

Exploration Strategies for Coal Bed Methane in the Western Region of the Interior Coal Province

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The Pennsylvanian Age coals of the Western Region of the Interior Coal Province are being exploited as sources of gas in Oklahoma, Arkansas, Missouri and Kansas. The coals that have been the target of coal bed methane exploitation since the 1920s are found in the Cherokee and Marmaton Groups. The Western Region of the Interior Coal Province is composed of the Arkoma Basin, Cherokee Basin and Forest City Basin. The coals in the basin average less than two feet but are laterally consistent and are present throughout much of the basin. Over the past two years a number of test wells and pilot projects have been initiated that have helped define the play. New geologic data not directly related to the reservoir characteristics of the coals but related to the geologic and thermal history of the basin provide a more accurate definition of the area where the coals will probably be gas saturated and those areas where the coals are under-saturated. In addition, specific coals do not seem to be gas bearing whereas others consistently produce significant gas. By integrating various data sets an exploration strategy is provided for developing coal bed methane areas profitably in the Western Region of the Interior Coal Province.