



## **TENDER DOCUMENT**

# **SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF SOLAR POWERED BOREHOLE PUMP AND ACCESSORIES, STORAGE TANK & DRIP IRRIGATION SYSTEM**

**TENDER NO. RCNTR/001/2023**

**ROTARY CLUB OF NAIROBI THIKA ROAD  
NAIROBI, KENYA**

**Publication Date: 4<sup>TH</sup> MAY 2023**

**Deadline for Submission: 16<sup>TH</sup> MAY 2023, 1600hrs**

*To: All Eligible Suppliers*

**From: The Rotary Club of Nairobi Thika Road**

**TENDER FOR SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF SOLAR POWERED BOREHOLE PUMP AND ACCESSORIES, STORAGE TANK & DRIP IRRIGATION SYSTEM**

**TENDER NO. RCNTR/001/2023**

1. The Rotary Club of Nairobi Thika Road invites you to submit bids for the Supply, Delivery, Installation and Commissioning of a Solar Powered Borehole Pump and accessories, Storage tank & a Drip Irrigation System.
2. The tender shall follow the instructions in this tender document and shall be in English language. Tenderers may obtain further information during office hours through the email; [rcnairobiithikard@gmail.com](mailto:rcnairobiithikard@gmail.com) and cc [procurement@rcnairobiithikaroad.org](mailto:procurement@rcnairobiithikaroad.org).
3. There shall be a **MANDATORY pre-bid meeting** at the project site on **9<sup>th</sup> May 2023** at **1100hrs**. Tenders should confirm their participation through the above email addresses by 8<sup>th</sup> May 2023 at 1700hrs. For more details on the pre-bid meeting, contact our Service Projects Director on Mobile no. 0705 103922. The project site is at **AIC Kajiado Child Care Centre, Kajiado**.
4. Tenders shall be submitted in accordance with the instruction in Part 1: Tender shall **ONLY** be submitted electronically and in pdf format. Submission of the tenders shall be through email to; [rcnairobiithikard@gmail.com](mailto:rcnairobiithikard@gmail.com) and cc [procurement@rcnairobiithikaroad.org](mailto:procurement@rcnairobiithikaroad.org) the subject should clearly indicate the tender name and title and must reach the Procuring Entity not later than **1600hrs** on **16<sup>TH</sup> MAY 2023**. Late bids shall be rejected.

*Yours Sincerely*

**Christopher Ndirangu**  
**Club President**

## PART 1: INSTRUCTIONS TO TENDERERS

1. **Tenderers are advised to read carefully** these instructions before preparing the tender. The standard forms in this document may be photocopied for completion but the Tenderer is responsible for their accurate reproduction. The term Tenderer shall mean the firm or person invited to submit a tender. The term tender herein shall mean the *tender* submitted as usually understood in procurement.
2. **Validity of Tenders:** The tender will be held valid for One Hundred and twenty (120) days from the date of submission.
3. The Tender shall consist of completed Tables A, B and C and the Form of Tender all indicated in Part 2 of this Request for Tenders, and documents to evidence Eligibility and Conformity to Technical Specifications.
4. Tenderers are required to submit bids for all lots or lot(s) that they wish to pursue.
5. **Submission of Tenders:** Tenders shall be submitted ONLY via email and in pdf format. The tenders should be submitted to the address below within the specified time. Late tenders will be rejected.
6. Address for Submission of Tenders:  
  
**Email:** [rcnairobithikard@gmail.com](mailto:rcnairobithikard@gmail.com) and cc [procurement@rcnairobithikaroad.org](mailto:procurement@rcnairobithikaroad.org)  
  
**Date and Time of Submission (deadline):** 16<sup>th</sup> May 2023 at 1600hrs
7. **Tenderer Eligibility:** Tenderer must submit Documentary evidence to show his/her eligibility to be awarded a contract to cover each of the following:
  - (i) Certificate of registration
  - (ii) Valid tax compliance certificate.
  - (iii) Valid trading license
  - (iv) CR12/Directors IDs where applicable
  - (v) Relevant work related licenses (NCA, WARMA, Solar License)
  - (vi) Evidence of satisfactory completion of similar projects stating Client Contacts, contract details (*attach copies of award letters, LPOs, Completion Certificates etc.*)
  - (vii) Company profile
8. The Tenderer shall also complete attached forms to confirm eligibility and non-existence of a conflict of interest in relation to this procurement requirement by signing the attached Forms.
9. **Goods Eligibility:** Tenderer must submit as evidence documents to show the country of origin of any goods to be supplied or incorporated in the work or services
10. **Technical Specifications:** Documentary evidence to show that the goods meet the technical specifications.
11. **Alternative Bids:** Tenderers are permitted to submit alternative bids for goods/alternative technical solutions. The details provided in this documents are to provide the general guideline and thus not final. The alternatives must however conform to the basic technical requirements.

