Geocomp
Trusted to help mitigate risk

PROJECT BRIEF

Sonatrach Loading Buoys GeoTesting

PROJECT PROFILE

CLIENT:
OPE Offshore International

LOCATION:
Algeria

VALUE:

- Fast turnaround of international samples and competitive pricing saved clients thousands of dollars in delays
- One of the only labs in the world capable of performing the dynamic testing required

SERVICES PROVIDED:

- Tests performed include direct shear, cyclic simple shear and resonant column
- Supported development of dynamic modification factors

GEOTESTING

GeoTesting Express, Inc. (GTX)'s challenge was to support OPE Offshore International Ltd. (OPE), who was awarded the offshore installation contract. Since GTX maintains a license with the United States Department of Agriculture, GTX was able to accept shipments of soil from outside the country. As a result, samples were allowed to enter the U.S. without delay. GTX performed a suite of dynamic laboratory tests on 8 undisturbed and remolded soil samples from the proposed sites. Dynamic testing was required to establish seismic response in the event of an earthquake. The results of these analyses were later used to develop soil parameters required to perform linear dynamic analysis. Results of this analysis were used to develop dynamic modification factors which were applied to static pile design data.

BACKGROUND

Sonatrach, the national oil company of Algeria, planned for new development of offshore buoys and associated facilities at the Arzew, Bejaia and Skikda locations along the North African country's Mediterranean coast. A comprehensive geotechnical study was carried out in order to establish characteristics over a sufficient depth interval and area of coverage to enable the design of the appropriate anchor points. A total of twenty-two borehole locations were investigated from June to July of 2003.