



CERTIFICATE OF ACCREDITATION

This is to attest that

QUIMPETROL PERU SAC

PARQUE 17-03
TALARA, 0073, PERU

Testing Laboratory TL-913

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.

Effective Date October 28, 2024



International Accreditation Service
Issued under the authority of IAS management

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

QUIMPETROL PERU SAC

www.quimpetrolperu.pe

Contact Name Olga Perales

Contact Phone +51 961294600

Accredited to ISO/IEC 17025:2017

Effective Date October 28, 2024

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL CHEMISTRY (Field collection + Lab Testing)	Natural water, Drinking water, Saline water, Process water and Waste water	Phenols	SMEWW-APHA-AWWA-WEF Part 5530 B,C, 23rd Ed. 2017. Phenols. Cleanup Procedure. Chloroform Extraction Method
		Phenols	SMEWW-APHA-AWWA-WEF Part 5530 B,D, 23rd Ed. 2017. Phenols. Cleanup Procedure. Direct Photometric Method
		N-Nitrate / Nitrate	EPA 352.1 2017 Method Nitrogen Nitrate (Colorimetric Brucine)
		N- Nitrite / Nitrite	SMEWW-APHA-AWWA-WEF Part 4500-NO2- B, 23rd Ed. 2017 Nitrogen (Nitrite). Colorimetric Method
		Ammonium / Ammonia / Ammoniacal Nitrogen	SMEWW-APHA-AWWA-WEF Part 4500- NH3-D, 23rd Ed. 2017 Nitrogen (Ammonia). Ammonia-Selective Electrode
		Total Hydrocarbons	SMEWW-APHA-AWWA-WEF Part 5520 F, 23rd Ed. 2017 Hydrocarbons
		Biochemical Oxygen Demand	SMEWW-APHA-AWWA-WEF Part 5220 D, 23rd Ed. 2017 Biochemical Oxygen Demand
		Sulfides	SMEWW-APHA-AWWA-WEF Part 4500-S D, 23rd Ed. 2017 Sulfide. Methylene Blue Method
		Sulfates	SMEWW-APHA-AWWA-WEF Part 4500-SO4 E, 23rd Ed 2017 Sulfate. Turbidimetric Method

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL CHEMISTRY (Field collection + Lab Testing) (continued)	Natural water, Drinking water, Saline water, Process water and Waste water (continued)	Oil and Grease	SMEWW-APHA-AWWA-WEF Part 5520 B, 23rd Ed 2017 Oil and Grease
		Settleable Solids	SMEWW-APHA-AWWA-WEF Part 2540 F, 23rd Ed. 2017 Solids. Settleable Solids.
		Total Solids	SMEWW-APHA-AWWA-WEF Part 2540 B, 23rd Ed. 2017 Solids. Total Solids Dried at 103-105°C
		Total Suspended Solids	SMEWW-APHA-AWWA-WEF Part 2540 D, 23rd Ed. 2017 Solids. Total Suspended Solids Dried at 103-105°C
		Total Dissolved Solids	SMEWW-APHA-AWWA-WEF Part 2540 C, 23rd Ed. 2017 Solids. Total Dissolved Solids Dried at 180°C
		Carbon Dioxide	SMEWW-APHA-AWWA-WEF Part 4500-CO2 C. 23rd Ed. 2017 Carbon Dioxide, Titimetric Method
		Boro	SMEWW-APHA-AWWA-WEF Part 4500-B, 23rd Ed. 2017 Curcumin Method
		Chlorophyll A	SMEWW-APHA-AWWA-WEF Part 10200 H,2, 23rd Ed. 2017 Plankton. Chlorophyll
		Phosphates, Total Reactive Phosphorus, Dissolved Reactive Phosphorus	SMEWW-APHA-AWWA-WEF Part 4500-P, E, 23rd Ed. 2017 Ascorbic Acid Method
		Total Phosphorus	SMEWW-APHA-AWWA-WEF Part 4500-P, B (item 5) y E, 23rd Ed. 2017 Phosphorus. Ascorbic Acid Method

