# Message #51: May 2001

Welcome to TechDirect. Since the April1 message, TechDirect has 290 new subscribers for a total of 10,564. If you feel the service is valuable, please share TechDirect with your colleagues. Anyone interested in subscribing to TechDirect may do so on CLU-IN at http://clu-in.org/techdirect . All previous TechDirect messages are archived there.

Mention of non-EPA documents or presentations does not constitute a U.S. EPA endorsement of their contents, only an acknowledgment that they exist and may be relevant to the TechDirect audience.

## Live Internet Seminars

The ITRC and EPA Technology Innovation Office are hosting a number of free two-hour Live technical seminars over the Internet in May. Space is still available, but you must register to participate - see http://clu-in.org/studio . It does not get much easier to access new information on clean-up approaches - no travel, no time away from the office. Upcoming seminars include:

- ITRC Phytotechnologies: May 15 and 17
- ITRC Enhanced In Situ Bioremediation of Solvents in Ground Water: May 29
- ITRC Permeable Reactive Barriers for Chlorinated Solvent, Inorganic, and Radionuclide Contamination: May 31

### CLU-IN Studio Update

New videos on the CLU-IN Studio. Several new videos were mounted on the CLU-IN Studio in April. These videos were produced by the U.S. EPA Environmental Response Team and deal with selected environmental remediation topics. The new videos, located at http://clu-in.org/studio , include:

1. Environmental Dredging (7 min)
2. Green Pond Oil Spill (6 min)
3. Kentucky Oil Wells Plugging (7 min)
4. Revegetation with Native Plants (9 min)
5. Wyoming Bioremeditaion (8 min)

## New Documents

**Cost Analyses for Selected Groundwater Cleanup Projects: Pump and Treat Systems and Permeable Reactive Barriers (EPA 542-R-00-013)**. This report, published by the EPA Technology

Innovation Office, presents the results of an analysis of groundwater cleanup costs for pump-and-treat (P&T) systems or permeable reactive barriers (PRBs) at 48 sites. The analysis confirmed that there is a significant amount of variability in the costs of groundwater cleanups and that many of the factors that affect costs are site-specific. However, the data for the 48 sites in the study suggest three overall conclusions: (1) the types of contaminants in the groundwater affect the capital costs of a P&T system; (2) the types of above-ground treatment affect the annual operating costs of a P&T system; and (3) for the sites in this analysis, the capital costs for PRBs generally were lower than those for P&T systems. Decisions about whether a PRB or P&T system would be less expensive for a given site generally are based on total life-cycle costs for each type of system (including total capital and operating costs); such site-specific factors as hydrogeology, contaminant type, extent of contamination, and remedial goals often are considered in making such decisions. PRBs may not be technically feasible at all sites (February 2001, 23 pages). View or download at http://clu-in.org/techpubs.htm .

**Phytoremediation of Contaminated Soil and Ground Water at Hazardous Waste Sites (EPA 540-S-01-500)**. This Issue Paper was developed for the EPA Regional Ground Water Forum. This issue paper focuses on the processes and applications of phytoremediation for remediation of hazardous waste sites. The purpose of this issue paper is to provide a concise discussion of the processes associated with the use of phytoremediation as a cleanup or containment technique for remediation of hazardous waste sites. sediment, ground water, surface water, and waste water (February 2001, 35 pages). View or download at http://www.epa.gov/ada/download/issue/epa_540_s01_500.pdf . For hard copies, contact Kay Cooper at (580) 436-8651 or fax (580) 436-8503.

**Clarifying DQO Terminology Usage to Support Modernization of Site Cleanup Practice**. This paper was written by staff in the EPA Technology Innovation Office. It is intended to provide a basic conceptual understanding of DQO-related terms in a way that facilitates systematic project planning in the context of site cleanups. Descriptions for the terms/concepts appear first, followed by a discussion of the working relationships between the concepts. It is possible that other parties use terms other than these to communicate the same concepts. The actual terms used are less important than ensuring a clear understanding and application of the concepts, since these concepts are basic to the scientific validity of environmental decisions and to the data that support those decisions. A common conceptual understanding could help all within

the hazardous waste community better communicate our goals and results, better plan and implement actual projects, and improve the cost-effectiveness and scientific defensibility of project decisions (March 2001, 9 pages). View or download at http://clu-in.org/techpubs.htm .

**User's Guide for Polyethylene-based Passive Diffusion Bag Samplers to Obtain Volatile Organic Compound Concentrations in Wells.....**

**Part 1: Deployment, Recovery, Data Interpetation, and Quality Control and Assurance (WRI-01-4060)**. This report was published by the USGS in cooperation with other federal agencies and the Interstate Technology Regulatory Cooperation (ITRC) workgroup. Water-filled passive diffusion bag (PDB) samplers described in this report are suitable for obtaining concentrations of a variety of volatile organic compounds (VOCs) in ground water at monitoring wells. The suggested application of the method is for long-term monitoring of VOCs in ground-water wells at well-characterized sites (March 2001, 25 pages). View or download at

http://www.itrcweb.org/common/content.asp?en=TA473431&sea=Yes&set=Both&sca=Yes&sct=Long .

