COUPLED FLOW-TRANSPORT SIMULATION - MODEL SETUP

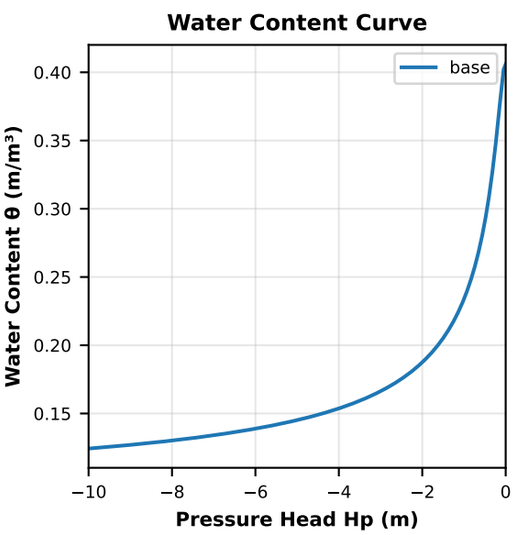
SIMULATION CONFIGURATION

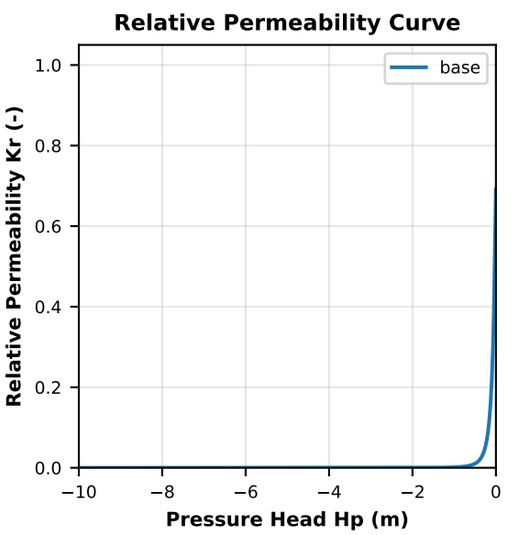
Simulation Name: Transport_Chloride
Start Date: 2024-05-01 00:00
End Date: 2024-12-30 00:00
Duration: 5832.0 hours (243.0 days)
Time Step: 7200.0 seconds (2.00 hours)

