

To be copied in the TENDER DOCUMENTS (to be provided to the Contractors)

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE (USD)	AMOUNT (USD)
Preliminary					
1.1	Project visibility wall painting and branding works.	SUM	1.00	\$ -	\$ -
CARRIED TO COLLECTION AT END OF ELEMENT 1 (PRELIMINARY)					\$ -
Power supply works					
1.2	Supply, install, test with manufacturer certificate: Submersible pump, pump operating at a nominal flow rate of 4 m ³ /h (approx. 1.11 l/s) at a total dynamic head of 25 m, suitable for a 12 m shallow well water level depth; riser pipe as per relative drawings and solar pump controller inclusive with all accessories (non-return valve, butterfly valve, connection joint, etc.).The pump must stop when the minimum level inside the well is reached, i.e., the pump has to be furnished with a minimum control level switch electric cable inside a 3" corrugated pipe to connect the pump with the solar inverter/controller panel system; warranty of pump 2 years; instructions and manuals.The system operates as a direct-to-tap distribution network without intermediate water storage, where pump operation is driven directly by solar irradiance availability and protected against system overpressure via the integrated solar pump controller logic.The pump unit, motor, and internal liquid-contact components must strictly comply with European Union (EU) standards, carrying the official CE mark certification, or an approved equivalent meeting EU Ecodesign Directive efficiency standards.	LS	1.00	\$ -	\$ -
CARRIED TO COLLECTION AT END OF ELEMENT 2 (POWER SUPPLY WORKS)					\$ -
Pipelines					
1.3	Supply, lay, joint, test, and commission HDPE/polyethylene pipes PN10 PE80 DN50 mm (2-inch diameter), including fittings, joints, valves, excavation, backfilling, and all accessories required to connect the borehole to the water storage tank.	m	200.00	\$ -	\$ -
1.4	Supply and install a graduated rod for future monitoring, for the registration of water levels inside the well. The system needs to be visible from the top.	LS	1.00	\$ -	\$ -
CARRIED TO COLLECTION AT END OF ELEMENT 3 (PIPELINES)					\$ -
TOTAL COST OF SHALLOW WELL WATER SYSTEM					\$ -

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ITEM	DESCRIPTION	UNIT	QUANTIT Y	RATE (USD)	AMOUNT (USD)
Site clearance					
2.1	Prepare site by stripping top 150 mm of soil to remove all debris including sand (if any) from site and carting away spoil	m ²	4.76	\$ -	\$ -
Excavation					
2.2	Excavate for foundation strip commencing at stripped levels depth not exceeding 0.50m deep	m ³	4.76	\$ -	\$ -
Filing					
2.3	Normal backfill with selected granular material	m ³	3.00	\$ -	\$ -
2.4	200 mm thick approved hardcore filling spread, well rammed and compacted in 150mm layers to receive concrete surface bed	m ³	3.00	\$ -	\$ -
Masonry works					
2.5	Mass concrete M20 (Mix Ratio 1:1.5:3, 28 DAY CUBE CHARACTERISTIC STRENGTH OF THE CONCRETE HAS TO BE MINIMUM 20N/mm2), not reinforced; all works and materials included as per TS; including all temporary and auxiliary works. 50mm blinding layer under foundations	m ³	0.20	\$ -	\$ -
2.6	Stone masonry foundation in cement sand mortar (1:4), including all materials, curing, and workmanship complete as directed by the engineers	m ³	4.35	\$ -	\$ -
2.7	200mm thick solid block masonry walls in cement sand mortar (1:4) and all necessary workmanship complete and auxiliary works to have a complete work accordingly to the drawings and as directed by the engineers 200mm thick walls and bottom pool	m ²	6.00	\$ -	\$ -
Finishes					
2.8	Cement and sand mortar (1:3) in 15mm thick plaster to internal side of wall with water proof cement	m ²	4.76	\$ -	\$ -
2.9	Cement and sand mortar (1:3) in 12mm thick plaster to external side of wall	m ²	6.80	\$ -	\$ -
Water Supply System					
2.10	Supply & Install Galvanized mild steel pipes class "B" medium thickness with and including joint, curves, fittings and whatever to connect the structure to the pipe coming from the reservoir and to complete the work as per drawings or as directed by the engineers 25mm diameter inlet pipe chased through masonry wall 6 m long with fittings (elbows, tees, etc), ball valve and whatever necessary to complete the work according to relative drawings or directed by the engineers	L.S.	1.00	\$ -	\$ -

2.11	Supply and installation of rigid non-plasticized PVC pipes and fittings, marked and compliant with the EN 1401-1 standards, to be used for waste water, rainwater, and in any case for small sections, jointed with the aid of technical sealing joints, and laid underground, diameter 50 mm, 3m long with and including gate valve, masonry or concrete manhole 600mm x 600mm with concrete cover slab	L.S.	1.00	\$ -	\$ -
TOTAL COST OF CAMEL TROUGH					\$ -