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL CHEMISTRY (Field collection + Lab Testing) (continued)	Natural water, Drinking water, Saline water, Process water and Waste water (continued)	Hydrogen sulfide indissociable	SMEWW-APHA-AWWA-WEF Part 4500-S2 H. 23rd Ed. 2017 Calculation of Un-ionized Hydrogen Sulfide
		Detergents (SAAM)	SMEWW-APHA-AWWA-WEF Part 5540 C, 23rd Ed. 2017 Anionic Surfactants as MBA
		Color (True Color, Apparent Color)	SMEWW-APHA-AWWA-WEF. Part 2120 C. 23rd Ed. 2017. Color. Spectrophotometric Single-Wavelength Method (Proposed). Color
		Hexavalent Chromium (VI)	SMEWW-APHA-AWWA-WEF Part 3500 Cr-B, 23rd Ed. 2017 Colorimetric Method
	Natural water, Drinking water, Water for Human use and consumption, Saline water, Process water and Waste water	Acidity	SMEWW 2310 B. 23rd Ed. 2017 Acidity Titration Method
	Soil, Mud, Sediment, underground water	Soil and waste pH	NTP 339.176 2002 (revised 2015) SOILS. Standard test method for the determination of the pH value in soil and underground water.
		Chlorides	NTP 339.177 2002 (revised 2015) SOILS. Standard test method for the determination of the soluble chlorides in soil and underground water.
		Sulfates	NTP 339.178 2002 (revised 2015) SOILS. Standard test method for the determination of the soluble sulfates in soil and underground water.

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL CHEMISTRY (Field collection + Lab Testing) (continued)	Soil, Mud and Sediment	Conductivity	Official Mexican Standard NOM-021-RECNAT-2000, that establishes the specifications of fertility, salinity and classification of soils. Studies, sampling and analysis. AS 18. Measurement of Electrical Conductivity.
		Organic Matter	Official Mexican Standard NOM-021-RECNAT-2000, that establishes the specifications of fertility, salinity and classification of soils. Studies, sampling and analysis AS 07. Organic Matter.
		Sulfides or Total Sulfides	EPA METHOD 9031, Rev. 0 1992 Extractable Sulfides in soils
		Hexavalent Chromium	EPA Method 3060 Rev.1 (1996) / EPA Method 7196 Rev.1 (1992) Alkaline Digestion for Hexavalent Chromium / Chromium, Hexavalent (Colorimetric)
	Soils, Sediments and Sludges	Oil & Grease	EPA Method 9071B Rev. 2 n-Hexane Extractable Material (HEM)
	Emission / Stationary Sources	Particulate Matter (PM)	EPA CFR 40, Part 60, Appendix A. (2020.) Method 5 - Determination of Particulate Matter Emissions from Stationary Sources.
			NTP 900.005:2001 Determination of emissions of particulate matter from stationary sources
		Sulfur Dioxide	EPA CFR 40, Part 60, Appendix A. Method 6. – Determination of Sulfur Dioxide Emissions from Stationary Sources.
		Gas Velocity and Volumetric Flow	NTP 900.002:2021 / EPA METHOD 2c. (2002) MONITORING OF ATMOSPHERIC EMISSIONS.

