

MIGRATEv10

Version 10.00
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 GAEA Technologies Ltd., R.K. Rowe and J.R. Booker

Case 7: Repeat Case 5 using N=20 and RNU=2 and Select Gauss.

Layer Properties

Layer	Thickness	Sublayers	Dry Density	Porosity	Distribution Coefficient	Half-Life
Layer 1	4 m	2	0 g/cm ³	0.25	0 mL/g	0 year
Layer 2	0.1 m	1	0 g/cm ³	0.3	0 mL/g	0 year
Layer 3	3 m	2	0 g/cm ³	0.25	0 mL/g	0 year
Layer 4	1 m	1	0 g/cm ³	0.3	0 mL/g	0 year
Layer 5	2 m	2	0 g/cm ³	0.25	0 mL/g	0 year
Layer 6	2 m	2	0 g/cm ³	0.3	0 mL/g	0 year
Layer 7	8 m	2	0 g/cm ³	0.25	0 mL/g	0 year

Layer	Vertical Diffusion	Horizontal Diffusion	Vertical Velocity	Horizontal Velocity	Sink Removal	Concentration
Layer 1	0.019 m ² /a	0.019 m ² /a	0.03 m/a	0 m/a	0 m/a	0 mg/L
Layer 2	0.32 m ² /a	3.2 m ² /a	0.03 m/a	0.96 m/a	0 m/a	0 mg/L
Layer 3	0.019 m ² /a	0.019 m ² /a	0.03 m/a	0 m/a	0 m/a	0 mg/L
Layer 4	30.200001 m ² /a	302.299988 m ² /a	0.03 m/a	9.07 m/a	0 m/a	0 mg/L
Layer 5	0.019 m ² /a	0.019 m ² /a	0.014 m/a	0 m/a	0 m/a	0 mg/L
Layer 6	1 m ² /a	10 m ² /a	0.014 m/a	0.3 m/a	0 m/a	0 mg/L
Layer 7	0.019 m ² /a	0.019 m ² /a	0.013 m/a	0 m/a	0 m/a	0 mg/L

Boundary Conditions

Finite Mass Top Boundary

	Cell 1
Offset	0 m
Surface Width	575 m
Base Width	575 m
Initial Concentration	1500 mg/L
Source Half-Life	0 year
Waste Thickness	6.875 m
Waste Density	600 kg/m ³
Percentage of Mass	0.02
Volume Leachate Collected	0 m/a
Reference Height of Leachate	0

Aquifer Bottom Boundary

Base Thickness	3 m
Base Half-Life	0 year
Base Porosity	0.001
Sink Removal	0 m/a
Outflow Velocity	2.49 m/a
Dispersion Coefficient	83.059998 m ² /a

Base Integration Width	4000 m
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Laplace Transform Parameters

TAU	7
N	20
SIG	0
RNU	2

Gauss Integration Parameters

Integration Level	Select
Number of Groups	1
Number of Samples	20
Subinterval Size	0.0348
Number of Subintervals	48
Number of Sample Points per Step	20
Total Width of Integration	1.6704
Total Number of Integration Points	1920

Group	Step Size	# of Steps
1	0.0348	48

Calculated Concentrations at Selected Depths, Lateral Distances and Times

Time year	Distance m	Depth m	Concentration mg/L
80	387.5	0.00000E+00	-3.32580E-02
		2.00000E+00	-3.21789E-02
		4.00000E+00	-3.70856E-03
		4.10000E+00	-3.28053E-03
		5.60000E+00	2.61055E-02
		7.10000E+00	5.36835E+02
		8.10000E+00	5.38172E+02
		9.10000E+00	3.13776E+02
		1.01000E+01	3.86019E+01
		1.11000E+01	3.31242E+01
		1.21000E+01	3.08918E+01
		1.61000E+01	3.65637E-03
		2.01000E+01	6.30876E-08

Total Mass into Soil	Total Mass into Base	Velocity Transport	Mass in Base -WY/2 to +WY/2
4.66730E+05	7.58338E-05	2.50679E-05	6.30035E-07

NOTICE

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