

Coal Mines in Illinois Tamaroa Quadrangle

Perry, Jefferson, & Washington Counties, Illinois

This map accompanies the Coal Mines Directory for the Tamaroa Quadrangle. Consult the directory for a complete explanation of the information shown on this map.

Mining Method



Source of Mine Outline

- Final Mine Map
- Not Final Mine Map
- Undated Mine Map
- ----- Incomplete Mine Map
- Secondary Source Map

Tipple, Shaft, Slope, Drift Locations

- Strip Mine Tipple Active ×
- Strip Mine Tipple Abandoned •
- . Mine Shaft - Active
 - Mine Shaft Abandoned
- Mine Slope Active
- Mine Slope Abandoned ø
- Mine Drift Active -
- * Mine Drift - Abandoned
- Air Shaft •
- Uncertain Location
- Uncertain Type of Opening

Mine Annotation

(space permiting) Company Mine Name ISGS Index No., Years of Operation

Disclaimer Please check the Coal Section at the Illinois State Geological Survey's web site at <u>http://www.isps.illinois.edu</u> for the most up-to-date version of these products.

Note that each quadrangle scale mined-out area map requires the use of the associated text directory for full explanation of map features and mine attributes. Also note that some quadrangles have multiple seams of mining and therefore more than nor map may to be available for a particular quadrangle. Please take care to check for multiple maps, as extensive mining may exist in the other seams.

The maps and object to extraction of the studies were completed from data obtained from a variety of public and privite isocores and here varying degrees of completeness and accuracy. The completion map prevents may be offset by 500 efforts on the prevent studies are also and the studies prevent degree of the studies of the studies

These maps were designed for use at 1.24.000. Enlarging the map may reduce accuracy, as the original scale of the source maps used to compile the outlines shown varies from 1.400 to 1.150,000, and some mine locations are known only from text descriptions. See the accompanying mine directory for the original scale of the source map used to a specific mine to check accuracy of a given portion of the map. Areas with no mines shown may still be undermined, see the uncloaded mines list the back of each time directory.

The image of the U.S.G.S. topographic base map was projected from the original UTM to Lambert Conformal Conic



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Mine Outlines Compiled by Alan R. Myers March 3, 2010

Location

DIRECTORY OF COAL MINES IN ILLINOIS 7.5-MINUTE QUADRANGLE SERIES TAMAROA QUADRANGLE PERRY, JEFFERSON & WASHINGTON COUNTIES

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Cover photo Track-mounted duckbill loading machine at a Peabody Coal Company mine, ca. 1915.

The ISGS updates the maps and directories periodically, and welcomes any new information or corrections. Please contact the Coal Section of the ISGS at the address shown on the title page of this directory, or telephone (217) 244-4610.

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DISCLAIMER: The accuracy and completeness of mine maps and directories vary with the availability of reliable information. Maps and other information used to compile this mine map and directory were obtained from a variety of sources and the accuracy of some of the original information cannot be verified. Consequently, the Illinois State Geological Survey (ISGS) cannot guarantee the mine maps are free of errors and disclaims any responsibility for damages that may result from actions or decisions based on them.

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INTRODUCTION

Coal has been mined in 76 counties of Illinois. More than 7,400 coal mines have operated since commercial mining began in Illinois about 1810; fewer than 30 are currently active. To detail the extent and location of coal mining in Illinois, the Illinois State Geological Survey (ISGS) has compiled maps and directories of known coal mines. The ISGS offers maps at a scale of 1:100,000 and accompanying directories for each county in which coal mining is known to have occurred. Maps at a scale of 1:24,000 and accompanying directories, such as this, are available for selected quadrangles. Contact the ISGS for a list of these quadrangles.

These larger scale maps show the approximate positions of mines in relation to surface features such as roads and water bodies, and indicate the mining method used and the accuracy of the mine boundaries. The maps are useful for locating mine boundaries relative to specific properties and for assessing the potential for subsidence in an area. Mine boundaries compiled from final mine surveys are generally shown within 200 feet of their true position. As a result of poor cartographic quality and inaccuracies in the original mine surveys, boundaries of some older mines may be mislocated on the map by 500 feet or more. Original mine maps should be consulted in situations that require precise delineation of mine boundaries or internal workings of mined areas.

