TECH REPORT

GABON
OFFSHORE

Well type	Oil producer
TD	8,328 ft [2,539 m]
Bottomhole static temperature	190 degF [88 degC]
Permeability	50–100 mD
Completion type	7-in [17.8-cm] slotted liner
Breaker fluid density	1.05 sg at 8.7 lbm/galUS

Background

An operator sought to improve oil production from a development field offshore Gabon. After laboratory tests, M-I SWACO, a Schlumberger company, proposed using the VERSA-OUT* water-based filtercake breaker system in the open hole for filtercake treatment of the VERSAPRO* invert-emulsion reservoir drill-in fluid system. When the well was placed on production after treatment, oil production exceeded the operator's highest expectations by more than 15%.

Technology

- VERSA-OUT system
- VERSAPRO system
- MUDSOLV NG* integrated filtercake removal service
- D-STRUCTOR* organic-acid precursor breaker

M-I SWACO
A Schlumberger Company

VERSA-OUT System Boosts Oil Production 15%, Exceeding Customer Expectations, Gabon

Innovative water-based breaker system disperses and dissolves invert-emulsion filtercake and improves production offshore West Africa

Products	Properties and Volumes
VERSAPRO system	1.03–1.05 sg at 8.6–8.7 lbm/galUS
Cleaning pills pumped	
Base oil	6.3 bbl [1 m^3]
Transition spacer	50 bbl [8 m^3]
Turbulent spacer	18.9 bbl [3 m^3]
VERSA-OUT system	126 bbl [20 m^3]
Displaced pills through liner and openhole annulus	1.05-sg VERSA-OUT system with 8.7-lbm/galUS inhibited potassium chloride brine

Following drilling, cleaning, and completion operations, no remedial work was required, resulting in rig time and cost savings for the operator. Because of the successful operation, the operator plans to run other applications in West Africa to treat, dissolve, and dismantle VERSAPRO system filtercakes using VERSA-OUT system technology.