

# KUWAIT OIL COMPANY

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## Company Background



Kuwait Oil Company (KOC) is the largest among the fully owned subsidiaries of the Kuwait Petroleum Corporation (KPC), and is responsible for Oil & Gas exploration, drilling, production and storage for export within the state of Kuwait. It has recently implemented a state-of-the-art Laboratory Information Management System (LIMS) for its West Kuwait (WK) and North Kuwait Assets (NK) water handling facilities in order to enhance its laboratory operations.

## Key Challenges

KOC was seeking a state-of-the-art LIMS to implement its various assets. The ideal solution had to meet the following criteria:

- Meet all the functional requirements for an upstream process laboratory
- Be able to “seamlessly” integrate into future corporate business and plant manufacturing systems
- Standardize laboratory information across the enterprise
- Add value and reduce time and effort to meet the extensive documentation and procedural requirements for ISO 9000 & 17025 Certification

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## System Sought

The system needed to be flexible to meet the laboratories' changing needs, expandable to allow for the addition of new laboratories, and capable of certification to meet the governing authorities' requirements. Also, the preferred technology had to be web-based for reduced IT maintenance costs. Functionality requirements included the ability to handle all of the data collection needs, graphing capabilities, and role-based security due to the nature of the data.

## System Selected

After an extensive market study on the comprehensive features and functionality, long term support justified the selection of LABVANTAGE's SQL\*LIMS as the preferred software for this LIMS project. KOC's core information technology group, Technical Systems Team, played a pivotal role in the technical evaluation, procurement, engineering, configuration, testing and commissioning of the LIMS project in coordination with various lab teams. The scope widely covers the design of enterprise wide applications,

databases, and provides licenses and infrastructure for the LIMS including hardware and network environment.

## System Delivered

The first phase of SQL\*LIMS was completed in December 2011 at the WK laboratory of its Crude, Water and Gas labs and subsequently extended to its NK facilities. The company initiated a plan to extend the system to the entire enterprise. SQL\*LIMS is integrated with the company's core database, FINDER, which in turn provided data to the management staff and field development, exploration and production teams. In general, the data was entered and accessed by the laboratory personnel at the lab during the 24x7 operations. The company established a maintenance team to support the system around the clock, develop enhancements and provide training to the users on a regular basis.

LIMS has given our lab personnel the opportunity to spend less time searching for data and more time analyzing it.

Reports used to support the lab operations include:

- Daily Lab Sample Results,
- Trend Report,
- Workload Report,
- Chemical Consumption Report,
- and many more.

## Key Benefits

The project implementation was successful and completed on schedule. The outcome of the LIMS project surpassed expectations and provided many benefits such as:

- Improved productivity and efficiency of lab operations
- Lab data that is traceable, retrievable and available to all users in a timely manner
- Lab data that is accessible remotely through powerful query tools
- Improved data management
- Improved monitoring of workload
- Improved data accuracy
- Improved reporting formats
- Improved laboratory sample lifecycles
- Better visibility to corporate users by integrating the LIMS with corporate systems

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