

HYDROGEOLOGICAL AND HYDRO-GEOCHEMICAL CHARACTERISTICS OF THE IMSIL COUNTY IN KOREA

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By the lineament interpretation, the potential of groundwater resources is deeply related with lineament direction. The potential of groundwater resources related with NE and NNW trends in granite area, NNE and NNW trend in volcanic area, NW trend in sedimentary area in granite area. By the result of pumping test the coefficient of transmissibility(T) is 23.34 m^2/day , and the coefficient of storage(S) is 0.0000791 in granite area, T is 17.24 m^2/day , and S is 0.0000394 in sedimentary rock area, and T is 25.78 m^2/day and S is 0.0000394 in gneiss area. Hydrochemical characteristics of groundwater are as follows. The maximum correlation ratio is 0.884 of Na and Cl of total constituents, and the water quality belongs to the type of carbonate hardness, Ca-HCO_3 type in the groundwater of weathered zone. The maximum correlation ratio is 0.783 of Na and SO_4 of total constituents, and the water quality belongs to the type of carbonate hardness, Ca-HCO_3 type in the groundwater of granite area. The maximum correlation ratio is 0.783 of Mg and SO_4 of total constituents, and the water quality belongs to the type of carbonate hardness, Ca-HCO_3 type in the groundwater of volcanic rock area. The maximum correlation ratio is 0.328 of Ca and Mg of total constituents, and the water quality belongs to the type of carbonate hardness, Ca-HCO_3 type in the groundwater in sedimentary rock area.