

7.1.3 Gas-phase Advection

Gas-phase Advection

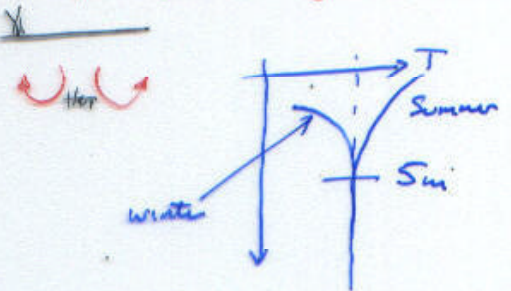
• driving forces include:

• pressure gradients due to:

- barometric pressure variation
- water movement (Vadose zone)
- vapourization at source
 - microbial activity

• density gradients due to:

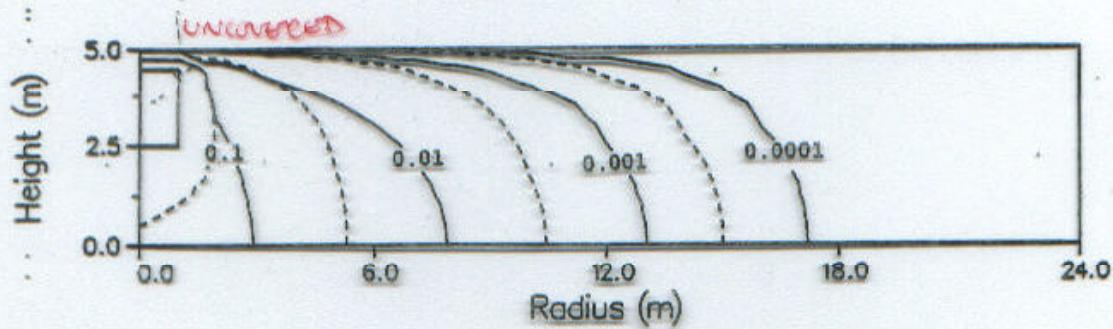
- composition - Different proportions of compounds in gas mixture
- temperature (convection cell)



Gas-phase Advection

Example

- advection due to compositional density
- medium-grained sand ($k^* = 10^{-11} \text{ m}^2$)



13.8 kg to groundwater after 6 months

*Compared to 5.7kg after 6 months
for uncovered.*