



CKOMBO HYDRO WORKS



Experts in: Hydrological surveys, Geotechnical works, Water treatment, Swimming pool, Borehole drilling& equipping, Test pumping, Water supply design& Pumps and General Water Works.

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BOREHOLE DRILLING PROVISIONAL SUM

One of the questions most frequently asked of us is. How much will a water borehole cost?

To answer this question, we will have to know more about your intended project and your site.

The cost of drilling and lining a borehole is typically £67-£100 per metre (ksh 6700) depending on geology. The single most important factor determining the cost of the borehole itself is therefore, how deep does it have to be?

Before committing to the cost, that is engaging a driller to come to site to drill for water, a water borehole (hydrogeological) survey is carried out to determine the following,

1. The presence of water at your site
2. The depth of the water (aquifer) below ground
3. The likely quantity of water relative to your requirements
4. An indication of the quality of water to be encountered

This geological survey ranges from ksh.45,000 to 100,000 depending on the distance relative to Nairobi. Ksh. 45,000 is the price for Nairobi.

Please, please, do not rely on the predictions of any driller unless there is solid geological data to back these up. There are many unscrupulous operators who will commence drilling on the basis of vague predictions and then ask for considerably more money to continue beyond the initial predicted depth, with no guarantee of success. This geological data can only be obtained from the geological survey which will be carried out in the site by a hydro-geologist as indicated above.

- Do you wish to install some form of water storage? Tanks of between 1000 litres and 100000 litres capacity would add somewhere between Ksh.150000 and 1000000.



- Do you want the water to be for domestic drinking water? UV units and filtration equipment can add typically another Ksh.150000 - 300000 to the cost depending on the size of the household/group wanting the drinking water. If the water contains high levels of impurities, e.g. iron or manganese, this figure can be higher.
- Do you require extra equipment, pipe runs, more outlets, irrigation/sprinkler systems etc.?

These are the variable costs, which depend entirely on mother-nature and the choices that you make.

The more fixed costs are:-

The cost of the borehole pump, controls, wellhead and custom designed chamber. Together these can add up to around Ksh.400000. We use only industry benchmark equipment, e.g. Grundfos borehole pumps. Putting together all of the above it can be seen that a shallow (20m) high quality borehole with few extras will cost Ksh.780000 to 910000. A deeper borehole, say around 70m will cost around Ksh.1.82m. NOTE: **this is the total cost excluding the charges for the geological survey.**

We will only charge you for the actual depth drilled. This means that should the geological survey indicate a required borehole depth of, say, 60m, but we find adequate supplies at 50m, then this depth is what you will be charged for, i.e. your outlay will be reduced.

Our prices are otherwise fixed. Once we have agreed a price with you, it will not change (unless of course, you change what you want us to do)

As with many other things, there are of course ways of cutting costs (and corners). We choose quality and reliability.

We provide the complete package, i.e. hydrological survey, borehole drilling, pump testing, external pipework, storage tank, UV and filtration; we work hand in hand with other water companies and drilling companies.

Any other equipment like solar panels will depend on the water discharge and the type of pump to be used. This can only be determined after the survey and drilling has been done.

Steps involved in borehole drilling..

- 1. Hydrological survey -carried on site by a Geologist.**

We usually assist our clients in obtaining Water resources Management permit {WRMA }before drilling commences.

- 2. Borehole drilling process – drilling should be done under the supervision of the Geologist.**
- 3. Pump testing done by the driller under supervision of the geologist.**
- 4. Pump installation under the supervision of the geologist.**

NB: Processes of drilling, pump testing and pump installation should be under supervision of a geologist. Charges are Ksh. 4000per day; total cost depends on the duration the processes are going to take place.



TERMS AND CONDITIONS

The Total contract sum is:

Hydrological survey: Ksh.....

Borehole drilling: Ksh.....

Terms of payment:

- **The Survey cost:** 60% of the agreed cost of Hydrological survey will be paid on the day of carrying out the survey and the remaining 40% paid after the hydrological report is compiled and presented to the client.
- **The Drilling cost:** 80% of total cost is paid when the drilling machine is on the site and the drilling commences. Kshs 100,000 is paid a day prior for fueling. This is included in the 80%.
- **Pump installation:** The agreed amount is paid in full to facilitate purchase of the pump and its accessories.
- **External piping:** The total amount is paid in full for procurement purposes.

The law of contract as administered in the law of Kenya Act shall be applicable upon signing of the contract agreement, which is intended to create legally binding obligations between the contractor and the client.

For: C-KOMBO HYDRO WORKS

Name.....

Signature.....

ID No.....

Date

Accepted: Client

Name.....

Client Sign.....

ID No.....

Date.....

ALL WORKS COMPLETED SATISFACTORILY ON.....

Client sign.....

Date

