



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ALGORITMOS Y MEDICIONES AMBIENTALES SPA  
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CHEMICAL

Valid To: March 31, 2025

Certificate Number: 4235.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this organization to perform recognized methods using the following testing technologies and, in the analyte, categories identified below:

**Waters – Physical-Chemical Tests**

Matrix(ces)	Parameter(s)/Analyte(s)	Method(s)
Wastewater	Oils and Fats	NCh 2313/6, 2015
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Oils and Fats	SM 5520 C. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Oils and Fat	SM 5520 D. Ed.24, 2023
Drinking water Groundwater Superficial water Wastewater	Acidity	SM 2310 B. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Total Alkalinity	SM 2320 B. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Bicarbonate Carbonate Hidroxide	SM 2320 B. Ed.24, 2023

<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Bromide Chlorides Fluoride Phosphate Nitrate (NO3) Nitrite (NO2) Sulfate (SO4)	I-LAB39 Ed.00 Based on SM 4110 B. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Bromide	M-LAB-A63 Ed.00 Based on SM 4500- Br B. Ed.24, 2023
Drinking water Collection sources	Total Cyanide	ME-14-2007
Wastewater	Total Cyanide	NCh 2313/14, 1997
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Total Cyanide	SM 4500-CN F. Ed.24, 2023 / SM 4500- CN C. Ed.24, 2023
Drinking water Collection sources	Residual Free Chlorine	ME-33-2007
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Residual Free Chlorine	SM 4500-Cl G. Ed.24, 2023
Wastewater	Chloride	NCh 2313/32, 1999
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Chloride	SM 4500-Cl <sup>-</sup> B. Ed.24, 2023
Drinking water Collection sources	Chloride	ME-28-2007
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Color	SM 2120 C. Ed.24, 2023
Drinking water Wastewater Groundground water Superficial water	Color	SM 2120 B. Ed.24, 2023
Drinking water Collection sources	Color (True color)	ME-24-2007
Drinking water Collection sources	Phenolic Compounds	ME-32-2007

<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Phenol	SM 5530 C. Ed.24, 2023
Wastewater	Phenol Index	NCh 2313/19, 2001
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Conductivity	SM 2510 B. Ed.24, 2023
Wastewater	Biochemical Oxygen Demand (BOD 5)	NCh 2313/5, 2005
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Biochemical Oxygen Demand (BOD 5)	SM 5210 B. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Chemical Oxygen Demand (COD)	M-LAB-A38 Ed.00 Based on SM 5220 D. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Calcium Hardness Magnesium Hardness Total, Hardness	SM 2340 B. Ed.24, 2023
Wastewater	Fluoride	NCh 2313/33, 1999
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Fluoride	SM 4500-F C. Ed.24, 2023
Drinking water Collection sources	Fluoride	ME-06-2007
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Phosphate	SM 4500-P E. Ed.24, 2023 / SM 4500-P B Ed.24, 2023
Seawater	Phosphate	SM 4500-P C. Ed.24, 2023 / SM 4500-P B Ed.24, 2023
Wastewater	Fixed hydrocarbons Volatile hydrocarbons	NCh 2313/7, 2021

<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Total hydrocarbons	NCh 2313/7, 2021
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Hydrocarbons (Fixed)	SM 5520 F. Ed.24, 2023 SM 5520 D. Ed.24, 2023 (Gravimetric)
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Langelier Index	The Metro Handbook of Water Treatment for HVAC Systems, Richard Blake by calculation
Drinking water Collection sources	Monochloramina	ME-23-2007
Drinking water Groundwater Superficial water Wastewater	Nitrate	SM 4500-NO3 B. Ed.24, 2023
Drinking water Collection sources	Nitrate	ME-16-2007
Drinking water Groundwater Superficial water Wastewater	Nitrito	SM 4500-NO2 B. Ed.24, 2023
Drinking water Collection sources	Nitrite	ME-17-2007
Drinking water Collection sources	Ammoniacal nitrogen (Ammonia)	ME-27-2007
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Ammoniacal nitrogen (Ammonia)	SM 4500-NH3 D. Ed.24, 2023
Wastewater	Ammoniacal nitrogen (Ammonia)	NCh 2313/16, 2010
Seawater	Ammoniacal nitrogen (Ammonia)	M-LAB-A43 Ed.00 based on SM 4500- NH3 B Ed.24, 2023 and SM 4500-NH3 D. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Total Nitrogen	SM 4110 B. Ed.24, 2023 / SM 4500- Norg B. Ed.24, 2023
Wastewater	Total Kjeldahl Nitrogen	NCh 2313/28, 2009

