



Cary Institute of Ecosystem Studies Central Analytical Laboratory utilizes Sample Master® LIMS to Efficiently Manage their Ecological Samples

For nearly 25 years, Cary Institute has entrusted Sample Master with its valuable research data.

Organization Profile

The Cary Institute of Ecosystem Studies is dedicated to understanding how ecosystems work. Founded in 1983 by eminent ecologist Gene Likens, Cary Institute is one of the world's leading independent environmental research organizations. Their staff have a deep understanding of the key drivers of ecological change, among them climate change, invasive species, and human influence on land and water.

Cary Institute scientists are global experts in the ecology of:

- **Disease:** To protect people from diseases that originate in wildlife and livestock – such as Ebola, Zika, and Lyme – Cary Institute scientists are unraveling the environmental conditions that amplify disease risk and developing tools to predict and prevent their spread.
- **Freshwater:** Cary Institute scientists are studying streams, rivers, and lakes across the US and around the world to understand how they are responding to threats like climate change, salinization, algal blooms, and novel contaminants. Their findings guide effective management.
- **Forests:** Forests provide essential services, such as clean air and water and carbon storage – but they are under threat. Cary Institute scientists are studying the effects of invasive pests and pathogens, biomass energy, pollution, and forestry practices to inform sound forest management.
- **Urban:** Sustainable cities support the health of residents and the environment. Cary Institute scientists are working to understand the urban ecosystem and develop nature-based solutions to combat challenges brought about by climate change.

The Institute's research support staff comprises of program managers, lab technicians, and individuals who collect, sample and measure at field sites and analyze, count and do data processing in laboratories. At any one time there are approximately 40 research assistants working with scientists at the Institute's labs in Millbrook as well as at sites at the Hubbard Brook Experimental Forest, in New Hampshire, and elsewhere across the U.S. and abroad.

The Institute also hosts both long and short-term visits by scientists for research and collaboration with the Cary Institute scientific staff. Visitors have the opportunity to learn new procedures in analytical chemistry and data management. Cary Institute scientists also participate in collaborations with students from many different universities including the University of Connecticut, Rutgers University and Yale University.



www.caryinstitute.org
Millbrook, New York

“Our lab processes over 50,000 analyses annually; samples are submitted from a variety of research projects located locally and from around the world. Whether we have seasonal cloud water samples from Chile or long term monitoring samples from the Hubbard Brook Ecosystem Study, we can count on Sample Master® to maintain the integrity of our data.”

Denise Schmidt, Director of Laboratory Research Facilities and Analytical Service / LIMS Administrator, The Cary Institute of Ecosystem Studies Analytical Laboratory



Their Challenge

The Cary Institute is one of the largest ecological programs in the world, with 73 research sites in 20 different countries. More important than its size, however, is the quality of its output. Books and articles authored by Cary Institute ecologists influence scientists and policy makers. They have been instrumental in informing the Clean Air Act amendments, the Intergovernmental Panel on Climate Change, the Environmental Protection Agency, and management practices throughout the Northeast. The Cary Institute Central Analytical Laboratory required a LIMS to ensure the quality and reliability of its data, including traceability.

Our Solution

The Cary Institute Central Analytical Laboratory chose Sample Master® LIMS to efficiently manage the ecological samples that they analyze. Sample Master generates QA/QC charts in the QA/QC module and control charts and trending are reviewed to evaluate precision and accuracy over time. Sample Master also contains powerful reporting functions, that have allowed the creation of many different reports. Over five dozen standard reports are included with Sample Master; which can all be modified.

The lab also implemented Result Point®, a unique web portal that provides 24/7 access to sample status, test results, reports and more, at any time and from any location with an internet connection. Result Point is an ideal data-sharing solution that provides the laboratory easy, flexible, secure access to their information.

In addition, with Sample Master, instrument output files are seamlessly uploaded; eliminating transcription errors and decreasing the time required to provide results. Thanks to implementing bar coding, instrument integration and seamless migration of the data into the LIMS, the laboratory staff is able to focus on data reduction rather than data entry.

For over twenty years, the Analytical Laboratory at the Cary Institute has relied on Sample Master to ensure data integrity and successfully manage its valuable research data.



The Cary Institute of Ecosystem Studies in Millbrook, NY.

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, agriculture, cannabis, chemical, government, public health, biotechnology, 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.