JOURNAL OF PETROLEUM TECHNOLOGY MAY • 2006

JPT

Formation Evaluation

Artificial Lift

Wellbore Tubulars

Q&A
Sami Iskander, President Drilling and Measurements, Schlumberger

Coverage
SPE/IADC Drilling Conference

Guest Editorial
Canadian Oil Sands

Distinguished Author Series
Applying Optimization Technology in Reservoir Management

Management
Identifying, Preserving, and Defending Trade Secrets

Official Publication of The Society of Petroleum Engineers www.spe.org

Sami Iskander

John Donnelly, *JPT* Editor • jdonnelly@spe.org

Sami Iskander *was appointed President of Drilling and Measurements for Schlumberger in March. Previously, he was President of Wireline for Schlumberger, a position he assumed in March 2002. Before this position, he was President, Europe, CIS, and Africa (ECA), responsible for the strategic direction of business operations encompassing Europe, Russia, countries in the Commonwealth of Independent States, Turkey, and western and southern Africa. Before that appointment, Iskander was ECA Business Manager, Drilling and Measurements. In earlier assignments, he served in the Anadrill unit as Latin America Business Manager and North Africa District Manager. He has held a number of other engineering, training development, and management posts in Latin American and the Middle East. Iskander joined Schlumberger in 1987 as a field engineer for the Wireline group in Bolivia. He earned a BS degree in mechanical engineering from American U. in Cairo.*

Oil prices, profits, and capital spending are on the rise, and future hydrocarbon demand appears robust. Do you expect the industry to enjoy a sustained boom?
All indicators point to a sustained period of strong activity. Two things are key. First, the industry must add production capacity to meet increasing demand. Second, it must also replace production lost to the decline of the aging production base. With E&P spending increasing to record levels, with only a thin margin existing of excess supply over demand, and with oilfield services' human and equipment resources stretched, we see no immediate drop in activity.

How have the sustained high oil prices affected Schlumberger's business and operations?
Last year set new records for Schlumberger activity as the price of oil allowed the E&P industry to increase spending. This year looks even stronger as more companies return to exploration-type work, and this is of particular significance to us beause we have a wide range of technologies well suited to exploration, such as the Scanner family.

What is the significance of the Scanner family of wireline measurements introduced late last year?
The Scanner family is a step change in technology and in the benefits it brings to how our clients populate reservoir models with their data.

What kind of field test results have you had thus far?
Results have been great in a wide range of applications for each technology worldwide. Client acceptance has been very encouraging, and the number of case studies is growing.

Where do you see its main applications?
Scanner applications are numerous throughout all the oil and gas upstream processes. The Rt Scanner runs with our Platform Express service in standard induction applications, with its major advantages apparent in thin beds, low-resistivity pay, and high-formation-dip environments. The Sonic Scanner is a service applicable to nearly every oilfield discipline: meeting geophysical challenges, detecting anisotropy accurately as low as 2%, delivering a clear understanding of formation-integrity issues likely to happen during production, and allowing completion engineers to make the best decisions on their completion and fracture designs. MR Scanner provides nuclear-magnetic-resonance measurements to help resolve petrophysical challenges in a variety of environments, including unknown or varying salinities, low-resistivity or low-contrast pay zones, and/or thin beds. This is made possible using a single pass with multiple depths of investigation. MR Scanner provides detailed formation evaluation of the near-wellbore region, fluid identification, and in-situ hydrocarbon characterization. In Middle East carbonate reservoirs, which are normally difficult to interpret using conventional resistivity techniques, the MR Scanner service has clearly distinguished hydrocarbon-bearing zones from the water zones by use of patented interpretation techniques.

What other technologies are you working on that will address key production issues facing the industry?
To address the pressing production issues, we are launching two new cased-hole Scanner technologies: the Isolation Scanner and Flow Scanner. The next-generation zonal-isolation evaluation service is the Isolation Scanner for the latest lightweight and foam cements as well as traditional and heavyweight cements. It measures radially and deeper toward the formation, confirming zonal isolation, pinpointing channels in the cement, and ensuring confident squeeze or no-squeeze decisions. Because of its increased depth of investigation, the Isolation Scanner also provides detailed information about casing and casing-within-casing eccentralization, allowing for better identification of whipstock locations for side-

tracking, while its internal-diameter and thickness measurements identify corrosion and drilling-induced wear.

The Flow Scanner production-logging service provides unambiguous flow profiling in nonvertical wells regardless of phase mixing or recirculation. Its measurements represent a quantum leap in the accuracy of multiphase-flow measurements in highly deviated or horizontal wells. The Flow Scanner also provides three-phase-flow rates that are computed in real time, providing the flow details necessary to make production and workover decisions more confidently.

What do you see as the next breakthrough in wireline technology?
It is our goal to see incremental improvements in wireline technology. The number of breakthroughs will always be limited, but the next one we see in wireline technology will be with sampling. The ability to take purer samples and evaluate them in situ (downhole) in a shorter time in any formation-fluid environment—heavy, medium, and light oils; oil-based muds; and condensates—will move the standard in fluid analysis and improve the planning of future completions and facilities.

What are some future trends the industry can expect to see in reservoir testing and monitoring?
We expect to see a better understanding of depletion and pressures, as well as less hydrocarbon-to-surface when testing to evaluate compartmentalization. This will be the result of new and innovative downhole methods.

What is your outlook for the service industry in the short to medium term? How will the sector change?
The oilfield service industry sector outlook is extremely bullish. Short of a major world recession or dramatic change in demand from India or China, we feel confident that today's environment will endure for the next few years.

What are the biggest challenges facing oilfield service companies today?
Recruiting, training, and retaining a stable workforce are the most significant challenges for service companies. Meeting the increased industry needs for capacity and new technology remains a significant challenge for us.

Has the relationship between operators and service companies changed as oil prices and profits have risen? Would you like to see the current relationship change in any way?
In any market dynamic, there will be either a buyer or seller in a position of strength. The oilfield industry is no exception. That said, extended cycles either up or down may establish a damaging position of strength for one party or the other.

What should service companies and operators be doing better to meet the needs of customers?
A combination of improvements should be made to meet consumer needs better. Operators are working to lower exploration and development costs and increase recovery factors. Both of these necessitate the use of smarter, new technologies. Service companies, in turn, need to speed the rollout and uptake of new technologies that answer these needs. JPT