



Jack-up barge set-up in position over borehole location



Vibrocore unit set-up on deck of the barge before mobilising to offshore work site

## Project Information

### Greater Dublin Drainage Scheme: Offshore GI

**Client:** Irish Water

**Client's Representative:** Tobin Arup JV

**Site operations:** July to August 2015

Causeway Geotech and Abco Marine were appointed by Irish Water to carry out an overwater ground investigation to assist with the design of a proposed long sea outfall for the Greater Dublin Drainage Scheme, off Portmarnock, Co Dublin.

The scope of works included a total of three overwater boreholes in water of up to 20m depth, as well as 10 vibrocores, put down off a C5 jack-up barge.

Works were carried out under the supervision of a Site Engineer from Causeway Geotech who liaised with the Client's Representative accordingly.

The boreholes were put down to depths of up to 58.3m below seabed level. Light cable percussion boring, using a Dando 3000, was used to take the boreholes through overburden strata and to refusal in the very stiff Glacial Till. The boreholes were subsequently taken to their completion depths, through Glacial Till (Dublin Boulder Clay) and bedrock (Calp Limestone) by Geobor S triple-tube wireline coring. A Comacchio 405 was deployed to carry out the rotary drilling works.

On completion of the boreholes, a set of 10 vibrocores were carried out along the proposed route of the outfall to recover marine sediment samples. Vibrocoreing was carried out using a SonicSamp vibrocoreing unit, which was lowered onto the seabed at each of the sampling locations using a HIAB crane mounted on the deck of the jack-up.

The site operations were completed in August 2015, with a few days' downtime incurred over the course of works through adverse weather conditions. However, critically, the Client's own programme was unaffected and the works were completed to their satisfaction.