12. **Currency:** Tenders shall be priced in Kenya Shillings. Bids in other currencies will be rejected.
13. **Evaluation of Tenders:** The evaluation of tenders will be conducted using the procedure set out below:
  - i) Preliminary examination to determine Tenderer eligibility:
    - a Certificate of registration
    - b Tax compliance certificate
    - c Valid trading license
    - d CR12/Directors IDs where applicable
    - e Relevant work related licenses (NCA, WARMA, Solar License)
    - f Evidence of satisfactory completion of similar projects stating Client Contacts, contract details (*attach copies of award letters, LPOs, Completion Certificates etc.*)
    - g Evidence of satisfactory completion of similar projects stating Client Contacts and Project Size (Kshs)
  - ii) Technical examination to determine goods eligibility, compliance with technical specifications and commercial responsiveness. Tenders failing this stage will be rejected and not considered in next stage.
  - iii) Financial comparison of the qualified tenders to determine the lowest evaluated bid.
14. **Lowest Evaluated Tender:** The lowest evaluated tender among the technically responsive bids shall be recommended for award of contract.
15. **Award of contract:** Award of contract shall be by placement of a Letter of Acceptance and execution of a contract. Unsuccessful tenderers will be notified of the accepted bid, indicating the name and the amount of the accepted tender via email.
16. **Right to Reject:** The Rotary Club of Nairobi Thika Road reserves the right to accept or reject any tender or to cancel the tender process and reject all tenders at any time prior to contract award.

## **TENDER AND QUALIFICATION DOCUMENTS**

### ***Instructions to Tenderer.***

*Tenderer must complete and submit as part of the Form of Tender.*

- (i) FORM OF TENDER
- (ii) SCHEDULE OF REQUIREMENTS TABLE
- (iii) CONFIDENTIAL BUSINESS QUESTIONNAIRE
- (iv) FORM FOR DISCLOSURE OF INTEREST
- (v) CERTIFICATE OF INDEPENDENT TENDER  
DETERMINATION
- (vi) SELF-DECLARATION FORM

**FORM OF TENDER** [To be completed by Tenderer]

<b>Tender Addressed to: The Rotary Club of Nairobi Thika Road</b>	
Date of Tender	<b>4<sup>th</sup> May 2023</b>
Tender Reference Number:	<b>RCNTR/001/2023</b>
Subject of Tender	<b>Tender for the Supply, Delivery, Installation and Commissioning of a Solar Powered Borehole Pump and accessories, Storage tank &amp; a Drip Irrigation System.</b>

1. We have examined and have no reservations to the Request for Tender document and understand its full content and intent.
2. In compliance with your request for tender dated \_\_\_\_\_, referenced above, we offer to supply and install goods to cover and conform to our pricing listed in the attached in Table B. Tender Submission TABLE at a total price of Kenya Shillings \_\_\_\_\_(in words)
3. We confirm that we are eligible to participate in this procurement and meet the eligibility criteria specified in Part 1: INSTRUCTIONS TO TENDERERS.
4. We also confirm that the goods to be supplied conform to the **SCHEDULE OF REQUIREMENTS TABLE** below and in conformity with technical specifications listed in PART 2: SCHEDULE OF REQUIREMENTS of this tender Document.
5. We confirm that the prices quoted are fixed and firm for the duration of the validity period and performance of the contract and will not be subject to revision or variation.
6. The validity period of our tender is: 120 days from the time and date of the submission deadline (*same as in the instructions to Tenderers*).
7. We confirm we are not submitting any other Tender as an individual or firm, and we are not participating in any other Tender as a Joint Venture member or as a subcontractor
8. We, along with any of our subcontractors, suppliers, Engineer, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to a temporary suspension or a debarment imposed by the Government of Kenya, or any international organization.
9. We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption.
10. We hereby certify and confirm that the Tender is genuine, non-collusive and made with the intention of accepting the contract if awarded. To this effect we have signed the Certificate of Independent Tender Determination.

