

5. MASS TRANSPORT IN SATURATED MEDIA

Context:



1. Immiscible flow gives relative location and saturation.

If truly immiscible \rightarrow no problem.

But \rightarrow • Slightly soluble

• Hazardous @ less than solubility

Mass transport accommodates:

a) Species carried as a dissolved aqueous plume

b) Same density as water (ppm or ppb)

sometimes density important - salt concentrations

Transport Mechanisms

1. Advection; $v_a = l/t$ $l = v_a t$
2. Diffusion + Mechanical dispersion = Hydrodynamic dispersion

