POLLUTEv10

Version 10.00

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Case 13: Comparison with analytical method

THE DARCY VELOCITY (Flux) THROUGH THE LAYERS Va = 1 m/a

Layer Properties

Layer	Thickness	Number of Sublayers	Coefficient of Hydrodynamic Dispersion	Matrix Porosity	Distributon Coefficient	Dry Density
Soil	10 m	20	0.01 m²/a	1	0 m³/kg	0 g/cm³

Boundary Conditions

Constant Concentration Top Boundary

Source Concentration	1 mg/L

Infinite Thickness Bottom Boundary

Laplace Transform Parameters

TAU	7
N	100
SIG	0
RNU	10

Calculated Concentrations at Selected Times and Depths

Time year	Depth m	Concentration mg/L
4	0.00000E+00	1.00000E+00
	5.00000E-01	1.00000E+00
	1.00000E+00	1.00000E+00
	1.50000E+00	1.00000E+00
	2.00000E+00	1.00000E+00
	2.50000E+00	1.00000E+00
	3.00000E+00	9.99828E-01
	3.50000E+00	9.64599E-01
	4.00000E+00	5.14087E-01
	4.50000E+00	4.13295E-02

	5.00000E+00	2.27657E-04
	6.00000E+00	1.92837E-09
	7.00000E+00	1.92745E-09
	8.00000E+00	1.92745E-09
	9.00000E+00	1.92745E-09
	1.00000E+01	1.92745E-09