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## Herrin Coal Chlorine MOULTRIE County

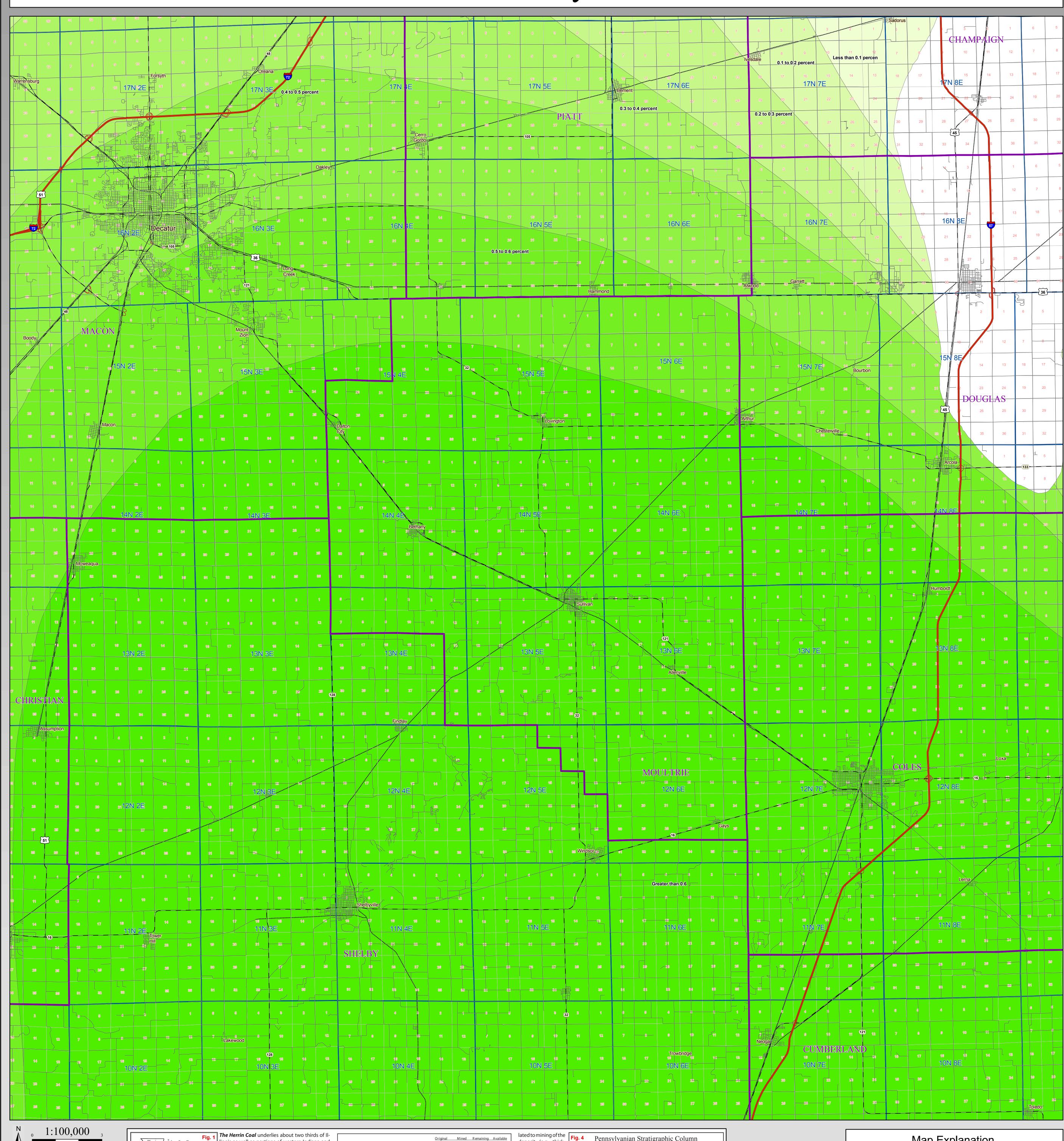
County Coal Map Series Andrew Louchios, Scott Elrick,