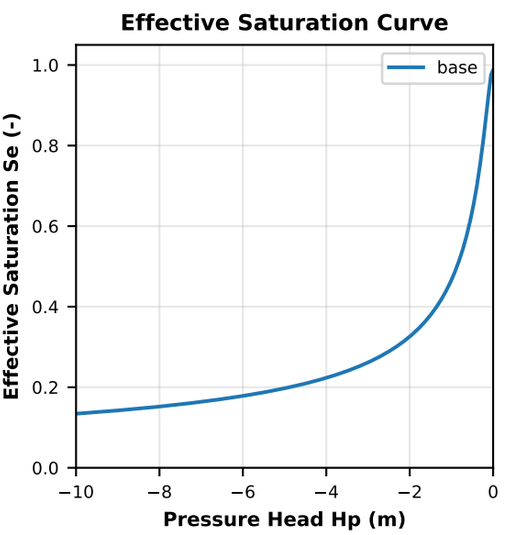
Domain: 20.0 m × 5.0 m | Mesh: 80 × 40

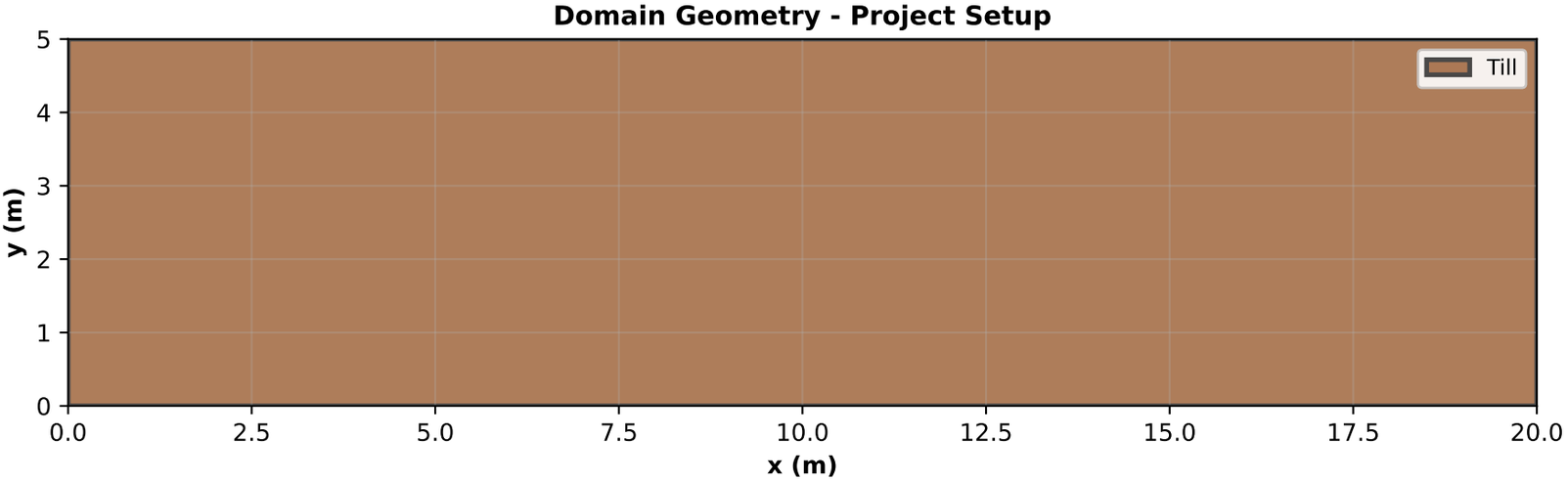
CONTAMINANT PROPERTIES

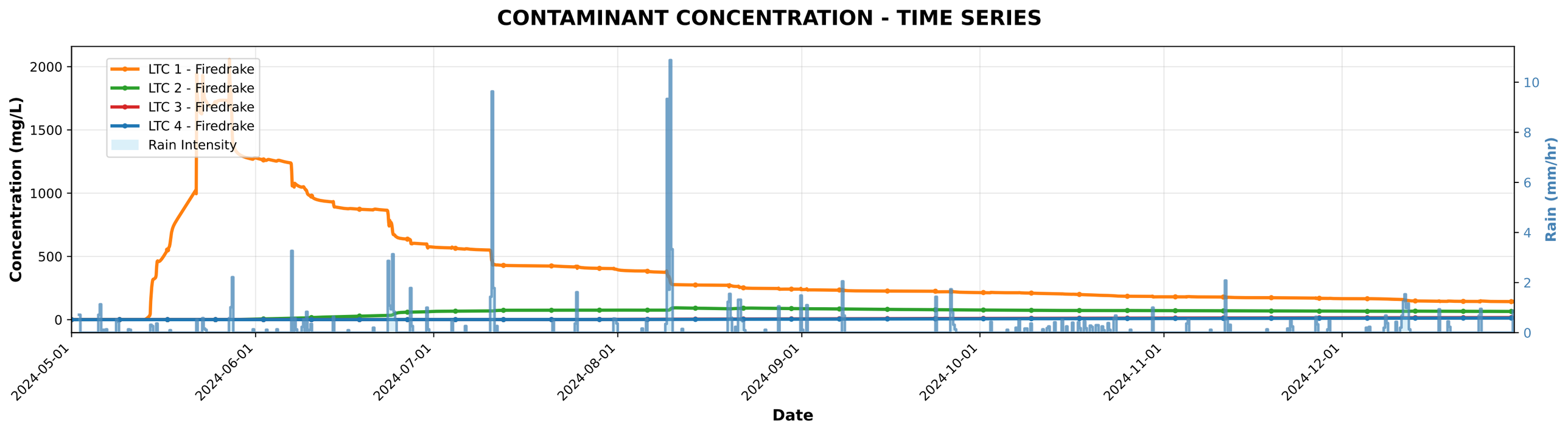
Contaminant: Chloride (Cl^-)
Application Rate: 0.1 kg/m²/hr
Application Zone: Deicing zone (9-11m, surface)
Application Duration: 1458.0 hours
Dispersivity (αL): 0.05 m
Bulk Density: 1600 kg/m³

