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42. VARIABILITY OF OIL GENERATION FROM COALS OF THE BLACKHAWK FORMATION AS DETERMINED BY HYDROUS PYROLYSIS. M. D. Lewan, Amoco Production Company, P.O. Box 3385, Tulsa, Oklahoma 74102.

The variability of oil generation from lithotypes within three coal seams of the Blackhawk Formation (Late Cretaceous) was determined by hydrous pyrolysis. All three seams are at the same level of thermal maturity and occur within 30 meters of one another in the King Coal Mine, Hiawatha, Utah. Coal samples were heated under hydrous conditions at 365°C for 72 hours and generated oils were collected at temperature by a hot-transfer procedure. Yields of generated oil from the 13 coal samples ranged from 5.5 to 16.1 weight percent on a mineral-free coal basis. This variation showed no relationship with vitrains or clarains, but the lowest yield was from the one sample of durain. Variations in resinite content and maceral types also showed no relationship to the yields. The most apparent relationship was the increase in yield with the increase in hydrogen content of the coal. Except for the durain sample, all of the generated oils had gas chromatograms with high-molecular weight normal alkanes and had pour points greater than 25°C.