11. We, the Tenderer, have completed fully and signed the **FORM FOR DISCLOSURE OF INTEREST**- interest of the firm in the Rotary Club of Nairobi Thika Road.
12. We confirm Delivery/Completion period offered is: \_\_\_\_\_days from the date of acceptance of contract. The warranty period offered is \_\_\_\_\_Months.

**Tender Authorized by:**

**Name and designation** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Stamp**

## SCHEDULE OF REQUIREMENTS TABLE

Item	Description	Quantity
1	Lot 1 - Supply and Install a Solar powered Borehole pump and accessories	Lot
2	Lot 2 - Supply and install a 30m <sup>3</sup> steel tank raised 15m from ground level	Lot
3	Lot 3 - Supply and Install a drip irrigation system for ½ half acre for mixed crop	Lot

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Authorized for and on behalf of (*specify name of tenderer*) \_\_\_\_\_

Date \_\_\_\_\_

Company Seal/Stamp



**CONFIDENTIAL BUSINESS QUESTIONNAIRE FORM**

You are requested to give the particulars indicated in Part 1 and either Part 2(a), 2(b) or 2 (c) whichever applied to your type of business.

You are advised that it is a serious offence to give false information on this form.

*Part 1 – General:*

Business Name .....

Location ..... of ..... business ..... premises.

Plot No..... Street/Road .....

Postal Address ..... Tel No. .... Fax ..... E mail .....

Nature of Business.....

Registration Certificate No. ....

Maximum value of business which you can handle at any one time – Kshs:  
.....

Name of your bankers..... Branch .....

Part 2 (a) – Sole Proprietor

Your name in full .....Age .....

Nationality ..... Country of origin .....

• Citizenship details .....

Part 2 (b) Partnership

Given details of partners as follows:

	Name	Nationality	Citizenship Details	Shares
1.	.....	.....	.....	.....
2.	.....	.....	.....	.....
3.	.....	.....	.....	.....
4.	.....	.....	.....	.....

Part 2 (c) – Registered Company

Private or Public .....

State the nominal and issued capital of company-

Nominal Kshs. ....

Issued Kshs. ....

Given details of all directors as follows.

Name	Nationality	Citizenship Details	Shares
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1.....

2.....

3.....

4.....

5.....

Date.....Signature of Candidate .....

- If a Kenya Citizen, indicate under “Citizenship Details” whether by Birth, Naturalization or registration.

**FORM FOR DISCLOSURE OF INTEREST**

Interest of the Firm in the Procuring Entity.

- i) Are there any person/persons in *Rotary Club of Nairobi Thika Road* who has/have an interest or relationship in this firm? Yes/No.....

If yes, provide details as follows.

	<b>Names of Person</b>	<b>Designation in Procuring Entity</b>	<b>the</b>	<b>Interest or Relationship with Tenderer</b>
1				
2				
3				

- i) **Conflict of interest disclosure**

	<b>Type of Conflict</b>	<b>Disclosure YES OR NO</b>	<b>If YES provide details of the relationship with Tenderer</b>
1	Tenderer is directly or indirectly controls, is controlled by or is under common control with another tenderer.		
2	Tenderer receives or has received any direct or indirect subsidy from another tenderer.		
3	Tenderer has the same legal representative as another tenderer		
4	Tender has a relationship with another tenderer, directly or through common third parties, that puts it in a position to influence the bid of another tenderer or influence the decisions of the Procuring Entity regarding this tender process.		
5	Any of the Tenderer’s affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the Tender.		
6	Tenderer would be providing goods, works, non-consulting services or consulting services during implementation of the contract specified in this Tender Document.		

7	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who are directly or indirectly involved in the preparation of the tender document or specifications of the Contract, and/or the Tender evaluation process of such contract.		
8	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who would be involved in the implementation or supervision of the Contract.		
9	Has the conflict stemming from such relationship stated in item 7 and 8 above been resolved in a manner acceptable to the Procuring Entity throughout the Tender process and execution of the Contract?		

**iii) Certification**

On behalf of the Tenderer, I certify that the information given above is complete, current and accurate as at the date of submission.

