

CERTIFICATE OF ACCREDITATION

This is to attest that

**CORPORACIÓN DE LABORATORIOS ANALÍTICOS S.A.C.
(CORLAN S.A.C.)**

AV. SANTA ROSA NRO. 319. MZ B LT 6 – SANTA CLARA - ATE VITARTE
LIMA / ATE-VITARTE, 03, REPUBLIC OF PERÚ

Testing Laboratory TL-1096

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Expiry Date September 1, 2024
Effective Date September 27, 2023



A handwritten signature in black ink, reading 'Rey Nathan'.

President

IAS is an ILAC MRA Signatory

Visit www.iasonline.org for current accreditation information.

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

CORPORACIÓN DE LABORATORIOS ANALÍTICOS S.A.C. (CORLAN S.A.C.)

Contact Name Alfonso Vilca

Contact Phone +51 01-3438740

Accredited to ISO/IEC 17025:2017

Effective Date September 27, 2023

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – Air Gas determination – Automatic Equipment	Air Sampling & Test (field measurement)	Determination of Hydrogen Sulfide (H₂S)	Referenced in NTP ISO 10498:2017. Determination of sulfur dioxide. Ultraviolet fluorescence method (Validated)
		Determination of Sulfur Dioxide (SO₂)	Referenced in NTP ISO 10498:2017. Determination of sulfur dioxide. Ultraviolet fluorescence method
		Determination of Carbon Monoxide (CO)	NTP-ISO 4224:2019 Ambient air. Determination of carbon monoxide. Non-dispersive infrared spectrometry method. 1st Edition 2020
		Determination of Ozone (O₃)	NTP-ISO 13964:2020 Air quality. Determination of ozone in ambient air. Ultraviolet photometric method
		Determination of Nitrogen Dioxide (NO₂)	NTP-ISO 7996:2019. Ambient air. Determination of the mass concentration of nitrogen oxides. Chemiluminescence method
		Determination of Nitrogen oxides (NO and NO_x)	NTP-ISO 7996:2019. Ambient air. Determination of the mass concentration of nitrogen oxides. Chemiluminescence method (Validated)
ENVIRONMENTAL – Air Particulate Matter – Gravimetric	Air (Sampling & Analysis)	Determination PM-2.5 Low Volume Particulate Matter, in ug/m³ (Includes Sampling & analysis)	EPA CFR 40, Part 50 Appendix L: 2018
		Weighing Determination PM-2.5 Low Volume Filter,	IV09-CL-250522 (validated)

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FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – Air Particulate Matter – Gravimetric (cont'd.)	Air (Sampling & Analysis) (cont'd.)	ug/filter (Environmental Filter-Only Analysis)	EPA CFR 40, Part 50 Appendix L: 2018
		Determination PM-10 Low Volume Particulate Matter, in ug/m3 (Includes Sampling & analysis)	EPA Compendium Method IO-2.3 EPA Compendium Method IO-3.1
		Weighing Determination PM-10 Low Volume Filter , ug/filter (Environmental Filter-Only Analysis)	IV10-CL-270522 (validated) EPA-Compendium Method IO-3.1
		Determination PM-10 High Volume Particulate Matter, in ug/m3 (Includes Sampling & analysis)	EPA Compendium Method IO-2.1 EPA Compendium Method IO-3.1
		Weighing Determination PM-10 High Volume Filter , ug/filter (Environmental Filter-Only Analysis)	IV11-CL-290522 (validated) EPA-Compendium Method IO-3.1
ENVIRONMENTAL – Air Environmental noise Electrometric	Air Sampling & Test (field measurement)	Environmental noise	NTP ISO 1996-1:2020 NTP ISO 1996-2:2021
EMISSIONS Gaseous – Electrometric	Gaseous Emissions Sampling & Test (field measurement) -Natural gas -Liquefied Petroleum Gas (GLP) -Diesel -Solid fuel	Nitrogen Oxides Nitric Oxide (NO) Nitrogen Dioxide (NO2) Nitrogen Oxides (NOx)	EPA CTM-022 Determination of Nitric Oxide, Nitrogen Dioxide and NOx Emissions from Stationary Combustion Sources by electrochemical analyzer. 1995
		Carbon Monoxide (CO)	EPA 40 CFR, Appendix A-4 to Part 60, Method 10. Determination of Carbon Monoxide Emissions from Stationary Sources (Instrumental Analyzer Procedure). 2017
		Oxygen (O2) Carbon Monoxide (CO)	CTM-030: Determination of Oxygen, Carbon Monoxide and Oxides of Nitrogen from Stationary Sources for Periodic Monitoring (Portable Electrochemical Analyzer Procedure)
		Sulfur dioxide (SO2)	EPA-40 CFR, Appendix A-4 to Part 60. Method 6C. Determination of sulfur dioxide emissions from stationary sources (instrumental analyzer procedure). 2017

