

Science TO RESULTS

Using science to create a healthier environment



Regional Mobile Laboratory

ON-SITE SUPPORT FOR REAL-TIME DECISION-MAKING

U.S. EPA | SCIENCE AT THE EPA NEW ENGLAND REGIONAL LABORATORY

SCIENCE lies at the heart of the mission of the U.S. Environmental Protection Agency (EPA). The Agency must rely on cutting edge research, accurate measurements and effective technology to implement its programs to protect the environment and human health. Without sound science and credible data, EPA can not wisely set environmental and health standards, clean up contaminated sites, measure ambient air and water quality conditions, or identify the new technologies or practices that will reduce releases to the environment. These fact sheets share with you some of our EPA New England's laboratory capabilities and exemplify some of the very best science we do to meet our agency mission.

KEY CONTACTS:

SCOTT CLIFFORD

Chemist
(617) 918-8631
clifford.scott@epa.gov

ERNEST WATERMAN

Chief, Environmental
Investigations & Analysis
(617) 918-8632
waterman.ernest@epa.gov

MICHAEL KENYON

Director, EPA New England
Regional Laboratory
(617) 918-8317
kenyon.michael@epa.gov

GENERAL INFO:

EPA NEW ENGLAND REGIONAL LABORATORY

11 Technology Dr.
North Chelmsford, MA 01863
(617) 918-8300
www.epa.gov/ne/lab

**TOLL-FREE
CUSTOMER SERVICE**
1-800-EPA-7341

GOAL:

Moving the laboratory to the field, rather than samples to the laboratory, saves time when EPA undertakes major cleanups of hazardous materials. Saved time translates into savings in remediation costs by allowing more efficient utilization of expensive construction equipment and contractors. The region's mobile laboratory offers high throughput, fast turn around, quantitative field screening analyses to assist site managers in cleanup decisions. This capability provides EPA's site managers with real-time information about the presence of contaminants in groundwater, soil and soil vapor. Real-time results can often save months if not years in reaching cleanup standards by avoiding iterative cycles of sample collection, off-site analysis and further remediation to address hot spots.

SCIENCE:

To enhance EPA's ability to provide on-site field analytical services to facilitate cleanup and restoration of contaminated properties and facilities, the regional laboratory operates a flexible self-contained mobile laboratory that can be outfitted with the scientific instrumentation necessary to test for contaminants of concern in groundwater, soil and soil vapor. The mobile laboratory vehicle can operate for extended periods independent of normal utilities and is relatively compact to allow access to unimproved sites and facilities where a larger vehicle might have difficulties. The compact size of the laboratory and the wide range of contaminant testing needed at sites across the region requires reconfiguration of the analytical instrumentation package and restocking of the laboratory between deployments. The flexible nature of the mobile laboratory and access to the breadth of testing equipment at the regional laboratory allows the mobile laboratory chemist to rapidly set up and calibrate a custom instrument package to address the analytical needs of each job. Depending on the nature of the contaminants, the laboratory may be configured with a variety of instruments, such as a gas chromatograph, x-ray fluorescence spectrometer, or polarized

light microscope to test for synthetic organic chemicals, toxic metals or asbestos, respectively. With its built-in generator, the mobile laboratory can power onboard instrumentation en route in order to allow environmental testing to begin immediately upon arrival at the site or facility. Once at the site, the on-board chemist can offer the site manager a very powerful tool to rapidly assess the extent of the contamination and adjust the sampling program to best meet the needs of the cleanup or remediation.



EPA New England's
Mobile Laboratory

BENEFITS:

The mobile laboratory, in combination with handheld instrumentation and the region's fixed-location laboratory, allows EPA to utilize the most effective tool or combination of tools to provide accurate and reliable detection of environmental contaminants. The region's mobile laboratory provides high throughput, fast turnaround, quantitative field screening analyses suitable for real-time decision-making. This capability enables EPA's site managers to make the decisions necessary to protect human health and restore the environment rapidly with efficient use of resources.