Laboratory of Physicochemical Analysis
ESC GLOBAL Sp. z o.o.
ul. Słoneczny Sad 4F
72-002 Dołuje
Poland
tel.: +48 91 43 40 158 w. 30

D-38a, issue 7

ANALYSIS ORDER

TO BE FILLED OUT BY THE CLIENT

Client:	
Invoice details:	
Contact:	
Sample delivery method: In person □ Shipment □	
FORM OF DELIVERY OF THE REPORT (number of copies .....): □ Personal collection, □ By registered mail, □ By e-mail, □ By fax	
Aim of analyses: ☐ Technological sample, ☐ The fulfillment of legal requirements, ☐ Other …….. ……..	
Scope of performed tests (Attachment on page 3)	
Price of the test in accordance with the current price list or price offer.	

1. The size of the sample depends on the type and scope of research.
2. Client has the right to participate in the research as an observer.
3. Statement of compliance with the specifications and requirements:

☐ Without compliance

☐ Confirmation of compliance of the obtained results with the specification or requirements.

The principle of making decisions

The principle of making decisions

☐ Simple acceptance - The uncertainty of measurements is taken into evaluating results account in accordance with ILAC-G8: 09/2019 point 4.2.1. The statement of compliance is taken into account at the 95% confidence level and the coverage factor k = 2.

☐ ILAC-G8: 09/2019"Guidelines for demonstrating compliance with the specifications" Measurement uncertainty is taken into account when assessing results. If the measurement result increased by the uncertainty of measurement is below the limit specified in the specification or requirement, compliance with the requirement shall be stated. If the measurement result minus the measurement uncertainty is above the limit specified in the specification or requirement, compliance with the requirement shall be stated. If the measurement result increased or decreased by the measurement uncertainty overlaps the boundary given in the specification or requirement, it is not possible to state compliance or non-compliance with the requirement.

4. Measurement uncertainty is given an explicit request Client and is important for the reliability of the results or for compliance with specified limits.
5. Client has the right to submit a written complaint within two weeks from the date of issue of the test report.
6. I accept the research methods used in the Laboratory - given in the attachment to the order. (p. 3)
7. In the event of a deviation from this order, client will be informed about it before continuing the examination. In this case, the Client decides to accept the derogation.
8. Laboratory guarantees full impartiality of performed tests.
9. Laboratory guarantees that the tests are carried out in accordance with applicable standards.
10. Laboratory ensures confidentiality of all information related to tests.

* provide specification number or requirement

Signature and date Customer

Signature and date (Laboratory)

The laboratory is not liable for test results in the event of wrong or untrue information provided by the Client or individuals reporting to the Client.
The ESC Global Sp. z o.o. laboratory is not liable for the sample collection method and location or for the sample transport method, which may have direct impact on test result credibility.

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SAMPLE IDENTIFICATION (TO BE FILLED OUT BY THE CLIENT)

No.	Sample marking by the client	Sample type *(e.g.: water, residue)*	Sample collection location	Test code (Attachment 1)	Notes**

*** Fill out for analysis of water parameters not covered by accreditation, e.g.: calcium hardness, copper, aluminium, zinc, sulphites, sulphates, and other.*

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ATTACHMENT 1. List of tested parameters, test codes