Full Name:

Title or Designation:

\_\_\_\_\_

*(Signature)*

\_\_\_\_\_

*(Date)*

iv) **CERTIFICATE OF INDEPENDENT TENDER DETERMINATION**

I, the undersigned, in submitting the accompanying Letter of Tender to the *Rotary Club of Nairobi Thika Road* for the:

\_\_\_\_\_

\_\_\_\_\_ *[Name and number of Tender]* in response to the request for tenders made by: \_\_\_\_\_ *[Name of Tenderer]* do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of \_\_\_\_\_ *[Name of Tenderer]* that:

1. I have read and I understand the contents of this Certificate;
2. I understand that the Tenderer will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am the authorized representative of the Tenderer with authority to sign this Certificate, and to submit the bid on behalf of the Tenderer;
4. For the purposes of this Certificate and the tender, I understand that the word “competitor” shall include any individual or organization, other than the Tenderer, whether or not affiliated with the Tenderer, who:
  - a) has been requested to submit a bid in response to this tenders;
  - b) could potentially submit a tender in response to this request for tenders based on their qualifications, abilities or experience;
5. The Tenderer discloses that [check one of the following, as applicable]:
  - a) The Tenderer has arrived at the tender independently from, and without consultation, communication, agreement or arrangement with, any competitor;
  - b) the Tenderer has entered into consultations, communications, agreements or arrangements with one or more competitors regarding this tender and the Tenderer discloses, in the attached document(s), complete details thereof, including the names of the competitors and the nature of, and reasons for, such consultations, communications, agreements or arrangements;
6. In particular, without limiting the generality of paragraphs (5)(a) or (5)(b) above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - a) prices;
  - b) methods, factors or formulas used to calculate prices;
  - c) the intention or decision to submit, or not to submit, a tender; or
  - d) the submission of a tender which does not meet the specifications of the tender ; except as specifically disclosed pursuant to paragraph (5) (b) above;

In addition, there has been no consultation, communication, agreement or arrangement with any competitor regarding the quality, quantity, specifications or delivery particulars of the works or services to which this request for tenders relates, except as specifically authorized by the procuring authority or as specifically disclosed pursuant to paragraph (5)(b) above; the terms of the tender have not been, and will not be, knowingly disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening, or of the awarding of the Contract, whichever comes first, unless otherwise required by law or as specifically disclosed pursuant to paragraph (5)(b) above.

Name:

Title:

Date:

*[Name, title and signature of authorized agent of Tenderer and Date]*

v) **SELF-DECLARATION FORM**

We, the Tenderer \_\_\_\_\_ (*insert name*) submitting our Tender in respect of Tender No \_\_\_\_\_ for \_\_\_\_\_ (*insert Tender name*) to the *Rotary Club of Nairobi Thika Road*.

**DECLARE AS FOLLOWS:**

That, We the Tenderer including any entity or individual that directly or indirectly controls, is controlled by or is under common control with us, and any subcontractors, suppliers, project managers, consultants, manufacturers, service providers, agents, individuals, or any other party involved or to be involved for any part of the processes of procurement and contract execution related to the above tender:

- a) have not engaged/will not engage in any corrupt or fraudulent practices in the processes of procurement and contract execution related to the above tender as defined and/or described in the following:
  - i) the above Tender;
  - ii) Kenya's Anti-Corruption and Economic Crimes Act, 2013; and
  - iii) any such other Acts or Regulations of Government of Kenya;
- b) have not offered/will not offer any inducement to any member and/or agents of *Rotary Club of Nairobi Thika Road*;
- c) have not engaged/will not engage in any collusive or corrosive practice with other tenderers participating in the subject tender;
- d) have not been sanctioned or debarred by any entity from participation in procurement proceedings of Kenya.

That, what is deponed to herein above is true to the best of our knowledge, information and belief.

**Name of the Tenderer:** \_\_\_\_\_

*[Insert complete name of tenderer signing the Tender]*

**Name of the person duly authorized to sign the tender on behalf of the Tenderer:**

\_\_\_\_\_  
*[Insert complete name of person duly authorized to sign the tender]*

**Title of the person signing the Tender** \_\_\_\_\_

*[Insert complete title of the person signing the Tender]*

**Signature of the person named above** \_\_\_\_\_

*[Insert signature of person whose name and capacity are shown above]*

**PART 2: SCHEDULE OF REQUIREMENTS**  
**Technical Responsiveness Criteria (Mandatory Criteria)**

The following criteria will be used in the evaluation of all bids. The submission of the required documents will be used in the determination of the Completeness and suitability of the Bid. Bids that do not contain all the information required will be declared nonresponsive and shall not be evaluated further **Table A: Mandatory Requirements**

