

## **THE COALBED METHANE POTENTIAL OF PERMIAN COALS IN THE PARANÁ BASIN OF BRAZIL**

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Coalbed methane is worldwide exploration target in many countries and is produced economically from a number of coal basins in the United States. In Brazil coal-measures occur in the southern Paraná Basin with proven coal reserves in the order of 32 billion tons. The current project is aimed at evaluating the amount of methane generated in these Brazilian coal deposits. By using existing data on coal quality, coal rank, reserves and depth of the deposits it has become apparent that the Chico Lomã and Santa Terezinha Coalfields in Rio Grande do Sul are the prime candidates for exploration of coalbed methane in this country. Preliminary results on the assessment of coalbed methane volumes in the Santa Terezinha Coalfield suggest that the methane generated is in the order of 19 Billion m<sup>3</sup>, based on the distribution of the 3 major seams at a depth level from 400 to 950 m. Current work focuses on the distribution of the coal seams using sequence stratigraphic concepts, the determination of coal rank by vitrinite reflectance, coalbed methane adsorption experimentation to study the gas holding capacity of the seams and to create a geological model to delineate the coalbed methane contents within the deposits.