



ACCREDITATION CERTIFICATE

LB-TEST-157

Emirates International Accreditation Centre

has accredited

DUBAI ELECTRICITY AND WATER AUTHORITY PJSC

DEWA CENTRAL LABORATORY

Jabel Ali Power Station Complex | Dubai | United Arab Emirates

In accordance with the requirements of

ISO/IEC 17025:2017

General requirements for the competence of testing and calibration laboratories

to undertake the tests in the attached accreditation scope

This Accreditation is invalid without the attached accreditation scope and shall remain in force within the validity period printed below, subject to continuing compliance with the requirements of the accreditation criteria.

Validity: 08/06/2023 to 31/05/2026

Initial Accreditation Date: 01/06/2017




CHIEF EXECUTIVE OFFICER
APPROVAL



Accreditation Scope

LB-TEST-157

Dubai Electricity and Water Authority PJSC

DEWA Central Laboratory

Jabel Ali Power Station Complex

Dubai | United Arab Emirates

Date: 03-05-2024

Accreditation / Scope History		
Issue no.	Details	Date

Environmental Testing

08	Extension and voluntary reduction in scope (remove Total THM test)	03-05-2024
07	Renewal of the accreditation and extension in scope	08-06-2023
06	Certificate validity was extended for 6 months from 01-06-2023 up to 30-11-2023	01-06-2023
05	Reissued due to a change in the laboratory's name (was formerly known as Dubai Electricity and Water Authority)	30-06-2022
04	Renewal accreditation from EIAC	22-11-2020
03	Extension in scope and first issuance under the name of EIAC (which was formerly known as DAC)	25/12/2019
02	Extension in scope	14-08-2018
01	Grant accreditation from Dubai Accreditation Center 'DAC'	01-06-2017

Accreditation Scope

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Dubai Electricity and Water Authority PJSC

DEWA Central Laboratory

Jabel Ali Power Station Complex

Dubai | United Arab Emirates

Date: 03-05-2024

Accreditation History		
Issue no.	Details	Date

Petroleum & Petrochemical Testing

08	Extension in scope	03-05-2024
07	Renewal of the accreditation and extension in scope	08-06-2023
06	Certificate validity was extended for 6 months from 01-06-2023 up to 30-11-2023	01-06-2023
05	Reissued due to a change in the laboratory's name (was formerly known as Dubai Electricity and Water Authority)	30-06-2022
04	Renewal accreditation from EIAC	22-11-2020
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Accreditation Scope

Environmental Testing

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Dubai | United Arab Emirates

Issue no.: 08

Date: 03-05-2024

Valid to: 31-05-2026

Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical Testing	Potable water	pH	APHA 4500 H+B
		Conductivity	APHA 2510 B
		Total dissolved solids (TDS)	APHA 2510 B (Calculation)
		Turbidity	APHA 2130 B
		Anions Br (≥ 0.05 mg/l) Cl (≥ 5 mg/l) SO ₄ (≥ 1 mg/l) F (≥ 0.05 mg/l) NO ₃ (≥ 0.05 mg/l)	APHA 4110 B
		Cations Ca (≥ 2 mg/l) Mg (≥ 0.5 mg/l) Na (≥ 5 mg/l) K (≥ 0.25 mg/l)	ASTM D6919

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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical Testing	Potable water	Alkalinity as CaCO_3	APHA 2320B
		Determination of Metals by ICP MS Chromium, Nickel, Manganese, Aluminium, Lead, Cadmium, Copper, Zinc, Iron & Boron concentrations in water (Indium/Yttrium as internal standard)	APHA 3125 B
		Calcium Hardness & Total Hardness	ASTM D6919 (Calculation)
		Bicarbonate Alkalinity as HCO_3 mg/L	APHA 2320 B
		Carbonate Alkalinity as CaCO_3 mg/L	APHA 2320 B
		Free Carbon dioxide CO_2 mg/L	APHA 4500 CO_2D

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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical Testing	Potable water	Chloroform mg/L	USEPA 524.2
		Bromodichloromethane (BDCM) mg/L	USEPA 524.2
		Dibromochloromethane (DBCM) mg/L	USEPA 524.2
		Bromoform mg/L	USEPA 524.2
		Temperature	APHA 2550 B
		Calculation of saturation pH index based on alkalinity and TDS measurements	APHA 2330 B
		Calculation of calcium carbonate saturation index based on alkalinity and TDS measurements	APHA 2330 B

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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical Testing	Potable Water	Determination of Metals by ICP MS (LOQ: 2 µg/L): Beryllium Vanadium Cobalt Molybdenum Antimony Barium Thallium Thorium Uranium	APHA 3125 B & 3030E

