Institute of Natural Resource Sustainablity

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## Herrin Coal Chlorine CLINTON County

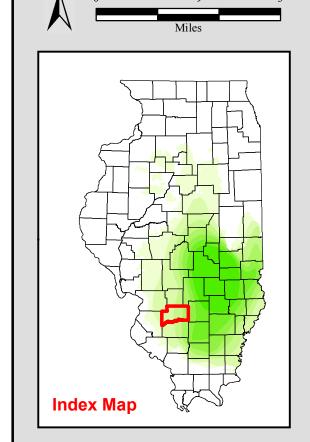
County Coal Map Series Andrew Louchios, Scott Elrick, Chris Korose, David Morse

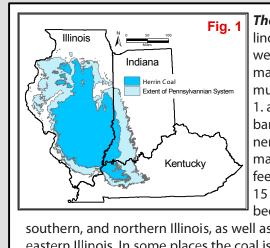
Map construction: October 29, 2009

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



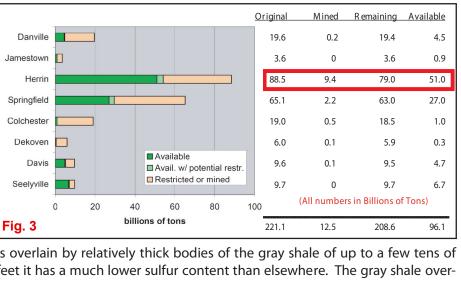




orth-south cross section of the Pennsylvanian System in Illinois

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 60-80 feet thick mapped as Anvil The original resource of Herrin Coal in the State of Illinois totals 88.5 bil



	0	20	40	60	80	100		(All numbers in Billions of Tons)				
Fig. 3			billions	billions of tons		2	21.1	12.5	208.6	96.1		
feet it ha lies the o St. Clair,	as a r coal east overla	much le princip ern Ma ain by	ower subally in acoupir either t	ulfur co parts on, and the Ani	ontent of Will S. Verr na Sha	than e liamso milion. ale Mei	elsew n, Fra Gen mber	here. The anklin, Jet erally, ho (black fis	to a few gray sha fferson, M wever the ssile shale	le over- adison Herrin		

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.

contemporaneous with the Herrin Coal resources, 51 billion tons, are considered available for mining. (See

portions of western indiana and			1				deposit (e.g. thick-			<i>J</i>	8 1	
ky. The coal crops out along the	Danville		19.6	0.2	19.4	4.5	ness, depth, in-place	ries	Graphic Galumn			I II
Illinois Basin and reaches a maxi-	Jamestown		3.6	0	3.6	0.9	tonnage, stability	er Se	Column	Members and Beds  Danville Coal	Members and Beds  Danville Coal	Members and Beds  Danville Coal
linois of about 1,300 feet. (See Fig	Herrin		88.5	9.4	79.0	51.0	of bedrock overbur-	an Se	××××××××××××××××××××××××××××××××××××××	Galum Limestone Allenby Coal		
he Herrin Coal is a normal bright-	Springfield		65.1	2.2	63.0	27.0	den) are comparable	nesia		Bankston Fork Limestone		Bankston Fork Limestone
lower portion contains a promi-							to other coals cur-	moii !	She	Anvil Rock Sandstone Conant Limestone	Copperas Creek Sandstone Lawson Shale	Anvil Rock Sandstone  Conant Limestone
parting (the "blue band") that nor-	Colchester		19.0	0.5	18.5	1.0	rently being mined	Desi		Jamestown Coal —	D	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  Avail. w/ potential 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 mined	9.7	0	9.7	6.7	tons occur in coal	ries			Herrin Coal Spring Lake Coal Bed Big Creek Sandstone Vermillionville Sandstone	
y mined in western, west-central,	, =			All numbers in			42 to 66 inches thick	n Se	XXXXXXX	Briar Hill Coal	Canton Shale	Briar Hill Coal Canton Shale
ern part of the Danville region of	0 20	40 60 80 10	00				and 30 billion tons	esia	da da da	St. David Limestone	St. David Limestone	St. David Limestone
hannels filled with the Anvil Rock	Fig. 3	billions of tons	221.1	12.5	208.6	96.1	occur in thicknesses	ig .	o I	Turner Mine Shale  Dykersburg Shale	Turner Mine Shale	Turner Mine Shale
Sandstone Member. In parts		1 .1 . 1 . 1						esm	PRINTER P	Springfield Coal	Springfield Coal Covel Conglomerate	Springfield Coal
•		vely thick bodies of the					greater than 66 inch-			Hanover Limestone	Hanover Limestone	
of Illinois, silty gray shale as	feet it has a much lo	ower sulfur content tha	n elsewł	nere. The	gray shal	e over-	es. (Modified from		XXXXXXXXX	Excello Shale Houchin Creek Coal	Excello Shale Houchin Creek Coal	Excello Shale Houchin Creek Coal
much as 100 feet thick over-	lies the coal princip	ally in parts of William	son, Fra	nklin, Jeff	erson, M	adison,	ISGS Pub. IM 120,			Roodhouse Coal Pleasantview Sandstone	Houchin Creek Coal Breezy Hill Limestone Kerton Creek Coal Pleasantview Sandstore	Diagrams Conditions
lies the Herrin Coal. Associ-	St. Clair, eastern Ma	acoupin, and S. Vermilio	n. Gene	erally, how	vever the	Herrin	Treworgy, et al)			rieasantview sandstone	rieasantview sandstole	Pleasantview Sandstone
ated with this shale is a chan-		either the Anna Shale N							-			
nel sandstone commonly as	•	Member. (Hopkins, 196				or the						
much as a mile wide and 60-	Diefetoff Lifflestoffe	Member. (Hopkins, 190	00 - 093,	see rig 4.	)							
<u>/-  </u>							Doforongog					
80 feet thick mapped as Anvil	The original resource of Herrin Coal in the State of Illinois totals 88.5 billion											
Rock Sandstone and may be	tons, of which 9.4 bi	llion have been mined.	Approxi	mately 58	% of the o	original		•		-	•	•
El contomporanogue with the		early the control of				10	Trovvorov CC CD Ko	rocc	C A Chanau	ath and DI Nartl	h 1000a Availal	aility of the Harri

- Treworgy, C.G., C.P. Korose, C.A. Chenoweth, and D.L. North, 1999a, Availability of the Herrin

Pennsylvanian Stratigraphic Column

lated to mining of the Fig. 4

## **Coal Chlorine** Anvil Rock Sandstone Less than 0.1 % - Conant Limestone Jamestown Coal Brereton Limestone Anna Shale 0.1 to 0.2 % 0.2 to 0.3 % 0.3 to 0.4 % Excello Shale 0.4 to 0.5 % Houchin Creek Coal 0.5 to 0.6 % Greater than 0.6 % lletin 95, 261p.

## **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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