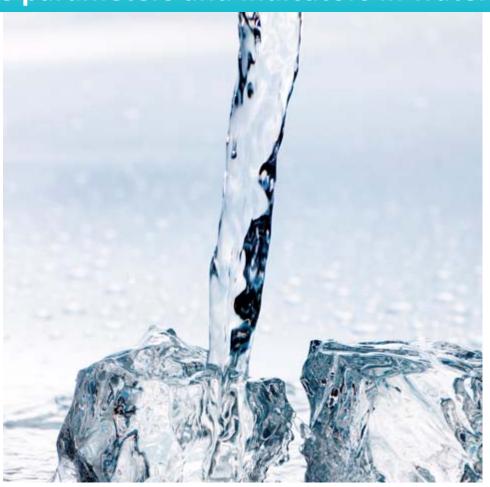


# AGLAE 2024 PROFICIENCY TESTING SCHEME CATALOGUE Base parameters and indicators in waters



#### **AGLAE Association**

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#### Base parameters and indicators: new programmes and modifications

#### New programmes in the catalogue

2G Dry residue in waste waters

#### **Modifications of programmes**

(introduced in programmes existing in 2023)

- ✓ 1A and 1Ab: colour and turbidity removed and added to the programme 1D
- ✓ 1A and 1Ab: REDOX potential removed
- √ 1H: permanganate index added

#### **Base parameters and indicators: list of PTS**

Base parameters and indicators in waters
Fresh waters and drinking waters
1A Chemical analyses in fresh waters
1Ab Chemical analyses in fresh waters at low concentration levels

- **1B** Indicators in fresh waters
- **1C** Chlorophyll a and pheopigments index in fresh waters
- **1D** Field parameters in fresh waters
- **1E** Dissolved oxygen in fresh waters
- **1G** Dry residue in fresh waters
- **50** Perchlorates and disinfection by-products in fresh waters
- **91** Odour and flavour in waters intended for human consumption

#### **Atypical mineral waters**

- **50B** Disinfection by-products in highly mineralised mineral waters
- 90 Chemical analyses in sparkling waters
- 90A Chemical analyses in highly mineralised mineral waters
- 90B Dissolved CO<sub>2</sub> in sparkling waters
- 93 Dry residue in atypical natural mineral waters

#### **Swimming pool waters**

- **1H** Field parameters and indicators in swimming pool waters
- **50A** Disinfection by-products in swimming pool waters

#### **Saline waters**

- 6 Chemical analyses in saline waters
- **6A** Dissolved oxygen in saline waters

#### **Waste waters**

- 2A Chemical analyses in waste waters
- 2B Indicators in waste waters
- 2C Indicators in waste waters at low concentration levels
- **2D** Field parameters in waste waters
- **2F** ST-COD at low contents in waste waters
- 2G Dry residue in waste waters



### **Participate in AGLAE's External Quality Control**



A WAY OF WORKING THAT PROVIDES YOU WITH THE HIGHEST STANDARD OF RESULTS WITH CONFIDENTIALITY AND IMPARTIALITY

Each step of the way, AGLAE is there supporting you.

REGISTRATIONS FOR PROFICIENCY TESTING ARE DONE KNOWING THE WHOLE PROCESS, WITH A

#### **DETAILED AND RIGOUROUS SCHEDULE**



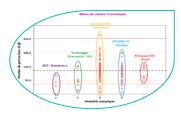
- The number of evaluations per year for each parameter is specified in the catalogue, concentration levels and stabilisation are available on request.
- AGLAE uses "express" shipments for your samples and makes sure of their distribution to your laboratory.
- A sufficient delay to analyse and the report the results.
- ✓ Via your member area, enter your results and find instructions, assigned codes, reports, summaries of your results, certificate of participation...

#### THE OPTIMISATION OF RISK MANAGEMENT FOR YOUR LABORATORY



You have a better visibility of potential anomalies through:

- An appropriate test design (duplicate samples, repeaed measurements),
- A large number of participants: around 200 laboratories in the field of 'base' microbiology and 'base' physico-chemical analyses.



