

**From:** GV Price [mailto:[gv@msjgeotechnical.co.za](mailto:gv@msjgeotechnical.co.za)]  
**Sent:** 30 September 2015 05:23 PM  
**To:** 'Craig Mitchell'  
**Cc:** [frans@mswconsulting.co.za](mailto:frans@mswconsulting.co.za)  
**Subject:** RE: Brakfontein Hill Drilling - Landowner Permission Required for AMAFA Drilling Application

Hi Craig

I have, in response to your request, provided a brief description of the drilling process. It is:

Rotary core drilling comprises of a drill string bored into the ground from a motor-driven hoist. The drill bit consists of an approximately 54mm diameter diamond studded grinder which rotates slowly through the soil or rock, and where an internal sample within the drill string slowly rises up into the drill stem as the hole is advanced. The drill bit is cooled by water permeating from the drill string's distal end which byflow is then being forced up the annulus between the barrel and the bored hole. This water, unpolluted but discoloured, is forced out of the ground at the borehole collar position at surface from where it flows downslope under gravity. The flow is kept in check via a narrow shallow constructed trench approximately 100mm wide and 50mm deep, from where it drains into a sump constructed for that purpose. The approximately 1m diameter and 300mm deep sump is excavated within adjacent ground, away from the borehole collar, so that it doesn't interfere with the drilling process. A plastic lining to prevent water from the sump seeping into the ground is placed within the sump prior to the start of drilling operations. Core is recovered from the borehole string by hoisting the drill string and opening the core barrel at surface. In unconsolidated soils the top of each hole is protected from collapse by drilling in a casing down to the rockhead contact. We would suggest that for the Commando Reservoir site that Mr Gavin Anderson perhaps be available for the excavation of all three borehole position sumps so that excavated materials can be expected by him before the drilling commences. The driller has indicated he should be in a position to start the drilling for these 3 boreholes towards the latter part of next week. I will keep you posted as to an exact start. Alternatively we should perhaps consider digging the thin trench and 3 sumps even before the drill rig arrives? This could be done this week already?

Best regards

"GV"

**Dr GV Price**

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