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL CHEMISTRY (Field collection + Lab Testing) (continued)	Emission / Stationary Sources (continued)	Gas Velocity and Volumetric Flow (continued)	Determination of velocity and volumetric flow in flue gasses (Pitot tube type S). 2 nd Edition. Determination of Gas Velocity and Volumetric Flow rate in Small Stacks or Ducts (Standar Pitot Tube)
		Compilation of Air Emissions Factors (Determination of Particulate Matter (PM))	EPA Method AP-42: Compilation of Air Emissions Factors (2009.)
		Air	Total suspended particulate matter (PTS)
	Atmosphere – Ambient (Air)	Particulate Matter PM2.5. (High Volume)	EPA CFR 40. Appendix J to part 50: Reference method for the determination of particulate matter as PM10 in the atmosphere. (Validated)
		Carbon Monoxide (CO)	Peter O. Warner "Analysis of Air Pollutants", Wiley- Interscience, New York 1976. (Validated) AEN-PO-017 Determination of Carbon Monoxide in the atmosphere. Method 4: Carboxybenzene sulfonamide.
		Hydrogen Sulfide (H ₂ S)	Norma COVENIN 3571:2000 (Validated) AEN-PO-018 Determination of the concentration of hydrogen sulfide (H ₂ S) in the atmosphere
		Ozone (O ₃)	"Methods of Air Sampling and Analysis"; 411: Determination of Oxidizing Substances in the Atmosphere. Intersociety Committee, James P. Lodge (Editor) Third edition (Validated) AEN-PO-019 Ozone Determination Method in the Atmosphere

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL CHEMISTRY (Field collection + Lab Testing) (continued)	Atmosphere – Ambient (Air) (continued)	Particulate Matter PM2.5. (Low Volume).	EPA CFR 40, Part 50, Appendix L. Reference Method for the Determination of Fine Particulate Matter as PM2.5 in the Atmosphere
		Particulate Matter PM10. (High Volume)	EPA Compendium Method IO-2.1 (2019) Sampling of Ambient Air for Total Suspended Particulate Matter (SMP) and PM10 Using High Volume (HV) Sampler.
		Particulate Matter PM10. (Low Volume)	EPA Compendium Method IO-2.3 (2019.) Sampling of Ambient Air for PM10 Concentration Using the Rupprecht and Patashnick (R&P). Low Volume Partisol Sampler
		Sulfur Dioxide (SO ₂)	EPA CFR 40. Appendix A-2 to part 50. Reference method for the determination of sulfur dioxide in the atmosphere. (Pararosaniline method).
		Nitrogen Dioxide (NO ₂)	ASTM D1607-91(2018)e1 Standard test method for nitrogen dioxide content of the atmosphere. (Griess-Saltzman reaction).
	Air	Total suspended particulate matter (PTS)	EPA CFR 40 Part 50 Appendix B, 2018 Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High-Volume Method)
ENVIRONMENTAL CHEMISTRY (Field Measurement)	Natural water, Drinking water, Saline water, Process water and Waste water	Salinity	SMEWW-APHA-AWWA-WEF Part 2520 B, 23rd Ed. 2017 Salinity Electrical Conductivity Method

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL CHEMISTRY (Lab testing)	Air – Environmental Filters	Weight Determination. Filters PM10 (High Volume).	EPA CFR 40. Appendix J to part 50 Reference method for the determination of particulate matter as PM10 in the atmosphere. (Validated)
		Weight Determination. Filters PM10 (Low Volume).	EPA-Compendium Method IO-2.3. Sampling of ambient air for pm10 concentration using the Rupprecht and Patashnick (r&p) Low Volume Partisol® Sampler (validated).
		Weight Determination. Filters PM2.5 (High Volume)	EPA CFR 40. Appendix J to part 50 Reference method for the determination of particulate matter as PM10 in the atmosphere. (Validated) AEN-PO-014 Weight Determination PM2.5 Filters (High Volume)
	Air – Environmental Collector Solution	Sulphur dioxide (SO ₂)	EPA CFR 40. Appendix A-2 to part 50. Reference method for the determination of sulfur dioxide in the atmosphere. (Pararosaniline method). (Validated)
		Nitrogen dioxide (NO ₂)	ASTM D1607-91 (2018) e1: Standard test method for nitrogen dioxide content of the atmosphere. (Griess-Saltzman reaction). (Validated)
		Carbon monoxide (CO)	Peter O. Warner "Analysis of Air Pollutants", Wiley-Interscience, New York 1976. (Validated) AEN-PO-020 Determination of Carbon Monoxide in the atmosphere. Method 4: Carboxybenzene sulfonamide.