#### AGLAE's detailed study:

- ✓ Influence of the analytical methods, manufacturers (equipment and consumables)... factors that we study to help you improve the quality of your analyses,
- For waters intended for medical use and water microbiology, estimation of your own uncertainties in microbiology,
- ✓ Check of your uncertainty estimates in chemistry (zeta-score),
- ✓ A report validated by experts of the field and personalised for most tests.

#### ATTRACTIVE DISCOUNTS, PAYMENT CONDITIONS MADE EASIER

- Choose among the various programmes and benefit from discounts up to 15%,
- A possible payment in 2 or 3 folds depending on the amount your participation.
- Payment possible by cheque (in €), bank transfer, credit card on <a href="https://www.helloasso.com/associations/a-g-l-a-e/paiements/aglae">https://www.helloasso.com/associations/a-g-l-a-e/paiements/aglae</a>

Amount of your invoice (excluding transport cost)	Discount
3000 ≤ Amount < 6000 € excl. VAT	5%
6000 ≤ Amount < 9000 € excl. VAT	10%
Amount ≥ 9000 € excl. VAT	15%



### **Additional services**



#### ADDITIONAL TEST SAMPLES TO TEST ANOTHER METHOD, EVALUATE A TECHNICIAN

- Test samples available for almost all the tests at half price.
- ✓ Besides your usual distribution, you receive one (or several) additional parcel(s).
- ✓ The results of these samples are not statistically processed by AGLAE but for most tests you get a sheet in your results file where to calculate your z-score. Note that this sheet can also be used in case of unit error, incorrect results' report, etc.

⇒ Check the **list of samples and their price on your Member Area** (Downloads / Catalogues) and contact us to receive a quote. These additional samples need to be ordered after you registration for the test and before the shipment.



### QUALITY CONTROL MATERIALS FOR YOUR MONITORING AND IMPROVEMENT OF YOUR ANALYTICAL PERFORMANCE

- Materials coming from the solid matrices tests: sediments, sludge, polluted sites and soils.
- Purchased at any time during the year and delivered with a certificate presenting the precision values obtained during the test (assigned value and uncertainties).

⇒ Check the **list of materials, prices and available quantities** on your Member Area (Downloads / Catalogues) and contact us to receive a quote.



#### TRAINING SESSIONS IN MICROBIOLOGY: ONE TOPIC POSSIBLY PROVIDED IN ENGLISH

Two-day on-line session to become operational for:

- ✓ Characterising a microbiological method according to ISO 13843 in order to validate it
- ⇒ Should you be interested in such a session, please get back to us.



#### CUSTOMIZED SERVICE: 'PERFORMANCE CHARACTERISTICS OF MICROBIOLOGICAL METHODS'

Do you need to characterise specific methods?

AGLAE can provide you support to establish methods performance characteristics, in conformity with ISO 13843\*. Benefit from AGLAE's technical and statistical experience to validate your microbiological method.

- \* Water quality Requirements for establishing performance characteristics of quantitative microbiological methods
- $\Rightarrow$  Should you have such needs, contact us to study your request together and issue a quote.



#### SUMMARY OF YOUR RESULTS FOR WATER MICROBIOLOGY AND WATER FOR MEDICAL USE TESTS

Gather at any time your results and performance: for a selected period, your results are grouped in an Excel file; this is a tool to support you in your Internal Quality Control, your audits...

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### **Programmes' description**

#### **Content**

For each programme's description, you will find the technical content of the test: volumes, parameters, matrices, dispatch month...

The concentration levels and stabilisation modalities of the samples are available on request.

The samples' dispatch months are given for information only.

Transport costs depend on the destination and tests selected within the programmes; contact us to get a quote.

Our aim is to prepare materials as close as possible to the samples analysed in routine: the contamination levels can therefore be very low or very high.

→ Our concentration levels are available on request.

### **Caption**



This logo shows that the programme is accredited by LABORATORIES section in compliance with ISO/IEC 17043.