Test parameters	Test code	Analysis no.	Analysis parameters	Status method
Basic water parameters	**PW**	**1**	**Determination pH** Range: 2.0 – 14.0 Potentiometric method PN-EN ISO 10523:2012	**Q**
		2	**Conductivity** Range: 25 – 10 000 µS/ cm Conductivity method; PN-EN 27888:1999	**A**
		3	**Total hardness** Range: 3,5-20 °dH Spectrophotometric method, HACH LCK Nr 327, edition 1 z 07/2019	**A**
		4	**Residual hardness**Range: 0,02-6 °Dh Spectrophotometric method,, HACH LCK Nr 427, edition 1 z 07/2019	**Q**
		5	**Chlorides** Range: 3 - 1000 mg/l Spectrophotometric method HACH LCK Nr 311, wydanie 1 z 11/2019	**A**
		6	**Iron** Zakres: 0.45 – 6.0 mg/l $Fe^{2+/3+/tot.}$ Spectrophotometric method, HACH LCK Nr 320, wydanie 1 z 07/2019	**A**
		7	**Alkalinity P** Range 0,4 – 20 mmol/l Metoda miareczkowa, PN-EN ISO 9963-1:2001	**Q**
		8	**Alkalinity M** Range: 0,4 – 20 mmol/l Metoda miareczkowa, PN-EN ISO 9963-1:2001	**Q**
		9	**Silica** Range: 5 – 100 mg/l SiO_2 Spectrophotometric method, HACH Nr 8185, wydanie 9 z 01/2014	**A**
		10	**Manganese** Range: 0,0085 – 0,5 mg/l Mn Spectrophotometric method, HACH LCW Nr 532, wydanie B z 08/2011	**A**
		11	**Magnesium** Range: 3 – 50 mg/l Mg Spectrophotometric method, HACH LCK Nr 327, wydanie 1 z 07/2019	**Q**
		12	**Calcium** Range: 5 – 100 mg/l Ca Spectrophotometric method, HACH LCK Nr 327, wydanie 1 z 07/2019	**Q**
		13	**Sulphate** Range: 2 – 7000 mg/l SO_4^{2-} Spectrophotometric method, HACH Nr 10248, wydanie 11 z 10/2019	**Q**
		14	**Copper** Range: 0,1-8,0 mg/l Cu Spectrophotometric method, HACH LCK Nr 329, wydanie 1 z 07/2019	**Q**
		15	**Zinc** Range: 0,2 – 6.0 mg/l Zn Spectrophotometric method, HACH LCK Nr 360, wydanie 1 z 07/2019	**Q**
		16	**Magnesium** Range: 0-100 mg/l Photometric method, Palintest Nr 21, V1-10/05	**Q**
		17	**Calcium hardness** Range: 0 – 500 mg/l $CaCO_3$ Photometric method, Palintest Nr 12, V1-10/05	**Q**
		18	**Zinc** Range: 0 – 4.0 mg/l Zn Photometric method, Palintest Nr 35, V1-10/05	**Q**
		19	**Molybdate** Range: 0 – 20 mg/l MoO_4 , Photometric method, Palintest Nr 42, V2- 09/11	**Q**
		20	**Molybdate** Range: 0 – 100 mg/l MoO_4 Photometric method, Palintest Nr 22,V1-10/05	**Q**
		21	**Sulphate** Range: 0 – 200 mg/l SO_4^{2-} Photometric method, Palintest Nr 32, V1-10/05	**Q**
		22	**Sulphite** Range: 0 – 500 mg/l Na_2SO_3 Photometric method, Palintest Nr 34, V1-10/05	**Q**
		23	**Chlorine dioxide** Zakres: 0 – 9.5 mg/l ClO_2 Photometric method Palintest Nr7.3, V4-12/11	**Q**
		24	**Polyacrylates** Range: 1 - 30 mg/l Photometric method PrimeLab Nr 85,	**Q**
		25	**Organophosphonate** Range: 0 – 20 mg/l PO_4 Photometric method, Palintest Nr 44, V1-10/05	**Q**
		26	**Nitrate** Range: 0 – 1 mg/l N, 0 – 20 mg/l N Photometric method, Palintest Nr 23, V2-01/15	**Q**
		27	**Copper** Range: 0 – 0.5 mg/l Cu Photometric method Palintest Nr10, V2-12/11	**Q**
		28	**Aluminium** Range: 0 – 0.5 mg/l Al. Photometric method Palintest Nr 3,V4-01/15	**Q**
		29	**Free Chlorine** Range: 0 – 5.0 mg/l Photometric method Palintest Nr 7, V1-10/05	**Q**
Analysis of elements in	**IW**		**Stężenie pierwiastków** Zakres:	**A**

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industrial and raw water		Ag (0,1 – 50) mg/l Al (0,1 – 50) mg/l Ba (0,1 – 50) mg/l Ca (0,1 – 1500) mg/l Cd (0,1 – 50) mg/l Cr (0,1 – 50) mg/l Cu (0,1 – 2500) mg/l Fe (0,1 – 1000) mg/l K (0,1 – 1000) mg/l Mg (0,1 – 1000) mg/l Mn (0,1 – 50) mg/l Na (0,1 – 1500) mg/l Ni (0,1 – 50) mg/l P (0,1 – 1000) mg/l Pb (0,1 – 50) mg/l S (0,1 – 100) mg/l Si (0,1– 1000) mg/l Zn (0,1 – 50) mg/l Metoda spektroskopii emisyjnej z plazmą wzbudzoną indukcyjnie (ICP-OES) PN-EN ISO 11885:2009	
Analysis of TOC for industrial and raw water	**TW**	**Content Total carbon (TC)** Range: (0,5 – 2000) mg/l **Content Total inorganic carbon (TIC)** Range: (0,5 – 1000) mg/l **Content** Total organic carbon **(TOC)** (from calculations) Infrared spectroscopy method PN EN 1484:1997	**Q**
Analysis of TOC for industrial and sediment	**TO**	**Content Total carbon (TC)** Range: (0,50 – 50 000) mg/l **Content Total inorganic carbon (TIC)** Range: (0,5 – 50 000) mg/l **Content** Total organic carbon **(TOC)** (from calculations) Infrared spectroscopy method PN EN 15936 :2013 -02	**Q**
Analysis of elements in industrial and sediment	**IO**	**Element concentration** Range: Al (10 – 5000) mg/kg Ba (10 – 1500) mg/kg Ca (30 – 400 000) mg/kg Cd (10 – 200) mg/kg Cr (10– 3500) mg/kg Cu (20 – 3500) mg/kg Fe (20 - 650 000) mg/kg K (70 – 35 000) mg/kg Mg (20 – 200 000) mg/kg Mn (10 – 3500) mg/kg Na (80 – 400 000) mg/kg Ni (20 – 2500) mg/kg P (10 – 110 000) mg/kg Pb (10 – 1500) mg/kg S (60 - 150 000) mg/kg Si (30 - 10 000) mg/kg Zn (10 - 10 000) mg/kg PN-EN 16170:2016 excluding point 2,mineralization according to EPA 3051 A rev. 01/2007	**A**
Resin	**R**	Iron ions in ion-exchange resins mg/l **IRON EXCHANGE RESIN FOULING TEST KIT RTK 001** (badanie nieakredytowane - NA)	**Q**
Analysis of volatile compounds	**GC**	Gas chromatography method GC - BID	**Q**

Q - method covered by the management system, A - accredited method