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ENVIRONMENTAL Water – Field Methods	Water	Conductivity Electrometric Method	SM 2510 B. / 24th Edition / 2023
	Wastewater	Oxygen Disolved Membrane Electrode Method	SM 4500-O G. / 24th Edition / 2023
	Natural Water	pH Value Electrometric Method.	SM 4500-H+ B. / 24th Edition / 2023
	Drinking Water	Salinity Electrical Conductivity Method	SM 2520 B. / 24th Edition / 2023
	Salt Water	Temperature Laboratory and Field Methods	SM 2550 B. / 24th Edition / 2023
	Process Water	Free Chlorine (Residual) DPD Colorimetric Method	SM 4500-Cl G. / 24th Edition / 2023 Method DPD_DOC316.53.01449
	Sampling & Test (field measurement)	Total Chlorine DPD Colorimetric Method	SM 4500-Cl G. / 24th Edition / 2023 Method DPD_DOC316.53.01449
ENVIRONMENTAL – CLIMATOLOGY	Meteorological Parameters	Temperature Humidity Atmospheric pressure Wind-speed Direction of the wind Precipitation	M-GCI-M-M015. Methodology of the Operation of Statistics of Meteorological Variables (IDEAM)
OCCUPATIONAL HEALTH – Occupational noise	Occupational noise	Occupational noise Dosimetry	NTP ISO 9612:2010 (Revision 2020). Acoustics – Determination of occupational noise exposure – Engineering method
	Sampling & Test (field measurement)	Occupational noise Sonometry	
OCCUPATIONAL HEALTH Particulate Matter – Gravimetric	Indoor Aire (Sampling & Analysis)	Determination Respirable Particles , in mg/m ³ (Includes Sampling & analysis)	NIOSH 0600. Issue 3
		Weighing Determination Respirable Particles mg/filter (PVC Membrane Filter -Only Analysis)	IV13-CL-220522 NIOSH 0600. Issue 3
		Determination Total or Inhalable , in mg/m ³ (Includes Sampling & analysis)	NIOSH 0500. Issue 2
		Weighing Determination Total or Inhalable , in mg/filter (PVC Membrane Filter -Only Analysis)	IV14-CL-250522 NIOSH 0500. Issue 2

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ELECTRIC AND MAGNETIC FIELD LEVELS GENERATED BY AC POWER SYSTEMS	Indoor and outdoor air Sampling & Test (field measurement)	Electric field intensity (V/m) Magnetic Field Strength (A/m) Power Density (W/m ²) Magnetic Flux Density (uT)	IEEE STD. 644.2019. IEEE Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields from AC Power Lines
OCCUPATIONAL HEALTH & SAFETY - PHYSICAL MEASUREMENTS	Indoor and outdoor air Sampling & Test (field measurement)	Electric field intensity (V/m) Magnetic Field Strength (A/m) Power Density (W/m ²) Magnetic Flux Density (uT)	UNE-EN 62110_2013 / AC: 2015 Electric and magnetic field levels generated by alternate power systems. Measurement procedures with regard to public exposure