### Glossary of the matrices used

Name of the matrix for water chemistry		Below the matrices that can be used, alone or mixed, to comply with the representativity of the specified matrix					
		public drinking waters	bottled waters	reverse osmosis waters	deionised waters	surface waters	
Natural mine	eral waters						
Non-atypical	*		<b>X</b> flat (dry residue at 180°C<1500 mg/L)				
Atypical	carbo-gaseous		<b>X</b> gaseous (CO <sub>2</sub> >250 mg/L)	x regasified (CO <sub>2</sub> >250 mg/L)			
	highly mineralised		<b>x</b> plates (dry residue at 180°C<1500 mg/L)				
Fresh waters							
Non-atypical natural mineral waters*			<b>x</b> flat (dry residue at 180°C<1500 mg/L)				
Natural waters						х	
Clean waters		x	х	х	х	X (clear)	

For more information on atypical waters, check the following document: <u>ANSES/LHN/REF-CSE - Version 3</u> (in French)

<sup>\*</sup> For some parameters in non-atypical natural mineral waters, specific programmes exist (3C, 92) with concentration levels different from those in fresh waters.

Name of the matrix for water chemistry	Below the matrices that can be used, alone or mixed, to comply with the representativity of the specified matrix					
	Waste waters from urban WWTP	Swimming pool waters	Estuary water, costal water	Synthetic waters		
Swimming pool waters		х				
Waste waters	х			x		
Saline and brackish waters			x	x		

WWTP: Waste Water Treatment Plant



### PROGRAMME 1A: CHEMICAL ANALYSES IN FRESH WATERS

The materials are suitable for the check of analyses in clear freshwaters, public drinking waters, spring waters and non-atypical natural mineral waters.



€ 281 excl. VAT - total amount for 2 tests (excluding transport costs)

223 participants in 2023 - EXPERIENCE: 30 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 70 excl. VAT (excluding transport costs)

#### Parameters to analyse

#### 24M1A.1 - Clean water - sent in February 2024 - Refrigerated parcel

conductivity, F<sup>-</sup>, NH<sub>4</sub><sup>+</sup>, NO<sub>2</sub><sup>-</sup>, NO<sub>3</sub><sup>-</sup>, pH

Ca<sup>2+</sup>, Cl<sup>-</sup>, K<sup>+</sup>, Mg<sup>2+</sup>, Na<sup>+</sup>, PO<sub>4</sub><sup>3-</sup>, SO<sub>4</sub><sup>2-</sup>, soluble silicates, degree of hardness, total alkalinity, total organic carbon (TOC), total silica

total organic carbon (TOC), permanganate index

#### 24M1A.2 - Clean water - sent in November 2024 - Refrigerated parcel

Conductivity, F<sup>-</sup>, NH<sub>4</sub><sup>+</sup>, NO<sub>2</sub><sup>-</sup>, NO<sub>3</sub><sup>-</sup>, pH

Ca<sup>2+</sup>, Cl<sup>-</sup>, K<sup>+</sup>, Mg<sup>2+</sup>, Na<sup>+</sup>, PO<sub>4</sub><sup>3-</sup>, SO<sub>4</sub><sup>2-</sup>, soluble silicates, degree of hardness, total alkalinity, total organic carbon (TOC), total silica

total organic carbon (TOC), permanganate index

#### **PARTICULARITIES**



Other recommended proficiency test:

Programme 1Ab 'Chemical analyses in fresh waters at low concentration levels'



#### Programme 1Ab:

#### CHEMICAL ANALYSES IN FRESH WATERS AT LOW CONCENTRATION LEVELS

The materials are suitable for the check of analyses in clear freshwaters, public drinking waters, spring waters and non-atypical natural mineral waters.



€ 206 excl. VAT - total amount for 1 test (excluding transport costs)

150 participants in 2023 - EXPERIENCE: 30 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 105 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M1Ab.1 - Clean water - sent in June 2024 - Refrigerated parcel

conductivity, F<sup>-</sup>, NH<sub>4</sub><sup>+</sup>, NO<sub>2</sub><sup>-</sup>, NO<sub>3</sub><sup>-</sup>, pH

Ca<sup>2+</sup>, Cl<sup>-</sup>, K<sup>+</sup>, Mg<sup>2+</sup>, Na<sup>+</sup>, PO<sub>4</sub><sup>3-</sup>, SO<sub>4</sub><sup>2-</sup>, soluble silicates, degree of hardness, total alkalinity, total organic carbon (TOC), total silica

total organic carbon (TOC), permanganate index



## PROGRAMME 1B: INDICATORS IN FRESH WATERS



€ 163 excl. VAT - total amount for 2 tests (excluding transport costs)