This directory serves as a key to the accompanying mine map and provides basic information on the coal mines in the quadrangle. The directory is composed of two parts. Part I explains the symbols and patterns used on the accompanying map and the summary data presented for each mine. Part II numerically lists the mines in the quadrangle and summarizes the geology and production history of each mine. Total production for the mine, not the portion in the quadrangle, is given.

MINING IN THE TAMAROA QUADRANGLE

The Herrin Coal was mined in the Tamaroa Quadrangle, commonly having a thickness over 6 feet. The roof material was most often black shale or limestone, sometimes with lenses of Energy Shale. Rolls were common, and coal balls were seen in most of the mines in this area. A large area of the Tamaroa Quadrangle is unmined. The most important factor behind this is the Walshville Channel, which was contemporaneous with deposition of the Herrin Coal, and therefore the coal-forming materials were not deposited. The Walshville Channel stopped westward expansion of the Orient No. 3 Mine (mine index 690). Parts of the channel are over 2 miles wide, and the coal may be missing in local washouts that are not directly in the path of the Walshville Channel. Other associated problems occur near the channel, such as abrupt thinning of the coal and adverse roof conditions.

The Bois Mine (mine index 320) was an anachronism in the 1950s, operating without electricity. The miners worked with open-flame carbide lamps and the coal was hauled to the shaft bottom by mules. This was the oldest operating mine in the state through much of the last half of its operating span.

PART I EXPLANATION OF MAP AND MINE SUMMARY SHEET

INTERPRETING THE MAP

The map accompanying this directory shows the location of coal mines known to be present in the quadrangle. The map, corresponding to a U.S. Geological Survey (USGS) 7.5-minute quadrangle, covers an area bounded by lines of latitude and longitude 7.5-minutes apart. In Illinois, a quadrangle is approximately 6.5 miles east to west and 8.5 miles north to south, an area of about 56 square miles. The ISGS generally offers one map of mines per quadrangle. In some areas where extensive mining occurred in two or more overlapping seams, separate maps are compiled for mines in each seam to maintain readability of the map.

Mine Type and Mining Method

The mine type is indicated on the map by pattern color: green represents surface mines; red and yellow represent underground mines. The red patterns are used for areas of underground mining that are documented by a primary or secondary source map. A yellow pattern is used for cases where no map of the mine workings is available, but a general area of mining can be inferred from property maps or production figures. The patterns indicate the main mining methods used in underground mines. The methods are (1) room and pillar and (2) high extraction. The method used gives some indication of the amount and pattern of coal extraction within each mined area, and has some influence on the timing and type of subsidence that can occur over a mine.

The following discussion and illustrations of mining methods are based on Guither et al. (1984).

In room-and-pillar mines, coal is removed from haulage-ways (entries) and selected areas called rooms. Pillars of unmined coal are left between the rooms to support the roof. Depending on the size of rooms and pillars, the amount of coal removed from the production areas will range from 40% to 70%.

Room and Pillar - mining is divided into six categories:

- room-and-pillar basic (RPB, fig. 1A), an early method that did not follow a preset mining plan and therefore
 resulted in very irregular designs;
- modified room and pillar (MRP, fig. 1B);
- room-and-pillar panel (RPP, fig. 1C);
- blind room and pillar (BRP, fig. 1D);
- checkerboard room and pillar (CRP, fig. 1E);
- room and pillar (RP), a classification used when the specific type of room-and-pillar mining is unknown.

Blind and checkerboard are the most common types of room-and-pillar mining used in Illinois today. The knowledge of room-and-pillar mining methods gives a trained engineer information on the nature of subsidence that may occur. A more extensive discussion of subsidence can be found in Bauer et al. (1993).

High-extraction These mining methods are subdivided into high-extraction retreat (HER, Fig 1F) and longwall (LW, Fig 1G, 1H). In these methods, much of the coal is removed within well defined areas of the mine. Subsidence of the surface above these areas occurs within weeks. Once the subsidence activity ceases, the potential for further movement over these areas is low; however, subsidence may continue for several years after mining.

High-extraction retreat mining is a form of room-and-pillar mining that extracts most of the coal. Rooms and pillars are developed in the panels, and the pillars are then systematically removed (fig. 1F).

