



**ANALYSIS ORDER**  
**TO BE FILLED OUT BY THE CLIENT**

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

- The size of the sample depends on the type and scope of research.
- Client has the right to participate in the research as an observer.
- 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

  - 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.
- Measurement uncertainty is given every time.
- Client has the right to submit a written complaint.
- I accept the research methods used in the Laboratory - given in the attachment to the order. (p. 3)
- 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.
- Laboratory guarantees full impartiality of performed tests.
- Laboratory guarantees that the tests are carried out in accordance with applicable standards.
- 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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ANNEX NO 1. List of tested parameters, test codes

Test parameters	Test code	Analysis no.	Analysis parameters	Status method
Basic water parameters	PW	1	<b>Conductivity</b> Range: 25 – 10 000 µS/ cm Conductivity method; PN-EN 27888:1999	A
		2	<b>Total hardness</b> Range: 3,5-20 °dH Spectrophotometric method, HACH LCK Nr 327, edition 1 z 07/2019	A
			<b>Total hardness</b> Range: 2,8 – 3,5 °dH Spectrophotometric method, HACH LCK Nr 327, edition 1 z 07/2019	Q
		3	<b>Chlorides</b> Range: 3 - 1000 mg/l Spectrophotometric method HACH LCK Nr 311, edition 3 z 04/2022	A
		4	<b>Iron</b> Range: 0,45 – 6,0 mg/l Fe <sup>2+/3+/tot.</sup> Spectrophotometric method, HACH LCK Nr 320, edition 1 z 07/2019	A
			<b>Iron</b> Range: 0,35 – 0,45 mg/l Fe <sup>2+/3+/tot.</sup> Spectrophotometric method, HACH LCK Nr 320, edition 1 z 07/2019	Q
		5	<b>Silica</b> Range: 5 – 100 mg/l SiO <sub>2</sub> Spectrophotometric method, HACH Nr 8185, edition 10 z 10/2023	A
		6	<b>Manganese</b> Range: 0,008 – 0,5 mg/l Mn Spectrophotometric method, HACH LCW Nr 532, edition 1 z 03/2020	A
		7	<b>Alkalinity P</b> Range 10- 500 mg/l CaCO <sub>3</sub> Photometric method , Palintest No38 V3 -05/07	Q
		8	<b>Alkalinity M</b> Range 50- 500 mg/l CaCO <sub>3</sub> Photometric method , Palintest No37 V3 -05/07	Q
		9	<b>Determination pH</b> Range: 2.0 – 14.0 Potentiometric method PN-EN ISO 10523:2012	Q
		10	<b>Residual hardness</b> Range: 0,02-6 °Dh Spectrophotometric method,, HACH LCK Nr 427, edition 1 z 07/2019	Q
		11	<b>Magnesium</b> Range: 3 – 50 mg/l Mg Spectrophotometric method, HACH LCK Nr 327, edition 1 z 07/2019	Q
		12	<b>Calcium</b> Range: 5 – 100 mg/l Ca Spectrophotometric method, HACH LCK Nr 327, edition 1 z 07/2019	Q
		13	<b>Phosphate</b> Range: 5 - 90 mg/L PO <sub>4</sub> <sup>3-</sup> Spectrophotometric method HACH LCK Nr 049, edition 1 z 03/ 2019	Q
		14	<b>Nitrate</b> Range: 0 - 11 mg/l NO <sub>3</sub> Photometric method , PrimeLab Nr 34	Q
		15	<b>Nitrite</b> Range :0 - 0.5 mg/l NO <sub>2</sub> Photometric method ,PrimeLab Nr 35	Q
		16	<b>Sulphate</b> Range: 0 – 200 mg/l SO <sub>4</sub> <sup>2-</sup> Photometric method, Palintest Nr 32, V1-10/05	Q
		17	<b>Sulphite</b> Range: 0 – 500 mg/l Na <sub>2</sub> SO <sub>3</sub> Photometric method, Palintest Nr 34, V1-10/05	-
		28	<b>Chlorine dioxide</b> Range: 0 – 9.5 mg/l ClO <sub>2</sub> Photometric method Palintest Nr7.3, V4-12/11	-
		19	<b>Polyacrylates</b> Range: 1 - 30 mg/l Photometric method PrimeLab Nr 85,	-
		20	<b>Organophosphonate</b> Range: 0 – 20 mg/l PO <sub>4</sub> Photometric method, Palintest Nr 44, V1-10/05	-
		21	<b>Free Chlorine</b> Range: 0 – 5.0 mg/l Photometric method Palintest Nr 7, V1-10/05	-
		22	<b>Turbidity</b> Range 0,02 - 1000 NTU Photometric method PrimeLab Nr 112	Q
		23	<b>Colour</b> Range 10 – 500 mg/l Pt Photometric method Palintest Nr 47 V1-10/05	-
		24	<b>Ammonium ion</b> Range: 0-1 mg/l Photometric method , Primelab No2	-
		25	<b>Calcium hardness</b> Range: 0 – 500 mg/l CaCO <sub>3</sub> Photometric method, Palintest Nr 12, V1-10/05	-
		26	<b>Molybdate</b> Range: 0 – 20 mg/l MoO <sub>4</sub> , Photometric method, Palintest Nr 42, V2- 09/11	-
		27	<b>Molybdate</b> Range: 0 – 100 mg/l MoO <sub>4</sub> Photometric method, Palintest Nr 22, V1-10/05	-
28	<b>Iron</b> Range: 0.005 – 0,250 mg/l Fe Spectrophotometric method, HACH LCW Nr 021, edition 3 z 03/2022	Q		
29	<b>Suspended solids</b> Range: 2-1000 mg/l Method: filtration / PN-EN 872:2007	Q		
Analysis of elements in industrial and raw water	IW		<b>Element concentration</b> Range: Ag, Al, Ba, Cr, Mn, Ni, Pb, Zn (0,1 – 50) mg/l Fe, Mg, P (0,1 – 1000) mg/l Ca (0,2 – 1500) mg/l Cd (0,2 – 50) mg/l	A



