SENSU System Logs more than 3,000 Hours of High-Frequency Data on Multirig Operation, Oman

Real-time information obtained using rig operations surveillance and instrumentation system improves drilling performance, rig operations, and safety

**CHALLENGE**
Increase operational efficiency and reduce NPT while improving safety on the rig.

**SOLUTION**
Deploy SENSU* rig operations surveillance and instrumentation system to enable
- Robust and comprehensive rig monitoring
- Greater, more focused rig operations surveillance with new rig states
- Enhanced decision making by the driller and crew based on reliable alarms and decision-ready information.

**RESULTS**
- Automated real-time monitoring of critical drilling parameters and KPIs.
- Increased operational reliability and ease of use compared with traditional systems.
- Reduced rig time and costs by improving real-time decision making by the driller.

**“The SENSU system offers a range of solutions in one place. It is not only an instrumentation system—it also provides the best reporting tool. The rig state engine helps us to easily understand the operations.”**

Wellsite Drilling Engineer
Oman Surface Logging Operations

**Improve efficiency and reduce risk on mature rigs**
The rig instrumentation systems on two mature Schlumberger land rigs in Oman were in need of updating to improve rig operations and well construction. The existing system required considerable human intervention to set up, record measurements, and compute parameters. This consumed a significant amount of time, increased the likelihood of errors, and prevented the rig crew from improving the efficiency of daily operations.

**Optimize rig operations using SENSU system**
Schlumberger proposed the SENSU system, which helps improve drilling performance and safety by networking more than 200 digital electronic sensors at various positions on the rig with data processing units and user-friendly displays to provide a complete, reliable, and real-time rig operation monitoring system. These capabilities—combined with the extensive surface data acquisition experience of Schlumberger—deliver improved data that enables enhanced decision making.

With automatic detection of 17 rig activities, the SENSU system provides the granularity necessary for real-time monitoring of KPIs. All well data is stored within an easily accessible database. Data can also be transmitted to remote offices via standard protocols such as WITSOTM and WITSMILTM, enabling real-time monitoring and performance benchmarking on the rig and over a rig fleet.

**Enable opportunities for time and cost savings**
The rig personnel found the new SENSU system easy to install, operate, and configure. After initial installation on the rig, the SENSU system was set up at each new well location in less than 2½ hours due to its reduced footprint, quick-start feature, and automatic reloading of sensor calibrations. Between first deployment and final operations, SENSU systems on both rigs logged more than 3,000 hours without failure—even through six rig moves.

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Customizable, real-time displays provide accurate, decision-ready information.

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