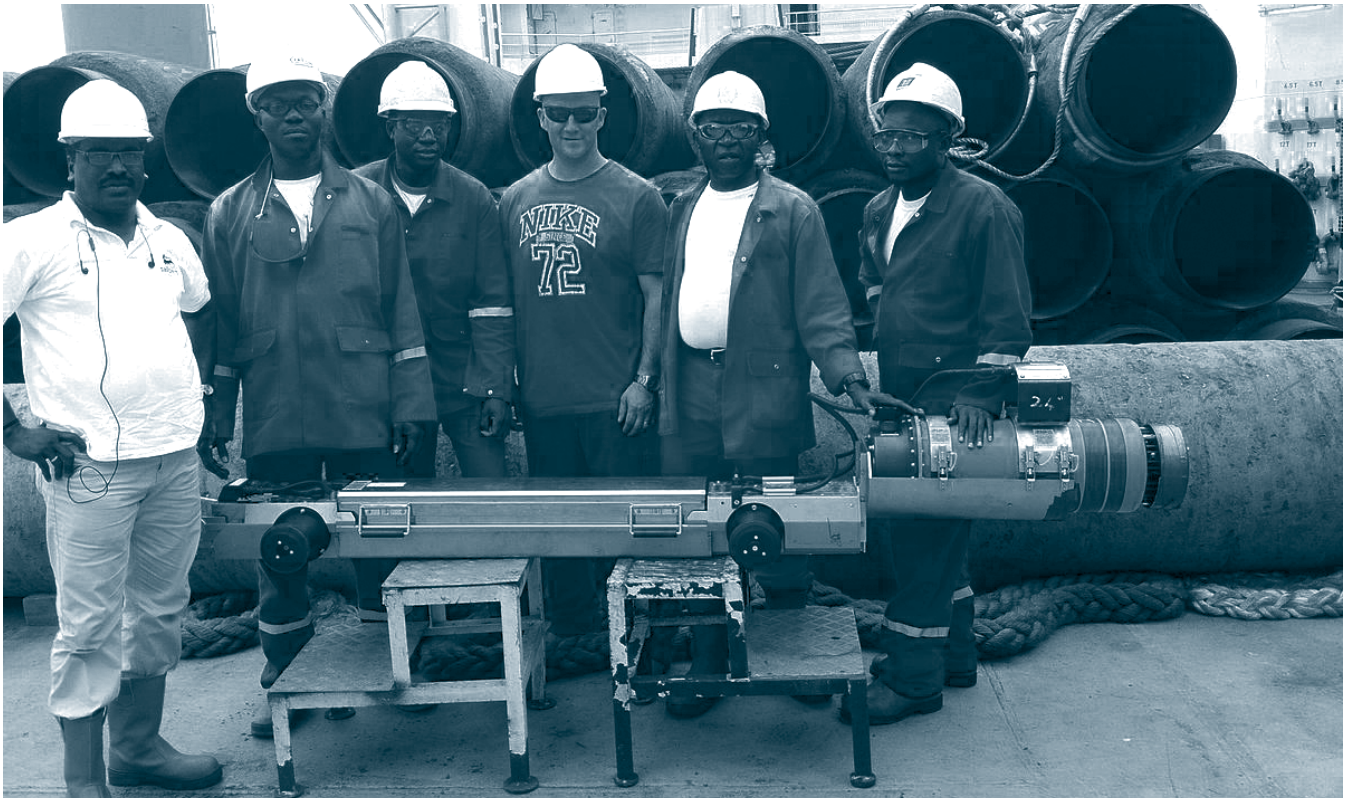


# NON-DESTRUCTIVE TESTING CONTRACT TAKES SGS TO NIGERIA

MARCH 2012



In February of 2012, West African Ventures awarded SGS a contract to conduct non-destructive testing for the Escravos Gas Project in Nigeria. SGS non-destructive testing was to include both advanced ultrasonic and magnetic particle testing technologies in order to enable the comprehensive inspection of welds and pipe via pipeline crawlers without having to close the entire field and to allow for the strategic scheduling of any shutdown necessary for repair. Broken into two one-month phases, SGS has completed the first phase of testing and will re-enter the project sometime late in 2012 or early 2013.