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ITEM	DESCRIPTION	UNIT	QUANTITY	RATE (USD)	AMOUNT (USD)
Site clearance					
3.1	Prepare site by stripping top 150 mm of soil to remove all debris including sand (if any) from site and carting away spoil	m ²	5.44	\$ -	\$ -
Excavation					
3.2	Excavate for foundation strip commencing at stripped levels depth not exceeding 0.50m deep	m ²	5.44	\$ -	\$ -
Filing					
3.3	Normal backfill with selected granular material	m ²	5.44	\$ -	\$ -
3.4	200 mm thick approved hardcore filling spread, well rammed and compacted in 150mm layers to receive concrete surface bed	m ²	2.04	\$ -	\$ -
Concrete work					
3.5	Mass concrete (C16/20; min compressive strength 20 Mpa), not reinforced; all works and materials included as per TS; including all temporary and auxiliary works. 50mm blinding layer under foundations	m ³	0.20	\$ -	\$ -
3.6	Mass concrete (C16/20; min compressive strength 20 Mpa), not reinforced; all works and materials included as per TS; including all temporary and auxiliary works. 50mm blinding layer on hardcore surfaces	m ³	0.17	\$ -	\$ -
3.7	Reinforced concrete Class M25 (28 DAY CUBE CHARACTERISTIC STRENGTH OF THE CONCRETE HAS TO BE MINIMUM 25N/mm2), all works and materials (incl. Reinforcement bars) included as per TS; including formworks and all temporary and auxiliary works to have a complete work accordingly to the drawings and as directed by the engineers 100 mm thick floor slab	m ³	0.34	\$ -	\$ -
3.8	Stone masonry foundation in cement sand mortar (1:4), including all materials, curing, and workmanship complete as directed by the engineers	m ³	2.45	\$ -	\$ -

3.9	200mm thick solid block masonry walls in cement sand mortar (1:4) and all necessary workmanship complete and auxiliary works to have a complete work accordingly to the drawings and as directed by the engineers 200mm thick walls and bottom pool	m ²	5.00	\$ -	\$ -
Finishes					
3.10	Cement and sand mortar (1:3) in 15mm thick plaster to internal side of wall with water proof cement	m ²	9.00	\$ -	\$ -
3.11	Cement and sand mortar (1:3) in 12mm thick plaster to external side of wall	m ²	4.76	\$ -	\$ -
Water Supply System					
3.12	Supply & Install Galvanized mild steel pipes class "B" medium thickness with and including joint, curves, fittings and whatever to connect the structure to the pipe coming from the reservoir and to complete the work as per drawings or as directed by the engineers 25mm diameter inlet pipe chased through masonry wall 6 m long with fittings (elbows, tees, etc), ball valve and whatever necessary to complete the work according to relative drawings or directed buy the engineers	L.S.	1.00	\$ -	\$ -
3.13	Supply and installation of rigid non-plasticized PVC pipes and fittings, marked and compliant with the EN 1401-1 standards, to be used for waste water, rainwater, and in any case for small sections, jointed with the aid of technical sealing joints, and laid underground, diameter 50 mm, 3m long with and including gate valve, masonry or concrete manhole 600mm x 600mm with concrete cover slab	L.S.	1.00	\$ -	\$ -
TOTAL COST OF TROUGH FOR THE SHOATS					\$ -

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ITEM	DESCRIPTION	UNIT	QUANTITY	RATE (USD)	AMOUNT (USD)
Photovoltaic modules					
4.1	Supply and installation of complete 3.3kW solar photovoltaic power system for shallow well water supply operation, including 6 photovoltaic modules each rated at 550W, galvanized steel/aluminium support structure mounted on concrete foundations, solar pump inverter/controller, shallow well pump connections, combiner box, soft starter, control panel, switch gear, protection devices, DC and AC cables, MC4 connectors, cable joints, cable ducts/conduits, earthing system, lightning protection system, isolators, circuit breakers, and all mechanical and electrical accessories required for a fully operational shallow well solar pumping system. The system shall be fully installed, tested, commissioned, and handed over in accordance with the drawings and Engineer's instructions, excluding batteries.	LS	1.00	\$ -	\$ -
TOTAL COST OF POWER SYSTEM					\$ -

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No	Item	Number	Total Cost [US\$]
1	Well/Spring Rehabilitation	1.00	\$ -
2	Construction animal water troughs for Camels/Catles	1.00	\$ -
3	Construction animal water troughs for Goats and Sheep	1.00	\$ -
4	Solar power system (PV = Photovoltaic)	1.00	\$ -
TOTAL COST OF PROJECT			\$ -