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL CHEMISTRY (Lab testing) (continued)	Air – Environmental Collector Solution (continued)	Hydrogen sulfide (H ₂ S)	Norma COVENIN 3571:2000 (Validated) AEN-PO-021 Determination of the concentration of hydrogen sulfide (H ₂ s) in the atmosphere
		Ozone (O ₃)	"Methods of Air Sampling and Analysis"; 411: Determination of Oxidizing Substances in the Atmosphere. Intersociety Committee, James P. Lodge (Editor) Third edition (Validated) AEN-PO-022 Method of Determination of Ozone in the Atmosphere.
ENVIRONMENTAL MICROBIOLOGY (Field collection + Lab Testing)	Natural water, Drinking water, Water for Human use and consumption, Saline water, Process water and Waste water	Thermotolerant coliforms (faecal)	SMEWW-APHA-AWWA-WEF .9221 B.2,3, E.1, 23rd Ed.2017 Multiple-Tube Fermentation Technique for Members of the Coliform Group. Thermolerant (Fecal) Coliform Procedure.
		Total coliforms	SMEWW-APHA-AWWA-WEF. 9221 B. 2,3,4,5a (1,3,4), 5b. 23rd Ed.12017 Multiple-Tube Fermentation Technique for Members of the Coli-form Group. Standard Total Coliform Fermentation technique.
		Escherichia coli	SMEWW-APHA-AWWA-WEF.9221 B.2,3, F.1. 23rd Ed.2017 Multiple-Tube Fermentation Technique for Members of the Coliform Group. Escherichia Coli Procedure Using Fluorogenic Substrate (EC-MUG Medium).

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL MICROBIOLOGY (Field collection + Lab Testing) (continued)	Natural water, Drinking water, Water for Human use and consumption, Saline water, Process water and Waste water (continued)	Heterotrophic Bacteria	SMEWW-APHA-AWWA-WEF Part 9215 B..23rd Ed.12017 Heterotrophic Plate Count. Pour Plate Method
		Fecal Enterococcus /Streptococcus Groups (Intestinal Enterococci)	SMEWW-APHA-AWWA-WEF Part 9230 B. 23rd Ed. 2017 Fecal Enterococcus /Streptococcus Groups. Multiple-Tube Technique
		Vibrio Cholerae	SMEWW-APHA-AWWA-WEF.9221 B.2,3, F.1. 23rd Ed.2017 Detection of Pathogenic Bacteria. Vibrio
		Salmonella	SMEWW-APHA-AWWA-WEF Part 9260 H. (Item 1, 2, 3d (1a and 1b), 6b and 7) 23rd Ed. 2017 Detection of Pathogenic Bacteria. Salmonella
		Helminth eggs Nematodes Ascaris sp. Uncinarias (Ancylostoma, Strongylus, Necator) Enterobius vermicularis Trichuris sp. Toxocara sp. Capillaria sp. Trichostrongylus sp. Cestodes Dyphylidium sp. Taenia sp. Hymenolepis diminuta Hymenolepis nana Hymenolepis sp. Trematodes Fasciola hepatica Paragonimus sp. Schistosoma sp. Acantocephalus Macracanthorhynchus sp.	Analysis of Wastewater for Use in Agriculture - A Laboratory Manual of Parasitological and Bacteriological Techniques. Rachel M. Ayres & D. Duncan Mara. World Health Organization. 1996 Modified Bailenger Method
		Helminth eggs Nematodes Ascaris sp. Uncinarias (Ancylostoma, Strongylus, Necator) Enterobius vermicularis Trichuris sp. Toxocara sp. Capillaria sp. Trichostrongylus sp. Cestodes Dyphylidium sp. Taenia sp. Hymenolepis diminuta Hymenolepis nana Hymenolepis sp. Trematodes Fasciola	Mexican Standard NMX-AA-113-SCFI 2012 Analysis of water – Determination of number Helminth Eggs in wastewaters and treated wastewaters by Microscopic Examination-Test Method