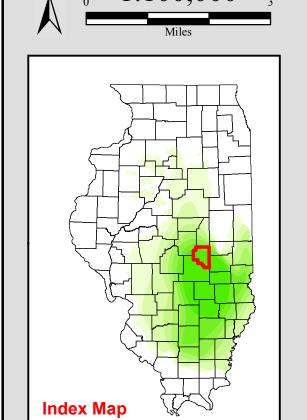
Map construction: October 29, 2009

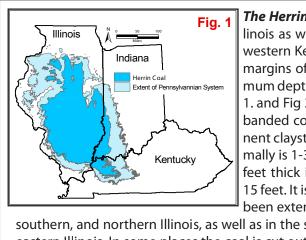
Chris Korose, David Morse

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







orth-south cross section of the Pennsylvanian System in Illinois

The Herrin 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 1,300 feet. (See Fig . and Fig 2.) The Herrin Coal is a normal brightbanded coal. Its lower portion contains a prominent claystone parting (the "blue band") that normally is 1-3 inches thick. It averages more than 6 feet thick in extensive areas and locally reaches 15 feet. It is thin in much of central Illinois but has been extensively mined in western, west-central,

southern, and northern Illinois, as well as in the southern part of the Danville region of eastern Illinois. In some places the coal is cut out by channels filled with the Anvil Rock Sandstone Member. In parts of Illinois, silty gray shale as much as 100 feet thick overlies the Herrin Coal. Associated with this shale is a channel sandstone commonly as much as a mile wide and 60-

						<u>Original</u>	Mined	R emaining	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			■ Availa ■ Availa	able . w/ potent	ial restr.	9.6	0.1	9.5	4.7		
Seelyville			Restr	ricted or m	ned	9.7	0	9.7	6.7		
	0 2	20 4	10 6	0 8	80	100	(All numbers in Billions of Tons)				
Fig. 3	billions of tons				221.1	12.5	208.6	96.1			
is overlain by relatively thick bodies of the gray shale of up to a few tens of feet it has a much lower sulfur content than elsewhere. The gray shale over-											

rn part of the Danville region of	1								
annels filled with the Anvil Rock	Fig. 3	billions of tons	221.1	12.5	208.6	96.1			
Sandstone Member. In parts of Illinois, silty gray shale as much as 100 feet thick overlies the Herrin Coal. Associated with this shale is a channel sandstone commonly as much as a mile wide and 60-	feet it has a lies the coa St. Clair, eas Coal is over	by relatively thick bodies of the much lower sulfur content than of principally in parts of William stern Macoupin, and S. Vermiliarlain by either the Anna Shale Impestone Member. (Hopkins, 196	in elsewh nson, Fra on. Gene Member	nere. The inklin, Jef erally, how (black fis	gray sha ferson, M wever the sile shale	le over ladison Herrir			
80 feet thick mapped as Anvil	<b>T</b> he origina	l resource of Herrin Coal in the	State of	f Illinois t	otals 88.5	billior			

coal. In areas where the coal Fig 3.) Available means that the surface land-use and geologic conditions re- Coal for mining in Illinois: Illinois State Geological Survey Illinois Minerals 120, 54 p.

