



Weatherford completes longest installation of 5½-in. ESS offshore West Africa for CNR

WEATHERFORD International has announced that its Completion & Production Systems division has completed the longest installation of 5½-in. expandable sand screen (ESS) on **Canadian Natural Resources International's** Baobab Field, offshore Cote d'Ivoire, in West Africa. This is the final oil production well on the Baobab Field for CNR and the 12th well to be completed on an all-ESS sand control field development. Baobab is the first full stand-alone field development using ESS.

The successful installation and expansion of 4,274 ft of 5½-in. ESS is nearly 500 ft longer than the previous record for a successful 5½-in. ESS expansion, according to Weatherford. Beyond successfully expanding the screens, the company said that the Baobab installation was a textbook case of a single-trip installation with the successful closure and subsequent testing of the fluid loss valve while pulling out of hole. Increasing the challenge, this job was run in near horizontal reservoir section into which more than 12,000 bbls of mud losses had been taken while drilling.

"Setting a world record is great, but completing the job efficiently with zero safety incidents or NPT is unprecedented," said **David Spooner**, Africa Drilling & Completions Manager of CNR International.

One more water injector well for Baobab will soon be finished and complete the field development for Baobab, resulting in 10 producer wells and 3 water injector wells.

The Baobab field is located approximately 65 km southwest of Abidjan and 12 km southwest of the existing Espoir field in Block CI-26. The field is located in water depths of 1,000 to 1,600 m, approximately 9 km from the continental shelf. The seabed is continually sloping over the field and features a steep central canyon in which the exploration wells were located.

Weatherford's ESS systems have been working to improve well productivity and reduce costs. The company has also been accelerating the implementation of all expandable technologies since the mid-1990s.

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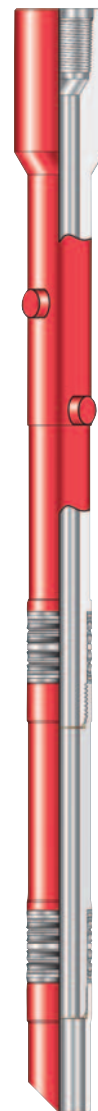
currently are installed in more than 40,000 wells around the world.

"Advances in completion and production technologies that came to market during the past 5 years are experiencing strong traction in client interest and application, said **Lee Colley**, president of Weatherford's Completion & Production Systems division. "Growth in application of these advanced technologies will be driven by the economic benefit to the clients and improved operations risk management." ■

Weatherford recently has set other milestones in completion and production, including surpassing the 1 million mark for cumulative hours of optical sensing times and the installation of more than 100 optical pressure/temperature sensors. Weatherford's production optimization systems

Smith Services sets record for deepest completion system installation

SMITH SERVICES HAS reported setting a world record for the deepest completion system ever installed, setting a packer and tail pipe at a total depth of 29,165 ft.



The completion operation took place on **GHK's** Robinson 1-1 well in Beckham, Okla., in March. Components of the system included an ES Extreme Service Permanent Packer, a 40-ft polished bore receptacle and a 6,200-ft tail pipe weighing 65,000 lbs. The ES Packer was customized with 13 Chrome components to maximize hanging capacity and resilience in downhole temperatures reaching 400° F. An acid fracturing operation was performed on the formation following the successful installation of the completion string, with 18,513 psi measured at surface during fracturing.

"This project is a good example of the cooperative approach to project management that Smith Services utilizes with its customers," said **Bryan L Dudman**, president of Smith Services in Houston. "We worked closely with GHK's project team from the very beginning to understand their specific needs

for this job, and then customized our completion system to exceed those requirements. Our engineering and operations groups helped GHK achieve an ambitious completion goal, and an industry milestone at the same time." ■