

ALGUNS PROBLEMAS RELACIONADOS COM A DETERMINAÇÃO DE FLUXO DE CALOR EM BACIAS SEDIMENTARES

SOME PROBLEMS RELATED WITH HEAT FLOW DENSITY DETERMINATIONS IN SEDIMENTARY BASINS

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SUMMARY

Heat flow density values are commonly obtained from well logs considering heat conduction in the vertical direction. Problems like sedimentation, groundwater migration, porosity and non-vertical heat flow are presented and discussed in this work. In order to obtain the non-vertical heat flow, we made two-dimensional numerical models of conductive heat flow in a region with a fault and along a 2-D profile obtained in a sedimentary basin.

The profile shows high thermal conductivity contrasts between salt structures and sediments. The effect of porosity in thermal conductivity data is included. Vertical heat flow, horizontal heat flow and temperature anomalies are analysed.