<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Kjeldahl Nitrogen	SM 4500-Norg B. Ed.24, 2023
Drinking water Collection sources	Odor	ME-25-2013
Drinking water Groundwater Superficial water Wastewater	Odor	SM 2150 B. Ed.24, 2023
Wastewater	pH	NCh 2313/1, 2021
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	pH	SM 4500-H+ B. Ed.24, 2023
Drinking water Collection sources	pH	ME-29-2007
Wastewater	Foaming Power	NCh 2313/21, 2010
Drinking water Groundwater Seawater Superficial water Water for industrial purposes Wastewater	Oxidation Reduction Potential (OPR)	M-LAB-A60 Ed.00 based on SM 2580 B. Ed.24, 2023
Drinking water Collection sources	Taste	ME-26-2013
Seawater	Salinity	SM 2520 B. Ed.24, 2023
Drinking water Groundwater Superficial water Wastewater	Total Dissolved Solids	SM 2540 C. Ed.24, 2023
Drinking water Collection sources	Total Dissolved Solids	ME-31-2007
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Fixed and Volatile Solids	SM 2540 E. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Volatile Suspended Solid	SM 2540 E. Ed.24, 2023

<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Drinking water Groundwater Superficial water Wastewater	Total Suspended Solids	SM 2540 D. Ed.24, 2023
Wastewater	Total Suspended Solids	NCh 2313/3, 1995
Drinking water Groundwater Superficial water Wastewater	Total Solids	SM 2540 B. Ed.24, 2023
Drinking water Groundwater Superficial water Wastewater	Settleable Solids	SM 2540 F. Ed.24, 2023
Wastewater	Settleable Solids	NCh 2313/4, 1995
Drinking water Groundwater Superficial water Wastewater	Sulfate	SM 4500-SO4-2 D. Ed.24, 2023
Drinking water Collection sources	Sulfate	ME-30-2007
Drinking water Groundwater Seawater Superficial water Water for industrial purposes Wastewater	Sulfate	M-LAB-A61 Ed.00 based on SM 4500- SO4 E. Ed.24, 2023
Wastewater	Dissolved Sulfate	NCh 2313/18, 1997
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Sulfide	SM 4500-S2 F. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Sulfide	SM 4500-S2 G. Ed.24, 2023
Wastewater	Total Sulfide	NCh 2313/17, 1997
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Anionic Surfactants as MBAS.	SM 5540 C. Ed.24, 2023 / SM 5540 B. Ed.24, 2023
Wastewater	Anionic Surfactants as MBAS.	NCh 2313/27, 1998

<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Turbidity	SM 2130 B. Ed.24, 2023
Drinking water Collection sources	Turbidity	ME-03-2007
Drinking water Collection sources Groundwater Seawater Superficial water Water for industrial purposes Wastewater	Temperature	SM 2550 B. Ed.24, 2023

