



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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ENVIRONMENTAL

Valid To: May 31, 2025

Certificate Number: 6203.01

In recognition of the successful completion of the A2LA evaluation process, including an evaluation of the laboratory's compliance with ISO/IEC 17025:2017 and the NELAC Institute's National Environmental Field Activities Program (NEFAP) Field Sampling and Measurement Organization Volume 1 (TNI FSMO V1 2014, Rev 2.0) accreditation is granted to this organization to perform recognized methods using the following sampling and measurement technologies:

FSMO Type: Commercial, Public and Private Water System, Industrial, Gases

Mobile Units: U Trucks

Water and Solids Sampling:

<u>Matrix</u>	<u>Technologie(s)</u>	<u>Method(s)</u>
Drinking Water	Grab sampling	NCh 409/02 2004: Sampling and Sampling Instructions NCh ISO 5667/1 2007 Water quality Sampling Part 1: Guidance for the design of sampling programs and sampling techniques
Superficial Water, Underground Water, Water for Industrial Purposes, Wastewater	Grab sampling, Automatic samplers	NCh ISO 5667/1 2007 Water quality Sampling Part 1: Guidance for the design of sampling programs and sampling techniques NCh ISO 5667/6 2015 Water quality Sampling Part 6: Guidance for sampling rivers and watercourses Standard for wastewater 1060 B Ed 24th, 2023 MMA-01-0 Internal method for wastewater and underground water sampling. Version 0 – 05/08/2020
Sludges	Grab sampling	Soil sampling protocol of the Agricultural and Livestock Service, Chile Government 2009
Soils, Solid Industrial Waste, Hazardous Waste and Solids Waste	Grab sampling	MMD-01-0 Internal method for soils, solid industrial waste, hazardous waste and solids waste sampling. Version 0 – 05/08/2020

Air Emissions Sampling:

Matrix	Technology	Method
Particulate Matter	Isokinetic train	Methodologies for measuring emissions from stationary sources, MINSAL, ISP CH5, rev. 3 December, 2020
Metals: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, Fe, Se, Ag, Tl, Zn, P	Isokinetic train, probe, filter, and absorbing solutions	Methodologies for measuring emissions from stationary sources, MINSAL ISP CH29, rev 1. June 2010

Air Emissions Measurements:

Matrix	Analyte(s)/Technology⁽¹⁾	Method(s)
Gases and Particulate Matter	Sampling points/speed selection of sampling ports and traverse points	Methodologies for measuring emissions from stationary sources, MINSAL, ISP CH1 rev. 1 March, 1996
Gases and Particulate Matter	Transverse/speed	Methodologies for measuring emissions from stationary sources, MINSAL, ISP CH-1A rev. 1 March, 1996
Gases and Particulate Matter	Speed and flow, pitot tube	Methodologies for measuring emissions from stationary sources, MINSAL, ISP CH-2 rev. 1 March, 1996
Gases and Particulate Matter	Flow rate/speed, pitot tube	Methodologies for measuring emissions from stationary sources, MINSAL, ISP CH-2C rev. 1 March, 1996
Gases and Particulate Matter	Dry molecular weight orsat analyzer	Methodologies for measuring emissions from stationary sources, MINSAL, ISP CH-3 rev. 1 March, 1996
Gases and Particulate Matter	Determination of Emission Rate Correction Factor or Excess Air.	Methodologies for measuring emissions from stationary sources, MINSAL, ISP CH-3B rev. 1 March, 1996
Gases and Particulate Matter	Humidity	Methodologies for measuring emissions from stationary sources, MINSAL, ISP CH4 rev. 1 March, 1996
Gases	Determination of the concentration of total volatile organic compounds using an ionization analyzer flame-FID	Methodology for measuring emissions in stationary sources, MINSAL, ISP CH25A rev 1. December 1998
Gases	Determination of Oxygen, Carbon Dioxide and Carbon Monoxide Concentration in Emissions from Stationary Sources (Instrument Analyzer Procedure) (Gases O ₂ , CO ₂ , CO)	Methodologies for measuring emissions from stationary sources, MINSAL, ISP CH-3A rev 1 March, 1996
Gases	Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental Analyzer Procedure) (SO ₂)	Methodologies for measuring emissions from stationary sources, MINSAL, ISP CH-6C rev 1 March, 1996