	<b>REQUIREMENTS</b>	<b>COMPLIANCE (Yes / No)</b>
1)	Submit Copy of a Valid Tax Compliance Certificate	
2)	Attach copy of Registration of Business/Certificate of Incorporation	
3)	Attach Evidence of satisfactory completion of a similar project ( <i>attach copies of award letters, LPOs, Completion Certificates etc.</i> )	
4)	Submit Dully <b>filled, signed</b> and <b>stamped</b> Form for Disclosure of Conflict of Interest	
5)	Submit Duly <b>filled, signed,</b> and <b>stamped</b> Certificate of Independent tender determination	
6)	Submit Duly <b>filled, signed,</b> and <b>stamped</b> Self Declaration Form	
7)	Form of Tender	



**TABLE B. SCHEDULE OF REQUIREMENTS, TECHNICAL SPECIFICATIONS**

**TENDER FOR SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF SOLAR POWERED BOREHOLE PUMP AND ACCESSORIES, STORAGE TANK & DRIP IRRIGATION SYSTEM**

**TECHNICAL SPECIFICATIONS**

- (a) A preliminary description of the proposed works/services and work method and schedule, including drawings and charts, as necessary, containing all required information by which the proposed works may be evaluated (e.g. technical characteristics, operational capacities, maintenance, environmental effect, etc.) together with manuals or instructions for use or any other relevant information and documentation, delivery/installation schedules, etc.;
- (b) A detailed statement of how the tenderer will carry out the works/services that will form an integral part of the Contract.
- (c) Tenderers MUST provide warranty period including the specific terms for every item.

**Note: Vendor shall bear the cost of tender preparation including mandatory site assessment before submitting the bid**

**1) SCHEDULE OF REQUIREMENTS, TECHNICAL SPECIFICATIONS FOR SUPPLY AND INSTALL A SOLAR POWERED BOREHOLE PUMP AND ACCESSORIES**

DESCRIPTION	UNIT	QTY	RATE	AMOUNT	AMOUNT INCL. VAT
BOREHOLE PUMP C/W SUITABLE MOTOR TO PUMP WATER FROM BOREHOLE TO WATER TOWER OF 15M AS PER THE ATTACHED BOREHOLE COMPLETION RECORD. REFER TO	PC				
SOLAR PUMPING INVERTER	PC				
SOLAR MODULES	NO.				
PV DISC 1000/40A 1ST PV DISCONNECT SWITCH	PC				
SUBMERSIBLE CABLE 4 CORE	M				
UNDERGROUND CABLE 4 CORE	M				
BOREHOLE PIPES GI CLASS B	NO.				
BOREHOLE COVER C/W ACCESSORIES	NO.				
LONDEX STD DUAL CORE CABLE	M				
UNDERGROUND SENSOR AND FLOAT SWITCH CABLE	M				
GALV. STEEL GROUND MOUNT 3M SOLAR SUPPORT STRUCTURE	LOT				

PVC PIPE 25MM D	NO.				
YDF-3 PADDLE FLOATSWITCH	NO.				
CABLE JOINT(1.5-4MM) ST6	PC				
EARTHROD WITH CLAMP	LOT				
COPPER EARTH CABLE 10MM SQ x 1CORE	M				
SOLAR PV CABLE 6MM SQ x 1CORE BLACK/BROWN	M				
WATER METER DN32 MULTIJET	PC				
SOLAR PV PROTECT	NO.				
LIGHTENING ARRESTOR	NO.				
METALLIC ENCLOSURE	PC				
PIPING FROM BOREHOLE TO WATER	LOT				
MOBILIZATION TO SITE	LOT				
INSTALLATION SUNDRIES	LOT				
LABOUR	LOT				
TRAINING	LOT				
<b>TOTAL</b>					

**NB: Details of the borehole are contained on the attached borehole completion record on the appendixes.**

**2) SCHEDULE OF REQUIREMENTS, TECHNICAL SPECIFICATIONS FOR SUPPLY AND INSTALL A 30M<sup>3</sup> STEEL TANK RAISED 15M FROM GROUND LEVEL**

DESCRIPTION	UNIT	QTY	RATE	AMOUNT SUPPLY AND FIX
30M3 PAINTED STEEL TANK	PC			
15M PAINTED STEEL TOWER FOR 30M3 PAINTED STEEL TANK	PC			
FOUNDATIONS	LOT			
<b>TOTAL</b>				

