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Danville Coal Sulfur
DOUGLAS
County

County Coal Map Series

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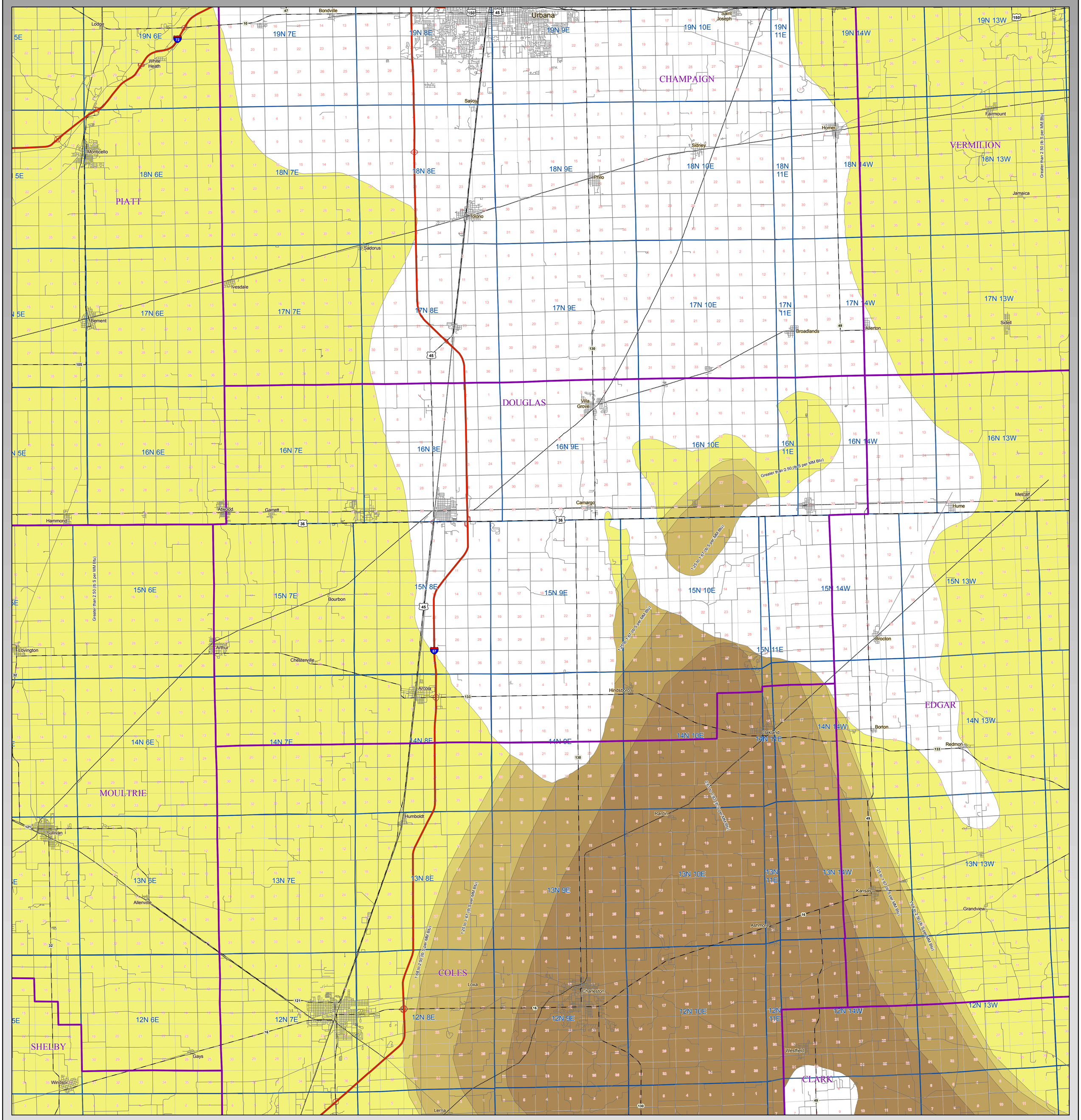
Map construction: October 29, 2009

This product is under review and may not meet the standards of the Illinois State Geological Survey.

County coal maps and select quadrangle maps available as downloadable PDF files at:
http://www.isgs.illinois.edu/maps-data-pub/coal-maps/county-index.shtml



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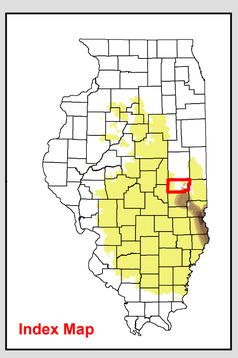


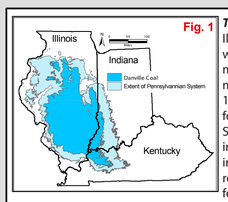


Fig. 1

The Danville Coal underlies about two thirds of Illinois as well as portions of western Indiana and western Kentucky. The coal crops out along the margins of the Illinois Basin and reaches a maximum depth in Illinois of about 1,200 feet. (See Fig 1. and Fig 2.) The Danville Coal is in the Shelburn formation which is part of the Desmoninesian Series. The Danville Coal has been mined in Livingston, McLean, La Salle, and Marshall Counties in addition to Vermilion County. In most of the remainder of the state it is a thin coal, generally a few inches to less than 3 feet thick. The Danville Coal is generally overlain by the Farmington Shale Member of the Shelburn Formation, but in places the immediate roof is 1-2 feet of black fissile shale. It is underlain by a relatively thick underclay. At the type locality in Vermillion county, the Danville Coal is 6 feet thick and occurs 20 feet above the Herrin Coal. (Hopkins, 1968 - B95). (See Fig 4.)