126 participants in 2023 - EXPERIENCE: 25 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 45 excl. VAT (excluding transport costs)

#### Parameters to analyse

#### 24M1B.1 - Natural water - sent in April 2024 - Refrigerated parcel

Chemical Oxygen Demand,
Chemical Oxygen Demand (Sealed Tube method),
DOC, total organic carbon (TOC),
Total bound nitrogen (TN₀ measured),
Total Kjeldahl Nitrogen (TKN), Total-P

Biochemical oxygen demand after 5 days

Total suspended solids (TSS)

#### 24M1B.2 - Natural water - sent in September 2024 - Refrigerated parcel

Chemical Oxygen Demand,
Chemical Oxygen Demand (Sealed Tube method),
DOC, total organic carbon (TOC),
Total bound nitrogen (TN₀ measured),
Total Kjeldahl Nitrogen (TKN), Total-P

Biochemical oxygen demand after 5 days

Total suspended solids (TSS)



#### **PROGRAMME 1C:**

#### CHLOROPHYLL A AND PHEOPIGMENTS INDEX IN FRESH WATERS



€ 195 excl. VAT - total amount for 2 tests (excluding transport costs)

49 participants in 2023 - EXPERIENCE > 20 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 50 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M1C.1 - Natural water - sent in June 2024 - Refrigerated parcel

chlorophyll a, pheopigments index

24M1C.2 - Natural water - sent in September 2024 - Refrigerated parcel

chlorophyll a, pheopigments index

#### **PARTICULARITIES**

Chlorophyll a and pheopigments index: after extraction, measurement of the absorption by molecular absorption spectrometry then calculation of the concentrations using the LORENZEN or the SCOR-UNESCO equation.



### PROGRAMME 1D: FIELD PARAMETERS IN FRESH WATERS

The materials are suitable for the check of analyses in public drinking waters, spring waters and non-atypical natural mineral waters.



€ 239 excl. VAT - total amount for 2 tests (excluding transport costs)

179 participants in 2023 - EXPERIENCE > 15 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 60 excl. VAT (excluding transport costs)

#### New

colour by comparison with hexachloroplatinate (without filtration), colour using (NF EN) ISO 7887 method B (without filtration), pH, turbidity

#### Parameters to analyse

#### 24M1D.1 - sent in February 2024 - Refrigerated parcel

#### **Clean water**

conductivity, free chlorine (or available chlorine), isocyanuric acid, pH, REDOX potential, total chlorine

colour by comparison with hexachloroplatinate (without filtration), colour using (NF EN) ISO 7887 method B (without filtration), pH

#### turbidity

#### 24M1D.2 - Clean water - sent in September 2024 - Refrigerated parcel

#### **Clean water**

conductivity, free chlorine (or available chlorine), isocyanuric acid, pH, REDOX potential, total chlorine

#### **Natural** water

colour by comparison with hexachloroplatinate (without filtration), colour using (NF EN) ISO 7887 method B (without filtration), pH

#### turbidity



#### **PARTICULARITIES**

Colour by comparison with hexachloroplatinate (without filtration): The colour can be determined by visual comparison according to (NF EN) ISO 7887 - method D or by spectrophotometry according to (NF EN) ISO 7887 - method C.

Colour using (NF EN) ISO 7887 method B (without filtration): The colour determination according to (NF EN) ISO 7887 method B without filtration can be carried out on these samples.



#### Other recommended proficiency tests:

Programmes 100 'In situ measurements and sampling in different types of waters' in several regions of Metropolitan France to evaluate the quality of your on-site sampling (conducted in French only)

Sprogramme 1E 'Dissolved oxygen in fresh waters'



# PROGRAMME 1E: DISSOLVED OXYGEN IN FRESH WATERS

The materials are suitable for the check of analyses in public drinking waters, spring waters and non-atypical natural mineral waters.



