



Bureau of Laboratories (BOL)

Jacksonville - Lantana - Miami - Pensacola - Tampa

Environmental Chemistry

The origin of our Environmental Chemistry Laboratory (in Jacksonville) can be traced to Toxicology and Environmental laboratories operating at the BOL during the second half of the last century. EPA's delegation of the Safe Drinking Water Act to the states in the 1970s supported a merger of the two laboratories into what is now Florida's Principal State Laboratory (PSL) for drinking water chemistry. Further expansion of capabilities came in the late 80s and early 90s with the discovery of aldicarb (Temik) and ethylene dibromide (EDB) in water supplies, leading to testing requirements for these two contaminants.

The Environmental Chemistry Laboratory continues to evolve to meet the needs for protecting the drinking water and the health of Floridians and visitors. In addition to being the PSL for drinking water chemistry, the laboratory also works with the Bureau of Water Programs to provide Drinking Water testing for the Department of Environment Protection's (DEP) State Underground Petroleum Response (SUPER) Act. In addition, the laboratory responds to Drinking Water emergency contamination episodes (DWIK), is a member of the national Food Emergency Response Network (FERN), and provides assistance to the BOL's Chemical Terrorism program for analysis of unknown "white powder" samples.

Highlights/specialties

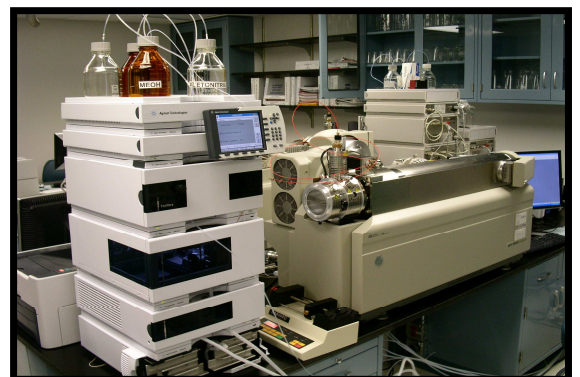
- A full-service National Environmental Laboratory Accreditation Program (NELAP)-accredited Drinking Water laboratory serving as the PSL for drinking water.
- Highly sophisticated equipment including Gas Chromatography (GC), GC-Mass Spectrometry (MS), Inductively Coupled Plasma (ICP)-Atomic Emission Spectroscopy (AES), ICP-MS, Liquid Chromatography (LC), LC-MS, Ion chromatography (IC), Total Organic Carbon analysis, and Atomic Absorption analysis.
- Member of FERN.
- Use of Sample Manager Laboratory Information Management System, which allows a pre-login of samples. This system tracks sample containers in the field, samples in various stages of analysis and generates reports. The system allows the submitting County Health Department to view their results from an internet site after the analysis has been verified by the quality assurance unit.
- Capability of qualifying and quantifying toxic algal blooms, a serious beach hazard.

Workload

- Yearly average sample load (water and non-water) for 2003 to 2008 was 35,570 samples.
- Budget changes for 2008 are estimated to decrease the number of determinations by 14%.

Challenges

- Recruiting a skilled and credentialed workforce.
- Managing an increasing workload with limited funding.
- Maintaining our infrastructure (facilities and equipment).
- Finding the time and resources needed to provide training for our staff.



BOL — Your Laboratory Partner

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