



## BILL OF QUANTITIES FOR REHABILITATION OF 10 DEFUNCT BOREHOLES IN KAJOKEJI COUNTY

### 1. Back ground

Kajo Keji County, in Central Equatoria State experienced the brunt of the conflict which upset Central Equatoria State in 2016. The conflict led to majority of the inhabitants in Kajo Keji County to seek refuge in the neighbouring Uganda and others in IDP camps within the Greater Yei region. The conflict negatively impacted on women and vulnerable children facing risks of violence such as sexual abuse, forced displacement, exposure to hunger and life threatening diseases. There has also been food insecurity in the area affecting most of the families. With the formation of the new Government of National Unity in February 2020, Kajo Keji has registered relative calm and peace and the area.

GLI with funding from Islamic Relief Worldwide has secured funding to rehabilitate 10 defunct boreholes in Kajo Keji County.

Job title: Rehabilitation of ten (10) defunct boreholes

Project location: Kajokeji County – Central Equatoria state.

### 2. Scope of work

The rehabilitation work is expected to be implemented in Kajokeji County of central equatorial state. The borehole sites are located in villages across three payams of the county, these payams are Nyepo, Lire and Kajokeji. The rehabilitation work will have two statuses based on the identified condition of the borehole, basically all of these water facilities are equipped with Indian MK II hand pumps. The statuses are as follows:

#### (A) Major rehabilitation

Implies replacement of most of the parts of the hand pump with new parts, these includes replacement of the head assembly, the water tank, Pedestal, 1 1/4" G.I.pipes, 12mm MS connecting rods and cylinder assembly. The apron or plate form and the drainage channel will be repaired too. In Major rehabilitation about 90% of the hand pump including the apron and drainage channel are renewed.

#### (B) Minor rehabilitation

Implies replacement of some default parts of the hand pump including the apron or plate form and the drainage channel. These includes replacement and fixing of new head assembly, installation of some new G.I.pipes with connecting rods, new cylinder and some minor repair work on the apron and

drainage channel, fixing of new bolts and nuts, replacement of the chain etc. Minor rehabilitation adds up to about 50% of the hand pump is renewed.

3. Names of locations of the water sources:

S/no	Location/village	Boma	Payam	Distance from the center
01	Kinyanya	Lori	Nyepo	
02	Lomeje	Kansuk	Nyepo	
03	Ngonga	Rodo	Nyepo	
04	Poni Yinge	Kansuk	Nyepo	
05	Dongwo	Rodo	Nyepo	
06	Boa	Mere	Lire	
07	Monobek	Mere	Lire	
08	Bao	Mekir	Lire	
09	Mekir	Mekir	Lire	
10	Sera	Longira	Lire	

Summary of hard ware required

List of Indian MK II hand pump parts										
S/no	Village/location	Head assembly	Water tank	Pedestal	G.I.pipes	Connect rods	Cylinder assembly	Cement	Concrete 1:2:4 mix	Status
01	Kinyanya	01	01	01	12	12	01	6	3.5m <sup>3</sup>	Major
02	Sera	01	01	01	08	08	01	5	2.5m <sup>3</sup>	Major
03	Monobek	01	0	0	10	10	01	4	2.3m <sup>3</sup>	Minor
04	Bao	01	0	0	08	08	01	3	1.5m <sup>3</sup>	Minor
05	Mekir	01	01	01	13	13	01	3	1.5m <sup>3</sup>	Major
06	Lire	01	01	01	12	12	01	5	3.0m <sup>3</sup>	Major
07	Lomeje	01	01	01	12	12	01	6	3.5m <sup>3</sup>	Major
08	Ngonga	01	01	01	08	08	01	4	3.0m <sup>3</sup>	Major
09	Poni Yinge	01	01	01	12	12	01	6	3.5m <sup>3</sup>	Major
10	Dongwo	01	01	01	12	12	01	6	3.5m <sup>3</sup>	Major
Total		10	08	08	107	107	10	48	27.8m <sup>3</sup>	

**BILL OF QUANTITIES FOR THE REHABILITATION WORK**

Item Number	Item Description	Quantity	Unit	Comment	Unit cost-USD	Amount-USD
01	Provide but labor and allow for overhauling of Indian MK II hand pump head assembly, includes untightening and removal of bolts and nuts, disconnecting from the connecting rod.	10				
02	Provide but labor and allow for overhauling of Indian MK II water tanks, that includes untightening bolts and nuts from the pedestal, support, unscrew and disconnect from the riser main pipe	08				
03	Provide but labor and allow for overhauling riser main pipes & connecting rods, includes, supporting, unscrew and removal of pipes together with the attached connecting rod and cylinder assembly	107				
04	Provide but labor and allow for removal of damaged pedestals, includes breaking of concrete work using sledge hammer.	08				
05	Provide and allow to fix new Indian MK II pedestal in 1:2:4 concrete well compacted, allow for curing period of 3 days before installation. Provision of labor and materials	08				
06	Provide and allow for fixing in place new 1 1/4" G.I.pipes (riser mains) , together with connecting rods, that includes safely supporting screwing together and fix sequentially in places	107				

07	Ditto ditto but in place new Inidan MK II cylinder assembly	10				
08	Ditto ditto but provide and fix new Indian MK II water tanks that includes safely screwing onto riser main last pipe.	08				
09	Provide and allow for fixing in place new Indian MK II head assembly well set and firmly fix on the water tank.	10				
10	Prepare and make ready all sites, provide and allow for repair work on aprons and drainage channels in accordance with the level of repair work rated, that includes casting in place 1:2:4 concrete well laid, compacted and smoothly finished.	27.8m <sup>3</sup>				
11						
12	Decommissioning- Allow for general cleaning of the site 3 meter radius from the hand pump. That includes disposal of all wastes generated as a result of the related activities, back filling of pot holes and depressions close to the water points and general land scaping of the site.	1				
13	Provide and allow for fixing visibility- stickers one on either side of the pump head. The sticker size is 15 cmx17cm carrying specified logos( Logos will be provided)	20				