

COUNTY	NAKURU		
CONSTITUENCY	KURESOI NORTH		
SUB-COUNTY	KURESOI NORTH		
WARD	SIRIKWA		
SUBJECT	KIPTENDEN- SIRIKWA WATER PROJE		

BILL No 1		BOREHOLE DRILLING		
Item	Description	Unit	Qty	Rate
1.00	GENERAL ITEMS			
1.10	Establishment of sign board as directed.	No	2	
1.20	Testing and commissioning of the works including labelling, plaque etc as directed	No	2	
1.30	WRMA Legal fees	LS	1	
	Sub-Total			
	BILL 2			
2.0	Borehole drilling			
2.2	Mobilization, transportation of machinery, erection of camps and sanitary facilities and demobilization	No.	1	
2.3	Erecting and dismantling of drilling equipment and other machinery at the site	No.	1	
2.4	Drilling of borehole of minimum diameter 205mm through all 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 280 metres below ground level.	m	280	
2.5	Supply and install 152mm internal diameter plain steel casings in the borehole	m	280	
2.6	Ditto 2.4 but 152mm internal diameter slotted steel casings	m	30	
2.7	Allow for taking samples of drilling cuttings at two(2)metres interval	No	55	116
2.8	Supply and insert gravel pack (rounded 2-4mm diameter).	Tons	4	
2.9	Grout between the casing and the borehole for top ten (10) metres.	No.	1	
	Physical and chemical development of the borehole including inserting and removal of development equipment;			
3.0	a) Physical development	No.	1	
3.10	b) Chemical development	No.	1	

3.20	Undertake constant discharge test as specified (24hours for actual test pumping and 8 hours for insertion and removal of test pumping equipment).	No.	1	
3.30	Undertake water level observation and record recovery		1	
3.40	Carry out borehole sterilization	No.	1	
3.50	Install wellhead, well cap serial number and cement slab of dimensions 1.0 x 1.0 x 1.0 metres around the wellhead.	No.	1	
3.60	Supply of water and drilling fluids for drilling operation and field camp	No.	1	
3.70	Take water samples for laboratory analysis (1No sample for bacteriological and 1 No for chemical each 5litres).	No.	1	
3.80	Allow for making good and surface reinstatement at the borehole location to the Project Manager's satisfaction	No.	1	12,260
3.90	Provisional sum for b/hole inspection by use of Geovision camera	item	1	69,600
Sub-Total for borehole drilling				
<i>BILL NO 3: PIPES AND AUXILIARIES</i>				
4.00	Supply, lay, join, test and commission the following pipes and fittings as directed on site			
4.10	Supply to site, lay Ø 2" µpvc pipe class 'C'	No.	600	
4.20	Supply to site Ø 2" µpvc pipe class 'D'	No.	200	
4.30	Supply and fix gate valves (pegler) 2"	No.	6	
4.40	Supply and fix gate valves (pegler) 1"	No.	6	
	Total			
5.00	SITE CLEARANCE & EARTH WORKS			
5.10	Clear the pipeline route of all shrubs and bushes and remove from site	m ²	100	
5.20	Excavate pipeline trench average width 0.6m and minimum depth 0.9m over medium ground	m ³	1,960	
5.30	Backfill and ram excavated material in trench on pipe laying on medium ground	m ³	1,960	
	Sub-Total			
	BILL 4			
5.40	COMMUNAL WATER POINT			

5.50	Supply materials and construct communal water point as per the DRG provided	No.	3	
5.60	Supply 10,000L PVC tanks and install them on them on top item 5.50 above , connect pipes linto and to the communal water point as directed on site.	No	1	
5.70	Supply 15,000L PVC tanks and install them on them on top item 5.50 above , connect pipes linto and to the communal water point as directed on site.	No.	1	
5.80	Supply 20,000L PVC tanks and install them on them on top item 5.50 above , connect pipes linto and to the communal water point as directed on site.	No.	1	
5.90	Supply materials and construct standard masonry valve chamber type 'C' Complete with lockable steel cover and frame (1.0m x 1.0m) inernal measurement	No.	4	
	Sub Total			
	BILL 5			
6.00	SUBMERSIBLE SOLAR PUMP SET AND ACCESSORIES			
6.1	Supply and install a submersible grundfos SP9-29 water pump complete with motor	No	1	
6.2	Supply and install mono/poly crystaline solar pannels 195watts	No	36	
6.3	Supply and install 4mm ² flat submersible drop cable	M	163	
6.4	Supply and install twin flat 6mm ² cable with earth	M	60	
6.5	Supply and install 1.5mm ² core U/G cable	M	30	
6.6	Supply and install 4mm ² core U/G cable	M	30	
6.70	Supply and install 2" GI pipe class C	No.	42	
6.80	Supply and install 2" crane sockets	No	43	
6.90	Supply an earth rod complete with a clamp	No.	1	
7.00	Supply a float switch	No.	1	
7.10	Supply a 6mm ² core earth cable	M	5	
7.20	Provide a borehole cover	No.	1	
7.30	Provide a solar structure	No.	1	

7.40	Supply, fix and test standard 1½" water master meter on the rising main directed on site	No	1	
7.50	Installation, Labour, transport and commissioning	No	1	
	Sub-Total			
	BILL NO. 1 GENERAL ITEMS			
	BILL No. 2 BOREHOLE DRILLING			
	BILL No. 3 PIPES AND AUXILLARIES			
	BILL No. 4 COMMUNAL WATER POINT			
	BILL No 5 SOLAR PANEL & PUMPSET			
	Total			
	Add 5% for monitoring and supervision	%	1	
	Total			
	Add 16% VAT	%	1	
	GRAND TOTAL			

