

**PACKAGE ID** - 001317IBMPC00 MLCMM

**KWIC TITLE** - Multi Layer Contaminant Migration Model

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**LIMITATION CODE** -COPY                   **AUDIENCE CODE** - LIM

**COMPLETION DATE** - 10/01/1999   **PUBLICATION DATE** - 10/10/1999

**DESCRIPTION** - This computer software augments and enhances certain calculation included in the previously copyrighted Vadose Zone Contaminant Migration Model. The computational method used in this model recognizes the heterogenous nature of the soils and attempts to account for the variability by using four separate layers to simulate the flow of water through the vadose zone. Therefore, the pore-water velocity calculated by the code will be different than the previous model because it accounts for a wider variety of soil properties encountered in the vadose zone. This model also performs an additional screening step than in the previous model. In this model the higher value of two different types of Soil Screening Levels are compared to soil concentrations of contaminants. If the contaminant concentration exceeds the highest of two SSLs, then that contaminant is listed. This is consistent with USEPA's Soil Screening Guidance.

**PACKAGE CONTENTS** - Media Directory; Software Abstract; Media Includes User's Guide, Executable Module;

**SOURCE CODE INCLUDED?** - Yes

**MEDIA QUANTITY** - 1 3.5 Diskette

**METHOD OF SOLUTION** - Numerical solution for multi-layered pore-water velocity.

**COMPUTER** - IBM PC

**OPERATING SYSTEMS** - Windows

**PROGRAMMING LANGUAGES** - NA

**SOURCE CODE AVAILABLE (Y/N)** - Y

**UNIQUE FEATURES** - The vadose zone is the layer of soil from the ground surface to the top of the water table. It is also referred to as the unsaturated zone because the water trapped in the spaces (pores) between soil particles is less than 100 percent. The vadose zone is not a layer of homogenous soil, but is composed of multiple layers of different types and percentages of soils such as sands, silts and clays. Each of the different soil types have different

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**UNIQUE FEATURES - (CONT)** hydrogeologic properties such as permability, porosity, density and hydraulic conductivity. Therefore, the vadose zone is composed of heterogenous soil properties. Because these layers possess different hydrogeologic properties, soil pore water will not move at the same velocity through the different layers.

**RELATED SOFTWARE** - This is a stand alone program. The Vadose Contaminant Migration Model is similar, but is not required.

**OTHER PROG/OPER SYS INFO** - Requires Excel 97 software to run.

**HARDWARE REQS** - IBM or clone PC

**TIME REQUIREMENTS** - Automatic calculation

**ABSTRACT STATUS** - Released AS-IS 11/01/1999.

**SUBJECT CLASS CODE** - Z

**KEYWORDS** -  
COMPUTER PROGRAM DOCUMENTATION  
M CODES  
GROUNDWATER  
DATA

**EDB SUBJECT CATEGORIES** -  
990200

**SPONSOR** - DOE/DP

**PACKAGE TYPE** - AS - IS