



University of Jordan
Water, Energy and Environment Center

Sampling List
Chemical Analysis for Water and Wastewater

Analysis	Method Used *	Name of the Lab	Container	Minimum sample size ml	Preservation	Time needed to finish analysis
Electrical Conductivity (EC)	Conductivity Meter	Wet chemistry lab + wastewater lab	P,G	500	Refrigerate	immediately
pH	pH Meter	Wet chemistry lab + wastewater lab	P,G	50	Analyze immediately	immediately
Color	Spectrophotometric Method	Wet chemistry Lab	P,G	500	Refrigerate	one day
Turbidity	Nephelometric	Wet chemistry Lab	P,G	100	Analyze same day , store in dark up to 24h, refrigerate	2 days
Calcium (Ca)	EDTA Titrimetric	Wet chemistry Lab	P,G	100	Add HNO ₃ to pH < 2	2 hrs
Magnesium (Mg)	Calculation	Wet chemistry Lab	P,G	100	Add HNO ₃ to pH < 2	2hrs
Sodium (Na)	Flame Emission Photometric	Wet chemistry Lab	P,G	100	None required	One day
Potassium (k)	Flame Emission Photometric	Wet chemistry Lab	P,G	100	None required	One day
Chloride (Cl)	Titration	Wet chemistry Lab	P,G	50	None required	2 hrs
Carbonate, Bicarbonate CO ₃ , HCO ₃	Titration	Wet chemistry Lab	P,G	200	Refrigerate	2 hrs
Sulfate (SO ₄)	Turbidimetric Method	Wet chemistry Lab	P,G	100	Refrigerate	One day
Nitrate (NO ₃)	Ultraviolet Spectrophotometric Screening	Wet chemistry Lab	P, G	100	Analyzed as soon as possible or refrigerate	One day
Total Dissolved Solids (TDS)	Dried at 180 C°	Wet chemistry lab + wastewater lab	P,G	200	Refrigerate	One day

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				ml		analysis
Total Suspended Solids (TSS)	Dried at 103 – 105 C°	Wet chemistry lab + wastewater lab	P,G	500	Refrigerate	2 days
Biological Oxygen Demand (BOD)	5 –Day BOD Test	Wastewater lab	P,G	1000	Refrigerate	5 days
Chemical Oxygen Demand (COD)	Open Reflux, Titrimetric	Wastewater lab	P,G	100	Analyzed as soon as possible or add H ₂ SO ₄ to pH < 2, refrigerate	2 days
Heavy Metals Fe, Zn, Cu, Pb, CO, Ni, Mn, Cr, Al, Ba, Ag, Cd	Atomic Absorption Spectrometric	Instrumental Lab	P (A) , G (A)	1000	For dissolved metals filter immediately add hno ₃ to pH < 2	3 days
Total Trihalomethanes	Head Space Analyzer/ Gas Chromatographic	Instrumental Lab	G	100	Add sodium thiosulfate , immediately	3 days
Organo – chlorinated Pesticides	Gas Chromatographic	Instrumental Lab	G (S)	1000	Ascorbic acid/I if residual chlorine present	3 days

P= plastic (Polyethylene or equivalent), G (glass); G (A) or P (A0 = rinsed with 1+1 HNO₃; G (S0=glass rinsed with organic solvents or baked.

Refrigerate=storage at 4 C° , in dark

* Analysis according to Standard Methods for Examination Water & Wastewater, 22 the Edition, 2012.

Prices above are for samples collected by customer.

2. In case samples are collected by our staff additional cost will be added.
3. for any other non-listed parameter, the cost will be estimated upon request.
4. For sample preparation (10) JD will be added.

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Sampling List
Microbiological Analysis for Water and Wastewater

Analysis	Method Used *	Name of the Lab	Container	Minimum sample size ml	Preservation	Time needed to finish analysis
Total Coliforms & Escherishia Coli	Quantitative "Enzyme Substrate Test by Colilert" (Quanti-Tray)	Microbiological Lab	Autoclavabale G sterilized at 121 C° for 15 minutes	500	Add sodium thiosulfate Refrigerate and analyzed immediately	One day
Total Count	Spread Plate	Microbiological Lab	Autoclavabale G sterilized at 121 C° for 15 minutes	500	Add sodium thiosulfate Refrigerate and analyzed immediately	3 days
Nematode eggs	Modified Balenger Method based on Sedimentation -Floatation Procedure	Microbiological Lab	P, G	2000	1ml formalin	2 days
Chlorophyll a	Fluorometric	Microbiological Lab	P,G	500	immediately	One day
Fungi	Membrane Filtration Technique	Microbiological Lab	Autoclavabale G sterilized at 121 C° for 15 minutes	500	Add sodium thiosulfate Refrigerate and analyzed immediately	5days
Algae Identification	Microscopic	Microbiological Lab	P,G	500	immediately	One day
Pseudomonas aeruginosa	Membrane Filter Technique for Pseudomonass aeruginosa	Microbiological Lab	Autoclavabale G sterilized at 121 C° for 15 minutes	500	Add sodium thiosulfate Refrigerate and analyzed immediately	3 days
Legionella`	Legionella	Microbiological Lab	Autoclavabale G sterilized at 121 C° for 15 minutes	1000	Add sodium thiosulfate Refrigerate and analyzed immediately	9days
Endotoxin					immediately	

P= plastic (Polyethylene or equivalent), G (glass);

* Analysis according to Standard Methods for Examination Water & Wastewater, 22 the Edition, 2012.

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4. For sample preparation (10) JD will be added.

Dr. Amr Al-Najjar

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