**Waters, Metals – Physical-Chemical tests**

<b>Matrix(ces)</b>	<b>Parameter(s) / Analyte(s)</b>	<b>Method(s)</b>
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Dissolved and Total Aluminum Dissolved and Total Antimony Dissolved and Total Arsenic Dissolved and Total Barium Dissolved and Total Beryllium Dissolved and Total Bismuth Dissolved and Total Boron Dissolved and Total Cadmium Dissolved and Total Calcium Dissolved and Total Chromium Dissolved and Total Cobalt Dissolved and Total Copper Dissolved and Total Gold Dissolved and Total Iron Dissolved and Total Lead Dissolved and Total Lithium Dissolved and Total Magnesium Dissolved and Total Manganese Dissolved and Total Molybdenum Dissolved and Total Nickel Dissolved and Total Phosphorous Dissolved and Total Potassium Dissolved and Total Rhenium Dissolved and Total Rhodium Dissolved and Total Selenium Dissolved and Total Silicon Dissolved and Total Silver Dissolved and Total Sodium Dissolved and Total Strontium Dissolved and Total Sulfur Dissolved and Total Thallium	M-LAB-A32 Ed.00 Based on EPA 200.7, Rev.4.4, 1994

<b>Matrix(ces)</b>	<b>Parameter(s) / Analyte(s)</b>	<b>Method(s)</b>
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater (cont.)	Dissolved and Total Tin Dissolved and Total Titanium Dissolved and Total Tellurium Dissolved and Total Tungsten Dissolved and Total Uranium Dissolved and Total Vanadium Dissolved and Total Zinc Dissolved and Total Zirconium	M-LAB-A32 Ed.00 Based on EPA 200.7, Rev.4.4, 1994
Drinking water Groundwater Superficial water Wastewater	Dissolved Aluminum Dissolved Antimony Dissolved Arsenic Dissolved Barium Dissolved Beryllium Dissolved Bismuth Dissolved Boron Dissolved Cadmium Dissolved Calcium Dissolved Chromium Dissolved Cobalt Dissolved Copper Dissolved Iron Dissolved Lead Dissolved Lithium Dissolved Magnesium Dissolved Manganese Dissolved Molybdenum Dissolved Nickel Dissolved Phosphorous Dissolved Potassium Dissolved Selenium Dissolved Silicon Dissolved Silver Dissolved Sodium Dissolved Strontium Dissolved Sulfur Dissolved Thallium Dissolved Tin Dissolved Titanium Dissolved Tungsten Dissolved Vanadium Dissolved Zinc Dissolved Zirconium	SM 3120 B. Ed.24, 2023 / SM 3030 B. Ed.24, 2023



Matrix(ces)	Parameter(s) / Analyte(s)	Method(s)
Drinking water Groundwater Superficial water Wastewater	Total Aluminum Total Antimony Total Arsenic Total Barium Total Beryllium Total Bismuth Total Boron Total Cadmium Total Calcium Total Chromium Total Cobalt Total Copper Total Iron Total Lead Total Lithium Total Magnesium Total Manganese Total Molybdenum Total Nickel Total Phosphorous Total Potassium Total Selenium Total Silicon Total Silver Total Sodium Total Strontium Total Sulfur Total Thallium Total Tin Total Titanium Total Tungsten Total Vanadium Total Zinc Total Zirconium	SM 3120 B. Ed.24, 2023
Wastewater	Dissolved Aluminum Dissolved Antimony Dissolved Arsenic Dissolved Barium Dissolved Beryllium Dissolved Bismuth Dissolved Boron Dissolved Cadmium Dissolved Calcium Dissolved Chromium Dissolved Cobalt Dissolved Copper Dissolved Iron Dissolved Lead Dissolved Lithium Dissolved Magnesium	NCh 2313/25, 1997 / SM 3030 B. Ed.24, 2023



Matrix(ces)	Parameter(s) / Analyte(s)	Method(s)
Wastewater (cont.)	Dissolved Manganese Dissolved Molybdenum Dissolved Nickel Dissolved Phosphorous Dissolved Potassium Dissolved Selenium Dissolved Silicon Dissolved Silver Dissolved Sodium Dissolved Strontium Dissolved Sulfur Dissolved Thallium Dissolved Tin Dissolved Titanium Dissolved Tungsten Dissolved Vanadium Dissolved Zinc Dissolved Zirconium	NCh 2313/25, 1997 / SM 3030 B. Ed.24, 2023
Wastewater	Total Aluminum Total Antimony Total Arsenic Total Barium Total Beryllium Total Bismuth Total Boron Total Cadmium Total Calcium Total Chromium Total Cobalt Total Copper Total Iron Total Lead Total Lithium Total Magnesium Total Manganese Total Molybdenum Total Nickel Total Phosphorous Total Potassium Total Selenium Total Silicon Total Silver Total Sodium Total Strontium Total Sulfur Total Thallium Total Tin Total Titanium Total Tungsten Total Vanadium	NCh 2313/25, 1997