Matrix	Analyte(s)/Technology ⁽¹⁾	Method(s)
Gases	Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure) (NOx)	Methodologies for measuring emissions from stationary sources, MINSAL, ISP CH-7E rev 1 March, 1998
Gases	Determination of Carbon Monoxide (CO) and Oxygen (O2) in Stationary Sources	SMA Exempt Resolution N° 2439; 16, November, 2021

Water Measurements: Surface Water, Underground Water, Potable, Water for Industrial Purposes, and Wastewater

Analyte ⁽¹⁾	Technology ⁽¹⁾	Method
Conductivity	Electrode cell probe	SM 2510 B, Ed 24th, 2023
pH	Potentiometric	SM 4500H-B, Ed 24th, 2023
Temperature	Thermistor	SM 2550 B, Ed 24th, 2023
Residual Chloride	Iodometric Electrode	SM 4500 Cl I, Ed 24th, 2023
Dissolved Oxygen	Polarographic probe	MUF-03-8 Version 0 – 05/08/2020
Settleable Solids	Sedimentation	SM 2540 F, Ed 24th, 2023
Settleable Solids	Sedimentation	NCh 2313/4, Of 95
Flow	Metered, longitudinal, calculation	IEA-01-1 Instruction for measuring the flow of wastewater and surface water Version 0 – 05/08/2020

Waters Analysis: Surface Water, Underground Water, Potable, Water for Industrial Purposes, and Wastewater

Analyte(s)	Method(s)
Alkalinity, Volumetric	SM 2320 B, Ed 24th, 2023
Residual Chloride	SM 4500 Cl I, Ed 24th, 2023
Residual Chloride	SISS ME-33-2007, 2nd Edition, 2007
Metals by ICP (Al, As, Sb, Ba, Be, B, Ca, Cd, Cr, Co, Cu, Fe, Pb, Li, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, V, Hg, Zn, and Silicon Dioxide)	SM 3120 B, Ed 24th, 2023 SM 3030 D, Ed 24th, 2023
Chlorides Volumetric	SM 4500CL-B, Ed 24th, 2023
Chlorides Volumetric	NCh 2313/32, Of 99
Chlorides Volumetric	SISS ME-28-2007, 2nd Edition, 2007
Conductivity, Electrometric	SM 2510 B, Ed 24th, 2023
Fluoride, Spectrometric	SM 4500F- D, Ed 24th, 2023
Fluoride, Potentiometric	NCh 2313/33, Of 99
Fluoride, Specific electrode	SISS ME-06-2007, 2nd Edition, 2007
pH, Electrometric	SM 4500H+B, Ed 24th, 2023
pH, Electrometric	NCh 2313/1, Of 95
pH, Electrometric	SISS ME-29-2007, 2nd Edition, 2007
Temperature	SM 2550 B, Ed 24th, 2023
Temperature	NCh 2313/2, Of 95
Turbidity, Nephelometric	SM 2130 B, Ed 24th, 2023
Turbidity, Nephelometric	SISS ME-03-2007, 2nd Edition, 2007
True Color, Visual	SM 2120 B, Ed 24th, 2023
True Color, Visual	SISS ME-24-2007, 2nd Edition, 2007

