

PERTEMUAN PERSATUAN (MEETINGS OF THE SOCIETY)

CERAMAH TEKNIK (TECHNICAL TALK)

W. Drost: Nuclear tracer techniques in groundwater studies

Laporan (Report)

Pada hari Jumaat, 3 Mac, 1989 lalu bertempat di Jabatan Geologi, Universiti Kebangsaan Malaysia, Dr. W. Drost, pakar IAEA yang kini bertugas di Institute of Hydrology, Munich, Republik Persekutuan Jerman telah menyampaikan sebuah ceramah teknik yang menarik bertajuk "Nuclear Tracer Techniques In Groundwater Studies". Ceramah ini dihadiri oleh 35 orang, terdiri daripada ahli-ahli akademik, penyelidik dari Puspati, pelajar-pelajar siswazah serta beberapa orang dari syarikat swasta. Selepas ceramah, Dr. Drost telah diraikan oleh Persatuan di dalam suatu jamuan "satey Kajang", yang disertai juga oleh semua hadirin.

Abstrak (Abstract)

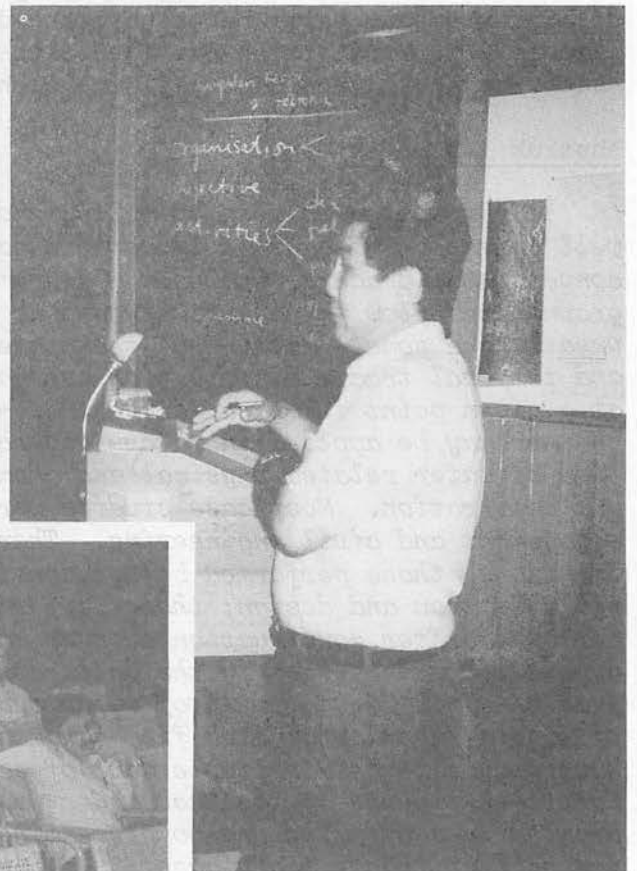
Groundwater tracing by multi- and single-well techniques by means of well selected radioactive tracers, which have several advantages over conventional tracers, includes measurement of transport parameters of groundwater flow in saturated rocks as well as moisture movement in the unsaturated zone. Multi-well techniques give information on the spatial and temporal tracer distribution over a given distance, and tracer evolution at a given point is measured by single-well techniques. The techniques have been or may be applied in water resources evaluation, scientific investigation of water related physical and chemical processes, and model formulation and calibration. Most case studies were encountered in problems of water management and civil engineering. There have been three levels of investigations, those performed before construction for feasibility studies, site investigation and design; those performed during construction and those performed after construction such as maintenance and control. Other applications have been in the delineation of protection zones as an important feature of the development of water supplies, and the subsurface drainage of liquid waste originated from man-made or natural sources. The techniques have proved to be a reliable tool of easy and economical applicability. Sometimes the use of the techniques is unique, in many cases they are of promise in confirming and complementing data which have been gathered from non nuclear tracer techniques.

Hamzah Mohamad

W. Drost at Universiti Kebangsaan Malaysia.



Techniques in Geodynamic Studies". Course in Geodynamic Studies, organized by the Department of Geology, Universiti Kebangsaan Malaysia.



H.D. Tjia and the Working Group on Tectonics and Structural Geology Meeting.