

Pilot with Eurofins (EETUS) and Dow

# Digital Environmental Data Workflow

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## A Complete Digital Workflow Case Study

EarthSoft and Eurofins Environment Testing US businesses (EETUS) validated a digital workflow connecting the EarthSoft EQuIS® Environmental Data Management System (EDMS) with the EETUS network LIMS with Dow-provided representative data.

### The Challenge

Manual and paper-based workflows continue to slow down environmental projects and increase the risk of data handling errors. This pilot introduced a direct digital connection between EQuIS and the EETUS network LIMS, enabling analytical information, such as groups, methods, and analytes, to flow seamlessly from the laboratory to the project workspace. This integration removed the need for lab technicians and project data managers to manually re-map or re-enter data, reducing operational costs, and eliminating transcription errors.

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# The Solution – A Complete Digital Workflow

EarthSoft collaborated with [Eurofins Environment Testing US](#) to enhance its network LIMS to:

- Generate and manage an electronic contract (eContract): This defines all valid analytical groups, methods, analytes, and containers for a project or group of projects. The eContract serves as a digital contract between the laboratory and the client, acting as the authoritative reference for analytical requirements.
- Automatically ingest EarthSoft eCOC XML files: This links field sampling data directly to the laboratory's sample login and registration process, ensuring that all samples are accurately received and matched to the correct analyses.

Together, these enhancements created a seamless digital handoff across field operations, laboratory processes, and data management systems.

EarthSoft collaborated with EETUS network business to map the EQUIS eCOC format to the network LIMS, updating the eCOC specification to support integration and ensure full interoperability between platforms.

Dow contributed representative data within a test environment to validate the integrated workflow, confirming both its technical feasibility and operational value.

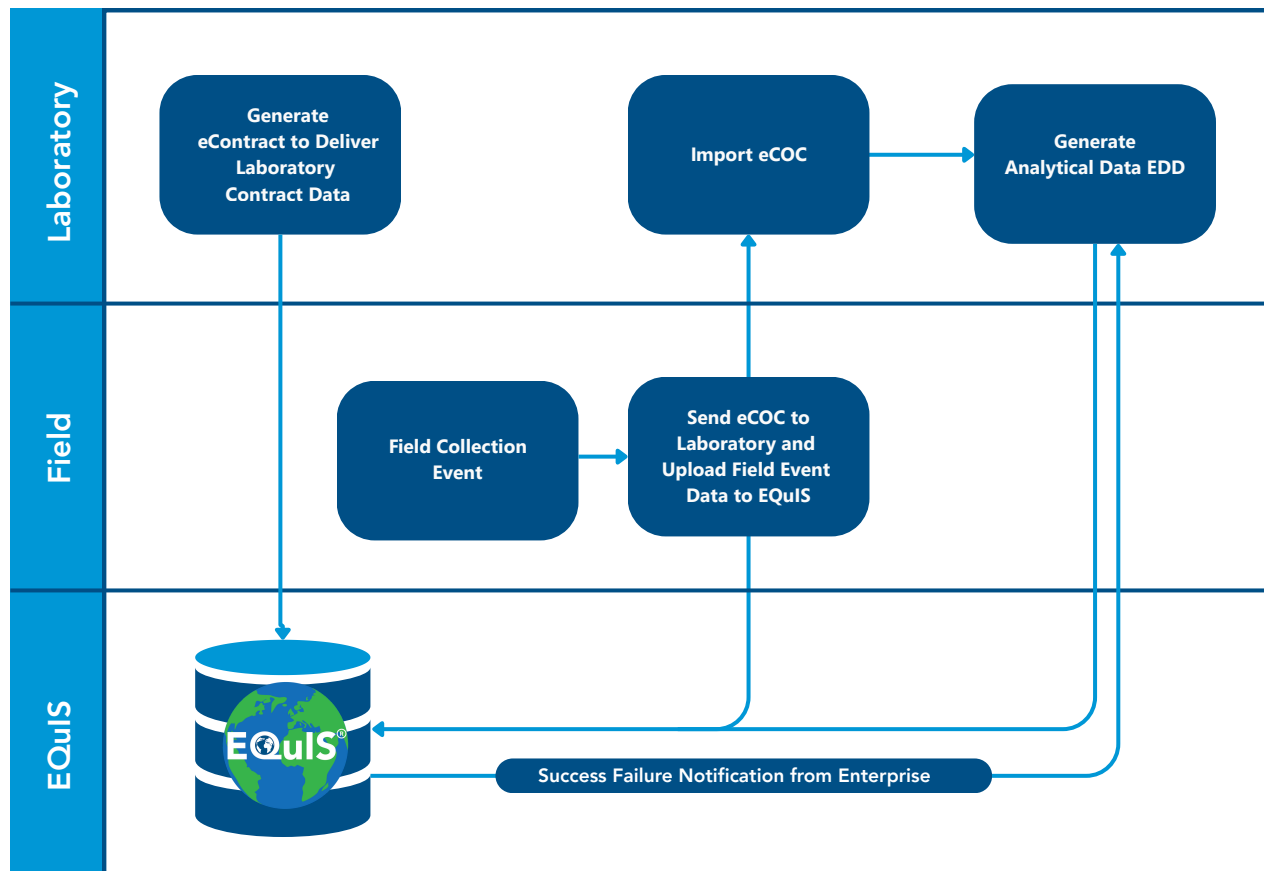
## eContract-to-eCOC Integration Process

