

عنوان مقاله:

A Laboratory Study on Contaminant Transport through Silt from Urmia Landfill Site, Iran, by Advection-Diffusion and Hydraulic Trap System

محل انتشار:

ششمین کنفرانس بین المللی مهندسی عمران (سال: 1382)

تعداد صفحات اصل مقاله: 8

نویسندگان:

K. Badv, Assistant Professor - *Department of Civil Engineering, Urmia University, Urmia, Iran*

R. Abdolalizadeh - *Department of Civil Engineering, Urmia University, Urmia, Iran*

خلاصه مقاله:

Laboratory models were designed to examine chloride migration through silt sample from Urmia City landfill site, Iran, by advective-diffusive transport. The effect of hydraulic trap in minimizing chloride movement through silt was investigated. Two advective-diffusive tests were conducted through silt with different downward flow rates. Using the diffusion coefficients already determined from pure diffusion tests, measured Darcy velocities, tests boundary conditions, and soils physical and chemical properties, the measured contaminant profiles were accurately predicted by a theoretical model. Two advective-diffusive tests were conducted using the hydraulic trap configuration (upward flow) with different flow rates for each test. The experimental results were in good agreement with the theoretical predictions. The comparison between the results with downward and upward flow tests showed that the hydraulic trap configuration could significantly decrease the contamination potential through silt and the underlying receptor reservoir.

کلمات کلیدی:

Contaminant Transport, Diffusion, Advection, Hydraulic Trap

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1140>