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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical Testing	Potable Water	Determination of anions by ion chromatography: Chlorite (LOQ: 0.05 mg/L) Chlorate (LOQ: 0.05 mg/L) Nitrite (LOQ: 5 mg/L)	APHA 4110 D
	Treated Sewage	Boron as B mg/L	US EPA 200.8
		Aluminium as Al mg/L	US EPA 200.8
		Chromium as Cr mg/L	US EPA 200.8
		Manganese as Mn mg/L	US EPA 200.8
		Iron as Fe mg/L	US EPA 200.8
		Nickel as Ni mg/L	US EPA 200.8
		Copper as Cu mg/L	US EPA 200.8
		Zinc as Zn mg/L	US EPA 200.8

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Chemical Testing	Treated Sewage	Cadmium as Cd mg/L	US EPA 200.8
		Lead as Pb mg/L	US EPA 200.8
		Determination of Turbidity	APHA 2130 B
		Determination of pH value at 25°C	APHA 4500 H +B
		Determination of Conductivity at 25°C	APHA 2510 B
		Determination of Dissolved Alkali and Alkaline Earth Cations in Water and Wastewater by Ion Chromatography: Na (LOQ: 5 mg/l) K (LOQ: 1 mg/l) Mg (LOQ: 1 mg/l) Ca (LOQ: 5 mg/l)	ASTM D 6919

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Chemical Testing	Treated Sewage	Determination of anions by ion chromatography: Fluoride (LOQ: 0.25 mg/L) Chloride (LOQ: 5 mg/L) Nitrite (LOQ: 0.1 mg/L) Bromide (LOQ: 0.5 mg/L) Nitrate (LOQ: 0.5 mg/L) Sulphate (LOQ: 1 mg/L)	APHA 4110 B
Microbiology	Potable Water	Detection of Total Coliforms in 100ml	APHA 9223B 24 th Edition
		Detection of E. coli in 100ml	APHA 9223B 24 th Edition

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Petroleum Petrochemical Testing

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Type of Activity	Test Materials/Products	Test Name	Test Method
Petroleum & Petrochemical	Turbine oil (in-service), Hydraulic oil (in-service), Transformer oil (in-service) Diesel fuel	Kinematic viscosity (40 °C , 100 °C)	ASTM D445
	Turbine Oil (in-service), Hydraulic oil (in-service)	Standard Practice for Calculating Viscosity Index from Kinematic Viscosity at 40°C and 100°C Viscosity Index	ASTM D2270 Calculation
	Turbine oil (in-service), Hydraulic oil (in-service), Transformer oil (in-service) Diesel fuel	Acid Number Method A	ASTM D664

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Petroleum & Petrochemical	Turbine oil (in-service), Hydraulic oil (in-service), Transformer oil (in-service)	Water Lubricating Oils by Coulometric Karl Fischer Titration	ASTM 6304
	Turbine oil (in-service), Hydraulic oil (in-service), Transformer oil (in-service) Diesel Fuel	Kinematic viscosity (40 °C, 100 °C) using Anton Parr Stabinger Automatic Viscometer SVM 3001.	ASTM D7042
	Turbine oil (in-service), Hydraulic oil (in-service), Transformer oil (in- service) Diesel fuel	Determination of Flash point	ASTM D93
Petroleum Products Testing	Turbine oil (in-service), Hydraulic oil (in-service), Transformer oil (in- service) Diesel fuel	Determination of Color	ASTM D1500

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Petroleum Products Testing	Petroleum Products	Determination of Density, Relative Density, and API Gravity of Liquids by Digital Density Meter at 15 °C	ASTM D4052
		Determination of Total Sulfur in Light Hydrocarbons, Spark ignition engine fuel ,oil by ultraviolet fluorescence	ASTM D5453
		Measurement of Lubricant Generated Insoluble Color Bodies in In-Service Turbine Oils using Membrane Patch Colorimetry	ASTM D7843

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Type of Activity	Test Materials/Products	Test Name	Test Method
Petroleum Products Testing	Petroleum Products	Determination of the particulate contamination level of a liquid sample by automatic particle counting using the light-extinction principle and coding the level of contamination by solid particles according to ISO 4406	ASTM D7647, and ISO 4406
		Determination of Base Number of Petroleum Products by Potentiometric Perchloric Acid Titration	ASTM D2896

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Type of Activity	Test Materials/Products	Test Name	Test Method
Petroleum Products Testing	Petroleum Products	Determination of Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter	ASTM D240
		Determination of Air Release Properties of Hydrocarbon Based Oils	ASTM D 3427