<b>Matrix(ces)</b>	<b>Parameter(s) / Analyte(s)</b>	<b>Method(s)</b>
Wastewater (cont.)	Total Zinc Total Zirconium	NCh 2313/25, 1997
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Total Cadmium Total Calcium Total Chromium Total Cobalt Total Copper Total Iron Total Lead Total Lithium Total Magnesium Total Manganese Total Nickel Total Potassium Total Silver Total Sodium Total Tin Total Zinc	SM 3111 B. Ed.24, 2023 / SM 3030 F. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Total Aluminum Total Barium Total Beryllium Total Molybdenum Total Vanadium	SM 3111 D. Ed.24, 2023 / SM 3030 F. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Total Mercury	SM 3112 B. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Total Arsenic Total Selenium	SM 3114 B. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Cadmium Dissolved Calcium Dissolved Chromium Dissolved Cobalt Dissolved Copper Dissolved Iron Dissolved Lead Dissolved Lithium Dissolved Magnesium Dissolved Manganese Dissolved Nickel Dissolved Potassium Dissolved Silver Dissolved Sodium Dissolved Tin Dissolved Zinc Dissolved	SM 3111 B. Ed.24, 2023 / SM 3030 B. Ed.24, 2023



<b>Matrix(ces)</b>	<b>Parameter(s) / Analyte(s)</b>	<b>Method(s)</b>
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Aluminum Dissolved Barium Dissolved Beryllium Dissolved Molybdenum Dissolved Vanadium Dissolved	SM 3111 D. Ed.24, 2023 / SM 3030 B. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Mercury Dissolved	SM 3112 B. Ed.24, 2023 / SM 3030 B. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Arsenic Dissolved Selenium Dissolved	SM 3114 B. Ed.24, 2023 / SM 3030 B. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Arsenic Dissolved Selenium Dissolved	M-LAB-A16 Ed.00 Basada en SM 3111 B. Ed.24, 2023 / SM 3030 B. Ed.24, 2023
Wastewater	Arsenic Total	NCh 2313/9, 1996
Wastewater	Total Cadmium Total Chromium Total Copper Total Iron Total Lead Total Manganese Total Nickel Total Zinc	NCh 2313/10, 2020
Wastewater	Total Mercury	NCh 2313/12, 1996
Wastewater	Total Molybdenum	NCh 2313/13, 1998
Wastewater	Total Selenium	NCh 2313/30, 1999
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Mercury Dissolved	M-LAB-A17 Ed.00 Based on SM 3112 B. Ed.24, 2023 / SM 3030 B. Ed.24, 2023
Drinking water Groundwater Superficial water Wastewater	RAS (Sodium Adsorption Ratio) NA % (Sodium Percentage)	NCh 1333.Of78 (modified in 1987). Punto 3.8
Wastewater	Hexavalent Chromium	NCh 2313/11, 1996
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Hexavalent Chromium	SM 3500-Cr B. Ed.24, 2023
Drinking water Collection sources	Total Copper	ME-04-2007

<b>Matrix(ces)</b>	<b>Parameter(s) / Analyte(s)</b>	<b>Method(s)</b>
Drinking water Collection sources	Total Chromium	ME-05-2007
Drinking water Collection sources	Total Iron	ME-07-2007
Drinking water Collection sources	Total Manganese	ME-08-2007
Drinking water Collection sources	Total Magnesium	ME-09-2007
Drinking water Collection sources	Total Selenium	ME-10-2007
Drinking water Collection sources	Total Zinc	ME-11-2007
Drinking water Collection sources	Total Arsenic	ME-12-2007
Drinking water Collection sources	Total Cadmium	ME-13-2007
Drinking water Collection sources	Total Mercury	ME-15-2007
Drinking water Collection sources	Total Lead	ME-18-2007
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Silica	SM 3120 B. Ed.24, 2023 / SM 3030 E. Ed.24, 2023