**3) SCHEDULE OF REQUIREMENTS, TECHNICAL SPECIFICATIONS FOR SUPPLY AND INSTALL A DRIP IRRIGATION SYSTEM FOR ½ HALF ACRE FOR MIXED CROP**

DESCRIPTION	UNIT	QTY	RATE	AMOUNT	AMOUNT INCL. VAT
HDPE PIPE PN8 50MM 100M ROLL	ROL				
16MM DRIP LINE 30CM EMITTER	ROL				
SCREEN FILTER 11/2"	PC				

16MM DIRECT START CONNECTOR	PC				
END LINE 16MM WITH HOOK	PC				
PVC BALL VALVE 1 1/2" STD	NO.				
MALE CONNECTOR 50*1 1/2"	NO.				
GI SOCKET 1 1/2"	NO.				
DRIP TO DRIP CONNECTOR 16MM	PC				
TEE COUPLING 50*50*50	NO.				
ELBOW COUPLING 50*50	NO.				
END PLUG 50MM	NO.				
MOBILIZATION TO SITE	LOT				
INSTALLATION SUNDRIES	LOT				
LABOUR	LOT				
TRAINING	LOT				
<b>TOTAL</b>					

#### **ANNUAL MAINTENANCE AFTER WARRANTY PERIOD**

<b>SNo.</b>	<b>Description</b>	<b>Bidders Response(Provide plan, if necessary attach)</b>
1	SUPPLY AND INSTALL A SOLAR POWERED BOREHOLE PUMP AND ACCESSORIES	
2	SUPPLY AND INSTALL A 30M <sup>3</sup> STEEL TANK RAISED 15M FROM GROUND LEVEL	
3	SUPPLY AND INSTALL A DRIP IRRIGATION SYSTEM FOR ½ HALF ACRE FOR MIXED CROP	

## TABLE B: PRICE SCHEDULES

### Total Cost of Implementation

S/No.	Description	Quantity	Total Price(VAT inclusive)
1	Lot 1 - Supply and Install a Solar powered Borehole pump and accessories	Lot	
2	Lot 2 - Supply and install a 30m <sup>3</sup> steel tank raised 15m from ground level	Lot	
3	Lot 3 - Supply and Install a drip irrigation system for ½ half acre for mixed crop	Lot	
<b>TOTAL PRICE INCLUSIVE OF APPLICABLE TAXES</b>			

### Annual maintenance after warranty period

S/No.	Description	Total Price (Kshs)
1	Supply and Install a Solar powered Borehole pump and accessories	
2	Supply and install a 30m <sup>3</sup> steel tank raised 15m from ground level	
3	Supply and Install a drip irrigation system for ½ half acre for mixed crop	
<b>TOTAL PRICE INCLUSIVE OF APPLICABLE TAXES</b>		

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Authorized for and on behalf of

\_\_\_\_\_

*(Specify name of tenderer)*

Date \_\_\_\_\_

Company Seal/Stamp

APPENDIXES:

The Chief Executive Officer  
Water Resources Management Authority  
P.O. Box 45250 – 00100  
NAIROBI



Form: WRMA 009A  
Catchment: ATHI  
WRMA ID: WRMA\30\50823  
File: WRMA/30/KBZ/3FA/15012/G

**Water Resources Management Authority**  
**BOREHOLE COMPLETION RECORD**  
(To be submitted in triplicate) (Rule 76, 77)

