rollers to press out the excess water. The resulting dry material is called sludge cake.

It may look as if a flying saucer is coming to rest at GCA's Bayport Industrial Wastewater Treatment Facility, but it's really the first of four tops which will seal four first-step treatment tanks at the plant. Capping the units will enable Bayport to control and treat VOC's, or volatile organic compounds, which would otherwise be released into the atmosphere.

The triangular openings visible in the cap will be sealed when the installation is complete.



Mark Schultz, Chairman of GCA's Board of Directors, presents the Certificate of Achievement for Excellence in Financial Reporting. Two employees were recognized at the January Board Meeting. At left, Gale Randrup receives a certificate for his contribution in creating programs which simplified the financial reporting system. Leah Babitz, right, receives the plaque awarded by the Government Finance Officers Association for the Authority's 2005 Consolidated Annual Financial Report.

They will be missed.



John G. Unbehagen, 67, of Galveston, died November 14, 2005. Mr. Unbehagen had an enviable record of community service, including terms as a member of Galveston City Council and as

Mayor of Galveston. He served as a member of the GCA Board of Directors from February 1981 to March 1988 as an appointee of the Governor.

A Galveston native, Unbehagen graduated from Ball High and attended the University of Texas at Austin. He served as a commissioner of the Galveston Housing Authority; vice president of the Galveston Jaycees; president of the Galveston YMCA and member of the National YMCA Council; vice chairman of the Propeller Club National Convention; member of the board of the Galveston Propeller Club; member of the board of the

Galveston Chamber of Commerce; member of the Galveston Wharves; chairman of the Galveston Wharves, and chairman of the Galveston Planning Commission. His many awards include Man of the Year of the League of Women Voters, of the Propeller Club and of the Jaycees.

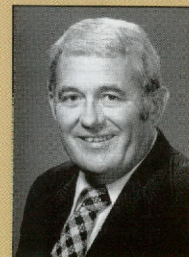
He is survived by his wife, Joy; and their daughter, Gay Lynn Jardas, and their son, John Baron Unbehagen; two brothers, four grandchildren and numerous other relatives and friends.

T. David Stewart, Jr., a former member of the GCA Board of Directors, died April 12, 2006. He was appointed by the Galveston County Commissioners to the very first Board of the Authority in 1969. For 27 years he served as manager of the National Association of Conservation Districts with offices in League City.

He was later appointed to the original Board of the Harris-Galveston Coastal Subsidence District. Mr. Stewart also served as a Director for League City Bank and Trust and, later, Maxim Bank. He was a member of the American Legion, having served in the Pacific as a landing boat group commander.

In 2005, he was honored as Deacon Emeritus at University Baptist Church. He also was one of the organizers and charter members of the Texas Avenue Baptist Church in League City.

He is survived by Doris W. Stewart, his wife of 59 years; his daughters, Nina Hanks and Peggy Wohlgemuth and husband, Mark; son, Jim Stewart and wife, Jennifer; 10 grandchildren; and sister, Katherine Smith.



Comments

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