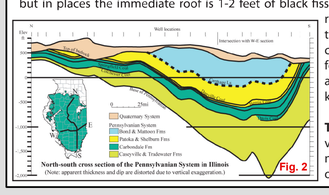
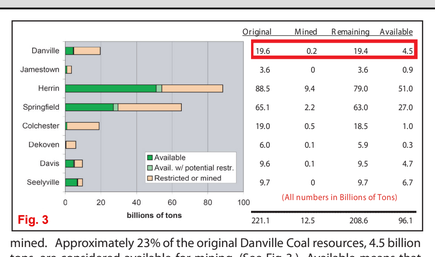


Fig. 2

The original resource of Danville Coal in the State of Illinois totals 19.6 billion tons, of which 0.2 billion have been mined. Approximately 23% of the original Danville Coal resources, 4.5 billion tons, are considered available for mining. (See Fig 3.) Available means that the surface land-use and geologic conditions related to mining of the deposit (e.g. thickness, depth, in-place tonnage, stability of bedrock overburden) are comparable to other coals currently being mined in the state. Of these resources, 4 billion tons occur in coal 42 to 66 inches thick and 0.4 billion tons occur in thicknesses greater than 66 inches.

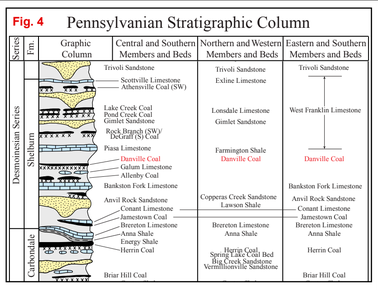


	Original	Mined	Remaining	Available
Danville	19.6	0.2	19.4	4.5
Jamestown	3.6	0	3.6	0.9
Herrin	88.5	9.4	79.0	51.0
Springfield	65.1	2.2	63.0	27.0
Colchester	19.0	0.5	18.5	1.0
Dekoven	6.0	0.1	5.9	0.3
Davis	9.6	0.1	9.5	4.7
Seelyville	9.7	0	9.7	6.7
			(All numbers in Billions of Tons)	
	221.1	12.5	208.6	96.1

Fig. 3

The Danville Coal has been mined in Illinois for 100 years, but only about 1% of the original resource has been depleted. The most extensive area of mining was in east-central Illinois near the city of Danville where the coal has been mined by both surface and underground methods. Except for mines in east-central Illinois, most large surface mines recover the Danville Coal only as part of their operation to remove overburden to mine the underlying Herrin Coal. In many cases, the Danville seam has been considered to be too thin or too poor in quality to justify recovery and was simply discarded in the spoil pile with other rock overburden. (Modified from ISGS Pub. IM 124, Korose, et al)

Fig. 4 Pennsylvanian Stratigraphic Column



References:
- *Handbook of Illinois Stratigraphy, 1975, Illinois State Geological Survey Bulletin 95, 261p.*
- *Christopher P. Korose, Colin G. Treworgy, Russell J. Jacobson, and Scott D. Elrick, 2002, Availability of the Danville, Jamestown, Dekoven, Davis, and Seelyville Coals for mining in Selected Areas of Illinois: Illinois State Geological Survey Illinois Minerals 124, 44 p.*

Coal Sulfur

- Less than or equal to 0.40 (lb S per MM Btu)
- 0.41 to 0.60 (lb S per MM Btu)
- 0.61 to 0.83 (lb S per MM Btu)
- 0.84 to 1.24 (lb S per MM Btu)
- 1.25 to 1.67 (lb S per MM Btu)
- 1.68 to 2.50 (lb S per MM Btu)
- Greater than 2.50 (lb S per MM Btu)

Map Explanation

The maps and digital files of this study were compiled from data from a variety of public and private sources and have varying degrees of completeness and accuracy. They present interpretations of the geology of the area and are based on available data. However, these interpretations are based on data that may vary with respect to accuracy of geographic location, type, quantity, and reliability, as they were supplied to the Illinois State Geological Survey. Consequently, the accuracy of the interpreted features shown in these files is subject to the limitations of the data and varies from place to place.

Contoured features less than 7 million square feet (about 1/2 mile square) in area may not be accurately portrayed or resolved. This data set provides a large-scale conceptual model of the geology of the area on which to base further work. These data are not intended for use in site-specific screening or decision-making. Data included in this map are suitable for use at a scale of 1:100,000.

Disclaimer

The Illinois State Geological Survey and the University of Illinois make no guarantee, expressed or implied, regarding the correctness of the interpretations presented in this data set and accept no liability for the consequences of decisions made by others on the basis of the information presented here.

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