

CASE STUDY

TERMINAL EXPANSION



PROJECT SPECIFICATION

LOCATION	Guinea, West Africa
CLIENT	Confidential
DATE OF WORKS	2014-2015
TESTING UNDERTAKEN	CPT, rotary drilling, vibrocoreing, sampling and marine surveys
RIG	Sandpiper C5 jack-up

INVESTIGATIONS FOR TERMINAL EXPANSION

Lankelma carried out multi-disciplinary geotechnical and geophysical investigations for a jetty extension, construction of a new bauxite-handling jetty and dredging of an approach channel at a Container Terminal in Guinea.

The jetty was being extended by 500m and a new berthing pocket dredged, to allow barges to offload bauxite. The new 500m long Jetty is due to be built to the south of the existing Jetty. Investigations also covered the 17km approach channel being dredged in the estuary.

Lankelma used its Combifloat C5 jack-up Sandpiper to carry out CPTs up to 23m deep and drill boreholes to 50m through the underlying clays, silts, gravels, laterites and into the underlying sandstone.

Along with offshore piston and thin wall sampling, the investigation included nearshore CPT and drilling, laboratory testing, data correlation and reporting.

Sister companies Gardline Geosurvey and Alpine Ocean Seismic Surveys undertook bathymetric and geophysical surveys, metocean surveys, tide gauge installation and monitoring. Vibrocores were also carried out using a client-chartered vessel along the approach channel to ground truth the results of the geophysical survey.

The team had to overcome major logistical and health challenges (including the outbreak of the Ebola Virus) and maintained good communications and relations with the client and its engineering consultant throughout.