

Dos and don'ts for drillers

ABOUT 18 months ago, I wrote an article for GDI outlining what a bright future I thought lay ahead for the drilling contractors of the UK due to the incredible growth of ground coupled heating and cooling systems. Has this prediction been right? Well ... yes I think it has but there are one or two problems too.

Basically, as most of us who read this publication are well aware, drilling is a complex and often unpredictable operation. Many heat pump installers simply do not understand what is involved in the drilling profession. In order to harmonise the working relationship between the drillers and the heat pump companies, a number of key points need to be addressed.

One of the biggest issues is the inability for drill-

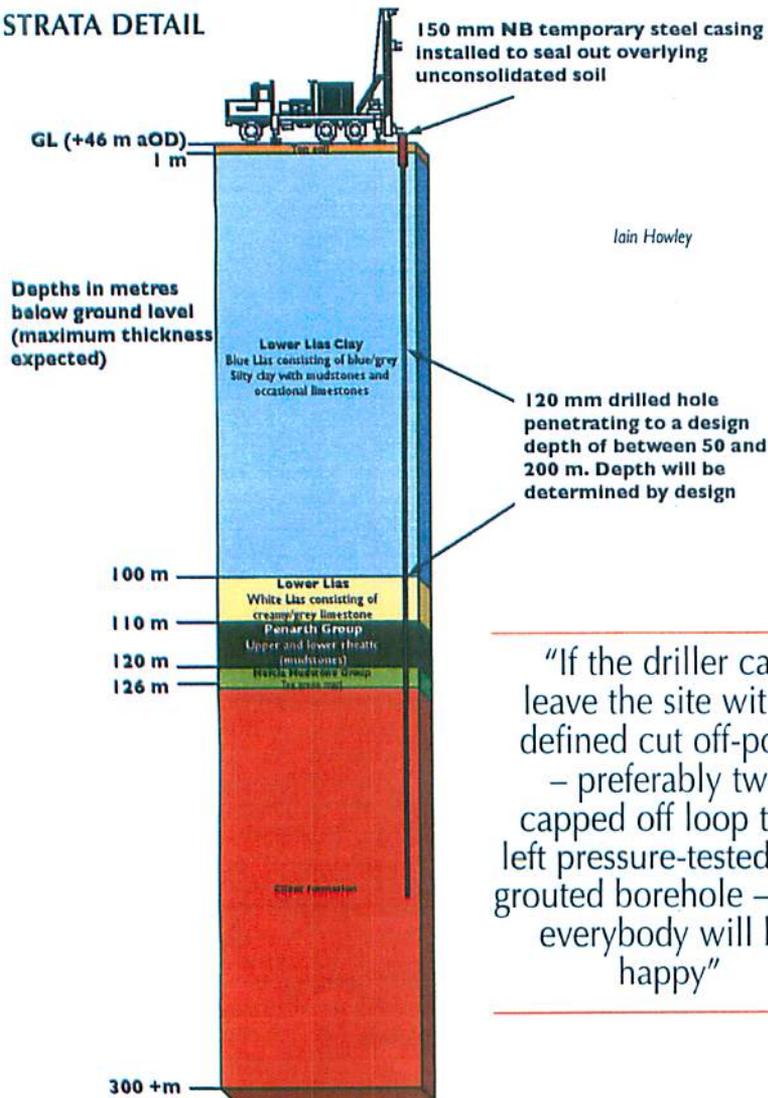
ing contractors to offer a fixed price. From the clients' perspective, he wants to know how much his heating system is going to cost. In reasonable drilling conditions, the drillers may be able to get close to a fixed price by taking the following points on-board.

- Having submitted acceptable rates or a budget costs, if the price is to be firmed up, either party should get a geological investigation carried out.
- The content of the report should be discussed so



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STRATA DETAIL



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the installer understands the potential pathway ahead. The driller can outline potential casing detail or problematic areas of the strata to be drilled. For example, the report may outline an unconsolidated horizon may be encountered at, say, 80 m below ground level. If the contract originally reflected three 100 m-deep boreholes, the drilling contractor should point out the zone of concern and if possible the heat pump installer should amend the design to reflect say four boreholes to 75 m thus avoiding the 'dodgy bit'.

- The drilling contractor should gather information about site conditions/constraints. I know it is not always possible or feasible to visit sites following an enquiry but get photos emailed – that's better than going in blind. Also find out about any below ground services or access issues, other trades operating at the same time and the sensitivity of the site. If required, the driller should demonstrate how he will control mess. A clear method statement about how the work will be executed should be submitted including expected on-site durations. Unless the project is specifically domestic, Construction (Design and Management) regulations apply.

- Remember, it is the heat pump installers who are usually responsible for the design of the boreholes. It is important that the drillers are not drawn into offering a design. The installers should be issuing a detailed specification outlining the depth of bore, loop size and grout specification. Drillers do not usually hold professional indemnity cover for design, and could play the 'dumb driller' card! Advice is fine but the question of how many holes or how deep should be determined solely by others. Yes, input with drill logs and any anomalies but avoid becoming involved in any design.

- If you're a drilling contractor and you haven't registered for CSCS cards via the NVQ system, you need to think about it now! The Ground Source Heat Pump Association (which now has many heat pump installers as members), working in close association with the British Drilling Association, has a standards committee and a big part of its direction revolves around its members employing contractors who demonstrate that they take health and safety issues seriously. Without these qualifications work opportunities will become limited, especially in the potentially lucrative commercial sector.

- The final points are issues surrounding the materials left in the borehole. There have been many problems with heat pump installers free-issuing loop pipes only to find that, on occasion, leaks have been found to be present after installation. Each party blames the other, leading to an extremely complex and costly litigation scenario. Surely the best way forward is for the drilling contractor to be responsible for the supply and installation of all down hole materials. This way, and so long as the contractor is satisfied that his suppliers are offering quality equipment with proven quality assurance, everything should be satisfactory. If the driller can leave the site with a defined cut off-point – preferably two capped off loop tails left pressure-tested in a grouted borehole – then everybody will be happy and (you never know) even paid on time!