Borehole No.  
Borehole Name –  
Formation – VOLCANIC

PARTICULARS OF APPLICANT		DETAILS			
1. Full name of applicant(s) (In Block Letters)		A.I.C CHILD CARE CENTRE			
2. Category of Applicant – Individual, Group [Association, Society, Company, Institution]		INSTITUTION			
3. ID Number of Applicant (Individual) or Certificate Of Incorporation or Registration for Groups or Companies		CS NO. 000164			
Physical Address where water is to be used (see Sketch)		Contact Address of Applicant			
4. L/R Number(s)	KAJIADO/ILDAMAT/28	5. Box Number	416		
6. Village(s)	MAJENGO	7. Town	KAJIADO		
8. Sub-location(s)	DALALEKUTUK	9. Post Code	01100		
10. Location(s)	DALALEKUTUK	11. Telephone Contact(Landline)	+254721211261		
12. Division(s)	CENTRAL D	13. Telephone Contact(Mobile)	+254721211261		
14. District(s)	KAJIADO CENTRAL D	15. Email Contact	finance.childcare@gmail.com		
PARTICULARS OF CONTRACTOR		SAVANNAH DRILLING SOLUTIONS LTD			
16. Box Number	66785	22. License Number	WD/WC/2453		
17. Town	NAIROBI	23. Certificate Date	6 <sup>th</sup> September 2018		
18. Post Code	00800	24. Drilling Supervisor			
19. Telephone Contact (Landline)		25. Type and Make of Drill Rig	PRD MAXDRILL		
20. Telephone Contact (Mobile)	0712827827				
21. Email Contact	info@sdskenya.co.ke				
INTENDED WATER USE					
Public W.S., Irrigation., Industries., Domestic., Stock, Other		DOMESTIC			
PARTICULARS OF BOREHOLE					
Type of borehole: - Drilled, Driven, Bored, Jetted,		DRILLED			
Borehole Construction (also see sketch page 3)					
Drilling started (date)	09-APR-2022	Drilling Completed (date)	20-APR-2022	All works completed (date)	22-APR-2022
Total Depth: Reported(m)	282	Measured (m)	282	Final (back-filled) Depth (m)	282
Hole Diameter (mm)	228.6	From (m)	GL	To (m)	5
Hole Diameter (mm)	203.2	From (m)	5	To (m)	282



<b>Permanent casing</b>									
<b>Plain</b>									
Type	STEEL	Diam (mm)	152.4	Length (m)	198	From (m)	GL 126 144 162 174 192 216 240 264 276	To (m)	120 138 156 168 186 204 222 246 270 282
<b>Slotted or Perforated</b>									
<b>Size and Description of opening</b>			<b>100mm by 1.5mm Vertical Slots</b>						
Type	STEEL	Diam (mm)	152.4	Length (m)	84	From (m)	120 138 156 168 186 204 222 246 270	To (m)	126 144 162 174 192 216 240 264 276
<b>Screen:</b>									
<b>Type and Make</b>			<b>MILD STEEL CLASS B</b>						
Diameter(m)	152.4	Length (m)	6	Set from (m)	120	To (m)	276		
<b>Gravel</b>									
Size of grains (mm)	2-4	Roundness (good, fair, poor)	GOOD		Volume inserted in Annular Space (m <sup>3</sup> )	12 Tons			
<b>Open Hole</b>									
Diam (mm)	203	From (m)	0		To (m)	282			
<b>Aquifer</b>									
1 <sup>st</sup> Water Struck at (m)	115		Water Rest Level(m)	105					
2 <sup>nd</sup> Aquifer Struck at (m)	215		Water Rest Level(m)	205					
3 <sup>rd</sup> Aquifer Struck at (m)	240		Water Rest Level(m)	220					
4 <sup>rd</sup> Aquifer Struck at (m)	263		Water Rest Level(m)	255					
Main Aquifer	4 <sup>th</sup>		Water Rest Level(m)	255					
Water Bearing Material	Weathered and fractured gneiss and schist					From(m)	12	To (m)	276
After pumping (hour)	24	Recovered to Static Water Level in (Mins)	150						
Expected production discharge (litres/hr)	>1,000		With pump set at (m) below surface	276					

*Pumping Test Record* in Summary (Detailed test records on attached sheets): (all depth measurements to be in meters below ground surface)

	Test No. 1	
Date of Test (day, month, year)	21 <sup>st</sup> -22 <sup>nd</sup> APRIL 2022	
Depth of borehole at time of test (m)	282	
Water Entry (perforations or screen setting at time of test)	SEE CASING DESIGN	
Static Water (SWL) Before test (m)	90.25	
Type of Pump (Bailer) used	SP 8A-50	

Depth of Pump intake (m)	276	
Discharge (in litres per minute)	16	
Pumping Water Level (PWL m)	273.63	
After pumping continuously for (hour)	24	
Time of Recovery to original SWL (minutes)	150	
Rates of Recovery –WL after 5 minutes (m)	260.74	
Rates of Recovery –WL after 20 minutes (m)	234.55	
Rates of Recovery –WL after 35 minutes (m)	229.89	
Rates of Recovery –WL after 120 minutes (m)	220.77	

(Additional pumping tests to be mentioned in REMARKS and included with file)

Government representative witnessing the test.....

