

INCLUSIONES FLUIDAS E ISÓTOPOS DE OXÍGENO EN LOS CUARZOS AUTIGÉNICOS DE LA FORMACIÓN AUQUILCO, YESERA DEL TROMEN, PROVINCIA DEL NEUQUEN

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Abstract

In authigenic quartz were recognized hydrocarbon and aqueous fluid inclusions in Auquilco Formation, Neuquén basin, Argentina. Previous researchs recognized fluid inclusions, reconstructed the diagenetic history and postulated the source of SiO₂ into the evaporitic and calcareous beds. In this study salinities from aqueous fluid inclusions and oxigene isotope from quartz crystals were determined.

Neuquén basin is an extensive sedimentary basin, which grow up during early Jurassic with a thick Jurassic-Cretacic record. Its filling has a marked ritmicity with marine and continental deposits.

In this study the organic and aqueous fluid inclusions are classified as I, II and III types and subclassified according to their shapes (euhedral, subhedral and anhedral), their phases (liquid, bubble and solid) and the ratio of the phases (L>B, B>L). The phase defined as B (bubble) at room temperature is redefined as V (vapor) or F (fluid) alter microthermometric test. A fluid with approximately 10% of salinity composed by H₂O - Ca Cl₂ - NaCl - KCl and probably Mg were determined into the aqueous inclusions. Another fluid composed by C, S, O was determined into the organic inclusions.

Values of 22.65 and 21.98 per mil SMOV in oxigene isotope were determined in quartz crystals and according to its formation temperature (134°C) represent a new values of 5.8 and 5.13 per mil SMOW, indicatives of evaporitic source.

Both previous values, salinity of fluid inclusions and oxigene isotopes, suggest a basinal source for the fluids carrying hydrocarbon and salts.