

What we can offer in leachate wastewater treatment:



Integrated Treatment Systems: Combining multiple treatment technologies in a single system to enhance efficiency and reduce operational costs.



Resource Recovery: Innovating processes to recover valuable resources, such as biogas from anaerobic digestion, and clean water through advanced filtration systems.



Automation and Monitoring: Implementing real-time monitoring and automated control systems to optimize treatment processes and respond swiftly to changes in leachate composition.

Effective wastewater treatment in leachates is not only a regulatory requirement but also a vital component of sustainable waste management to protect our water, air, and soil for future generations.

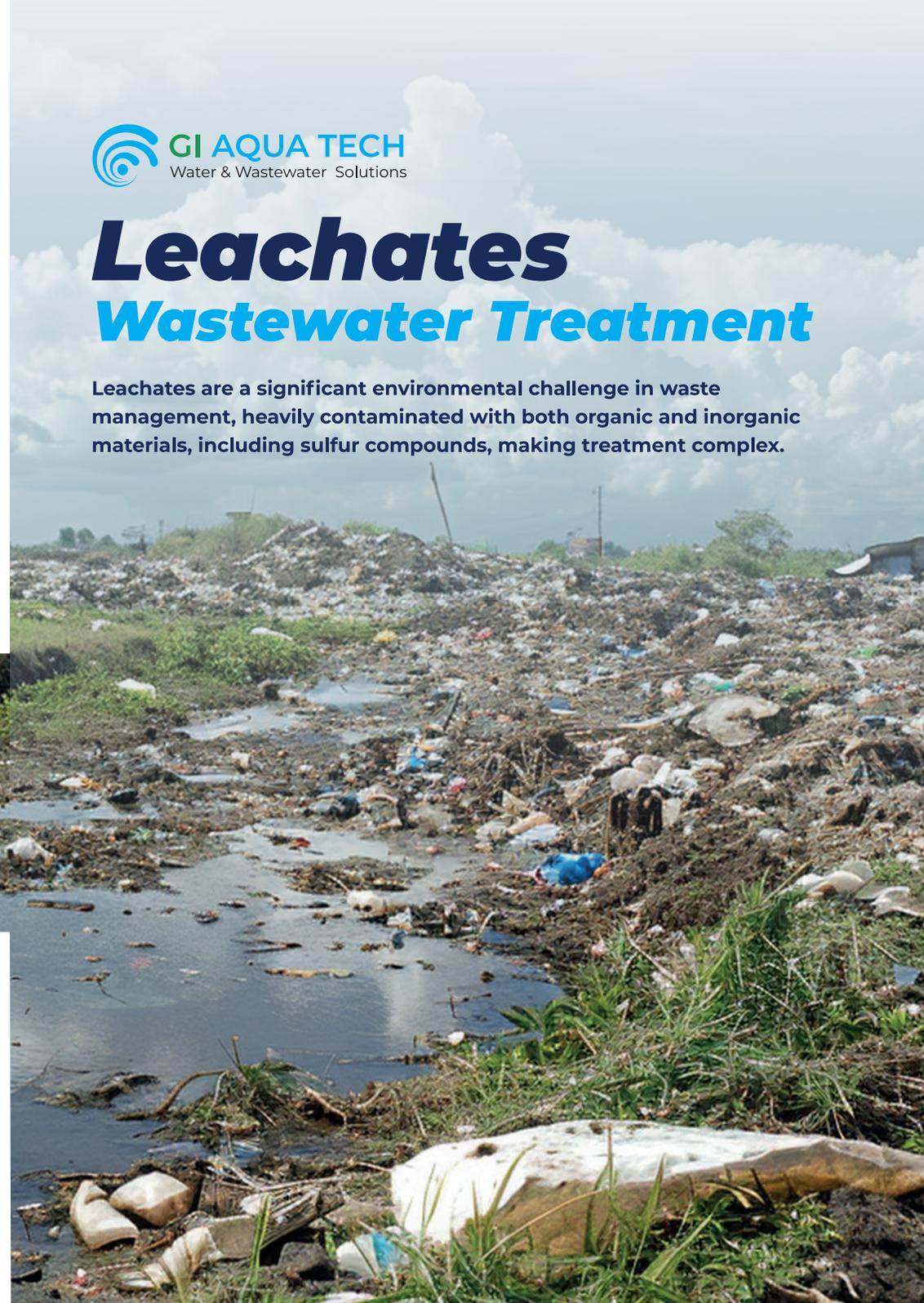


Leachates Wastewater Treatment

Leachates are a significant environmental challenge in waste management, heavily contaminated with both organic and inorganic materials, including sulfur compounds, making treatment complex.

If you're involved in waste management or environmental protection, explore the latest advancements in wastewater treatment technologies. Partner with us to implement sustainable solutions that meet the unique challenges of your site.

Learn about our latest products
and the research pipeline,
connect with us via:



Challenges in Leachate Treatment:



Environmental Impact of Untreated Leachate:



Water Contamination: Leachate can pollute water sources, risking ecosystems and human health.



Air Pollution: Sulfur compounds contribute to air pollution and acid rain.



Soil Degradation: Leachate infiltration degrades soil quality, harming vegetation.

Innovative G-Nano technology Solutions by GI Aqua Tech:



Superior Contaminant Removal: G-Nano tech efficiently removes a wide range of pollutants.



Energy Efficiency: Lower energy use reduces costs and environmental impact.



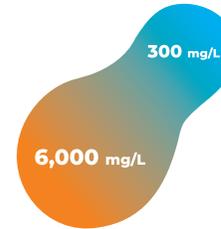
Scalability & Flexibility: Modular design suits various site sizes and leachate compositions.



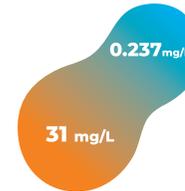
Long-Term Durability: Engineered for consistent, low-maintenance performance.

Successful leachate wastewater treatment in GI AQUA TECH

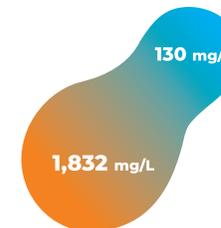
A combination of our G-Nano technology and other advanced treatment methods was implemented to deal with the complex composition of leachate.



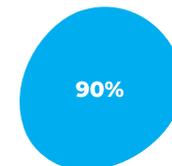
Reduction of COD: The Chemical Oxygen Demand (COD) was dramatically reduced from 6,000 mg/L to 300 mg/L, highlighting the effectiveness of the treatment process in breaking down organic pollutants.



Reduction of POV: The Persistent Organic Volatiles (POV) levels were reduced from 31 mg/L to just 0.237 mg/L, demonstrating the advanced contaminant removal capabilities of G-Nano technology.



Reduction of TN: Total Nitrogen (TN) levels were significantly lowered from 1,832 mg/L to 130 mg/L, ensuring the treated leachate meets strict environmental standards.



Sulfur Removal: Through the use of sulfate-reducing bacteria and G-Nano technology, sulfur compounds were reduced by 90%, significantly minimizing odor issues.