€ 130 excl. VAT - total amount for 2 tests (excluding transport costs)

137 participants in 2023 - EXPERIENCE > 10 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 35 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M1E.1 - Clean water - sent in January 2024 - Refrigerated parcel

dissolved O<sub>2</sub>

24M1E.2 - Clean water - sent in June 2024 - Refrigerated parcel

dissolved O<sub>2</sub>

#### **PARTICULARITIES**



#### Other recommended proficiency tests:

Programmes 100 'In situ measurements and sampling in different types of waters' in several regions of Metropolitan France to evaluate the quality of your on-site sampling

Sprogramme 1D 'Field parameters in fresh waters'



# PROGRAMME 1G: DRY RESIDUE IN FRESH WATERS

The materials are suitable for the check of analyses in public drinking waters, spring waters and non-atypical natural mineral waters.



€ 77 excl. VAT - total amount for 2 tests (excluding transport costs)

63 participants in 2023 - EXPERIENCE > 10 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 20 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M1G.1 - Clean water - sent in January 2024 - Refrigerated parcel

Dry residue at 105°C, Dry residue at 180°C

24M1G.2 - Clean water - sent in July 2024 - Refrigerated parcel

Dry residue at 105°C, Dry residue at 180°C



#### PROGRAMME 50:

#### PERCHLORATES AND DISINFECTION BY-PRODUCTS IN FRESH WATERS

The materials are suitable for the check of analyses in public drinking waters, spring waters and non-atypical natural mineral waters.



€ 244 excl. VAT - total amount for 2 tests (excluding transport costs)

55 participants in 2023 - EXPERIENCE > 20 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 65 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M50.1 - Clean water - sent in February 2024 - Refrigerated parcel

Br-, ClO<sub>4</sub>-

 $BrO_3^-$ ,  $ClO_2^-$ ,  $ClO_3^-$ 

24M50.2 - Clean water - sent in September 2024 - Refrigerated parcel

Br-, ClO<sub>4</sub>-

BrO<sub>3</sub>-, ClO<sub>2</sub>-, ClO<sub>3</sub>-



#### PROGRAMME 91:

#### **ODOUR AND FLAVOUR IN WATERS INTENDED FOR HUMAN CONSUMPTION**

The materials are suitable for the check of analyses in public drinking waters, spring waters and non-atypical natural mineral waters.



€ 192 excl. VAT - total amount for 2 tests (excluding transport costs)

18 participants in 2023 - EXPERIENCE > 5 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 50 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M91.1 - Clean water - sent in April 2024 - Refrigerated parcel

Threshold Odour Number - TON

Threshold Flavour Number - TFN

24M91.2 - Clean water - sent in September 2024 - Refrigerated parcel

Threshold Odour Number - TON

Threshold Flavour Number - TFN

#### **PARTICULARITIES**

Threshold odour number (TON) and threshold flavour number (TFN) by the complete method by paired comparison with non-forced choice according to NF EN 1622 standard.

Panel of 5 assessors maximum for each test.



## PROGRAMME 50B: DISINFECTION BY-PRODUCTS IN HIGHLY MINERALISED MINERAL WATERS

Highly mineralised waters: flat mineral waters with dry residue content at 180°C > 1500 mg/L

€ 152 excl. VAT – total amount for 1 test (excluding transport costs)



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 80 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M50B.1 - Highly mineralised mineral water - sent in July 2024 - Refrigerated parcel

 $BrO_3^-$ ,  $ClO_2^-$ ,  $ClO_3^-$ 

#### **PARTICULARITIES**

Test conducted for a minimum of 10 participants.

'Health approval': this specific programme provides concentration levels appropriate for highly mineralised mineral waters.



## PROGRAMME 90: CHEMICAL ANALYSES IN SPARKLING WATERS

Carbogaseous waters: CO<sub>2</sub> > 250 mg/L



€ 136 excl. VAT - total amount for 1 test (excluding transport costs)

35 participants in 2023 - EXPERIENCE > 5 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 70 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M90.1 - Carbogaseous water - sent in June 2024 - Refrigerated parcel

turbidity, HCO<sub>3</sub>-, conductivity, pH, total alkalinity

F-, NH<sub>4</sub>+, NO<sub>2</sub>-, NO<sub>3</sub>-, Br-

Ca<sup>2+</sup>, Cl<sup>-</sup>, K<sup>+</sup>, Mg<sup>2+</sup>, Na<sup>+</sup>, SO<sub>4</sub><sup>2-</sup>, dissolved silica, degree of hardness

total organic carbon (TOC), PO<sub>4</sub><sup>3-</sup>

#### **PARTICULARITIES**



Other recommended proficiency test:

