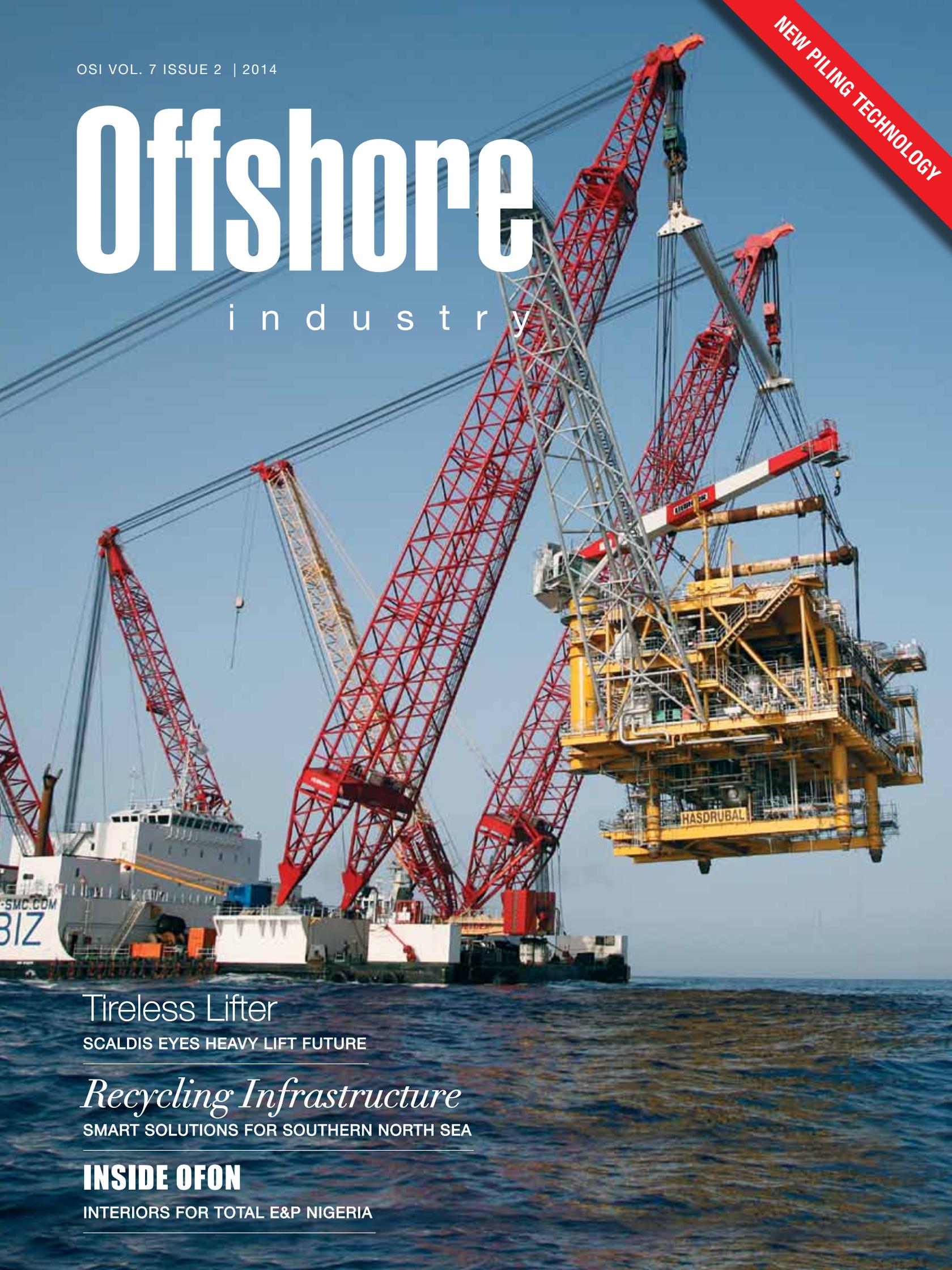


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# Offshore

i n d u s t r y

NEW PILING TECHNOLOGY



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SCALDIS EYES HEAVY LIFT FUTURE

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SMART SOLUTIONS FOR SOUTHERN NORTH SEA

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INTERIORS FOR TOTAL E&P NIGERIA



The Q13A platform painted grey to render it less visible from the shore and (above right) the Lewek Centurion laying the pipeline for the project.

