



Citizens Energy is Leveraging the Power of Sample Master® LIMS to Increase Lab Productivity

Result is Significant Time Savings Throughout the Sample Testing Process

Company Profile

Citizens Energy Group was founded in 1887 as Consumers Gas Trust in Indianapolis, Indiana. It became Citizens Gas in 1906 when the city purchased the majority of the company's assets. Over the years, the name changed several times and in 2008 the company was renamed Citizens Energy Group (CEG). CEG provides a number of services for the Indianapolis area including water and wastewater, natural gas and thermal energy.

Citizens Energy Group Lab Services (CEGLS) conducts testing for the drinking water and wastewater operations of the organization. This encompasses testing for thirteen drinking water facilities, two wastewater treatment plants and a number of production wells. The laboratory conducts approximately 120,000 drinking water tests annually and complies with the Safe Drinking Water Act (SDWA) requirements. On the wastewater side, the lab performs testing that complies with discharge monitoring and NPDES reporting requirements.

CEGLS has 15 employees including a Laboratory Manager, 2 Laboratory Supervisors, 9 analysts and 3 field sample technicians. The volume of testing performed by the staff on a monthly basis is significant; 1,800 samples, 8,500 analyses covering 13,000 parameters. The lab also provides other valuable services including monitoring and control of algal toxins and organic compounds (geosmin and MIB), answering consumer requests on the customer water quality hotline, and providing scientific consulting services for individual business units.



Mark Gray, Lab Services Manager



Citizens Energy Group
www.citizensenergygroup.com

“Accelerated Technologies Laboratories provides Citizens Energy Group with a simple, well organized product in Sample Master that exceeds our expectations. Sample Master is simple and well organized. And it provides us the organizational needs required in this industry.”

Mark Gray, Lab Services Manager



Their Challenge

For many years, CEGLS managed data generated by the laboratory manually using lab notebooks and calculators. This was extremely labor-intensive work with long turnaround times. And because all the data entry and calculations were performed manually, data quality was an issue. In the mid-1990s, the lab invested in computer technology and began using spreadsheets for data management, analysis and reporting. There were improvements in turnaround time and required less labor but this solution was still prone to data entry errors and reporting capabilities were very limited. In 2004, the lab implemented their first LIMS. This was a big improvement over spreadsheets since the LIMS provided basic sample management along with a level of testing analysis, including QA/QC control charting, that the lab did not previously have available.

While this initial LIMS provided a better data management solution, there were still a number of areas that presented challenges for the lab. These included the following:

- The LIMS required a considerable amount of configuration to optimize it for CEGLS.
- While the sample batching and reporting capabilities of the LIMS was adequate, the lab wanted additional LIMS functionality that would provide more comprehensive analysis along with easier report generation.
- CEGLS wanted more autonomy in configuring the LIMS – much of it required the vendor's involvement.
- Modifying existing reports required the use of a reporting tool that was not user-friendly.
- Some calculations could not be executed in the LIMS; data was exported to a spreadsheet for the calculations and then imported back into the LIMS. This process was very time-consuming.
- The LIMS included functionality that was designed for other industries and CEGLS decided that the next LIMS would be one that catered to the needs of water/wastewater laboratories.



Citizens Energy Group Laboratory



Our Solution

CEGLS eventually decided to look into alternative LIMS and evaluated several LIMS products that were known to be strong options for water/wastewater and environmental laboratories. The lab staff judged the LIMS solutions based on the evolving requirements of the laboratory and chose ATL's Sample Master® LIMS through an RFP selection process. CEGLS was very impressed with Sample Master for a number of reasons including the following:

- Sample Master LIMS provides powerful LIMS capabilities that are a natural fit for water/wastewater and environmental laboratories.
- The lab was impressed with Sample Master's QA/QC functionality including QA/QC batch and comprehensive control charting capabilities.
- Sample Master LIMS provides the lab with powerful configurability options and the ability to easily create and modify new and existing reports.
- CEGLS appreciates Sample Master's ability to automatically schedule samples in advance (daily, weekly, monthly, quarterly, annually, etc.).
- The Master Query function is a powerful feature that provides users with the ability to query Sample Master and create an unlimited number of user-definable reports.
- ATL worked with the lab to interface Sample Master with the majority of their instruments. While the lab did have instrument interfacing with the previous LIMS, configuration with Sample Master is more efficient.
- Sample Master also provides the lab with a number of automated functions, such as automated calculations, auto email and the ability to have the calendar trigger alerts for compliance events.
- CEGLS uses Sample Master to ensure that the lab meets its reporting requirements to the Indiana Department of Environmental Management for drinking water analysis and to ensure NPDES compliance for wastewater discharge monitoring.



At the time CEGLS implemented Sample Master, it was used by the water quality lab staff. Since then, they have been joined by the wastewater laboratory, and now the combined staff is using Sample Master LIMS. CEGLS is very happy with Sample Master and has documented some impressive productivity metrics that are worth sharing. Since implementing Sample Master LIMS, CEGLS has been able to streamline tasks and incorporate a high degree of automation into the sample testing process. The result of these efforts can be measured by the fact that the laboratory has saved 2.5 hours of person-hours per week. This savings was realized in sample log-in or QC batch creation due to the speed and intuitiveness of the LIMS. Sample Master LIMS has proven to be an integral component to the lab's operation and is playing a major role in achieving its data quality, lab productivity and compliance goals.



Citizens Energy Group Lab Services Staff

Accelerated Technology Laboratories (ATL), headquartered in West End, NC, provides laboratory automation solutions to a variety of industries from analytical, environmental, food & beverage, water and wastewater, chemical, government, public health, clinical testing and manufacturing. ATL's LIMS products are installed in over 600 laboratories around the world and supported by a steadfast commitment to excellence in product quality, support and training. ATL is one of the few LIMS providers that is ISO 9001:2015 certified. For additional information, visit: www.atlab.com.

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