

Time year	Depth m	Concentration mg/L
410	0.000E+00	6.786E-11
415	0.000E+00	6.755E-11
420	0.000E+00	6.724E-11
425	0.000E+00	6.693E-11
430	0.000E+00	6.662E-11
435	0.000E+00	6.629E-11
440	0.000E+00	6.598E-11
445	0.000E+00	6.566E-11
450	0.000E+00	6.534E-11
455	0.000E+00	6.501E-11
460	0.000E+00	6.469E-11
465	0.000E+00	6.436E-11
470	0.000E+00	6.404E-11
475	0.000E+00	6.371E-11
480	0.000E+00	6.338E-11
485	0.000E+00	6.305E-11
490	0.000E+00	6.273E-11
495	0.000E+00	6.240E-11
500	0.000E+00	6.206E-11
505	0.000E+00	6.174E-11
510	0.000E+00	6.141E-11
515	0.000E+00	6.108E-11

Time year	Depth m	Concentration mg/L
520	0.000E+00	6.076E-11
525	0.000E+00	6.043E-11
530	0.000E+00	6.010E-11
535	0.000E+00	5.978E-11
540	0.000E+00	5.945E-11
545	0.000E+00	5.913E-11
550	0.000E+00	5.881E-11
555	0.000E+00	5.848E-11
560	0.000E+00	5.816E-11
565	0.000E+00	5.784E-11
570	0.000E+00	5.753E-11
575	0.000E+00	5.720E-11

NOTICE

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POLLUTEv7

Version 7.13

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Boyne Source Chloride

**THE VARIABLE VELOCITY AND/OR CONCENTRATION OPTION HAS BEEN USED
NOTE THAT THE ACCURACY OF THE CALCULATIONS WITH THIS OPTION WILL DEPEND
ON THE NUMBER OF SUBLAYERS USED**

Layer Properties

Layer	Thickness	Number of Sublayers	Coefficient of Hydrodynamic Dispersion	Matrix Porosity	Distribution Coefficient	Dry Density
Till	4.4 m	200	0.019 m ² /a	0.35	0 mL/g	1.9 g/cm ³

Boundary Conditions

Finite Mass Top Boundary

Fixed Outflow Bottom Boundary

Landfill Length = 202 m

Landfill Width = 1 m

Base Thickness = 3 m

Base Porosity = 0.35

VARIATION IN PROPERTIES WITH TIME:

TIME PERIODS WITH THE SAME SOURCE AND VELOCITY

Period	Start Time	No. of Steps	Time Step	Source Conc	Rate of Change	Height of Leachate	Volume Collected
1	0 year	15	5 year	1500 mg/L	0	10000000 m	0 m/a
2	75 year	100	5 year	1500 mg/L	0	2.54 m	0 m/a

Period	Start Time	End Time	Darcy Velocity	Dispersivity	Base Velocity
1	0 year	75 year	0.33 m/a	0.1 m	23.5 m/a
2	75 year	575 year	0.33 m/a	0.1 m	23.5 m/a

Laplace Transform Parameters

TAU = 7 N = 20 SIG = 0 RNU = 2

Calculated Concentrations at Selected Times and Depths

Time year	Depth m	Concentration mg/L
5	0.000E+00	1.500E+03
10	0.000E+00	1.500E+03
15	0.000E+00	1.500E+03
20	0.000E+00	1.500E+03
25	0.000E+00	1.500E+03
30	0.000E+00	1.500E+03
35	0.000E+00	1.500E+03
40	0.000E+00	1.500E+03
45	0.000E+00	1.500E+03
50	0.000E+00	1.500E+03
55	0.000E+00	1.500E+03
60	0.000E+00	1.500E+03
65	0.000E+00	1.500E+03
70	0.000E+00	1.500E+03
75	0.000E+00	1.500E+03