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL MICROBIOLOGY (Field collection + Lab Testing) (continued)	Natural water, Drinking water, Water for Human use and consumption, Saline water, Process water and Waste water (continued)	hepatica Paragonimus sp. Schistosoma sp. Acantocephalus Macracanthorhynchus sp	
		Virus	SMEWW-APHA-AWWA-WEF Part 9224 B, Virus (Somatic Coliphages) 23rd Ed. 2017 Detection of Coliphages. Somatic Coliphages Assay
	Natural water, Drinking water, Water for Human use and consumption	Staphylococcus aureus	SMEWW-APHA-AWWA-WEF Part 9213 B (Item 6 a.), 23rd Ed. 2017. Recreational Waters. Swimming Pools. Test for Staphylococci or Staphylococcus.
		Detection of Pseudomona aeruginosa	ISO 16266:2006. Water quality Detection and enumeration of Pseudomonas aeruginosa (only the detection)-Method by membrane filtration. 2006 Detection of Pseudomonas aeruginosa
	Soils, Sediments, Sludges and Biosolids	Escherichia coli	SMEWW-APHA-AWWA-WEF. Part 9221G(Item2), 23rd Ed. 2017 Multiple-Tube Fermentation. Technique for Members of the Coliform Group. Other Escherichia coli Procedures (PROPOSED), 2017. / EPA-821-R--14-009. Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauril Tryptose Broth (LTB) and EC Medium, September 2014, Items: 11, 12.4 and 14
		Total coliforms	SMEWW-APHA-AWWA-WEF. Part 9221B, 23rd Ed. 2017 Multiple-Tube Fermentation. Technique for Members of the Coliform Group. Standard Total Coli-form Fermentation Technique. / EPA-821-R--14-009. Method

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL MICROBIOLOGY (Field collection + Lab Testing) (continued)	Soils, Sediments, Sludges and Biosolids (continued)	Total coliforms (continued)	1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauril Tryptose Broth (LTB) and EC Medium, September 2014, Items: 11, 12.4 and 14
		Fecal Coliforms	SMEWW-APHA-AWWA-WEF. Part 9221B, 23rd Ed. 2017 Multiple-Tube Fermentation. Technique for Members of the Coliform Group. Standard Total Coli-form Fermentation Technique. / EPA-821-R--14-009. Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauril Tryptose Broth (LTB) and EC Medium, September 2014, Items: 11, 12.4 and 14
		Viable helminth eggs	Standard Methods for the Recovery and Enumeration of Moodley et al. Helminth Ova in Wastewater, Sludge, compost and UrineDiversion Waste in South Africa (Moodley, Archer, Hawksworth, & Leibach, 2008)
	Sludges and Biosolids	Salmonella sp	EPA-821-R-06-14. Method 1682: Salmonella in Sew-age Sludge (Biosolids) by Modified Semisolid RappaportVassiliadis (MSRV) Medum. July 2006
ENVIRONMENTAL HIDROBIOLOGY (Field collection + Lab Testing)	Epicontinental Sediments	Macrozobentos / Macroinvertebrados	SMEWW-APHA-AWWA-WEF Part 10500 C. 23 rd Ed. 2017 Macrozoobenthos / Macroinvertebrates
ENVIRONMENTAL SOIL MECHANICS ELECTROMETRIC INSTRUMENTATION (Field collection + Lab Testing)	Soil, Mud and Sediment	Soil Resistivity	ASTM G57-06. (2012.) Standard Test Methods for Field Measurement of Soil Resistivity using the Werner Four-Electrode Methods

