

POLLUTEv10

Version 10.00
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Case 6: Fractured layer and sorption

THE DARCY VELOCITY (Flux) THROUGH THE LAYERS $V_a = 0.02 \text{ m/a}$

Layer Properties

Layer	Thickness	Number of Sublayers	Coefficient of Hydrodynamic Dispersion	Matrix Porosity	Distribution Coefficient	Dry Density
Compacted Clay	1 m	1	0.01 m ² /a	0.4	1.5 cm ³ /g	2 g/cm ³
Fractured Till	3 m	1	0.01 m ² /a	0.4	1.5 cm ³ /g	2 g/cm ³

Layer	Dispersion Coefficient in Fractures	Distribution Coefficient in Fractures	Fracture Porosity
Fractured Till	0.06 m ² /a	0 m ² /a	0.0000E+00

Layer	Fracture Spacing 1	Opening Size 1	Number 1	Fracture Spacing 2	Opening Size 2	Number 2
Fractured Till	1 m	1E-5 m	10	1 m	1E-5 m	10

Boundary Conditions

Finite Mass Top Boundary

Initial Concentration	1000 mg/L
Rate of increase	0 mg/L/yr
Volume of Leachate Collected	0.28 m/a
Reference height of Leachate	7.5 m

Fixed Outflow Bottom Boundary

Landfill Length	200 m
Landfill Width	1 m
Base Thickness	1 m
Base Porosity	0.35
Base Outflow Velocity	8 m/a

Laplace Transform Parameters

TAU	7
N	20
SIG	0
RNU	2

Maximum Base Concentration Parameters

Depth of Search	4 m
Lower Time Limit	20 year
Upper Time Limit	300 year
Base Concentration Accuracy	0.01
Maximum Search Attempts	25

Maximum Base Concentration and Time of Occurrence

Time year	Depth m	Concentration mg/L	Preceding Time	Preceding Concentration	Exceeding Time	Exceeding Concentration
6.2E+02	0.00000E+00	1.76442E-03				
	1.00000E+00	2.93230E-01				
	4.00000E+00	2.68684E+01	6.2E+02	2.68678E+01	6.2E+02	2.68689E+01

Number of Search Attempts = 10

NOTICE

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