#### **Waters, Organic Compounds – Physical-Chemical tests**

<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Drinking water Collection sources	2,4 Dichlorophenoxyacetic acid (2,4D) Pentachlorophenol	ME-21-2007
Wastewater	2,4 Dichlorophenoxyacetic acid (2,4D) Pentachlorophenol	NCh 2313/29, 1999
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	2,4 Dichlorophenoxyacetic acid (2,4D) Pentachlorophenol	SM 6640 B. Ed.24, 2023

<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin Lindane Methoxychlor	SM 6630 C. Ed.24, 2023
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin Lindane Methoxychlor	SM 6630 B. Ed.24, 2023
Drinking water Collection sources	4,4'-DDT DDD+DDE DDT+DDD+DDE Lindane Methoxychlor	ME-20-2007
Drinking water Groundwater Superficial water Wastewater	Benzene Ethylbenzene Toluene o-Xylene m,p-Xylene Xylene	ISO 11423-1:1997
Drinking water Collection sources	Benzene Toluene Xilenes	ME-19-2007
Wastewater	Benzene Toluene o-Xylene m, p-Xylene Xylene	NCh 2313/31, 1999
Drinking water Collection sources	Bromodichloromethane Dibromochloromethane Tetrachloroethene Tribromomethane Trichloromethane	ME-22-2007
Wastewater	Bromodichloromethane Dibromochloromethane Tetrachloroethene Tribromomethane Trichloromethane	NCh 2313/20, 1998
Drinking water Groundwater Superficial water Water for industrial purposes Wastewater	Bromodichloromethane Dibromochloromethane Tetrachloroethene Tribromomethane Trichloromethane Trihalomethanes	SM 6232 B. Ed.24, 2023

**Water - Microbiological tests**

<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Water for industrial purposes Wastewater	Determination of fecal coliforms (MPN)	NCh 2313/22, 1995
Water for industrial purposes Wastewater	Determination of fecal coliforms (MPN)	NCh 2313/23, 1995
Drinking water Groundwater Irrigation water Recreational water Superficial water Water for industrial purposes Wastewater	Determination of fecal coliforms	SM 9221 E1. Ed.24, 2023
Drinking water Groundwater Irrigation water Recreational water Superficial water Water for industrial purposes Wastewater	Determination of fecal coliforms (MPN)	SM 9221 E2. Ed.24, 2023
Drinking water Collection sources	Determination of total coliform bacteria	NCh 1620/1:2020 Part 1 of Determination of total coliform bacteria: Multiple tube method (MPN). 2020. INN
Drinking water Collection sources	Determination of total coliform bacteria and Escherichia coli	NCh 1620/2:2020 Part 2 of Determination of total coliform bacteria: Membrane filtration method. 2020. INN
Drinking water Groundwater Irrigation water Recreational water Superficial water Water for industrial purposes Wastewater	Determination of total coliform bacteria (MPN)	SM 9221 B. Ed.24, 2023
Drinking water Collection sources	Escherichia coli detection	ME-01-2007
Drinking water Groundwater Irrigation water Recreational water Superficial water Water for industrial purposes Wastewater	Escherichia coli detection (MPN)	SM 9221 F. Ed.24, 2023
Drinking water Groundwater Irrigation water Recreational water Superficial water Water for industrial purposes Wastewater	Determination of Heterotrophs	SM 9215 B. Ed.24, 2023