♥ Programme 90B 'Dissolved CO<sub>2</sub> in sparkling waters'



### PROGRAMME 90A:

#### **CHEMICAL ANALYSES IN HIGHLY MINERALISED MINERAL WATERS**

Highly mineralised waters: flat mineral waters with dry residue content at  $180^{\circ}\text{C} > 1500 \text{ mg/L}$ 



€ 144 excl. VAT - total amount for 1 test (excluding transport costs)

26 participants in 2023 - EXPERIENCE: 4 YEARS



#### Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 75 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M90A.1 - Highly mineralised mineral waters - sent in October 2024 - Refrigerated parcel

conductivity, HCO<sub>3</sub>-, pH, total alkalinity, turbidity

 $Br^{-}$ ,  $F^{-}$ ,  $NH_4^{+}$ ,  $NO_2^{-}$ ,  $NO_3^{-}$ 

Ca<sup>2+</sup>, Cl<sup>-</sup>, K<sup>+</sup>, Mg<sup>2+</sup>, Na<sup>+</sup>, PO<sub>4</sub><sup>3-</sup>, SO<sub>4</sub><sup>2-</sup>, dissolved silica, degree of hardness, total organic carbon (TOC)



# PROGRAMME 90B: DISSOLVED CO<sub>2</sub> IN SPARKLING WATERS

Carbogaseous waters:  $CO_2 > 250 \text{ mg/L}$ 



€ 101 excl. VAT - total amount for 1 test (excluding transport costs)

11 participants in 2023 - EXPERIENCE > 5 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 55 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M90B.1 - Carbogaseous water - sent in June 2024 - Refrigerated parcel

Dissolved CO<sub>2</sub>

#### **PARTICULARITIES**



Other recommended proficiency test:

Programme 90 'Chemical analyses in sparkling waters'



#### **PROGRAMME 93:**

#### DRY RESIDUE IN ATYPICAL NATURAL MINERAL WATERS

Atypical natural mineral waters: flat mineral waters with dry residue content at  $180^{\circ}$ C > 1500 mg/L or carbogaseous waters with  $CO_2 > 250$  mg/L



€ 77 excl. VAT - total amount for 2 tests (excluding transport costs)

10 participants in 2023 - EXPERIENCE: 3 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 20 excl. VAT

(excluding transport costs)

#### Parameters to analyse

24M93.1 - carbogaseous water - sent in February 2024 - Refrigerated parcel

Dry residue at 180°C

24M93.2 - highly mineralised mineral water - sent in June 2024 - Refrigerated parcel

Dry residue at 180°C



## PROGRAMME 1H: FIELD PARAMETERS AND INDICATORS IN SWIMMING POOL WATERS



€ 253 excl. VAT - total amount for 2 tests (excluding transport costs)

**59 participants** in 2023 – EXPERIENCE: 4 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 65 excl. VAT (excluding transport costs)

New:

Permanganate index

#### Parameters to analyse

#### 24M1H.1 - Swimming pool water - sent in April 2024 - Refrigerated parcel

isocyanuric acid, free chlorine (or available chlorine), total chlorine, Cl<sup>-</sup>, pH

Total organic carbon (TOC), permanganate index

#### 24M1H.2 - Swimming pool water - sent in September 2024 - Refrigerated parcel

isocyanuric acid, free chlorine (or available chlorine), total chlorine, Cl<sup>-</sup>, pH

Total organic carbon (TOC), permanganate index



# PROGRAMME **50A**: DISINFECTION BY-PRODUCTS IN SWIMMING POOL WATERS



€ 150 excl. VAT - total amount for 1 test (excluding transport costs)

45 participants in 2023 - EXPERIENCE > 5 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 75 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M50A.1 - Swimming pool water - sent in May 2024 - Refrigerated parcel

Br<sup>-</sup>, BrO<sub>3</sub><sup>-</sup>

ClO<sub>2</sub>-, ClO<sub>3</sub>-



# PROGRAMME 6: CHEMICAL ANALYSES IN SALINE WATERS



€ 668 excl. VAT - total amount for 2 tests (excluding transport costs)