Photo courtesy of GDF Suez E&P Nederland



Photo courtesy of GDF Suez E&P Nederland

MARGINAL FIELDS BENEFIT FROM PRE-EXISTING INFRASTRUCTURE

# Reaching Maturity

WORDS BY BEN LITTLER

REUSING EXISTING INFRASTRUCTURE IS A KEY FEATURE OF NORTH SEA MARGINAL FIELD DEVELOPMENT.

However, GDF Suez E&P Nederland went to new lengths with the philosophy to develop the Amstel oil field and its Q13A platform – even reusing onshore sewer pipes from an abandoned peanut butter factory.

First oil was drawn from the Q13, or Amstel, field on 10 February. The field was one of the first ever offshore discoveries in the North Sea. However, after initial discovery in 1962, the site remained undeveloped until GDF Suez acquired the licence in 2010. By this stage technological innovations suggested that the site could provide sustainable and profitable production. In 2011, an appraisal well demonstrated

economic viability. Since then, in less than 3 years, the site has been brought into production by tapping into pre-existing facilities.

## Use What You've Got

GDF Suez Executive Vice-President Jean-Marie Dauger says, “This new production from the North Sea illustrates again the capacity of GDF Suez as an operator, to maximise the potential of such a mature region to leverage the existing infrastructure and to deliver a complex and innovative project in a safe and responsible manner. Amstel confirms the skills of our technical team to manage and deliver fast track projects on budget.” GDF Suez E&P Nederland are operators of the field with a 50 percent stake. The other partners are EBN, with a 40 percent interest and TAQA, with 10 percent. At plateau the field is expected to produce 150,000bpd over a production lifespan of 10 years. >>



Pompei off Scheveningen during cable laying operations.

Photo courtesy of Tideway / DEME

## Low on Gas

Ordinarily, North Sea oil platforms produce their electricity from the associated gas on site. The requirement for Q13A to use existing sewer infrastructure largely stems from low levels of associated gas at the field. GDF Suez rejected a diesel generator as being out of keeping with environmental protection standards. A clever, cleaner alternative was conceived of, involving the laying of a 14km long, high-voltage submarine cable, the first offshore connection to the electricity grid of Dutch utility company Stedin. The plan was to run the cable, produced by De Twentse Kabelfabriek (TKF), through an existing sewage drainage system from an old Calvé peanut butter factory. Tideway handled the installation of the cable, which necessitated the temporary conversion of their rock placement vessel, Pompei, into a cable layer.

## Quality Crude

The subsea energy supply is backed up by an auxiliary DBR 445kVA/356kWe generator set, with Mitsubishi S6A3 engine and air-to-air cooled (CACA) Leroy Somer generator. The 25km, newly laid pipeline also makes

use of pre-existing facilities. The pipeline was laid by Cecon, with the vessel Lewek Centurion, chartered from EMAS AMC. KCI Design Engineers' scope in this part of the project was the design, including risers and spools. The pipeline carries the light, high-quality crude oil from the field to the TAQA operated P15 platform for processing.

## Commissioning & Installation

The platform itself consists of two main parts – jacket and topsides. The jacket was produced by the Netherlands-based Nami and the topsides in Antwerp by Cofely Fabricom. For transportation of the jacket, Nami commissioned Dutch specialist welder Abuco to fabricate seafastenings for load out on pontoons. Abuco assembled the 250t steel profiles via the application of automatic welding equipment. The installation of the jacket and topsides was carried out by Seaway Heavy Lifting with their vessel Oleg Strashnov and her 5,000t crane. KCI were again involved in this aspect of the project, having been commissioned to review the design of the rigging platform, used in the jacket installation. The review process led to a number of reinforcements being carried out to the rigging platform,

which was then re-engineered by KCI. The Q13A platform is generally unmanned, however for the purpose of installation and commissioning, TLQ Supply provided accommodation modules. After reviewing the onsite conditions GDF Suez elected to have suction piles installed as the platform's foundation, largely due to a water depth of just 19m. This choice will of course also make for a simpler decommissioning in the years to come. SPT Offshore, in collaboration with IV-Oil & Gas, designed and built the SAPS-007 pump for operations in water depths up to 150m. SPT Offshore say that, with spare hydraulic ports, vent valves and suction interface locking system, the system is their most versatile.

## Out of Sight

Further developing the environmentally neutral approach theme seen in the power generation, GDF Suez painted the Q13A platform grey, as opposed to the more conventional yellow, in order to render it less visible from the shore and further reduce the operation's impact during the next 10 years.

i. [www.gdfsuezep.nl](http://www.gdfsuezep.nl)