In early (pre-1960) longwall mines, mining advanced in multiple directions from a central shaft (fig. 1G). Large pillars of coal were left around the shaft, but all coal was removed beyond these pillars. Miners placed rock and wooden props and cribs in the mined-out areas to support the mine roof. The overlying rock gradually settled onto these supports, thus producing subsidence at the surface. In post-1959 longwall mines, room-and-pillar methods have been used to develop the main entries of the mine and panel areas. Modern longwall methods extract 100 percent of the coal in the panel areas (fig. 1H).

SOURCE MAPS

Mine outlines depicted on the map are, whenever possible, based on maps made from original mine surveys. The process of compiling and digitizing the quadrangle map may produce errors of less than 200 feet in the location of mine boundaries. Larger errors of 500 feet or more are possible for mines that have incomplete or inaccurate source maps.

Because of the extreme complexity of some mine maps, detailed features of mined areas have been omitted. The digitized mine boundary includes the exterior boundary of all rooms or entries that were at least 80 feet wide or protruded 500 feet from the main mining area. Unmined areas between mines are shown if they are at least 80 feet wide; unmined blocks of coal within mines are shown if they are at least 400 feet on each side. Original source maps should be consulted when precise information on mine boundaries or interior features is needed.

The mine summary sheet lists the source maps used to determine each mine outline. The completeness of map sources is indicated on the map by a line symbol at the mine boundary. Source maps are organized in five categories.

Final mine map The mine outline was digitized from an original map made from mine surveys conducted within a few months after production ceased. The date of the map and the last reported production are listed on the summary sheet.

Not a final map The mine is currently active or the mine outline was made from a map based on mine surveys conducted more than few months before production ceased. This implies the actual mined-out area is probably larger than the outline on the map. The mine summary sheet indicated the dates of source maps and the last reported production, as well as the approximate tonnage mined between these two dates (if the mine is abandoned). The summary sheet also lists the approximate acreage mined since the date of the map and, in some cases, indicates the area where additional mining may have taken place. This latter information is determined by locating on the map the active faces relative to probable boundaries of the mine property.

Undated map The source map was undated, so it may or may not be based on a final mine survey. When sufficient data are available, the probable acreage of the mined area is estimated from reported production, average seam thickness and a recovery rate comparable to other mines in the area. This information is listed in the summary sheet for the mine.

Incomplete map The source map did not show the entire mine. The summary sheet indicates the missing part of the mine map and the acreage of the unmapped area, which is estimated from the amount of coal known to have been produced from the mine.

Secondary source map The original mine map was not found so the outline shown was determined from secondary sources (e.g., outlines from small-scale regional maps published in other reports). The summary sheet describes the secondary sources.

POINTS AND LABELS

The locations of all known mine openings (shafts, slopes, and drifts) and surface mine tipples are plotted on the map. Tipples are areas where coal was cleaned, stockpiled, and loaded for shipping.

Only openings or tipples are plotted for mines without source maps. If the precise locations of these features are unknown, a special symbol is used to indicate the approximate location of the mine.

Each mine on the map is labeled with the names of the mine and operating company, ISGS mine index number, and years of operation (if known) if space permits. A seam designation is given on maps where more than one seam was mined. For a mine that operated under more than one name, only the most recent name is generally given. When a mine changed names or ownership shortly before closing, an earlier name is listed. All company and mine names are listed on the mine summary sheet in the directory, under the production history segment.



Figure 1 Mining methods: (A) room-and-pillar basic (RPB), (B) modified room and pillar (MRP), (C) room-and-pillar panel (RPP), (D) blind room and pillar (BRP).



Figure 1 (cont.) Mining methods: (E) checkerboard room and pillar (CRP), (F) high extraction retreat (HER), (G) early (pre-1960) longwall, (H) post-1959 longwall



Figure 2 Generalized stratigraphic section, showing approximate vertical relations of coals in Illinois.

INTERPRETING A MINE SUMMARY SHEET

The mine summary sheet is arranged numerically by mine index number. Index numbers are shown on the map and in the mine listing. The mine summary sheet provides the following information (if available).

Company and mine name The last company or owner of the mine is used, unless no production was recorded for the last owner. In that case, the penultimate owner is listed. Mines often have no specific name; in these cases, the company name is also used as the mine name.

Type Underground denotes a subsurface mine in which the coal was reached through a shaft, slope, or a drift entry. Surface denotes a surface, open pit or strip mine.