28 participants in 2023 - EXPERIENCE: 25 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 170 excl. VAT (excluding transport costs)

Parameters to analyse
24M6.1 - Saline and brackish water - sent in June 2024 - Refrigerated parcel
NH <sub>4</sub> <sup>+</sup> , NO <sub>2</sub> <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> , PO <sub>4</sub> <sup>3-</sup> , dissolved silica, Total-P
pH, salinity, total organic carbon (TOC)
total suspended solids (TSS)
turbidity
24M6.2 - Saline and brackish water - sent in September 2024 - Refrigerated parcel
NH <sub>4</sub> <sup>+</sup> , NO <sub>2</sub> <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> , PO <sub>4</sub> <sup>3-</sup> , dissolved silica, Total-P
pH, salinity, total organic carbon (TOC)
total suspended solids (TSS)
turbidity

#### **PARTICULARITIES**



Other recommended proficiency test:

Programme 6A 'Dissolved oxygen in saline waters'



## PROGRAMME 6A: DISSOLVED OXYGEN IN SALINE WATERS

€ 121 excl. VAT - total amount for 1 test (excluding transport costs)

10 participants in 2023 - EXPERIENCE: 1 YEAR



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 65 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M6A.1 - Saline and brackish water - sent in September 2024 - Refrigerated parcel

Dissolved O<sub>2</sub>

#### **PARTICULARITIES**



Other recommended proficiency test:

Sprogramme 6 'Chemical analyses in saline waters'



### PROGRAMME 2A: CHEMICAL ANALYSES IN WASTE WATERS



€ 208 excl. VAT - total amount for 2 tests (excluding transport costs)

134 participants in 2023 - EXPERIENCE > 25 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 55 excl. VAT (excluding transport costs)

#### Parameters to analyse

#### 24M2A.1 - Waste water - sent in March 2024 - Refrigerated parcel

Dissolved salts, F<sup>-</sup>, conductivity, pH, soluble silicates, total silica (Si)

Dissolved calcium (Ca<sup>2+</sup>), total calcium (Ca), Cl<sup>-</sup>, K<sup>+</sup>, dissolved magnesium (Mg<sup>2+</sup>), total magnesium (Mg), Na<sup>+</sup>, SO<sub>4</sub><sup>2-</sup>, total alkalinity

PO<sub>4</sub><sup>3-</sup>

#### 24M2A.2 - Waste water - sent in October 2024 - Refrigerated parcel

Dissolved salts, F<sup>-</sup>, conductivity, pH, soluble silicates, total silica (Si)

Dissolved calcium (Ca<sup>2+</sup>), total calcium (Ca), Cl<sup>-</sup>, K<sup>+</sup>, dissolved magnesium (Mg<sup>2+</sup>), total magnesium (Mg), Na<sup>+</sup>, SO<sub>4</sub><sup>2-</sup>, total alkalinity

PO<sub>4</sub>3-

#### **PARTICULARITIES**

Dissolved salts: evaluation of the quantity of dissolved matters from the measurement of the theoretical electrical conductivity according to NF T90-111 or any other equivalent standard; the results have to be reported in  $\mu$ S/cm.

Total silica (Si), total calcium (Ca), total magnesium (Mg): dissolved and particulate forms have to be taken into account.



## PROGRAMME 2B: INDICATORS IN WASTE WATERS



€ 267 excl. VAT - total amount for 2 tests (excluding transport costs)

212 participants in 2023 - EXPERIENCE > 25 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 70 excl. VAT (excluding transport costs)

#### Parameters to analyse

#### 24M2B.1 - Waste water - sent in March 2024 - Refrigerated parcel

Br, NH<sub>4</sub><sup>+</sup>, NO<sub>2</sub>, NO<sub>3</sub>, conductivity, pH

DOC, total organic carbon (TOC), Total Kjeldahl Nitrogen (TKN), Total bound nitrogen (TN<sub>b</sub> measured), Total-P

total suspended solids (TSS)