												4		
linois of about 1,300 feet. (See Fig	Herrin	88.5	9.4	79.0	51.0	of bedrock overbur-	an S	EXXXXXXXXXXX	Galum Limestone Allenby Coal					
he Herrin Coal is a normal bright-	Springfield	65.1	2.2	63.0	27.0	den) are comparable	nesi	la l	Bankston Fork Limestone		Bankston Fork Limestone	ı		
s lower portion contains a promi-						to other coals cur-	iom	She	Anvil Rock Sandstone Conant Limestone	Copperas Creek Sandstone Lawson Shale	Anvil Rock Sandstone  — Conant Limestone	ı		
parting (the "blue band") that nor-	Colchester	19.0	0.5	18.5	1.0	rently being mined	Desi		Jamestown Coal —		— Jamestown Coal			
nes thick. It averages more than 6	Dekoven	6.0	0.1	5.9	0.3	in the state. Of these			Brereton Limestone Anna Shale	Brereton Limestone Anna Shale	Brereton Limestone Anna Shale			
tensive areas and locally reaches	Davis Available	ntial restr. 9.6	0.1	9.5	4.7	resources, 21 billion		*******	Energy Shale Herrin Coal	Herrin Coal	Herrin Coal			
in much of central Illinois but has	Seelyville Restricted or	nined 9.7	0	9.7	6.7	tons occur in coal	eries			Spring Lake Coal Bed Big Creek Sandstone Vermillionville Sandstone				
ly mined in western, west-central,			All numbers in	Billions of Tor	ns)	42 to 66 inches thick	n S	XXXXXXX	Briar Hill Coal  Canton Shale	Canton Shale	Briar Hill Coal Canton Shale			
ern part of the Danville region of	0 20 40 60 billions of tons	80 100				and 30 billion tons	esia	ndal	St. David Limestone Turner Mine Shale	St. David Limestone Turner Mine Shale	St. David Limestone Turner Mine Shale			
hannels filled with the Anvil Rock	Fig. 3	221.1	12.5	208.6	96.1	occur in thicknesses	noin	rbo	Dykersburg Shale					
Sandstone Member. In parts	is overlain by relatively thick bodie	ens of	greater than 66 inch-	Jesn	2 <b>B B B B B B B B B B</b>	Springfield Coal	Springfield Coal Covel Conglomerate	Springfield Coal						
of Illinois, silty gray shale as	feet it has a much lower sulfur con	es. (Modified from	$\ ^{-}\ $		Hanover Limestone Excello Shale	Hanover Limestone Excello Shale	Excello Shale	ı						
much as 100 feet thick over-		ISGS Pub. IM 120,		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	Houchin Creek Coal Roodhouse Coal	Houchin Creek Coal Breezy Hill Limestone	Houchin Creek Coal	ı						
lies the Herrin Coal. Associ-	lies the coal principally in parts of				Pleasantview Sandstone	Kerton Creek Coal Pleasantview Sandstore	Pleasantview Sandstone							
	St. Clair, eastern Macoupin, and S. Vermilion. Generally, however the Herrin Treworgy, et al)										<del>!</del>	ı		
	with this shale is a chan- andstone commonly as Brereton Limestone Member. (Hopkins, 1968 - B95, See Fig 4.)													
nel sandstone commonly as														
much as a mile wide and 60-														
80 feet thick mapped as Anvil	80 feet thick mapped as Anvil  The original resource of Herrin Coal in the State of Illinois totals 88.5 billion							References:						
Rock Sandstone and may be	- Handbook of Illinois Stratigraphy, 1975, Illinois State Geological Survey Bulletin 95, 261p.													
contemporaneous with the	tons, of which 9.4 billion have been Herrin Coal resources, 51 billion ton	- Treworgy, C.G., C.P. Korose, C.A. Chenoweth, and D.L. North, 1999a, Availability of the Herrin												
	ricitiii Coartesoarces, 5 i billioit tori	9. (300	5,7, 5,5,7		-,	. ,	, ,	,						

deposit (e.g. thick-

ness, depth, in-place tonnage, stability Pennsylvanian Stratigraphic Column

| Central and Southern | Northern and Western | Eastern and Southern | Members and Beds | Members and Beds | Danville Coal | D

## **Coal Chlorine** Less than 0.1 % 0.1 to 0.2 % 0.2 to 0.3 % 0.3 to 0.4 % 0.4 to 0.5 % 0.5 to 0.6 % Greater than 0.6 %

## 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.

## **Disclaimer**

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