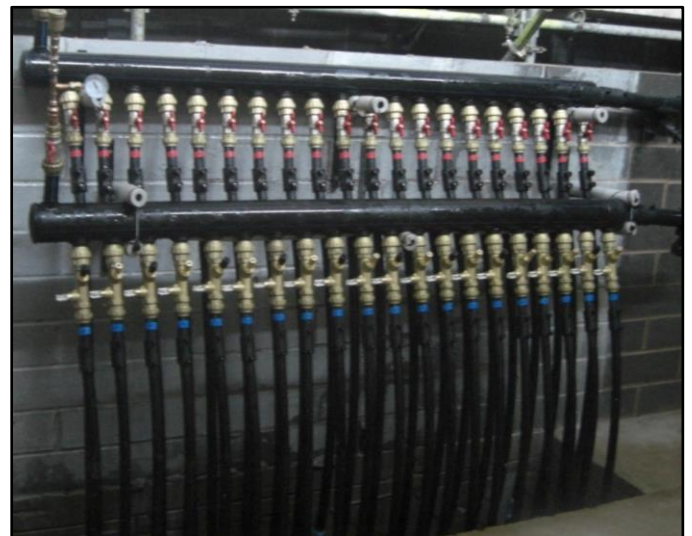


Lunchtime ToolBox Webinar

Ground Source Energy Systems for Low Carbon Cooling, Heating & Hot Water

Engenheiro Dr Stephen Thomas
(OGI Groundwater Specialists Ltd)

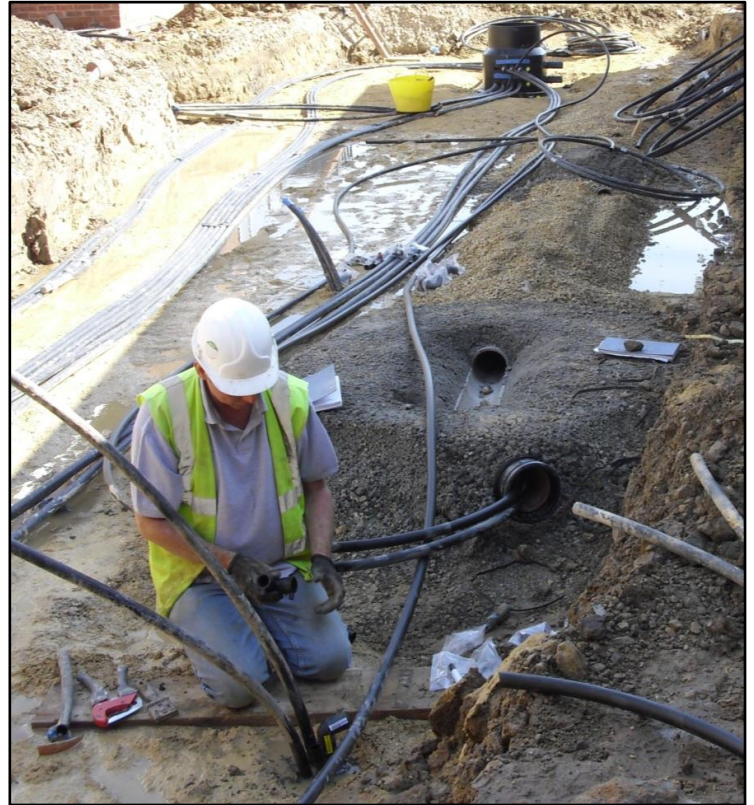


Date: Tuesday 21st November 2023
Time: 13:00 – 14:00 (Lunchtime ToolBox Webinar)
Venue: Microsoft Teams Online Event ([Click here to join the meeting](#))

Synopsis

This presentation describes how with the aid of a heat pump, the ground can provide low carbon heating and cooling to buildings. The various stages are described, from the drilling and grouting of closed loop vertical heat/cool liquid filled collectors, the connection of the system of collectors to a manifold chamber, and ultimately to the plant room where the collector fluid fuels one or more heat pumps. Several case studies are presented which demonstrate the significant carbon and cost savings to a building, with substantial cost savings when cooling to a building is required.

A successful ground energy project is critically dependent on the meticulous skill & care of the geotechnologist responsible for the laying out, assembly, fusion connection and certification of the pipework and manifolds.



Biography



Engenheiro Dr Stephen Thomas
BSc, MSc, MBA, DPhil, FICE, CEng, Eur Ing

Dr Stephen Thomas is Founder Director of OGI Groundwater Specialists Ltd. In the UK he is a Fellow of the Institution of Civil Engineers, and is an elected member of the Executive Committee of the British Geotechnical Association. He is also an Honorary Fellow at the University of Durham, Earth Sciences, and Liveryman of London.

In Portugal, Stephen is a senior engineer of the Order of Engineers, is a member of the Portuguese Society of Geotechnics (SPG), an Affiliate of the Portuguese Commission of Environmental Geotechnics (CPGA), member of the Portuguese Association of Water Resources (APRH), and the Specialized Portuguese Commission on Groundwater (CEAS).

Starting his Civil Engineering career in 1976, he has completed over 300 water, ground source & groundwater projects over 37 years working in the construction, water and environmental industries. Supported by 10 years of university education in Swansea, Durham and Oxford, Stephen delights in developing innovative solutions to overcome major water, engineering & environmental challenges.

After three years working in the USA, then six years at Oxford University, Stephen founded OGI in 1989 to provide specialists services in the field of groundwater, geotechnical and environmental engineering, including the design of ground source energy cooling & heating systems. His projects have been delivered to the infrastructure industry predominantly in the UK, with projects delivered in Europe, Brazil, USA, and the Middle East.