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
MECHANICS OF SOILS, CONCRETE AND PAVEMENTS PHYSICAL AND MECHANICAL (Field Measurement)	Soil	Soil Density	NTP 339.143:1999 (revised in 2019) SOILS. Standard test method for the density and unit weight of the soil in situ using the sand cone method. 1st Edition
	Soil, Mud and Sediment	Granulometry	ASTM D6913/D6913M-17 (2021.) Standard Test Methods For Particle-Size Distribution (Gradation) Of Soils Using Sieve Analysis
MECHANICS OF SOILS, CONCRETE AND PAVEMENTS PHYSICAL AND MECHANICAL (Field collection + Lab Testing)	Soil, Sediments, Sludges and Concrete	Humedy	ASTM D2216-19 (2019.) Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
	Soil	Atterberger Limits (Liquid Limit, Plastic Limit and Soil Plasticity Index)	ASTM D4318-17 (2018.) Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
		Specific Weight of Coarse Aggregate	ASTM C127-15 (2016.) Standard Test Method for Relative Density (Specific Gravity) and Absorption of Coarse Aggregate
		Proctor Standard	ASTM D698-12e2 (2021.) Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft ³ (600 kN-m/m ³))
		Modified Proctor	ASTM D1557-12e1 (2021.) Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft ³ (2,700 kN-m/m ³))
		Soil Classification – SUCS	NTP 339.134:1999 (revised 2019) SOILS. Method for soil classification for engineering purposes (Unified Soil Classification System, SUCS). 1st Edition

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
MECHANICS OF SOILS, CONCRETE AND PAVEMENTS PHYSICAL AND MECHANICAL (Field collection + Lab Testing) (continued)	Soil (continued)	Soil Classification –AASHTO	ASTM D2487-17e1 (2020.) Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
	Concrete	Compressive Strength of Concrete Cylindrical Specimens	ASTM C39/C39M-21 (2021.) Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
ENVIRONMENTAL SOIL MECHANICS CHEMISTRY (Field collection + Lab Testing)	Soils, Sediments and Sludges	Sulfates	Methods of analysis recommended for the soils of Chile. Method 8.2 Revision 2006 Saturation extract and determination by colorimetry with barium chromate
ENVIRONMENTAL CLIMATOLOGY (Field Measurement)	Atmosphere	Meteorological Parameters: Environmental Temperature, Relative Humidity, Environmental Pressure, UV radiation, Wind Speed, Wind Direction (Wind Rose)	ASTM D5741-96 (2017) Standard Practice for Characterizing Surface Wind Using a Wind Vane and Rotating Anemometer
OCCUPATOINAL HEALTH & SAFETY – ACOUSTICS (Field Measurement)	Occupational Noise	Occupational noise - Dosimetry	UNE – EN ISO 9612 (2009) / DS 024-2016-EM modified as per D.S. N° 023-2017-EM Determination of occupational noise exposure - Engineering method (ISO 9612:2009)
		Occupational noise - Sonometry	UNE – EN ISO 9612 (2009) / DS 024-2016-EM modified as per D.S. N° 023-2017-EM Determination of occupational noise exposure - Engineering method (ISO 9612:2009)
OCCUPATOINAL HEALTH & SAFETY (Field Measurement)	Ergonomic of the thermal environment	Ergonomics of thermal stress in hot environments	ISO 7243:2017(E) Ergonomics of the thermal environment — Assessment of heat stress using the WBGT (wet bulb globe temperature) index

