

# CASE STUDY

## GULF OF GUINEA



### PROJECT SPECIFICATION

LOCATION	West Africa
CLIENT	Confidential
DATE OF WORKS	May 2012 – December 2013
TESTING UNDERTAKEN	Sample Acquisition, CPT
RIG	Heli-portable Drill Rig Top-push CPT Rams

### LEG PENETRATION ASSESSMENT

The safe positioning of production platform depends on balanced penetration of legs until a stable founding depth has been achieved.

The very soft clays in the Gulf of Guinea can result in leg penetration reaching between 40m and 50m - the practical limit of many production platforms. At the mouth of the River Congo however, highly variable ground conditions lead to unpredictable soil strengths and hence leg penetrations.

The client was concerned about achieving leg stability at depth and engaged Lankelma to provide Leg Penetration Assessment services, comprising fieldwork and reporting, to enable location approval and warranty surveyor certification.

To date, four campaigns have been carried out.

Our initial team, plus our Heli/hand portable drilling and CPT equipment, were mobilised within two weeks to address the most urgent concerns.

Clear technical, operational and safety procedures were developed with the client before work began, to identify risks. Briefing documents managed the Lankelma/client operational safety interface and key emergency protocols were agreed.

The Lankelma team grew to 15, including field laboratory and geotechnical analysts, providing real-time preliminary assessments.

Work was carried out 24/7 using third party vessels and rigs, in water depths up to 25m, with testing to 80m. Each campaign satisfied warranty officers of the viability of the rig location and operation.