Chemical Oxygen Demand, Chemical Oxygen Demand (Sealed Tube method), Cl

BOD<sub>5</sub>

#### 24M2B.2 - Waste water - sent in October 2024 - Refrigerated parcel

Br<sup>-</sup>, NH<sub>4</sub><sup>+</sup>, NO<sub>2</sub><sup>-</sup>, NO<sub>3</sub><sup>-</sup>, conductivity, pH

DOC, total organic carbon (TOC), Total Kjeldahl Nitrogen (TKN), Total bound nitrogen (TN₀ measured), Total-P

total suspended solids (TSS)

Chemical Oxygen Demand, Chemical Oxygen Demand (Sealed Tube method), Cl-

 $BOD_5$ 

#### **PARTICULARITIES**



#### Other recommended proficiency tests:

Programme 2C 'Indicators in waste waters at low concentration levels'

SProgramme 2F 'ST-COD at low contents in waste waters'



## PROGRAMME 2C: INDICATORS IN WASTE WATERS AT LOW CONCENTRATION LEVELS



€ 142 excl. VAT - total amount for 1 test (excluding transport costs)

134 participants in 2023 - EXPERIENCE > 25 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 75 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M2C.1 - Waste water - sent in December 2024 - Refrigerated parcel

Br<sup>-</sup>, NH<sub>4</sub><sup>+</sup>, NO<sub>2</sub><sup>-</sup>, NO<sub>3</sub><sup>-</sup>, conductivity, pH

DOC, total organic carbon (TOC), Total Kjeldahl Nitrogen (TKN), Total bound nitrogen (TN₀ measured), Total-P

total suspended solids (TSS)

Chemical Oxygen Demand, Chemical Oxygen Demand (Sealed Tube method), Cl

BOD<sub>5</sub>

#### **PARTICULARITIES**



#### Other recommended proficiency tests:

Strand Programme 2F 'ST-COD at low contents in waste waters'



### PROGRAMME 2D: FIELD PARAMETERS IN WASTE WATERS



€ 87 excl. VAT - total amount for 2 tests (excluding transport costs)

108 participants in 2023 - EXPERIENCE > 5 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 25 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M2D.1 - Waste water - sent in March 2024 - Refrigerated parcel

pH, conductivity, turbidity, REDOX potential, true colour by comparison with hexachloroplatinate

24M2D.2 - Waste water - sent in October 2024 - Refrigerated parcel

pH, conductivity, turbidity, REDOX potential, true colour by comparison with hexachloroplatinate

#### **PARTICULARITIES**

True colour analysed by spectrophotometry according to method C of the NF EN ISO 7887 standard. The determination of the true colour according to the method D of the NF EN ISO 7887 standard can be carried out.



#### Pour aller plus loin, nous vous conseillons:

**Programmes 101** 'Sampling using automatic samplers in treatment plant' in several regions of Metropolitan France to evaluate the quality of your on-site sampling (conducted in French only)



# PROGRAMME 2F: ST-COD AT LOW CONTENTS IN WASTE WATERS



€ 95 excl. VAT - total amount for 1 test (excluding transport costs)

**68 participants** in 2023 – EXPERIENCE: 2 YEARS



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 50 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M2F.1 - Waste water - sent in June 2024 - Refrigerated parcel

Cl<sup>-</sup>, Chemical Oxygen Demand (Sealed Tube method)

#### **PARTICULARITIES**

In the frame of this proficiency test, ST-COD contents will be low and between 10 mg of  $O_2/L$  and 30 mg of  $O_2/L$ .

Test samples may contain high chloride contents, which will nevertheless be representative of the levels found in routine waste waters.



## Programme 2G: Dry residue in waste waters



€ 77 excl. VAT - total amount for 2 tests (excluding transport costs)

New in 2024



Need to test another method, evaluate your staff?

Order additional test samples (parcel in its entirety): € 20 excl. VAT (excluding transport costs)

#### Parameters to analyse

24M2G.1 – Waste water - sent in March 2024 - Refrigerated parcel

Dry residue at 105°C without filtration Dry residue at 180°C without filtration

24M2G.2 - Waste water - sent in October 2024 - Refrigerated parcel

Dry residue at 105°C without filtration Dry residue at 180°C without filtration

#### **PARTICULARITIES**

The dry residue measurement at 105°C and /or at 180°C will have to be carried out without prior filtration of the sample.