

Marine and Terrestrial Geotechnical Investigations, Geophysical, Geospatial, and Metocean Surveys

Diamond Cement required site investigations for a new bulk products terminal at Keta Lagoon, Ghana. Haskoning DHV was appointed as the Client's Engineer, and PMI were appointed to undertake the site investigations.

The Scope of Work included:

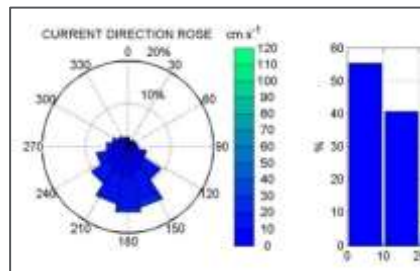
Offshore Geotechnical Investigations:

13no. 5m vibrocores to obtain ground profiles

Onshore Geotechnical Investigations:

7no. boreholes up to 40m depth with sampling and insitu testing.

Laboratory Testing: To obtain materials properties of vibrocore and borehole samples.



Offshore Geophysical Surveys:

Sub-bottom profiling and Sidescan sonar surveys of a 3km x 4km offshore area.

Bathymetric Surveys: Bathymetric surveys of 3km x 4km area. Jetski survey techniques were used to survey the surf zone.

Topographic Surveys:

Detailed topographic plans were developed from land survey of a 3km x 1km area to interface with bathymetric surveys.

Metocean Conditions Surveys:

AWAC monitoring buoys were installed at two places for a two month period to obtain local wave, current, tide, and water turbidity properties.

Execution

Vibrocoring works were executed in December 2013. The remaining works were undertaken in the period January to March 2014.

PMI mobilised teams from Accra Ghana to site. Each discipline was led and

reported on by a specialist technician or surveyor. Work on site was executed in close cooperation with the Client and Haskoning DHV Engineer on site.

Standard laboratory testing of samples was undertaken in Ghana. Advanced testing was executed in South African and European laboratories.



Conclusion

The project was completed on time and within budget to the satisfaction of Diamond Cement and Haskoning DHV.