The eContract-to-eCOC integration process is specific to the EETUS network LIMS platform.

The EETUS network wide LIMS covers 63 laboratories nationwide, with four additional implementations planned within the next six months. This extensive adoption ensures a unified platform for environmental testing operations across the United States.

To create a new eContract, an active project must already exist in the LIMS. Within each active project, the Project Manager initiates and generates the eContract as an Excel (.XLSX) file. This file contains the approved list of analytical groups, methods, analytes, and containers for the specific project or group of projects.

# EQulS<sup>®</sup> Digital Workflow



The digital workflow discussed above highlights the digital exchanges occurring between a sampling company and a laboratory. Workflows are designed to increase productivity and efficiencies. Organizations will have workflows based upon their own business goals.

The **eContract**: After project analytical requirements are communicated to the laboratory, the laboratory generates an electronic quote (eContract). The eContract contains the list of methods, analytes, units, containers, and method groups. These data are then uploaded to EQulS and used for sample planning purposes using the EQulS Sample Planning Module (SPM).

The **eCOC**: After collection of samples in the field, an electronic Chain of Custody record is generated using EQulS Collect and submitted to the laboratory for upload to their LIMS. Digital data transactions are checked and confirmed prior to the receipt of the physical samples. EQulS digital eCoCs offer a single commercially available format that is laboratory agnostic. The eCOCs are pre-populated prior to personnel going out in the field and are digitally transmitted to EQulS and/or the project laboratory after sample collection is completed. Where regulations allow, paper versions of the eCOC are eliminated.

The **EDD**: Following sample preparation and analysis, the laboratory creates an electronic data deliverable (EDD) and submits this file to EQulS. EQulS checks this EDD for correctness and provides detailed information on the EDD.

## The Results

The pilot demonstrated that a fully digital EDMS–LIMS workflow can:

- Eliminate redundant data entry and transcription
- Ensure analytical methods are correctly scheduled and applied
- Improve data accuracy, traceability, and turnaround time

It also creates the groundwork for scalable, governed environmental data exchange among consultants, laboratories, and clients.

## Next Steps

Building on the success of this pilot, EarthSoft and Eurofins Environment Testing US (EETUS) will transition the integration into production environments and continue working with Dow to expand the digital workflow across additional sites and analytical programs.

The partners will also invite other industrial collaborators to participate in upcoming phases to further validate and refine the process. The shared objective is to accelerate adoption of standardized, digital data exchange between environmental laboratories, consultants, and enterprise systems, improving transparency, efficiency, and data integrity across the industry.



**Own the Workflow,  
Make Better Decisions**

To learn more about how EQulS digital workflow solutions, contact one of our representatives today. Please write [info@earthsoft.com](mailto:info@earthsoft.com) or visit [www.earthsoft.com](http://www.earthsoft.com) for further information.

## Benefits



**Efficiencies**



**Quality**