

Treatability Trials

Arvia's treatability trials explore a solution to tertiary water and wastewater issues.

Using Arvia's on-site Nyex™ treatment system, the trials are designed to tackle challenges involving water analysis and characterisation and to give a greater understanding of the necessary treatment options.

Our expert process engineers work to determine the best solution for each treatment challenge, dependent on your targets and budget.

The purpose of a trial is to:

- Analyse for contaminants of concern in genuine water samples from the source of contamination
- Explore potential treatment processes to suit individual targets
- Determine Nyex™ treatment capabilities and costings, including supporting technologies where needed

All treatability trials are conducted in-house or on-site at your facilities. Trials are project managed by an experienced process engineer, from initial consultation through to water treatment recommendation and solution

Analytical Facilities

Arvia's state of the art facilities and analytical equipment provide a unique platform for rapid treatability, optimisation and analysis of water quality under one roof.

This allows key water quality parameters such as COD, TOC, and colour to be extensively evaluated, as well as detailed analysis of specific compounds and micropollutants.

Detection capabilities as low as parts per billion (ppb, µg/L) have supported Arvia's specialisation in the removal of micropollutants and target molecules in raw water and wastewater for a wide range of industries and applications.



How it works



A kick-off meeting to discuss your technical requirements and establish a method statement



Conduct a sample analysis which includes COD/TOC, pH and conductivity before, during and post-treatment



Begin conducting trials on Nyex™-a and Nyex™-e systems to gather empirical technical data to inform the viability of a full-scale system whilst meeting prescribed COD/TOC compliance limits



Mid-way update to discuss progress and optimisation objectives



Secondary trials aimed at realising optimum system operating parameters



Detailed technical report to include results, review of target achievement, energy consumption and recommendation



Review meeting to debrief on results and recommendations and to agree next actions

Following a successful treatability trial, a formal proposal will be offered for a solution to your tertiary water issue. As part of the Programme Trial, recommendations may also be included, where necessary, of ancillary technologies for pre or post-Nyex treatment as concluded by our expert engineering team.

Treatability Options

Arvia offer three levels of treatability trials, from a standard trial, through advanced, to a fully bespoke programme.



1

Standard

Arvia's standard treatability trial offers a set of trials on the Nyex™-a or Nyex™-e systems, including analysis of TOC, COD, pH and conductivity, as well as basic optimisation and a full report.

2

Advanced

The advanced trial offers a higher level of analytical understanding and complex analysis, for example speciated compounds, AOx and Metals. This can take place either at Arvia's in-house facility or outsourced to our partners if necessary.

3

Programme

The programme trial combines multiple trials and numerous analytical requirements into one package. This works on a fully-bespoke basis with various options to completely tailor the trials to you.

This option also offers the ability to investigate pre and/or post-treatment options using supporting commodity technologies and technologies offered by our partners.

Benefits

- ✓ A greater understanding of your wastewater characterisation and tertiary wastewater management options
- ✓ Confidence that the proposed treatment train, including the relevant recommended processes, will meet environmental, regulatory and reuse targets when integrated and prevent the risk of effluent breaches
- ✓ Benefit from Arvia's unique and well-established treatment process and integration experience
- ✓ Access to Arvia's network of business partners including commodity technology suppliers and OEM's
- ✓ Receive a holistic review of your tertiary water and wastewater including identifying your treatment suitability, encompassing optimisation, design, footprint and price of a treatment process that is fully operational and right for you

Client Testimonials

"The [treatability] trials of the Arvia system produced some excellent results on a difficult-to-treat raw water"

- Scottish Water, Scotland, UK.

"We have developed a great partnership with Arvia Technology who have demonstrated commitment to our project throughout its lifespan...We are excited with what the future holds for our collaboration"

- Ilshin, Seoul, South Korea.

For more information on how the trial process can be tailored to suit your needs, get in touch with a member of the team today. Alternatively, email a completed project enquiry form and a member of the team will call you for a more in-depth discussion.

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arvia
Safer water for future generations