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
OCCUPATOINAL HEALTH & SAFETY (Field Measurement) (continued)	Lighting of workplaces	Lighting	UNE-EN 12464-1(2011). Lighting of workplaces. Part 1: Workplaces indoors. UNE-EN 12464-2 (2016). Lighting of workplaces. Part 2: External workplaces
OCCUPATOINAL HEALTH & SAFETY CHEMISTRY (Field collection + Lab Testing)	Air – Atmosphere/ Environment	Respirable particles	NIOSH 0600. Issue 3. (1998) Particulates not otherwise regulated, Respirable.
		Total or Inhalable Particles.	NIOSH 0500. Issue 2. (1994) Particulates not otherwise regulated, Total.
ENVIRONMENTAL BIOLOGY (Field collection + Lab Testing)	Natural water, Drinking water, Water for Human use and consumption	Phytoplankton Qualitative	SMEWW-APHA-AWWA-WEF Part 10200 C.1, F.2.a, F.2.c.1 // Part 10900, 23rd Ed. 2017 Plankton Con-centration Techniques. Phytoplankton Counting Techniques. // Identification of Aquatic Organisms
		Phytoplankton Quantitative	SMEWW-APHA-AWWA-WEF Part 10200 C.1, F.1, F.2.a, F.2.c.1, 23rd Ed. 2017 Plankton Concentration Techniques. Phytoplankton Counting Techniques
		Zooplankton Qualitative	SMEWW-APHA-AWWA-WEF Part 10200 G.1, // Part 10900, 23rd Ed. 2017 Plankton. Zooplankton Counting Techniques. Subsampling. // Identification of Aquatic Organisms
		Zooplankton Quantitative	SMEWW-APHA-AWWA-WEF. Part 10200 B. 2. b. C. 1, G. 23rd Ed. 2017 Plankton. Sample collection. Concentration Techniques. Zooplankton Counting Techniques

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
HYDROCARBONS AND OILS CHEMISTRY AND PHYSICS (Field collection + Lab Testing)	Petroleum Products, Mixtures of Petroleum and Non-Petroleum Products	Density, Relative Density, or API Gravity	ASTM D1298 - 12b (reapproved 2017) Standard Test Method for Density, Relative Density, or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method
	Crude and Oil	Salts	ASTM D3230-19 (2019) Standard Test Method for Salts in Crude Oil (Electrometric Method)
		Water and Sediment	ASTM D4007 – 11 (2016)e1 Standard test Method for water and sediment in fuel oils by the centrifuge Method
	Fuel oils counts as distilled fuels, diesel fuels and biodiesel blends up to 5%, petroleum residual, residual n°4, residual n°5, residual 500, residual n°6, intermediate combustible oils	Water and Sediment	ASTM D1796 -11(2016) Standard test Method for water and sediment in crude oil by the centrifuge Method (Laboratory Procedure)
ENVIRONMENTAL ELECTROCHEMIST (Field Measurement)	Emission from Natural Gas-Fired Engines, Boilers and Process Heaters	Nitrogen Dioxide, Carbon Monoxide, Nitric Oxide, Nitrous Oxides, Oxygen	CTM-022 /CTM-030 Determination of Nitric Oxide, Nitrogen Dioxide and NOx Emissions from Stationary Combustion Sources by Electrochemical Analyzer. /Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions using Portable Analyzers
	Emission / Stationary Sources	Sulfur Dioxide	EPA 40 CFR, Appendix A-4 to Part 60. Method 6C Determination of sulfur dioxide emissions from stationary

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL CHEMISTRY AND PHYSICS (Field Measurement)	Natural water, Drinking water, Saline Water, and Waste Water	Particulate Floatables	SMEWW 2530 B. 23rd Ed. 2017 Particulate Floatables
	Natural water, Process water and Waste water	Flow	UNE-EN ISO 748: Measurement of liquid flow in open channels using current-meters or floats
ENVIRONMENTAL ACOUSTICS (Field Measurement)	Environmental Noise	Noise	NTP-ISO 1996-1:2020 Acoustics. Description, measurement and evaluation of environmental noise. Part 1: Basic Indices and Evaluation Procedure 2nd Edition NTP-ISO 1996-2:2021 Acoustics. Description, measurement and evaluation of environmental noise. Part 2: Determination of sound pressure levels. 2nd Edition