CERTIFIED ENVIRONMENTAL TECHNOLOGY
TECHNOLOGY TRANSFER ADVISORY

Tri-Service Site Characterization and Analysis Penetrometer System (SCAPS)
SCAPS Hydrosparge VOC Sensor

Issued To:

U.S. Army Environmental Center
SFIM-AEC-ETD, Bldg. 4430
Aberdeen Proving Ground,
Maryland 21010-5401

Contact:

George Robitaille
Phone (410) 436-6865
Fax (410) 436-6836

Certification No:

01-01-034

Effective Date:

January 15, 2001

Expiration Date:

January 15, 2004

DTSC Contact:

Technology Development Branch
(916) 322-3670

Technology Description:

The SCAPS Hydrosparging VOC Sensor (SCAPS HS) is a near real-time in-situ subsurface screening method for volatile organic compounds (VOCs) in groundwater. The technology is certified for trichloroethene (TCE), benzene, carbon tetrachloride, tetrachloroethene (PCE), dichloroethene (DCE), toluene, and xylene contamination but has applicability to other VOCs which can be detected with an ion-trap mass spectrometer (ITMS), provided these compounds can be effectively sparged from the groundwater with the SCAPS HS. Field studies for TCE, benzene, carbon tetrachloride, PCE, toluene, and xylenes demonstrated that the SCAPS HS technology achieved less than 5% false negative results and less than 5% false positive results when compared to verification groundwater samples analyzed by EPA Method 8260B. The SCAPS HS results and verification sample results had correlations greater than 80% for DCE but did not achieve less than 5% false negatives. SCAPS HS achieved detection thresholds comparable to EPA Method 8260B for the contaminants listed above. SCAPS HS has applicability to field screening for the presence of known contaminants, and the identification of unknown substances when ions uniquely characteristic to those substances are present.

A copy of the published Certification Statement may be obtained by contacting the Department of Toxic Substances Control at (916) 322-3670 or on the Internet at http://www.dtsc.ca.gov/ScienceTechnology/TechCert_index.html.