

## **PHYTOVOLATILIZATION OF VOLATILE CONTAMINANTS**

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### **Abstract**

Plant systems can be effective pump-and-treat systems for some contaminants. There is interest in finding inexpensive remediation technologies for sites contaminated by carbon tetrachloride and ethylene dibromide from grain fumigation activities. Experimental investigations have shown that volatile compounds such as trichloroethylene and methyl tertiary butyl ether (MTBE) are released to the atmosphere in significant amounts when plants grow in contaminated soil containing these compounds. The rate of release to the atmosphere is generally such that air quality is maintained within the regulatory requirements for the site. Furthermore, most volatile compounds are degraded in the atmosphere at a finite rate, which is environmentally acceptable. There is a good possibility that phytovolatilization can be used to remediate sites contaminated with carbon tetrachloride and ethylene dibromide. The results of an analysis of the properties of these compounds with respect to phytovolatilization will be presented.

**Key words:** phytovolatilization, carbon tetrachloride, ethylene dibromide