**Solids – Physical-chemical tests**

<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Aquatic, lake and marine sediments Sludge Soils	Oils and Fats	M-LAB-S08 Ed.00 Based on SM 5520 E. Ed.24, 2023
Aquatic, lake and marine sediments Sludge Soils	Moisture	M-LAB-S01 Ed.01 Based on NCh 1515.Of 79
Aquatic lake and marine sediments Sludge Soils	Conductivity pH	M-LAB-S04 Ed.00 Based on INIA 2005 Serie Acta N°30 5.1 Extracto 1:5
Aquatic sediments, Lake sediments, and Marine sediments Sludge Soils	Fixed hydrocarbons Total hydrocarbons Volatile hydrocarbons	M-LAB-S07 Ed.00 Based on SM 5520 E y F Ed.24, 2023
Aquatic sediments, Lake sediments, and Marine sediments Sludge Soils	Total Nitrogen Total Kjeldahl Nitrogen	M-LAB-S09 Ed.00 Based on INIA 2006 / SM 4500-N B. Ed.24, 2023
Aquatic sediments, Lake sediments, and Marine sediments Sludge Soils	Organic Matter	M-LAB-S11 Ed.00 Based on Res. Ex. N°3612/2009 SERNAPESCA. Numeral 27
Soils	Organic Matter Organic Carbon	INIA Method 7.1, Ed.2, 2006
Soils	Bromide Chlorides Fluoride Phosphate Nitrate (NO3) Nitrite (NO2) Sulfate (SO4)	I-LAB39 Ed.00 Based on SM 4110 B. Ed.24, 2023
Aquatic sediments, Lake sediments, and Marine sediments Sludge Soils	Total Phosphorous	M-LAB-S12 Ed.00 based on SM 4500-P E. Ed.24, 2023
Aquatic sediments, Lake sediments, and Marine sediments Sludge Soils	Granulometry	M-LAB-S02 Ed.00 Based on ASTM C136-06 and NCh3236.Of2010



**Solids, Metals - Physical-Chemical Tests**

<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Aquatic, lake and marine sediments Sludge Soils	Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Gold Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Phosphorous Potassium Rhenium Rhodium Selenium Silicon Silver Sodium Strontium Sulfur Thallium Tin Tellurium Titanium Tungsten Uranium Vanadium Zinc Zirconium	M-LAB-S10 Ed.00 Based on EPA Method 200.7, Rev.4.4, 1994
Aqueous waste Soils Solid waste	Cadmium Chromium Lead Silver	EPA 1311, 1992 / SM 3111 B. Ed.24, 2023
Aqueous waste Soils Solid waste	Barium	EPA 1311, 1992 / SM 3111 D. Ed.24, 2023



<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Aqueous waste Soils Solid waste	Mercury	EPA 1311, 1992 / SM 3112 B. Ed.24, 2023
Aqueous waste Soils Solid waste	Arsenic Selenium	EPA 1311, 1992 / SM 3114 B. Ed.24, 2023
Aqueous waste Soils Solid waste	Cadmium Chromium Lead Silver	EPA 1312, 1994 / SM 3111 B. Ed.24, 2023
Aqueous waste Soils Solid waste	Barium	EPA 1312, 1994 / SM 3111 D. Ed.24, 2023
Aqueous waste Soils Solid waste	Mercury	EPA 1312, 1994 / SM 3112 B. Ed.24, 2023
Aqueous waste Soils Solid waste	Arsenic Selenium	EPA 1312, 1994 / SM 3114 B. Ed.24, 2023
Aquatic sediments, Lake sediments, and Marine sediments Sludge Soils	Arsenic Barium Cadmium Zinc Copper Chromium Iron Magnesium Manganese Mercury Molybdenum Nickel Silver Lead Potassium Selenium Vanadium	I-LAB28 Ed.00 Based on SM Part 3000 Ed.24, 2023 / EPA 3050 B 1996

