Hellenic Accreditation System

Annex F1/13 to the Certificate No. **740**-5

SCOPE of ACCREDITATION
of the
Analytical Laboratories
of
"A. ANDREOU CHEMICAL LABORATORIES"

Materials / Products Tested	Types of Test / Properties	Applied Standards / Techniques
Chemical Tests		
Water intended for human consumption, irrigation, surface and groundwater, swimming pool water	1. Determination of conductivity	APHA* 2510 B
	2. Determination of Potassium (K)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	3. Determination of Sodium (Na)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	4. Determination of Copper (Cu)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	5. Determination of Zinc (Zn)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	6. Determination of Alkalinity	APHA* 2320 B
	7. Determination of Nitrate (NO_3^-)	APHA* 4500- NO_3^- D
	8. Determination of Chloride (Cl^-)	APHA* 4500-Cl^- D
	9. Determination of Fluoride (F^-)	APHA* 4500-F^- C
	10. Determination of pH	APHA* 4500-H^+ B
	11. Determination of Chemical Oxygen Demand (COD)	APHA* 5220 B Modified Method code: OE 09-008
	12. Determination of Total Kjeldahl Nitrogen	APHA* 4500- N_{org} B Modified Method code: OE 09-009
	13. Determination of Phosphate	APHA* 4500-P D Modified Method code: OE 09-014

Materials / Products Tested	Types of Test / Properties	Applied Standards / Techniques
Water intended for human consumption, irrigation, surface and groundwater, swimming pool water (cont'd)	14. Determination of Total Phosphorus	APHA* 4500-P B5 & D Modified Method code: OE 09-015
	15. Determination of Calcium (Ca)	APHA* 3111 D Modified, Flame AAS Method code: OE 09-013
	16. Determination of Magnesium (Mg)	APHA* 3111 D Modified, Flame AAS Method code: OE 09-013
	17. Determination of Total Hardness	APHA* 2340 B
	18. Determination of Iron (Fe)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	19. Determination of Manganese (Mn)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	20. Determination of Nitrite (NO_2^-)	APHA 4500- NO_2^- B Modified Method code: OE 09-017
	21. Determination of Hexavalent Chromium (Cr^{6+})	APHA* 3500- Cr B Modified Method code: OE 09-021
	22. Determination of Turbidity	APHA* 2310 B Modified Method code: OE 09-019
	23. Determination of Sulfate (SO_4^{-2})	APHA* 4500- SO_4 E Modified Method code: OE 09-034
	24. Determination of Total Suspended Solids	APHA* 2540 D Modified Method code: OE 09-022
	25. Determination of Biochemical Oxygen Demand (BOD)	APHA* 5210 D Modified Method code: OE 09-018
	26. Determination of Oil & Grease	OE 09-010 In house with IR analyzer Method code: OE 09-010
Water not intended for human consumption	1. Determination of Iron (Fe)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	2. Determination of Manganese (Mn)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	3. Determination of Cadmium (Cd)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	4. Determination of Nickel (Ni)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	5. Determination of Lead (Pb)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
Wastewater	1. Determination of conductivity	APHA* 2510 B
	2. Determination of Potassium (K)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	3. Determination of Sodium (Na)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	4. Determination of Copper (Cu)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	5. Determination of Zinc (Zn)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	6. Determination of Iron (Fe)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013

Materials / Products Tested	Types of Test / Properties	Applied Standards / Techniques
Wastewater (cont'd)	7. Determination of Manganese (Mn)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	8. Determination of Nickel (Ni)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	9. Determination of Lead (Pb)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013
	10. Determination of Alkalinity	APHA* 2320 B
	11. Determination of Nitrate (NO_3^-)	APHA* 4500- NO_3^- D
	12. Determination of Chloride (Cl^-)	APHA* 4500-Cl^- D
	13. Determination of Fluoride (F^-)	APHA* 4500-F^- C
	14. Determination of pH	APHA* 4500-H^+ B
	15. Determination of Chemical Oxygen Demand (COD)	APHA* 5220 B Modified Method code: OE 09-008
	16. Determination of Total Kjeldahl Nitrogen	APHA* 4500- N_{org} B Modified Method code: OE 09-009
	17. Determination of Phosphate	APHA* 4500-P D Modified Method code: OE 09-014
	18. Determination of Total Phosphorus	APHA* 4500-P B5 & D Modified Method code: OE 09-015
	19. Determination of Calcium (Ca)	APHA* 3111 D Modified, Flame AAS Method code: OE 09-013
	20. Determination of Magnesium (Mg)	APHA* 3111 D Modified, Flame AAS Method code: OE 09-013
	21. Determination of Total Hardness	APHA* 2340 B
	22. Determination of Nitrite (NO_2^-)	APHA* 4500- NO_2 B Modified Method code: OE 09-017
	23. Determination of hexavalent Chromium (Cr^{6+})	APHA*3500-Cr B Modified Method code: OE 09-021
	24. Determination of Turbidity	APHA* 2310 B Modified Method code: OE 09-019
	25. Determination of Sulfate (SO_4^{-2})	APHA* 4500- SO_4 E Modified Method code: OE 09-034
	26. Determination of Total Suspended Solids	APHA* 2540 D Modified Method code: OE 09-022
	27. Determination of Biochemical Oxygen Demand (BOD)	APHA* 5210 D Modified Method code: OE 09-018
	28. Determination of Oil & Grease	OE 09-010 In house with IR analyzer Method code: OE 09-010
	29. Determination of Ammonia (NH_4^+)	APHA* 4500- NH3 D Modified Method code: OE 09-037
Wastewater except for reusable treated wastewater	Determination of Cadmium (Cd)	APHA* 3111 B Modified, Flame AAS Method code: OE 09-013

Materials / Products Tested	Types of Test / Properties	Applied Standards / Techniques
Microbiological Tests		
Water intended for human consumption, surface and groundwater, sea water, swimming pool water, wastewater	1. Enumeration of *E. coli*	ISO 9308-1:2014 / Amd 1 : 2016
	2. Enumeration of total Coliforms	ISO 9308-1:2014 / Amd 1 : 2016
	3. Detection and enumeration of Intestinal Enterococci	ISO 7899-2 : 2000
	4. Enumeration of culturable microoganisms at 36°C	ISO 6222:1999
	5. Enumeration of culturable microoganisms at 22°C	ISO 6222:1999
	6. Detection and enumeration of *Pseudomonas aeruginosa*	ISO 16266 : 2006
	7. Enumeration of *Clostridium perfringens* (including spores)	ISO 14189:2013
Water intended for human consumption, surface and groundwater, sea water, swimming pool water (Matrix A)	Enumeration of *Legionella* spp	ISO 11731:2017, (Annex J, Procedures 1,5,7) Medium C – GVPC)
Water intended for human consumption, surface and groundwater, sea water, swimming pool water, wastewater (Matrix B, C)	Enumeration of *Legionella* spp	ISO 11731:2017, (Annex J, Procedures 8,9,10, Medium C – GVPC)

*American Public Health Association, American Water Works Association, Water Environment Federation, "Standard Methods for the Examination of Water and Wastewater", 24th Edition, 2023.

Site of assesement: **Laboratory permanent premises, Valaoritou 11, Metamorphosi 14452, Athens, Greece**
Approved signatories: **Christina Andreou.**

This Scope of Accreditation replaces the previous one dated 30.03.2023.
The Accreditation Certificate No. **740**-5, to ELOT EN ISO/IEC 17025:2017, is valid until 31.05.2028.

Athens, 01.04.2025

Konstantinou Evangelos Apostolos
CEO of ESYD