

# CERTIFICATE OF ACCREDITATION

## WATER UTILITIES CORPORATION – MMAMASHIA LABORATORY

*Established by Act of Parliament in 1970 CAP 74:02*

**Facility Accreditation Number: TEST-5 0009**

is a SADCAS accredited Testing Laboratory  
provided that all SADCAS conditions are complied with

This certificate is valid as per the scope stated in the accompanying schedule of accreditation,  
Annexure "A", bearing the above accreditation number for

### CHEMICAL ANALYSIS

*The facility is accredited in accordance with the recognized International Standard*

### ISO/IEC 17025:2017

*The accreditation demonstrates technical competency for a defined scope and the operation  
of a laboratory quality management system*

*SADCAS is a subsidiarity organization of SADC. A memorandum of understanding between SADC and  
SADCAS serves as the basis for the recognition of SADCAS by SADC Member States  
as a multi-economy accreditation body*

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**Eve Christine Gadzikwa**  
**SADCAS Chief Executive Officer**

**Date of Renewal of Accreditation: 14 July 2023**  
**Effective Date (Issue No: 1): 14 July 2023**  
**Certificate Expires: 13 July 2028**

**ANNEXURE A**  
**SCHEDULE OF ACCREDITATION**  
**CHEMICAL ANALYSIS**

**Laboratory Accreditation Number: TEST-5 0009 (ISO/IEC 17025:2017)**

<p><b><u>Permanent Address of Laboratory</u></b> Water Utilities Corporation Mmamashia Water Treatment Works Off Gaborone - Francistown Road 1.8 Km opposite Oodi Road Turn Off Mmamashia, Gaborone Botswana</p> <p><b><u>Postal Address</u></b> Private Bag 00276 Gaborone Botswana</p> <p><b><u>Tel</u></b> : +267 360 4400 / 4401 <b><u>Cell</u></b> : +267 739 703 02/714 198 74 <b><u>Email</u></b> : <a href="mailto:NSelalame@WUC.BW">NSelalame@WUC.BW</a></p>		<p><b><u>Technical Signatories</u></b> Ms E A Mudanga (WUC/CTM/004) Mr G Ditsie (WUC/CTM/002, 004, 005, 011 &amp; 029) Mr M B Gaefole (WUC/CTM/002, 004, 011, 029) Ms T O Pilane (WUC/CTM/002, 005, 011 &amp; 029) Mr O Gabanapelo (WUC/CTM/002, 011, 014, 029 &amp; 036) Mr O Onalenna (WUC/CTM/002, 011 &amp; 014) Ms K B Madisa (WUC/CTM/002, 011 &amp; 014) Mr T Rabantheng (WUC/CTM/014)</p> <p><b><u>Nominated Representative</u></b> : Mr N G Selalame</p> <p><b><u>Issue No</u></b> : 01 <b><u>Date of Issue</u></b> : 14 July 2023 <b><u>Expiry Date</u></b> : 13 July 2028</p>
<b>MATERIALS/PRODUCTS TESTED</b>	<b>TYPES OF TESTS/PROPERTIES MEASURED, RANGE OF MEASUREMENT</b>	<b>STANDARD SPECIFICATIONS, EQUIPMENT/TECHNIQUES USED</b>
Drinking Water	Determination of: Aluminium, Lead, Copper, Zinc, Chromium Nickel, Cadmium, Cobalt, Calcium, Magnesium, Potassium, Sodium, Iron, Manganese	ICP-OES (Perkin Elmer); WUC/CTM/004
	Determination of: Fluoride, Chloride, Nitrite, Bromide, Sulphate, Nitrate, Phosphate, Ammonium	Dionex ICS-3000; WUC/CTM/005
Surface water, Ground Water, Drinking Water & Wastewater	Conductivity	Crison GLP 31+; WUC/CTM/002
	Total Dissolved Solids	Crison GLP 31+; WUC/CTM/002
	pH	HACH SensION + pH3; WUC/CTM/011
Surface water, Ground Water, Drinking Water	Turbidity	Hanna HI 88703; WUC/CTM/029

## ANNEXURE A

Laboratory Accreditation No: TEST-5 0009 (ISO/IEC 17025:2017)

Issue No: 01

Date of Issue: 14 July 2023

Date of Expiry: 13 July 2028

MATERIALS/PRODUCTS TESTED	TYPES OF TESTS/PROPERTIES MEASURED, RANGE OF MEASUREMENT	STANDARD SPECIFICATIONS, EQUIPMENT/TECHNIQUES USED
Wastewater	Determination of COD  Determination of Aluminium, Arsenic, Lead, Barium, Beryllium, Cadmium, Cobalt, Chromium, Copper, Iron, Manganese, Nickel, Selenium, Strontium, Vanadium, Zinc, Calcium, Potassium, Sodium, Magnesium Boron, Molybdenum and Lithium	Macherey-Nagel Test Kits; WUC/CTM/014  ICP-OES (Analytik Jena); WUC/CTM/036

Original date of accreditation: 02 August 2013

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**Pinkie Malebe**  
**SADCAS Technical Manager**