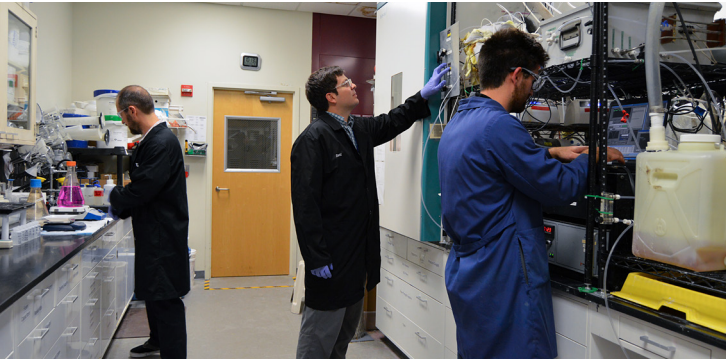


AECOM CleanTech Hub Treatability Laboratory



Areas of Expertise

- Bench and pilot-scale evaluations
- Bioremediation (aerobic and anaerobic)
- Chemical oxidation and reduction
- Solidification/stabilization
- Resource recovery
- Soil and mixed media column studies
- Industrial wastewater treatment
- Rapid small-scale column tests (RSSCTs)
- Leachability studies (EPA LEAF)

Contaminants of Concern Expertise:

- PFAS
- Microplastics
- 1,4-Dioxane
- Chlorinated solvents
- Benzene, toluene, ethylbenzene, and xylene (BTEX) and hydrocarbons
- Toxic metals: mercury, arsenic, hexavalent chromium, lead

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Overview

The AECOM Treatability Laboratory led by our CleanTech Hub team in Austin, Texas, provides a cost competitive, highly customizable option for performing batch and column treatability tests to evaluate chemical, biological, and physical treatment approaches for a wide range of chemicals in environmental media. Bench-scale treatability tests can be used to compare treatment alternatives, evaluate reagent chemistry, dosages and application methods, shed light on site biogeochemical conditions, and provide proof-of-concept evidence that a selected remedial technology will attain performance objectives. The treatability tests results can be used to support all aspects of remedy selection, design, and implementation.

Benefits

- Iterative and customizable
- Low-cost, simultaneous testing of multiple treatment approaches
- Fine-tuning of remedial design
- Costs-savings and schedule optimization for pilot and full-scale implementation
- Objective, unbiased testing
- Third party validation
- Synergy with AECOM's technical experts, seamless and streamlined inclusion into larger projects
- Flexibility for scope (narrow vs. broad)
- Quick turn-around time

Analytical Capabilities

On-site analytical capabilities produce real-time contaminant degradation data that allows implementing changes to the treatment, if needed.

Our facility offers the following analytical capabilities:

- Liquid chromatography with mass spectrometry (LC/MS) for in-house quantification of PFAS
- Ion chromatography: chloride, sulfate, bromide, and fluoride
- Gas chromatography: VOCs and hydrocarbon gases
- UV-VIS spectrophotometry: reduced iron, biomass protein, hexavalent chromium
- Oxidant demand for persulfate, peroxide, and permanganate oxidants
- Moisture content, total suspended solids, volatile suspended solids, and loss on ignition
- pH, ORP, DO, specific conductivity, temperature, and turbidity

Pilot-Scale Test Capabilities

Our team can design and construct custom-made pilot-test skids for water treatment applications (*ex situ* remediation, industrial wastewater, etc.). Pilot-scale evaluations may be conducted at our laboratory facilities or at the site.