**Stationary Sources: Isokinetic Filters and Recovered - Physical-Chemical Tests.**

<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Air – Gases Air – Particulate Matter	Total Reduced Sulfur Emissions (TRS) with Impinger: Sulfur Dioxide, Carbon Disulfide, Methyl Disulfide, Methyl mercaptan, Carbonyl Sulfide, Dimethyl Sulfide, Hydrogen Sulfide	EPA 16A, 2017
Air – Gases Air – Particulate Matter	Total Reduced Sulfur Emissions (TRS): Sulfur Dioxide, Methyl Disulfide, Methyl mercaptan, Dimethyl Sulfide, Hydrogen Sulfide	EPA 16B, 2020
Air – Gases Air – Particulate Matter	Particulate Matter	EPA 17, 2017. CFR 40 – PART 60
Air – Gases Air – Particulate Matter	Particulate Matter	CH-5, 2020. Based on EPA 5
Air – Gases Air – Particulate Matter	Particulate Matter	EPA 5, 2020
Air – Gases Air – Particulate Matter	Particulate Matter PM 10 Particulate Matter PM 2,5	EPA 201A - CFR 40 - Part 51. 2020
Air – Gases Air – Particulate Matter	Condensable Particulate Matter	EPA 202 - CFR 40 - Part 51. 2017
Air – Gases Air – Particulate Matter	Sulfuric Acid, Sulfur Dioxide	EPA 8, 2019
Aire - Gases	Ammonia	EPA CTM 27, 1997
Air – Gases Air – Particulate Matter	Hydrogen Bromide Hydrogen Chloride Hydrogen Fluoride Total Bromine Total Chlorine	M-LAB-F03 Ed.00 Based on CH-26A / EPA 26 A. 2010
Filters	Particulate Matter	I-LAB-F01 Ed.02 Based on EPA 40 CFR, Part 50, Appendix J, 2022
Air – Particulate Matter	Settleable particulate matter (MPS)	M-LAB-S03 Ed.00 Based on EPA 40 CFR, Parte 50 Appendix J, 2022
Filters Air – Settleable Particulate Material	HBr HCl / Cl HNO3	NIOSH 7907. 5Th Edition. 2014
Filters Air – Settleable Particulate Material	H2SO4 / SO4-2 H3PO4 / PO4(-3)	NIOSH 7908. 5Th Edition. 2014
Filters Air – Settleable Particulate Material	Silica, Crystalline	M-LAB-F04 Ed.00 Based on NIOSH 7602 4Th Edition. 2003

**Stationary Sources: Isokinetic and Recovered Filters. Metals - Physical-Chemical tests**

<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Air – Gases Air – Particulate Matter	Aluminum Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Lead Manganese Mercury Nickel Phosphorous Selenium Silver Thallium Tellurium Vanadium Zinc Zirconium	CH-29, 2010, Based on EPA 29
Air – Gases Air – Particulate Matter	Aluminum Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Lead Manganese Mercury Nickel Phosphorous Selenium Silver Thallium Tellurium Vanadium Zinc Zirconium	EPA 29, 2016

Matrix(ces)	Parameter(s)/Analyte(s)	Method(s)
Filters Settleable Particulate Material	Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Gold Iron Lead Lithium Magnesium Manganese Molybdene Nickel Phosphorous Potassium Rhenium Rhodium Selenium Silicon Silver Sodium Strontium Sulfur Thallium Tin Tellurium Titanium Tungsten Uranium Vanadium Zinc Zirconium	M-LAB-F02 Ed.00 Based on EPA 200.7, Rev.4.4, 1994



<b>Matrix(ces)</b>	<b>Parameter(s)/Analyte(s)</b>	<b>Method(s)</b>
Filters Settleable Particulate Material	Aluminum Arsenic Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Manganese Mercury Molybdenum Nickel Selenium Sodium Tin Vanadium Zinc	I-LAB27 Ed.00 Based on EPA 3050 B 1996 / SM Part 3000 Ed.24, 2023

**Air Analysis (Laboratory facility) - Olfactometry**

<b>Matrix(ces)</b>	<b>Parameter</b>	<b>Methods</b>
Air Quality	Air Quality - Odor	NCh 3190:2010 Determination of odor concentration by dynamic olfactometry, based on UNE EN 13725:2004





## Accredited Laboratory

A2LA has accredited

### ALGORITMOS Y MEDICIONES AMBIENTALES SPA

Santiago, CHILE

for technical competence in the field of

### Chemical 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 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 25<sup>th</sup> day of August 2023.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 4235.02  
Valid to March 31, 2025

*For the tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.*