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		<p>Cu (0,1 – 2500) mg/l          K (1 – 1000) mg/l          Na (1 – 1500) mg/l          S (1 – 100 ) mg/l          Si (0,2 – 1000 ) mg/l          Inductively Coupled Plasma -Optical Emission Spectrometry Method (ICP-OES)          PN-EN ISO 11885: 2009</p>	
		<p>Range:          K (0,2 – 1) mg/l          Na (0,5 – 1) mg/l          S (0,5 – 1 ) mg/l          Inductively Coupled Plasma -Optical Emission Spectrometry Method (ICP-OES)          PN-EN ISO 11885: 2009</p>	Q
<b>Analysis of TOC for industrial and raw water</b>	<b>TW</b>	<p><b>Content Total carbon (TC)</b> Range: (0,5 – 1000) mg/l  <b>Content Total inorganic carbon (TIC)</b> Range: (0,5 – 1000) mg/l  <b>Content Total organic carbon (TOC)</b>          (from calculations)          Infrared spectroscopy method PN EN 1484:1997</p>	Q
<b>Analysis of TOC in deposit boiler scale</b>	<b>TO</b>	<p><b>Content Total carbon (TC)</b> Range: (0,50 – 50) %  <b>Content Total inorganic carbon (TIC)</b> Range: (0,5 – 50)%  <b>Content Total organic carbon (TOC)</b>          (from calculations)          Infrared spectroscopy method PN EN 15936 :2022</p>	Q
<b>Analysis of elements in deposit boiler scale</b>	<b>IO</b>	<p><b>Element concentration</b>          Range:          Al, Ba, Pb (50 – 1500) mg/kg          Cr, Cu, Mn (50– 3500) mg/kg          Ca (30 – 400 000 ) mg/kg          Cd (50 – 200) mg/kg          Fe (210 - 650 000) mg/kg          K (70 – 35 000) mg/kg          Mg (50 – 200 000) mg/kg          Na (80 – 400 000) mg/kg          Ni (50 – 2500) mg/kg          P (50 – 110 000 ) mg/kg          S (100 - 150 000) mg/kg          Si (100 - 10 000) mg/kg          Zn (50 - 10 000) mg/kg          Inductively Coupled Plasma -Optical Emission Spectrometry Method (ICP-OES)          PN-EN 16170:2017-02 excluding point 7.1(EPA 3051 A rev. 01/2007) – withdrawn standard, meets the requirements with regard to the purpose of the test.</p>	A
		<p><b>Element concentration</b>          Range:          Al (1500 – 250000) mg/kg          Al (30 – 50) mg/kg          Ca (20 – 100) mg/kg          Ba, Cr, Cd, Cu, K, Mg, Mn, Ni, Pb, Zn (10 – 50 ) mg/kg          Fe (70 – 210 ) mg/kg          Na (30 – 80 ) mg/kg          P (20 – 50 ) mg/kg          S, Si (30 – 100) mg/kg          Inductively Coupled Plasma -Optical Emission Spectrometry Method (ICP-OES)          PN-EN 16170:2017-02 excluding point 7.1(EPA 3051 A rev. 01/2007) – withdrawn standard, meets the requirements with regard to the purpose of the test.</p>	Q
<b>Resin</b>	<b>R</b>	<p>Iron ions in ion-exchange resins mg/l  <b>IRON EXCHANGE RESIN FOULING TEST KIT RTK 001</b></p>	-
<b>Analysis of volatile compounds</b>	<b>GC</b>	Gas chromatography method GC - BID	-

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