

Latin America Oil Field Modernization Relies on Emerson's SCADA Software and RTUs

RESULTS

- OpenEnterprise™ provided SCADA solution conforming to AGA 8 Report
- Provided easy configuration and flexibility
- Reduced travel time to remote locations for data gathering and flow calculations
- System was readily expandable as the number of producing wells increase



APPLICATION

SCADA systems and RTUs collecting and calculating data in a remote oil field with an approximate total of 120,000 data points

CUSTOMER

Major global oil production company with multiple fields developed in Argentina

CHALLENGE

A remote oilfield needed an upgrade for productivity improvement and, with 50% CO₂ gas content, had to have a smart solution conforming to the AGA 8 report. Real-time information was needed to quickly alert central control room of any field problems.

“OpenEnterprise allows installing new field devices, data points, collecting data programs, and files whenever we want. It also allows us to monitor and control each site from other locations without the need of a new configuration and new communications for additional remotes. The entire system is transparent and clear.”

OA Team Leader

SOLUTION

The operator chose an Emerson solution, with OpenEnterprise SCADA system and ControlWave™ RTUs providing an easily configurable, flexible method of gathering real-time field data, calculating gas and liquids flows, and providing diagnostics from a central control room for all producing wells. Each RTU handled 200 wells. The solution eliminated excessive 'windshield' time of traveling to the remote field to update the database while providing faster alerts and decision making. The OpenEnterprise system also controls the field's pipeline and LACT unit.

The hierarchical structure provided a great advantage of allowing the RTUs to be in charge of front-end information with the server as a hot standby. Changes and commissioning for expansion were accomplished quickly and efficiently with automatic updates. Two SCADA servers were part of the corporate information system, including one that was offline but available for seamless switching should any failure occur.

As the system expanded, the RTU's outstanding connection capabilities, Accol language, and the five ISO languages offered by the ControlWave were key differentiators. The RTUs sent data directly from the server to the SCADA or to the Centralized Control System only when the values changed, optimizing bandwidth while offering a real time alarm system from any of the remote areas to provide trusted data integrity.

When the DeltaV Safety Instrumented System (SIS) was later installed, the operators didn't have any issue to use the new software because of the common program language to the existing modules. Emerson also provided full support on all further modifications.

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