## **WEST AFRICAN VENTURES AWARDS SGS NON-DESTRUCTIVE TESTING CONTRACT FOR ESCRAVOS GAS PROJECT IN NIGERIA**

West African Ventures provides Nigerian oil and gas industries with expert offshore, onshore and inshore pipe-laying, construction, platform maintenance, installation and fabrication services. Due to SGS broad knowledge and significant experience in independent testing and inspection services for on- and offshore pipeline projects, WAV named SGS to monitor pipe integrity and identify defects to prevent costly damage and to ensure the safe and efficient operation of

equipment and assets in compliance with international standards and regulations.

At the Escravos gas field, located in the Niger Delta some 100 km southeast of Lagos, EGP-3 is one of the largest Nigerian projects ever which, upon its completion, is expected to harvest an additional 395 million cubic feet of gas per day. EGP-3 also feeds the parallel Escravos Gas-to-Liquid (EGTL) project which aims to convert 325 mmcf/d of gas into high-quality diesel, naphtha and liquefied petroleum gasoline. The two projects are the joint venture of the Nigerian National Petroleum Corporation and Chevron Nigeria, LTD.

## SGS NON-DESTRUCTIVE TESTING

In the EGP-3, SGS experts implemented x-ray pipeline crawlers to perform both advanced ultrasonic and magnetic particle non-destructive testing on welds and 15 km of pipe. SGS ensured that only top quality pipe was laid with eleven SGS professional staff stationed onboard the JASCON 34 vessel working round the clock.

During ultrasonic testing, SGS examiners used short sound waves at high frequencies to detect flaws and corrosion as well as to measure material thickness. SGS inspectors placed handheld transducers on surfaces to be tested and sent high-ultrasound pulsed beams through the material. Pulse amplitude and speed levels were then captured and analysed. Information displayed on equipment screens allowed highly-skilled SGS professionals to identify the location and size of defects and determine the wall thickness of the material. Based on test findings, SGS experts defined indications as acceptable (requiring no action) and

non-acceptable (a defect requiring action) according to prescribed acceptance criteria.

In addition, trained SGS inspectors conducted magnetic particle testing on welds to identify imperfections on or just under the surface. SGS examiners magnetised components and applied ferromagnetic particles, those which move to areas of flux leakage, to the surfaces under scrutiny. Data collected from these tests was also analysed by SGS non-destructive testing experts and defined in accordance to the mandated acceptance criteria.

During the Nigerian project, all inspected welds and pipes were screened for corrosion and metal loss by SGS experts using ultrasonic and magnetic particle technology. The tremendous success of these SGS inspection services provided officials of EPG-3 the confidence and security required to sustain a project of this magnitude.

Safety, speed and cost-effectiveness were decisive factors in selecting SGS non-destructive testing methods for

the Escravos project in Nigeria. Once again, SGS demonstrated its superior comprehensive inspection services implementing advanced ultrasonic and magnetic particle testing techniques to quickly and accurately identify flawed equipment in order to strategically schedule any necessary shutdown for repair, saving both time and money.

EPG-3 project leaders benefited from SGS monitoring of pipe integrity and the early detection of irregularities by preventing severe damage and upholding regulatory compliance. EPG-3 officials profited from SGS expertise by strategically avoiding costly repair, largely reducing the risk of revenue lost by interruption or suspension of services or production and substantially increasing the value of the facility assets.

SGS is extremely proud to continue to support the West African Group in building a safe, reliable and profitable enterprise in Nigeria.



## CONTACT

[INDUSTRIAL.GLOBAL@SGS.COM](mailto:INDUSTRIAL.GLOBAL@SGS.COM), [WWW.SGS.COM/INDUSTRIAL](http://WWW.SGS.COM/INDUSTRIAL)

**SGS IS THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY**

**WHEN YOU NEED TO BE SURE**

**SGS**