

West Africa

Integrated solution helps operator complete first well in deepwater project

Extensive planning and collaboration enables flawless delivery of openhole gravel pack completion in challenging environment

CHALLENGE

New field development in remote location

- Specific equipment type, material, and preparation requirements
- Extensive logistic and customs clearance process

SOLUTION

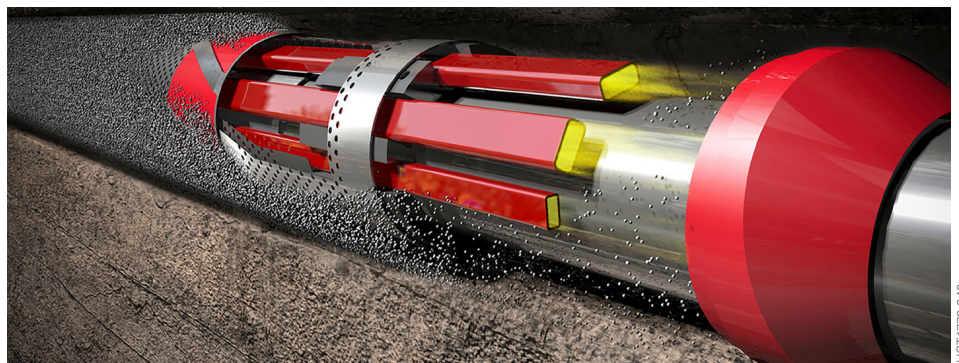
Engage Halliburton product service lines (PSLs), region, and support to ensure flawless execution

- Early involvement of Halliburton technology, manufacturing, logistics and product management
- Develop highly competent team for design, tool preparation, and field execution

RESULT

Well successfully completed with zero lost time incidents (LTI), non-productive time (NPT), health, safety, and environment (HSE), or service quality (SQ) issues

- Operator's first shunt screen installation helped ensure 100% pack efficiency
- Successfully opened fluidloss isolation barrier valve remotely



PetroGuard® openhole shunt system

Overview

A standalone 23-well subsea development was designed to exploit oil from the Rufisque, Sangomar, and Sangomar, Deep Offshore (RSSD) Production Sharing Contract (PSC) area approximately 90 km offshore Senegal.

The development consists of 11 gas-lifted oil production wells, two gas injector wells, and 10 water injector wells to be drilled and completed over a period of approximately three years, with first spud in July 2021.

Challenge

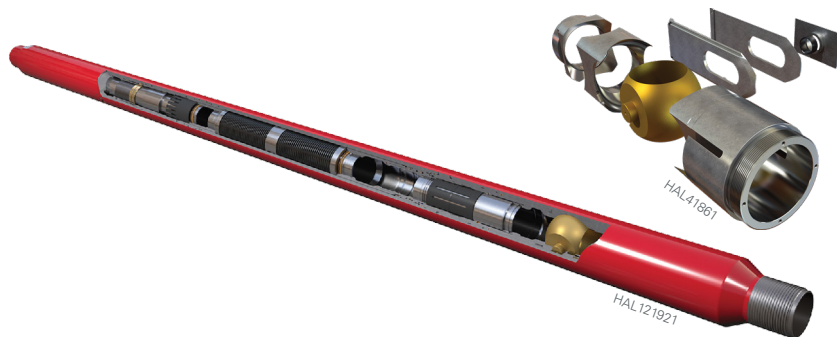
The first well to be completed in this country, which is new to oilfield operations from both a local administrative and an operations point of view, presented numerous challenges:

- Products customization engineering, manufacturing, and test requirements to meet operator expectations.
- Deliver in country and complete completion assemblies for delivery at wellsite in accordance with operator preventive maintenance inspection and test program.

Solution

Halliburton collaborated with the operator to define objectives and develop a strategy to help ensure safe, successful operations:

- Involve Completion Tools (HCT) core segments product management, technology, and manufacturing during planning, development, and execution to help ensure customized products meet or exceed operator requirements.
- Abide by service quality minimums:
- Collaborate with operator to develop a detailed design of service and capture the job execution plan.
- Follow control points to provide assurance that the job purpose is achieved.
- Assign competent personnel to tasks.
- Determine the root cause of and correct any issues.
- Deploy the following Halliburton products:
 - STGP&T™ single-trip gravel pack and treatment system to hydraulically set a gravel-pack packer, perform gravel-pack operations, and treat the formation down the washpipe in a single trip.
 - FS2 fluid-loss isolation barrier valves (IBVs) to isolate reservoirs after gravel-pack operations.
 - PetroGuard® Openhole Shunt system as an alternative to conventional gravel-pack screens to ensure gravel packing of any voids created by unplanned wellbore issues and ensure completion success.



FS2 IBV with exploded view

Result

Integration of the field-proven technology from the Halliburton HCT, Production Enhancement, and Baroid PSLs, allowed successful delivery of the sand face solution with zero NPT, HSE, or SQ issues, and helped meet the operator's objectives and maximize asset value.

- Successfully installed more than 2,460 ft (750 m) of 5-in. PetroGuard Openhole Shunt system, which provided the operator significant time savings.
- Shunt activation helped ensure 100% pack efficiency.
- Gravel-pack tool successfully converted for formation treatment; FS2 IBV successfully closed and tested to ensure reservoir isolation before running the upper completion.
- FS2 fluid-loss IBV remotely opened successfully, with a total of 10 cycles as planned.
- High safety focus 10 rig crew safety recognitions.
- Successful operation in a new location in challenging environment.



SNP-20 well successfully completed with

ZERO

LTI - NPT HSE and service quality issues.

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