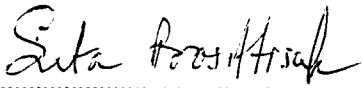
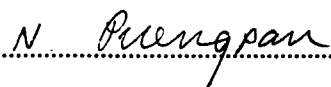


THESIS TITLE:
 SOME PHYSICAL AND CHEMICAL PROPERTIES OF
 GROUND WATER AT SALT-AFFECTED AREA IN
 KHON KAEN PROVINCE

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ABSTRACT

A net of 16 piezometers was established in a salinized undulating region covered 16 km² at Phra Yun District, Khon kaen Province. Samples of groundwater were collected two time (in rainy season 1996 and in dry season 1997) from each of piezometers for three different depths (5, 10, 15 meters). Piezometers were installed at each intersecting points of one Kilometer grid. The groundwater sample were measured for physical properties (pH and EC) and some chemical properties such as carbonate, bicarbonate, chloride, nitrate, sulfate, sodium, potassium, calcium, magnesium, iron, manganese, cadmium, zinc, copper and lead.

The obtained experimental data led to the following conclusion :

1. Sodium chloride was predominating solute of all groundwater samples, which was consistent with increasing of EC as the depths increased.
2. pH, EC, carbonate, bicarbonate, chloride, nitrate, sulfate, sodium, potassium, calcium, magnesium, iron, manganese, cadmium, zinc, copper and lead contents were found to increase with increasing depths.
3. Variation of some ions content in some sites were suggested to be affected by the amount of rainfall and/or subodinate supply of salts as well as the geomorphological position.