

Case Study: Matrix Gemini LIMS Helps Biomass Energy Lab Deliver Accurate Test Results In A Timely Manner



The introduction of a specifically configured Laboratory Information Management System (LIMS) has transformed the efficiency of a busy biomass lab. Eliminating the use of spreadsheets for sample tracking has simplified data retrieval while other LIMS functionality has facilitated ISO17025 compliance.

Background

Biomass fuel is a renewable energy source produced from wood and other organic matter. There are a variety of formats including woody biomass, agricultural residues, densified/pelletized fuel, municipal waste debris, or process-derived waste products. Biomass Energy Lab (BEL) was formed in September 2011 to service the biomass fuel industry and enable producers and users to comply with any standard/certification system, both domestically and internationally. BEL is a joint venture between Timber Products Inspection Inc. and Control Union USA Inc. Timber Products Inspection (TP), head quartered in Conyers, GA, is an independent, third party wood products inspection, testing and consulting company operating throughout the USA. Control Union USA, head quartered in Saint Rose, Louisiana, is an independent global service provider offering specialized services comprised of inspection, logistics and certification of biomass and biofuel products. Under the umbrella of BEL, third party

Fast Facts

Establishment

- Timber Products Inspection / Biomass Energy Lab

Industry

- Biomass Energy

Geography

- USA

Challenge

- To implement an ISO17025 compliant, yet flexible, LIMS

Solution

- Matrix Gemini LIMS

Results

- Improved lab efficiency due to a single system for compiling all lab information
- Matrix Gemini provides a very flexible approach to changing workflows and report types
- Ability to generate quotations, include graphs in reports and analyze results trends
- Facilitates compliance with ISO17025 standards

testing, inspection, auditing, quality management consulting, QA/QC sampling, logistics, supply chain auditing and sustainability

come together to provide a complete program for the biomass industry.

Challenges

When BEL was formed, all sample information and testing data was recorded in custom built Excel spreadsheets. Reports were retained as pdf files and stored in a cloud storage system. Sample registration was extremely time consuming as each sample required a new custom spreadsheet. Although this system worked, it did not provide a centralized comprehensive working site to create, maintain, store and retrieve testing information.

It was determined that a single database LIMS system was needed to improve the overall efficiency of the lab. The system

would need to be affordable, and built to meet the needs of the lab operating procedures, but still offer the flexibility for BEL personnel to make changes to the system in house without the need for programming skills. Another important requirement for the LIMS was to be compliant with the requirements of the various standards and testing processes required by BEL. TP & BEL are both independently accredited to ISO 17025, and test per ASTM, CEN/EN and ISO methods. In addition, they provide ENplus™ and PFI certification programs.



Solution

TP contacted three LIMS vendors including Autoscribe Informatics, whose sales engineer had visited TP several years before. Autoscribe Informatics demonstrated that by making use of the built-in configuration tools, the Matrix Gemini LIMS was able to include screens relevant to TP and BEL's needs. This illustrated in a very practical way how Matrix Gemini would be able to be configured precisely to match the lab's actual workflows.

The configurability and ease of use of Matrix Gemini was a major influence in the decision to purchase, especially as it is possible

for users to make their own changes without needing any programming, coding knowledge or skills. This feature was very attractive to BEL and perfectly met their needs.

BEL worked closely with Autoscribe Informatics during the development and implementation phases to ensure that Matrix was configured exactly as needed. Lab personnel attended a training course in the use of the configuration tools and the system went live in January 2015.



Benefits

The major benefit from using Matrix Gemini has been not only time savings, but overall improved lab efficiency due to a single system for compiling all lab information. In addition, the LIMS provides a very flexible approach to changing workflows and report types.

BEL can either choose to make the changes to the LIMS themselves or ask Autoscribe to assist. Other benefits include:

- Repeatability of results through statistics - real time feedback on quality of results
- Added functionality: to generate quotations for laboratory services

- Added functionality: to generate graphing reports
- Added functionality: to track and trend Standard Reference Materials (SRMs)
- Facilitates compliance with ISO17025 and the many other accreditation and standards followed

Since the focus of ISO17025 is on the operation and management of the laboratory, Matrix Gemini has an important role to play in many areas. For BEL, tracking of standard reference materials, audit trails, time/ date stamping of all actions and version control of all reference data such as test definitions have all been highlighted as being extremely useful.

Quotes

“We are particularly impressed by the flexibility of the system and being able to change configurations ourselves”

“The competitive price combined with a strong customer relationship were vital components of our purchase of Matrix Gemini”

“We would definitely recommend Matrix Gemini to others”



TIMBER PRODUCTS
We Deliver Confidence.

About Autoscribe Informatics

Autoscribe Informatics offers industry leading configurable future-proof database management applications. Solutions include Laboratory Information Management Systems (LIMS) and Quality Management Systems that are configured to match user requirements.

Autoscribe has offices in the UK and USA, with distributors around the world.

Our worldwide team of LIMS, scientific and business software professionals are passionate about delivering solutions that meet the evolving needs of our customers. We leverage our highly configurable solutions and our 30+ years of experience to help our customers automate their processes to work more efficiently, provide real cost savings and meet regulatory compliance needs.

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