

PFAS Testing Program

"Proof of Concept" Security with Optimized Performance

WHAT IS THE PFAS TESTING PROGRAM (PTP)?

The PTP is a multi-phase approach to PFAS water treatment. It involves step-by-step testing, site evaluation, and process optimization to ensure that the treatment method selected is the best solution for each client's PFAS removal requirements.

BioLargo starts by testing contaminated water from the client, evaluates it for operational optimization, treats the water to remove PFAS chemicals, then has an independent laboratory analyze the treated water to confirm the PFAS has been removed to client specifications. Assuming a successful first phase, BioLargo will prepare a proposal for on-site piloting to confirm treatment success at a larger scale at the client's location. Once piloting is complete, BioLargo will offer customized commercial-scale systems to each client.

WHY IS IT IMPORTANT?

Every water source has different underlying chemistry. Furthermore, there are over 4,500 compounds currently classified as PFAS compounds, and each contaminated water source can have a different makeup of PFAS in it. By testing at multiple stages and scales, we are able to select and optimize treatment to fit the chemistry of the water rather than employing a "one size fits all" mentality. The treatment is customized to the water to reduce energy, breakthrough, waste products, and operation and maintenance costs.

HOW IT WORKS

STEP 1 Off-site Testing of Site Water

Client water is shipped to a centralized testing facility located in Oak Ridge, Tennessee. Water is run through a small-scale testing process featuring our patented Aqueous Electrostatic Concentrator PFAS treatment technology, in **combination with** additional treatment technologies, as appropriate. The best treatment process is then selected and optimized. Laboratory testing by a 3rd-party lab verifies the results and a report is generated to deliver the findings. The report will take regulatory oversight into consideration when selecting the treatment. A presentation of the results will offer next steps to continue in the PTP.

STEP 2 On-Site Pilot Testing

Once satisfactory results have been achieved in the Off-Site Testing, clients may select to move to On-Site Pilot Testing. This would involve installation of a larger version of the treatment train selected in Step 1, that would operate for a specified amount of time, depending on the chemistry of the aquifer, and if there is concern with seasonal changes. Pilot scale performance goals will be pre-defined in conjunction with the client, to determine success criteria. Operation of the on-site pilot is included in the pricing of the pilot. The purpose of the pilot is to further prove the concept, while allowing for a "test drive" of the equipment. Once complete, an additional report will be created and a full- site plan and quotation will be issued.

STEP 3 Full Scale System

The final step is the quotation, purchase, and installation of a full-scale treatment train. At this step, clients can be assured that the process selected will meet or exceed their treatment goals. During the installation and commissioning process, all the results and testing completed will be carried over to the optimization of the unit to run as efficient as possible. Final lab testing will be completed to ensure success.





ADDITIONAL MAINTENANCE AND PROCESS PERFORMANCE GUARANTEE

BioLargo will offer optional maintenance packages with equipment as part of the PTP platform. The packages will offer a variety of services, including service checks and a service exchange of spent PFAS material, further offering piece of mind to the client, and removing the hassle and risk of PFAS laden material disposal. Each maintenance agreement will be built to the customer's need to allow for consistent budgeting of O&M cost.

All Reports will be reconciled to create a full documentation package for each project. Maintenance logs will be added this documentation after each service call.

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