



CH2MHILL

Applied Sciences Laboratory

Water, Wastewater, and Environmental Treatability Testing/Process Simulations



Treatability testing and process simulations are bench-scale or pilot-scale tests tailored to individual project needs. These can be designed to optimize an existing process, select a new process, or develop information to design and build treatment facilities. Typical objectives include:

- Treatment/process proof-of-concept
- Treatment/process performance data
- Treatment process reliability
- Optimizing operating parameters
- Establishing the operational range
- Developing design criteria
- Cost information

Since CH2M HILL's first recorded treatability study in 1948 (simulation of aerobic lagoon by founder Jim Howland!) treatability testing and process simulation have become an important service to customers and a critical first step in many design projects.

Evaluating engineering designs on a pilot scale reduces overall project costs and risk

Today, bench-scale evaluations are conducted in a dedicated treatability/process lab that is part of the Applied Sciences Laboratory (ASL) located in Corvallis, Oregon. The staff at ASL also support pilot plants in locations throughout the world. ASL is a full-service, nationally accredited laboratory whose mission includes providing rapid analytical support on treatability and process simulation evaluations.

The possibilities are many; however, some common treatment technologies that we routinely evaluate include:

- Coagulation/precipitation (jar tests)
- Adsorption (carbon, ion exchange, specialty)
- Membranes (MF, UF, NF, RO)
- Media filtration (physical, biological)



What Types of Technologies Can ASL Evaluate?

- Oxidation (UV, ozonation, Fenton's, advanced oxidation)
- Biological treatment (aerobic, anaerobic, mesotrophic, autotrophic, etc.)
- Physical treatment (DAF, oil/water separation, settling, gravity thickening, etc.)
- Sludge and solids treatment (leaching, washing, dewatering, solidification/stabilization)
- In situ treatment (ISCO, biological attenuation, biobarriers)
- Air and off-gas treatment (adsorption, absorption, GAC)
- Patent proof of concept and due diligence testing

ASL is a part of the CH2M HILL family of companies. We operate a high-quality analytical resource base in a manner that is cost-effective and responsive to projects throughout CH2M HILL, worldwide. Our talented and dedicated people, in combination with our company's total quality management and laboratory quality assurance programs, provide reliable, high-quality data.

For more details and a description of our resources for treatability/process evaluation studies, go to the Applied Sciences website: www.ch2mhill.com/corporate/services/asl/default.asp



How to Access this Resource

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