



Certificate of Accreditation

This is to certify that

EMACHY CHEMICALS AND LABORATORY SERVICES

183 EGBEDA IDUMU ROAD, ABULE ODU BUS STOP, EGBEDA, LAGOS STATE, NIGERIA
Has been assessed by the Nigeria National Accreditation System and
meets the requirements of the International Standard

ISO/IEC 17025:2017

with demonstrated technical competence in the field of

Testing

for the specific services listed on the approved Scope of Accreditation.

On behalf of the Nigeria National Accreditation System:



Testing
No. T0023

Effective Date: **October 26th, 2026**
Certificate Expires: **October 25th, 2030**
Reaccreditation Date: **April 25th, 2030**

Scope of Accreditation

Chemical and Microbiology Testing Laboratory EMACHY CHEMICALS AND LABORATORY SERVICES

183 EGBEDA IDUMU ROAD, ABULE ODU BUS STOP, EGBEDA, LAGOS STATE, NIGERIA

Reference No.: TL0020B

First Accreditation Date: 11 04, 2024

Issue No. 2: 26 10, 2026

Valid to : 25 10, 2030

Material or Products Tested	Types of Tests/ Properties Measured / Range of Measurements	Standard Specifications, Techniques/Equipment Used
CHEMICAL Water (potable/drinking/tap water, borehole water, river water, sewage/wastewater, effluent water, surface and ground water)	Determination of pH (electrometric method)	APHA 4500-H ⁺ B / pH meter
	Determination of Electrical Conductivity	APHA 2510 B / Conductivity meter
	Determination of Total Solids	APHA 2540 B / Analytical balance, oven
	Determination of Total Dissolved Solids	APHA 2540 C / Analytical balance, oven, filtration unit
	Determination of Total Suspended Solids	APHA 2540 D / Analytical balance, oven, filtration unit
	Determination of Phenolphthalein Alkalinity	APHA 2320 B / Burette
	Determination of Total Alkalinity	APHA 2320 B / Burette
	Determination of Total Acidity (Titratable Acidity)	APHA 2310 B / Burette
	Determination of Total Hardness (EDTA titrimetric method)	APHA 2340 C / Burette, pipette
	Determination of Calcium (EDTA titrimetric method)	APHA 3500-Ca B / Burette, pipette
	Determination of Chloride (Mohr's method)	APHA 4500-Cl ⁻ B / Burette, pipette
	Determination of Residual Chlorine (DPD colorimetric method)	APHA 4500-Cl G / Spectrophotometer
	Determination of Nitrate	APHA 4500-NO ₃ ⁻ B / UV spectrophotometer
	Determination of Nitrite (colorimetric method)	APHA 4500-NO ₂ ⁻ B / Spectrophotometer
	Determination of Sulphate (turbidimetric method)	APHA 4500-SO ₄ ²⁻ E / Spectrophotometer
	Determination of Oil and Grease (gravimetric method)	APHA 5520 B / Analytical balance, water bath, oven
	Determination of Biochemical Oxygen Demand (BOD ₅)	APHA 5210 B / Incubator, DO meter, burette
CHEMICAL Food (Oil, Tea)	Determination of Moisture Content	AOAC 942.10 / Analytical balance, oven
	Determination of Ash Content	AOAC 923.03 / Muffle furnace, analytical balance
	Determination of Fat Content	AOAC 920.39 / Soxhlet apparatus, analytical balance, oven
	Determination of Protein Content	AOAC 984.13, 955.04 / Kjeldahl digestion and distillation unit, analytical balance
	Determination of Total Nitrogen	AOAC 973.48 / Kjeldahl digestion and distillation unit, burette, analytical balance
	Determination of Carbohydrate (calculation by difference)	Calculation by difference
	Determination of Reducing Sugar (Fehling's method)	Fehling's (Lane and Eynon) titrimetric method / Burette, analytical balance
	Determination of Total Soluble Solids (Sugar by °Brix)	AOAC 932.12 / Refractometer
	Determination of Iodine Value	AOAC 920.159 / Analytical balance, burette

	Determination of Saponification Value	AOAC 920.160 / Analytical balance, burette
	Determination of Specific Gravity	AOAC 969.17 / Analytical balance, pycnometer
	Determination of Sodium Chloride (Mohr's method)	APHA 4500-Cl ⁻ B / Burette, analytical balance
	Determination of Magnesium (EDTA titrimetric method)	APHA 3500-Mg B / Burette, pipette, analytical balance
	Determination of Heavy Metals	Atomic Absorption Spectrophotometry / AAS
MICROBIOLOGY Water (borehole water, drinking water, environmental water, sewage water and bottled water)	Enumeration of <i>Staphylococcus</i> spp.	APHA 9213 / Incubator
	Detection of <i>Salmonella</i> spp.	APHA 9260 B / Incubator
	Enumeration of <i>Pseudomonas aeruginosa</i>	APHA 9213 F / Incubator
	Detection of <i>Vibrio</i> spp.	APHA 9260 H / Incubator
MICROBIOLOGY Food	Enumeration of Aerobic Mesophilic Count (Total Plate Count)	AOAC 966.23 C / Incubator
	Enumeration of Coliforms	AOAC 940.37 C / Incubator
	Enumeration of <i>Escherichia coli</i>	AOAC 966.24 / Incubator
	Enumeration of Yeasts and Moulds	AOAC 940.37 E / Incubator
	Detection of <i>Listeria</i> spp.	AOAC 993.12 / Incubator
	Enumeration of <i>Klebsiella</i> spp.	BAM Chapter 4 (2001) / Incubator
	Enumeration of <i>Clostridium perfringens</i>	AOAC 976.30 / Incubator
	Enumeration of <i>Bacillus</i> spp.	AOAC 980.31 / Incubator
	Enumeration of Enterobacteriaceae	ISO 21528-2:2017 / Incubator