Analyte(s)	Method(s)
Nitrate, Spectrometric	SM 4500NO3- E, Ed 24th, 2023
Nitrate, Potentiometric	SM 4500NO3- D, Ed 24th, 2023
Nitrate, Specific electrode	SISS ME-16-2007, Ed 24th, 2023
Nitrite, Spectrometric	SM 4500NO2- B, Ed 24th, 2023
Nitrite, Spectrometric	SISS ME-17-2007, 2nd Edition, 2007
Odor, Organoleptic	SM 2150 B, Ed 24th, 2023
Odor, Organoleptic	SISS ME-25-2013
Flavor, Organoleptic	SM 2160 B, Ed 24th, 2023
Flavor, Organoleptic	SISS ME-26-2013
Total Dissolved Solids at 180 °C, Gravimetric	SM 2540 C, Ed 24th, 2023
Total Dissolved Solids at 180 °C, Gravimetric	SISS ME-31-2007, 2nd Edition, 2007
Sulfates, Turbidimetric	SM 4500SO4 2- E, Ed 24th, 2023
Dissolved Sulfates, Gravimetric	NCh 2313/18, Of 97
Sulfates, Gravimetric	SISS ME-30-2007, 2nd Edition, 2007
BOD, Electrometric	SM 5210B, Ed 24th, 2023
BOD, Electrometric	NCh 2313/5, Of 2005
COD, Spectrometric	SM 5220D, Ed 24th, 2023
Total phosphorus, Spectrometric	NCh 2313/15, Of 2009
Oils and Fats, Gravimetric	SM 5520 B, Ed 24th, 2023
Oils and Fats, Gravimetric	NCh 2313/6, Of 2015
Sulfide, Spectrometric	SM 4500S2- D, Ed 24th, 2023
Sulfide, Potentiometric	SM 4500S2- G, Ed 24th, 2023
Total Sulfide, Specific electrode	NCh 2313/17, Of 97
Cyanides, Spectrometric	SM 4500CN- E, Ed 24th, 2023 SM 4500CN- B, Ed 24th, 2023 SM 4500CN- C, Ed 24th, 2023
Cyanides, Spectrometric	SISS ME-14-2007, 2nd Edition, 2007
Cyanides, Specific electrode	SM 4500CN- F, Ed 24th, 2023 SM 4500CN- B, Ed 24th, 2023 SM 4500CN- C, Ed 24th, 2023
Total Cyanides, Potentiometric	NCh 2313/14, Of 97
Nitrogen. Kjeldahl, Titrimetric	SM 4500Norg-B, Ed 24th, 2023
Nitrogen. Kjeldahl	NCh 2313/28, Of 2009
Suspended Solids, Gravimetric	SM 2540 D, Ed 24th, 2023
Suspended Solids, Gravimetric	NCh 2313/3, Of 95
Foaming power	NCh 2313/21, Of 2010
Phenol index, Spectrometric	NCh 2313/19, Of 2001
Phenolic compounds, Spectrometric	SISS ME-32-2007, 2nd Edition, 2007
Anionic surfactants (SAAM), Spectrometric	NCh 2313/27, Of 98
Ammonia, Specific electrode	SISS ME-27-2007, 2nd Edition, 2007
Fecal Coliform MPN	SM 9221 E, Ed 24th, 2023
Fecal Coliform MPN	NCh 2313/22, Of 95
<i>Escherichia coli</i> MPN	SM 9221 F, Ed 24th, 2023
<i>Escherichia coli</i> MPN	SISS ME-01-2007, Ed 24th, 2023

Solids Analysis: Soils, Sludges, Solid Industrial Waste, Hazardous Waste and Solids Waste

Analyte(s)/Technology	Method(s)
As, Ba, Cd, Cr, Ag, Pb, Se by ICP (TCLP extraction)	EPA 1311 Rev 0, 1992 SM 3120 B, Ed 24th, 2023
Conductivity Electrometric	MED-21-0 Internal method for the determination of conductivity in soils, solid industrial waste and solid waste
Corrosivity	EPA 1110A, Rev 1, 2002
pH	EPA 9045C, Rev 3, 1995
Metals by ICP (Al, As, Sb, Ba, Be, B, Ca, Cd, Cr, Co, Cu, Fe, Pb, Li, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, V, Hg, Zn, and Silicon Dioxide)	EPA 6010D Rev 5, 2018 EPA 3050B Rev 2, 1996 EPA 1312 Rev 0, 1994
Reactivity to Cyanides in Residues	EPA 9010C Rev 3, 2004 EPA 9014 Rev 1, 2014
Reactivity to Sulfides in Residues	EPA 9030B Rev 2, 1996 EPA 9034 Rev 0, 1996

Air emissions analysis:

Matrix	Analyte(s)/Technology	Method(s)
Gases and Particulate Matter	Determination of particulate matter from stationary sources, gravimetry	Methodologies for measuring emissions from stationary sources, MINSAL, ISP CH5 rev. 3, December, 2020
Gases and Particulate Matter	Metal analysis (Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, Fe, Se, Ag, Tl, Zn, P) by ICP	Methodology for measuring emissions in stationary sources, MINSAL, ISP CH29 rev 1. June 2010

¹ This laboratory performs field testing activities for these test methods.





Accredited Laboratory

A2LA has accredited

AIRTESTLAB SPA

Los Andes, CHILE

for technical competence in the field of

Environmental Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets the requirements of A2LA R219 – *Specific Requirements – TNI Field Sampling and Measurement Organization Accreditation*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 1st day of June 2023.

A blue ink signature of Mr. Trace McInturff, written over a horizontal line.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 6203.01
Valid to May 31, 2025

For the tests to which this accreditation applies, please refer to the laboratory's Environmental«field» Scope of Accreditation.