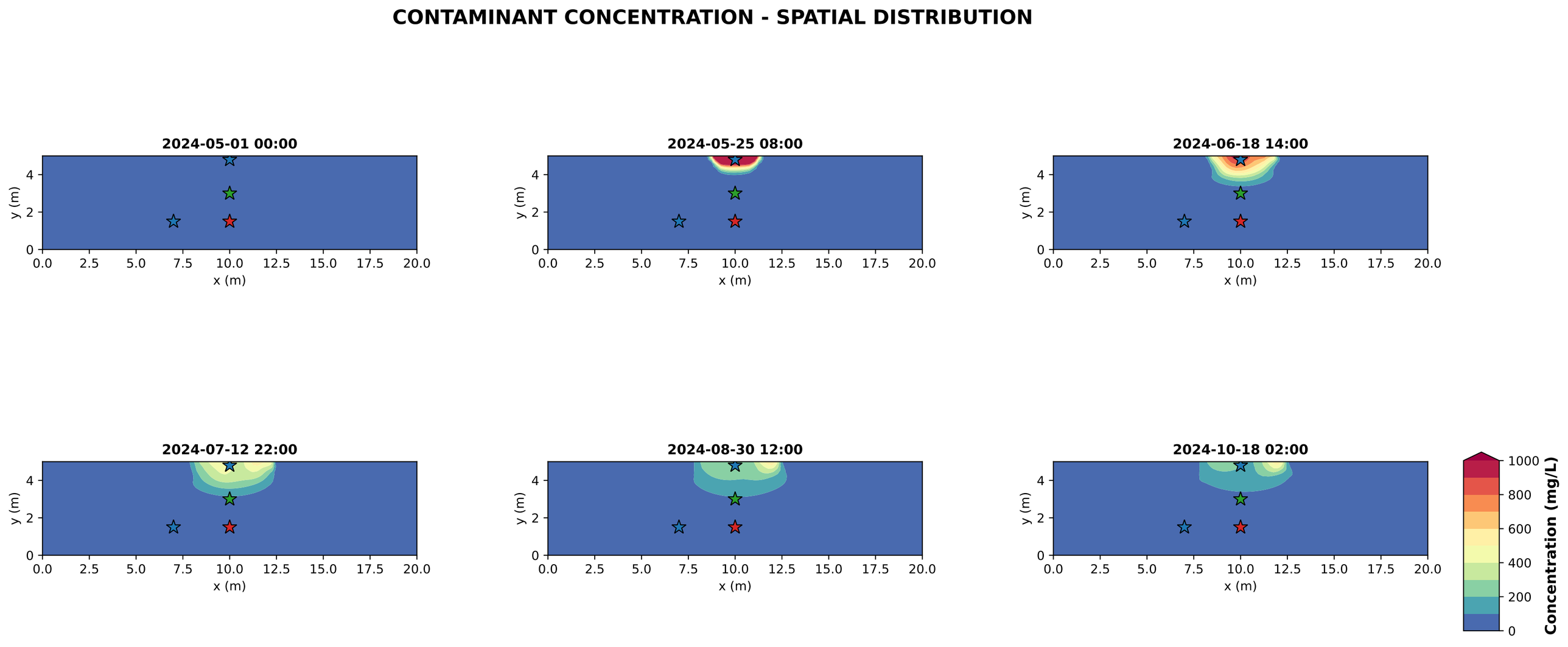









CONTAMINANT CONCENTRATION - TIME SERIES
LTC 1 - Firedrake
LTC 2 - Firedrake
LTC 3 - Firedrake
LTC 4 - Firedrake
Rain Intensity
Concentration (mg/L)
Rain (mm/hr)
Date
2000
1500
1000
500
0
10
8
6
4
2
0
2024-05-01
2024-06-01
2024-07-01
2024-08-01
2024-09-01
2024-10-01
2024-11-01
2024-12-01


CONTAMINANT CONCENTRATION - SPATIAL DISTRIBUTION
2024-05-01 00:00
2024-05-25 08:00
2024-06-18 14:00
2024-07-12 22:00
2024-08-30 12:00
2024-10-18 02:00
y (m)
x (m)
0
2
4
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
20.0
Concentration (mg/L)
0
200
400
600
800
1000