

**BILL OF QUANTITIES FOR DRILLING OF PRODUCTION BOREHOLE
BARAKA PRIMARY SCHOOL IN OL JORO OROK CONSTITUENCY**

Item No.	Description	Unit	Q'ty	Rate Ksh	Amount Ksh
BILL NO. 1: PRELIMINARIES					
1.1	Carry out Environmental Impact Assessment for drilling of borehole at Baraka Primary School. Submit report in two copies to the Sub-County Water Officer Ol Joro Orok	Item	Lump-sum		200,000.00
1.2	Provide for acquisition of Water Resources Authority borehole drilling authorization and submit the same in two copies to the Sub-County Water Officer.	Item	Lump-sum		150,000.00
BILL NO. 2: DRILLING AND CASING OF BOREHOLE					
2.1	Mobilization and transportation of all plant, drilling rig, construction materials, equipment and personnel to the site; demobilization on completion	Item	Lump Sum		150,000.00
2.2	Drilling of a borehole of minimum diameter 203mm through various types of strata including disposal of excavated materials, taking any remedial measures to overcome caving-in, or over-drilling to accommodate sloughed material and keeping drilling records as specified between ground level and the final depth	M	250	8,000	2,000,000.00
2.3	Supply and install 203 mm internal diameter plain steel casings in the borehole (<i>provisional</i>)	M	84	5,000	420,000.00
2.4	Ditto but 203mm diameter slotted steel casings with slots of maximum size of 2mm (Torched slots shall not be permitted since they allow ingress of fine sand particles into the borehole compromising both efficiency and life span of the well) (<i>provisional</i>)	M	166	5,000	830,000.00
2.5	Allow for taking samples of drill cuttings at two (2) metre intervals (Provisional)	No	125	300	37,500.00

2.6	Supply and install into the annular space gravel pack material consisting of naturally graded weathering resistant river quartzite gravel of particle size 2 – 4mm	Tons	12	5,000	60,000.00
2.7	Supply materials and grout between the casing and the borehole top five (5) metres	Item	Lump Sum		45,000.00
2.8	Carry out physical and chemical development of the borehole including inserting and removal of development equipment (At least 4 hours for physical development	Item	Lump Sum		150,000.00
2.9	Undertake Constant Discharge Test measurement as specified for 24 hours to ascertain borehole yield and draw down until hydraulic equilibrium is achieved	Item	Lump Sum		200,000.00
2.10	Undertake borehole water level observation and recovery measurements until initial water level is recovered	Item	Lump Sum		50,000.00
2.11	Carry out borehole sterilization	Item	Lump Sum		150,000.00
2.11	Install wellhead with a stick-up casing of 0.5m above ground level, well cap serial number and concrete (1:3:6) plinth of dimensions 1.5 x 1.5 x 0.5m thick around the well head	Item	Lump Sum		55,000.00
2.12	Supply of water and drilling fluids for drilling operations and field camp	Item	Lump Sum		120,000.00
2.13	Allow for borehole water sampling for quality analysis in a government approved laboratory (1No. for Bacteriological and 1 No. for Chemical analysis each 2litres). Submit two copies of the report to the Sub-County Water Officer	Item	Lump Sum		20,000.00

2.14	Allow for making good and surface reinstatement at the borehole location as directed by the supervisor	Item	Lump Sum		<i>10,000.00</i>
2.15	Allow for provision of borehole completion record and test pumping data and submit two copies of each to the Sub-County Water Officer	Item	Lump Sum		<i>10,000.00</i>
Sub-Total					
2.16	Add 3% Project Management Costs	%	3		<i>144,000.00</i>
TOTAL					<i>4,801,500.00</i>