Quality of Water					
Sample (Yes/No)	YES	Collected at (hour)	24	On (date)	23-04-2022
Sediment	NONE	Taste	NONE	Odour	NONE
Color	NO	Temperature(°C)		Spec. Conductivity (µmho/cm <sup>3</sup> )	

<i>Remarks:</i> (drilling difficulties, gravel-pack Details, all pertinent Information about the drilling and completion of the hole)		<b>The Borehole was drilling to a final depth of 282m, cased with Mild steel class B casings, gravel-packed and developed by Physical (<i>airlift</i>) method until water was clear.</b> <b>No difficulties encountered during the drilling process.</b>			
<i>Drilling Supervisor</i>		<i>Drilling Contractor</i>			
Signature:		Signature:			
Name:		Name:	<b>SAVANNAH DRILLING SOLUTION LTD</b>		

# Spectralab

■ Research ■ Testing ■ Training

SSF No.: 4716

## CERTIFICATE OF ANALYSIS

CoA No: SAS/CA/PWG-221298

Client: Savannah Drilling Solutions
Contact Person: Mr. Francis Besa
Date Received: April 25, 2022.
Client's Code: S-1043

Sample Name	Ground Water
Customer's Sample ID.	AIC Kajiado Child Care Center and Dispensary, P.O Box 416 - 01100 Kajiado.
Laboratory ID.	SAS.PWG.221298
Date	April 27, 2022

Test Parameter	Test Method	Result	Units	Limit - Natural Water (IAS 12)	WHO Standard
Total Suspended Solids (TSS)	STM-PW-008	<4	mg/L	ND	
pH @25°C	STM-PW-001	7.60	pH units	5.50-9.50	6.50-8.50
True Colour	STM-PW-007	72.0	TCU	50.0	50.0
Turbidity	STM-PW-005	93.7	NTU	25.0	5.00
Permanganate Index (PI)	STM-PW-027	<0.29	mg/L	-	-
Conductivity (FC)	STM-PW-004	1572	µS/cm	2500	-
Total Iron (Fe <sup>2+</sup> )	STM-PW-021	1.02	mg/L	0.300	0.300
Manganese (Mn <sup>2+</sup> )	STM-PW-020	<0.02	mg/L	0.100	0.500
Calcium (Ca <sup>2+</sup> )	STM-PW-012	84.1	mg/L	150	200
Magnesium (Mg <sup>2+</sup> )	STM-PW-013	42.1	mg/L	100	150
Sodium (Na <sup>+</sup> )	STM-PW-010	104	mg/L	200	200
Potassium (K <sup>+</sup> )	STM-PW-011	18.2	mg/L	50.0	-
Total Hardness	STM-PW-014	383	mg/l	600	150
Total Alkalinity	STM-PW-015	233	mg/L	-	-
Chloride (Cl <sup>-</sup> )	STM-PW-009	113	mg/L	250	250
Fluoride (F <sup>-</sup> )	STM-PW-019	0.84	mg/L	1.50	1.50
Nitrogen as Nitrates (NO <sub>3</sub> <sup>-</sup> )	STM-PW-017	0.39	mg <sup>3</sup> /L	45.0	30.0
Nitrogen as Nitrites (NO <sub>2</sub> <sup>-</sup> )	STM-PW-018	0.20	mg/L	0.900	1.00
Ammonia (NH <sub>4</sub> <sup>+</sup> )	STM-PW-016	0.40	mg/L	0.500	-
Aluminium (Al <sup>3+</sup> )	STM-PW-022	<0.01	mg/L	0.200	0.200
Sulphates (SO <sub>4</sub> <sup>2-</sup> )	STM-PW-024	288	mg/l	400	400
Ortho-phosphates (PO <sub>4</sub> <sup>3-</sup> )	STM-PW-023	0.25	mg/L	2.20	-
Free Carbon Dioxide (CO <sub>2</sub> )	STM-PW-004	7.04	mg/L	-	-
Total Dissolved Solids (TDS)	STM-PW-006	786	mg/L	1500	1500
Dissolved Oxygen (DO)	STM-PW-002	11.1	mg/L	-	-
Bicarbonates (HCO <sub>3</sub> <sup>-</sup> )	STM-PW-025	233	mg/L	-	-
Carbonates (CO <sub>3</sub> <sup>2-</sup> )	STM-PW-026	0.00	mg/L	-	-

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