

CASE HISTORY



Application: Anglesey Port Development

Technology: 2000m Marine Winch, Hi-OPTV®, HRAT®, Full Waveform Sonic, Borehole Geometry

Location: Anglesey, North Wales

Robertson Geo Services (RGS) was contracted to run a suite of probes, deployed from two jack-up rigs, as part of a detailed ground investigation in support of a proposed port development on the north coast of Anglesey.

Requirement:

The client required information to constrain parameters for modelling the planning and development of a proposed sea wall and port. Data was required from twenty-six boreholes, with drill depths from 10-80m, which would be logged in the shallow water tidal area, where the proposed sea wall and marine offloading facility would be constructed. The selected probe suite was used to identify fractures and fault patterns to determine ground stability.

Equipment:

A 2000m Marine Winch and Micrologger2 acquisition unit was used to deploy the following probes: High Resolution Optical Televiewer (Hi-OPTV)®, High Resolution Acoustic Televiewer (HRAT)®, Full Waveform Sonic and Borehole Geometry



Operations:

The Robertson Geo engineers supported two jack-up rigs operating 24/7 in the seawater tidal area. The jack-up rigs were accessed from a rib boat that docked at nearby Cemaes Bay. Logging of the 26 holes was successfully completed over a period of two months.

Challenges and solutions:

One of the main challenges for the operations was the variable weather conditions, typical of an Irish Sea coast. This could impact on scheduling and the engineers were constantly in a state of readiness and prepared for mobilisation at short notice.

Marine operations present unique challenges that require all engineers to be comprehensively trained. Offshore BOSIET training and accreditation was undertaken by all engineers.

With two rigs to support, a separate set of equipment was deployed to each rig. On occasion it would be necessary to move equipment between rigs, which required close coordination between RGS and the client.

End value to client:

The data was successfully collected, despite sometimes difficult sea conditions, with the optical televiewer delivering extremely good images in the unusually clear seawater.