BELFAST TRANSPORT HUB – PHASE 2
Geo-environmental Ground Investigation

Project: 16-0995 January 2017

CPT works underway in Europa Bus Station

Cable percussion rig set-up in position over borehole location

Low flow sampling equipment in operation at standpipe location

Project Information

BELFAST TRANSPORT HUB – P2 GEO-ENVIRONMENTAL GROUND INVESTIGATION

Client:	**Translink**
Client's Representative:	**ARUP Consulting Engineers**
Site operations:	**October 2016 to February 2017**

Causeway Geotech were appointed by Translink to carry out ground investigation works for provision of geotechnical and environmental information to characterise ground conditions and any existing contamination within the existing Europa Bus Station bus yard, adjoining Black Sheds redevelopment site and Hope Street Car Park area for input to the design and construction of the proposed new Belfast Transport Hub.

The scope of works included:

- 16 boreholes by cable percussion boring
- 15 boreholes continued into rockhead by Geobor S wireline coring
- 22 boreholes by dynamic (windowless) sampling
- 33 standpipe installations for combined gas and groundwater sampling
- 4 variable head permeability tests in boreholes
- 7 trial pits by excavator
- 16 static cone penetration tests to provide information on the subsoil strata and aid in the Unexploded Ordnance (UXO) avoidance strategy
- 6 rounds of post siteworks gas and ground water monitoring to include installations from previous phases of ground investigation
- Factual ground investigation report

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

The primary focus of the investigation was the subsequent gas and groundwater monitoring programme which was completed over a 10 week period between November 2016 and February 2017.

Gas monitoring was carried out using a GA5000 analyser. Low flow collection techniques were used during groundwater monitoring to ensure suitable samples were obtained.

Causeway Geotech Ltd
8 Drumahiskey Road, Ballymoney
Co. Antrim, N. Ireland, BT53 7QL

+44 (0)28 2766 6640
info@causewaygeotech.com
www.causewaygeotech.com

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