**PART 2: Field Tests (WRI Report 01-4061)**. This report was published by the USGS in cooperation with other federal agencies and the Interstate Technology Regulatory Cooperation (ITRC) workgroup. This report presents six case studies where passive diffusion bag (PDB) samplers were tested under field conditions (March 2001, 102 pages). View or download at

http://www.itrcweb.org/common/content.asp?en=TA473431&sea=Yes&set=Both&sca=Yes&sct=Long .

**List of Leak Detection Evaluations for Underground Storage Tank Systems (8th Edition)**. This document is based on reviews conducted by the independent National Work Group on Leak Detection Evaluations (NWGLDE), which is made up of state and EPA UST program staff. NWGLDE is not an EPA workgroup, and the List is not an EPA list but a NWGLDE list. The List is a compilation of underground storage tank and piping leak detection system evaluations that have met certain criteria developed by the NWGLDE. For an evaluation to be included in the List an independent third party must have performed it in accordance with EPA or other accepted test procedures (March 2001, 331 pages). View or download from http://www.nwglde.org/downloads.html .

**Ground Water Currents (EPA 542-N-01-005)**. This quarterly newsletter is published by the EPA Technology Innovation Office. It provides descriptions and performance data for developments in innovative ground water treatment. This issue highlights joint partnerships among U.S. EPA Regions and laboratories, other

Federal agencies, and private industry to use innovative technologies for remediating sites with contaminated ground water (April 2001, 4 pages). View or download at http://clu-in.org/techpubs.htm .

**Tech Trends (EPA 542-N-01-001)**. This quarterly newsletter is published by the EPA Technology Innovation Office. This issue focuses on some of the many site characterization and remediation projects underway to remove hazardous waste contaminants from sediments, including research, comprehensive studies, and field applications (March 2001, 4 pages). View or download at http://clu-in.org/techpubs.htm .

**Hazardous Waste Management System; Modifications of the Hazardous Waste Manifest System (40 CFR 260, 261, 262, 263, 264, 265, 271)**. The Environmental Protection Agency (EPA), Office or Solid Waste proposes to improve the Uniform Hazardous Waste Manifest system by standardizing further the manifest form, and by providing waste handlers with the option to complete, sign, and transmit manifests electronically. The proposed revisions should save waste handlers and regulators time and money, while ensuring the continuous, safe management of hazardous wastes (January 2001, 114 pages). View or download the January, 2001 pre-publication draft at http://www.epa.gov/epaoswer/hazwaste/gener/manifest/pdf/preambl.pdf .

## Conferences and Symposia

**Reminder!! EPA Forum on Managing Contaminated Sediments at Hazardous Waste Sites, Alexandria, VA, May 30 - June 1** . This conference, sponsored by the U.S. EPA Office of Solid Waste and Emergency Response, will allow stakeholders to express their opinions on EPA program policies and guidance that address sediment remediation; identify the key site information and data that should be collected and evaluated in order to make informed site-specific cleanup decisions; identify issues that need to be resolved, additional data that needs to be gathered and evaluated, and research that needs to be performed; and share information and lessons learned as a result of managing contaminated sediments. For more information, contact Joan Fisk at (703) 603-8791 or fisk.joan@epa.gov .

**CLARINET Final Conference, Vienna, Austria, June 21-22**. CLARINET (Contaminated Land Rehabilitation Network for Environmental Technologies) is an international collaboration project between European countries, subsidized by DG Research of the European Commission co-ordinated by the Austrian Federal Environment Agency. The CLARINET Conference "Sustainable Management of Contaminated Land in Europe" will present

conclusions and recommendations from the CLARINET network and viewpoints from top-level experts and decision makers. It will provide an outlook on the development of national policies and practice in the Member States and at EU level. The main goal of the conference however is to encourage joint problem solving approaches to ensure the safe (re-)use of European water and soil resources and to protect our environment for future generations, which should become a cornerstone in any environmental land and water policy. For further information and to register, see http://www.clarinet.at .

**ER-TEC 2001. Environmental Restoration Technology End User Conference, Atlanta, July 17-19**. This conference is sponsored by DOE, DOD, and EPA. The purpose of the conference is to Share DOE/DOD/EPA cleanup successes and technical innovations, promote deployment of innovative technologies, and facilitate integration and teamwork between DOE, DOD, EPA, and State Regulatory Agencies for site cleanup.

If you have any questions regarding TechDirect, contact Jeff Heimerman at (703) 603-7191 or heimerman.jeff@epa.gov. Remember, you may subscribe, unsubscribe or change your subscription address at http://clu-in.org/techdrct at any time night or day.