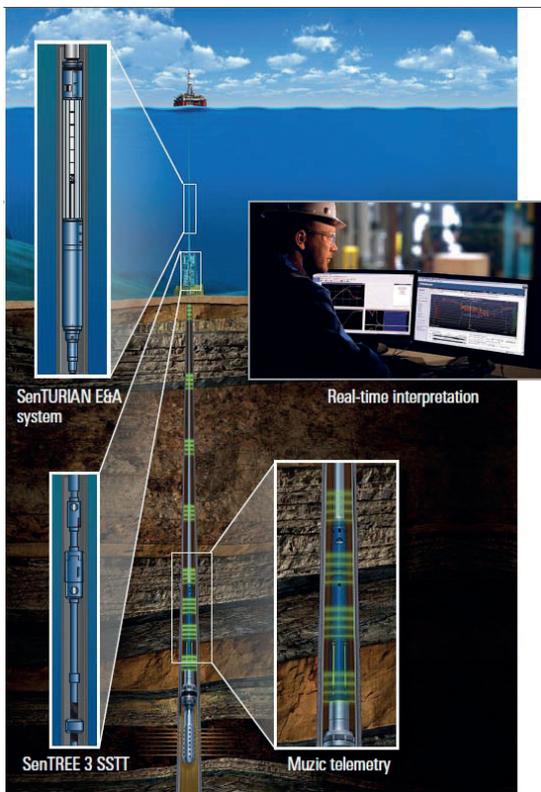


# SenTURIAN E&A on show



Schlumberger is showcasing its new SenTURIAN E&A well test subsea landing string electrohydraulic operating system, which enables operators to safely access, shut in, and disconnect from a well at seabed in less than 15 seconds in water depths up to 12,000ft (3660m) on stand 3D140. This is the latest addition to the SenTURIAN family subsea systems, designed for reservoir testing during exploration and appraisal operations.

The ability for a well test subsea landing string technology to respond quickly to unforeseen harsh conditions is becoming increasingly important for safer operations. SenTURIAN E&A is the world's first subsea landing string electrohydraulic operating system that complies with International Electrotechnical Commission IEC 61508 SIL 2 certification. Electrical continuity can be confirmed at any time with a push of the button at the surface, providing additional verification on system continuity and functionality and additional diagnostic capability.

Designed to run with Muzic wireless telemetry, the system allows equipment functionality checks and enables full operation of the surface flow head, lubricator valves and SenTREE subsea test tree, as well as the monitoring of downhole pressure and temperature.

The system is designed to operate from floating vessels and allows customization and upgrades to meet project-specific requirements. It operates in all subsea applications, including arctic, ultradeep water, and HPHT well testing. The compact design makes it easy to handle and operate, and the small diameter umbilical allows for safer and faster deployment, reducing rig-up time and simplifying well testing operations. The system's modularity is reflected on the topside equipment, which results in less preparation, make up time, easier maintenance and reduced rig footprint. The modular design also allows the tool to be lifted as a single unit; function tested in a single operation; and put in "rack back" mode if required after a job.

SenTURIAN E&A incorporates pressure balanced accumulators (PBA), considerably shorter than standard nitrogen pre-charge accumulators. They are low maintenance and do not require field intervention to set the pre-charge required for changing hydrostatic pressures. SenTURIAN E&A also enables compliance with ISO 13628-7 by incorporating electronic redundancy and pressure feedback for each subsea function, if required.