Case Study: RTI Laboratories

Nationally recognized laboratory slashes operating costs and boosts productivity over 20% with Omega 11

Company Overview

Name: RTI Laboratories

Industry: Environmental Testing

Established: 1986

Location: 31628 Glendale Rd. Livonia, MI 48105

Revenue: >$7 million

Employees: 60

Ownership: Private

Website: www.rtilab.com

About RTI Laboratories

RTI Laboratories is an independent, commercial environmental testing laboratory based out of Livonia, Michigan. The lab provides a wide spectrum of analytical services ranging from organic and inorganic analyses, general chemistry as well as many specialty tests. Established in 1986, the company has grown into a nationally recognized laboratory focusing on environmental monitoring and remediation projects throughout the United States.

Challenges

During its transition to becoming a national laboratory, RTI was challenged to control costs in an industry already characterized by slim profit margins. Operating expenses ballooned, driven by additional personnel and supply purchases, as the lab attempted to keep up with a growing backlog of samples from the newly acquired contracts.

Production was frequently delayed due to downtime of major instrumentation, which extended turnaround times and required RTI to subcontract testing to other laboratories, further adding to its operating costs. The workload also left RTI unable to produce CLP-like data packages within contract deadlines as the company relied on a time-consuming process that involved manually scanning thousands of pages of data into electronic format. The frequently late reporting resulted in an agitated client base and the loss of several major contracts.

Results with Omega 11

Cost Savings

Using the Omega 11 tools for tracking laboratory supplies, senior managers were able to identify and reduce purchases on chemicals, reagents and glassware that were beyond the laboratory's needs, something they were previously not able to readily monitor. The increased knowledge of order volumes also allowed them to negotiate lower prices with vendors. Over two years, this allowed RTI to decrease laboratory supply costs by over 30%.

The event scheduling features in Omega 11 helped project managers proactively manage bottle orders and reduce shipping costs. By adding clients' sampling schedules into the LIMS, automated notifications ensured that sample containers were sent out on schedule, immediately reducing shipping costs 10% by limiting the expedited services that RTI previously utilized on a routine basis.

Omega 11 also enabled RTI to improve instrument uptime by scheduling routine maintenance and simplifying its oversight by lab managers. The LIMS scheduler regularly notified the appropriate personnel of the maintenance required on each instrument, dramatically improving adherence to these critical actions. Electronic instrument logs allowed managers to quickly review the upkeep and supervise any inadequacies. Within the first year alone, these actions reduced instrument repair expenses by over $20,000 and provided additional savings in supply purchases, including a 30% reduction in chromatography column purchases alone. Better routine maintenance also reduced the need for frequent instrument calibrations, further increasing lab productivity. Most importantly, the improved instrument uptime minimized the need to subcontract testing to other labs, thereby saving RTI thousands of dollars in unnecessary expenditures.

Improvements in Productivity

Omega 11 helped RTI dramatically increase its productivity by automating many processes and improving coordination between analysts, project managers, QA/QC personnel and senior management. Creating a virtually paperless laboratory with all lab-relevant information in a secure, centralized LIMS facilitated communication between departments and saved time in virtually every step of laboratory operations. For RTI, this resulted in a 20%+ increase in revenue per FTE from 2011 to 2014 as the lab implemented the latest enhancements of Omega 11.

RTI experienced this dramatic increase in productivity by utilizing nearly all of the latest features of the LIMS. Analysts employed the improved workflow planning tools to increase sample batch sizes while remaining within holding times, thus reducing the number of batches required. Interfacing the LIMS with more instrumentation eliminated the possibility of transcription errors while saving time for staff that previously recorded data manually. Project managers used Omega 11 to coordinate client needs with the laboratory, automate case narratives, generate bottle labels and forecast incoming samples for workflow planning. Built-in data checkers streamlined RTI's data review process by automatically flagging the QC samples exceeding their specified limits, helping the laboratory downsize its QA/QC department without sacrificing quality. Every group within RTI Laboratories came to rely on Omega 11 to improve workflow coordination and automate key processes to enhance lab productivity.

Efficiency Gains in Reporting

RTI experienced the greatest benefit of beco ming a paperless laboratory within its reporting process. The procedure for producing 1,000+ page CLP-like Level IV reports before Omega 11 included gathering paper copies of analytical data spread throughout the laboratory, organizing pages into the correct order and manually scanning them into electronic format. With Omega 11, entire data packages were now generated electronically by the LIMS and the process to produce one Level IV report was shortened from 4 days with 5 full-time employees (FTEs) to only 4 hours with 2 FTEs. RTI was also able to generate more basic Level II reports within seconds using Omega 11.

For more information about Omega 11, please contact Khemia Software at info@khemia.com