Time year	Depth m	Concentration mg/L
80	0.000E+00	7.916E+02
85	0.000E+00	4.179E+02
90	0.000E+00	2.206E+02
95	0.000E+00	1.165E+02
100	0.000E+00	6.148E+01
105	0.000E+00	3.245E+01
110	0.000E+00	1.713E+01
115	0.000E+00	9.044E+00
120	0.000E+00	4.774E+00
125	0.000E+00	2.520E+00
130	0.000E+00	1.331E+00
135	0.000E+00	7.024E-01
140	0.000E+00	3.708E-01
145	0.000E+00	1.957E-01
150	0.000E+00	1.033E-01
155	0.000E+00	5.455E-02
160	0.000E+00	2.880E-02
165	0.000E+00	1.520E-02
170	0.000E+00	8.025E-03
175	0.000E+00	4.236E-03
180	0.000E+00	2.236E-03

Time year	Depth m	Concentration mg/L
185	0.000E+00	1.181E-03
190	0.000E+00	6.232E-04
195	0.000E+00	3.290E-04
200	0.000E+00	1.737E-04
205	0.000E+00	9.170E-05
210	0.000E+00	4.842E-05
215	0.000E+00	2.557E-05
220	0.000E+00	1.351E-05
225	0.000E+00	7.142E-06
230	0.000E+00	3.781E-06
235	0.000E+00	2.007E-06
240	0.000E+00	1.070E-06
245	0.000E+00	5.754E-07
250	0.000E+00	3.143E-07
255	0.000E+00	1.765E-07
260	0.000E+00	1.037E-07
265	0.000E+00	6.527E-08
270	0.000E+00	4.497E-08
275	0.000E+00	3.423E-08
280	0.000E+00	2.854E-08
285	0.000E+00	2.552E-08

Time year	Depth m	Concentration mg/L
290	0.000E+00	2.389E-08
295	0.000E+00	2.302E-08
300	0.000E+00	2.252E-08
305	0.000E+00	2.224E-08
310	0.000E+00	2.206E-08
315	0.000E+00	2.193E-08
320	0.000E+00	2.184E-08
325	0.000E+00	2.175E-08
330	0.000E+00	2.168E-08
335	0.000E+00	2.160E-08
340	0.000E+00	2.153E-08
345	0.000E+00	2.145E-08
350	0.000E+00	2.138E-08
355	0.000E+00	2.130E-08
360	0.000E+00	2.122E-08
365	0.000E+00	2.114E-08
370	0.000E+00	2.106E-08
375	0.000E+00	2.098E-08
380	0.000E+00	2.089E-08
385	0.000E+00	2.080E-08
390	0.000E+00	2.072E-08

Time year	Depth m	Concentration mg/L
395	0.000E+00	2.063E-08
400	0.000E+00	2.054E-08
405	0.000E+00	2.045E-08
410	0.000E+00	2.036E-08
415	0.000E+00	2.027E-08
420	0.000E+00	2.017E-08
425	0.000E+00	2.008E-08
430	0.000E+00	1.998E-08
435	0.000E+00	1.989E-08
440	0.000E+00	1.979E-08
445	0.000E+00	1.970E-08
450	0.000E+00	1.960E-08
455	0.000E+00	1.950E-08
460	0.000E+00	1.941E-08
465	0.000E+00	1.931E-08
470	0.000E+00	1.921E-08
475	0.000E+00	1.911E-08
480	0.000E+00	1.901E-08
485	0.000E+00	1.892E-08
490	0.000E+00	1.882E-08
495	0.000E+00	1.872E-08

Time year	Depth m	Concentration mg/L
500	0.000E+00	1.862E-08
505	0.000E+00	1.852E-08
510	0.000E+00	1.842E-08
515	0.000E+00	1.832E-08
520	0.000E+00	1.823E-08
525	0.000E+00	1.813E-08
530	0.000E+00	1.803E-08
535	0.000E+00	1.793E-08
540	0.000E+00	1.784E-08
545	0.000E+00	1.774E-08
550	0.000E+00	1.764E-08
555	0.000E+00	1.754E-08
560	0.000E+00	1.745E-08
565	0.000E+00	1.735E-08
570	0.000E+00	1.726E-08
575	0.000E+00	1.716E-08

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