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Coal Resources of the Springfield Coal Bed in Western Kentucky

William M. Andrews Jr., Robert E. Andrews, and John K. Hiett

Introduction

Historically, the Springfield (Western Kentucky No. 9) coal bed has been the leading source of production in the Western Kentucky Coal Field. The Springfield coal is known for its lateral continuity in terms of thickness and coal quality. It is estimated to have the largest original and remaining resource in the Western Kentucky Coal Field (KGS and AEE, 1992).

Map Compilation

The color plates of the Springfield coal bed were digitized from 1:125,000-scale Myler compilation maps that were produced by the Kentucky Geological Survey. Data for coal thickness in exploratory producing fields were obtained from the Kentucky Geological Survey database. Data for coal thickness in subsurface locations and the Illinois Basin were obtained from the Illinois State Geological Survey. Data for coal thickness in nonsubsurface locations and the Illinois Basin were obtained from the Illinois State Geological Survey, and United States Geological Survey (USGS) coal field maps. In 1992, the USGS published a new coal series map with height and parting information. These data were used to create the continuous thickness map shown on the plate.

Data for coal thickness in exploratory producing fields were obtained from the coal bed database at the Kentucky Geological Survey. Some of the boreholes were drilled during 213 projects, but most data were submitted to KGS by coal companies and other government agencies. The data were entered into the database, and coal thickness and seam height were recorded. The data were confirmed during field checks of the borehole records. Final thicknesses were estimated from data for digital measurements. An accuracy estimate is also provided to produce the interpolated continuous thickness maps from the point data.

Coal beds were manually correlated and tagged. Seam height, parting thickness, and elevation from 2,258 boreholes were measured from published data (KGS and AEE, 1992). Coal was measured from 2,258 boreholes, which were from 1987. 2005. All maps universal transverse Mercator, zone 16: 1927 North American datum.

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Coal Resources

Resource estimates for the Springfield coal bed in western Kentucky (Table 1) were calculated using KGS coal thickness data. Coal thickness data were digitized from published data for 1970 and 1992. The data were confirmed during field checks of the borehole records. Final thicknesses were estimated from data for digital measurements. An accuracy estimate is also provided to produce the interpolated continuous thickness maps from the point data.

Remaining coal resources were estimated for the Springfield coal across all of western Kentucky. Coal that has been removed from production or identified as low-grade coal was removed from the total resource estimate. Coal that is less than 14 inches in thickness was estimated at 0.35 billion tons. This estimate is based on the assumption that coal less than 14 inches in thickness is not economically recoverable. Coal that has been removed from production or identified as low-grade coal is not included in the resource estimates for the Springfield coal bed in western Kentucky.

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References Cited