Total mined-out acreage shown The total acreage of the mined area mapped, including any acreage mined on adjacent quadrangles, is calculated from the digitized outline of the mine. The acreage of large barrier pillars depicted on the map is excluded from the mined-out acreage. Small pillars not digitized are included in the acreage calculation. If the mine outline is not based on a final mine map, the acreage is followed by an estimate of additional acres that may have been mined. The estimate is determined from reported mine production, approximate thickness of the coal, and recovery rates calculated from nearby mines that used similar mining methods.

SHAFT, SLOPE, DRIFT OR TIPPLE LOCATIONS

Shaft. slope, drift, or tipple locations Locations of all known former entry points to underground mines or the location of coal cleaning. tipple, and shipping equipment used by the mine's facility are listed. The location is described in terms of county, township and range (Twp-Rge), section, and location within the section by quarters. NE SW NW, for instance, would describe the location in the northeast guarter of the southwest guarter of the northwest guarter. When sections are irregular in size, the quarters remain the same size and are oriented (or "registered") from the southeast corner of the section. Approximate footage from the section lines (FEL = from east line, FNL = from north line, for example) is given when that information is known; this indicates a surveyed location and is not derived from maps. Entry points are also plotted on the map and coded for the type of entry or tipple. A mine opening may have had many purposes during the life of the mine. Old hoist shafts are often later used for air and escape shafts: this information is included in the directory when known. The tipple for underground mines was generally located near the main shaft or slope. At surface mines, coal was sometimes hauled to a central tipple several miles from the mine pit.

GEOLOGY

Seam(s) mined The name of the coal seam(s) mined is listed, if known. If multiple seams were mined, they are all listed, although the mined-out area for each seam may be shown on separate maps. Figure 2 shows the stratigraphic section of the coal-bearing interval in Illinois, and the vertical relations among the coals.

Depth The depth to the top of the seam in the vicinity of the shaft is listed, if known. The depth is determined from notes made by geologists who visited the mine during its operation or from drill hole data in ISGS files. Depth generally varies little over the extent of a mine; however, reported depths for an individual mine may vary. Depth for surface-mined coals varies, and is usually represented as a range.

Thickness The approximate thickness of the mined seam is shown, if known. Thickness also comes from notes of geologists who visited the mine during its operation or from borehole data in ISGS files. Minimum, maximum, and average thicknesses are given when this information is available.

Mining method The principal mining method used at the mine (figs. 1A-H) is listed. See the mining methods section at the beginning of this directory for a discussion of this parameter.

Geologic problems reported Any known geologic problems, such as faults, water seepage, floor heaving, and unstable roof, encountered in the mine are reported. This information is from notes made by ISGS geologists who visited the mine, or from reports by mine inspectors published by the Illinois Department of Mines and Minerals, or from the source map(s). Geologic problems are not reported for active mines.

PRODUCTION HISTORY

Production history Tons of coal produced from the mine by each mine owner are totaled. When the source map used for the mine outline is not a final mine map, the tonnage produced since the date of the map is identified. For mines that extend into adjacent quadrangles, the tonnage reported includes areas mined in adjacent quadrangles.

SOURCE OF DATA

Source map This section lists information about the map(s) used to compile the mine outline and the locations of tipples and mine openings. In some cases more than one source map was used. For example, a map drawn before the mine closed may provide better information on original areas of the mine than a later map. When more than one map was used, the bibliography section explains what information was taken from each source.

Date The date of the most recent mine survey listed on the source map is reported.

Original scale The original scale of the source map is listed. Many maps are photo-reductions and are no longer at their original scale. The original scale gives some indication of the level of detail of the mine outline and the accuracy of the mine boundary relative to surface features. Generally, the larger the scale, the greater the accuracy and detail of the mine map. Mine outlines taken from source maps at scales smaller than 1:24,000 may be highly generalized and may well be inaccurately located with respect to surface features.

Digitized scale The scale of the digitized map is reported. The scale may be different from that of the original source map. In many cases the digitized map was made from a photo-reduction of the original source map, or the source map was not in a condition suitable for digitizing and the mine boundaries were transferred to another base map.

Map type Source maps are classified into five categories to indicate the probable completeness of the map. See discussion of source maps in the previous section.

Annotated bibliography Sources that provide information about the mine are listed, with the data taken from each source. Some commonly used sources are described below. Full bibliographic references are given for all other sources. Unless otherwise noted, all sources are available for public inspection at the ISGS.

Coal Reports Published since 1881, these reports contain tabular data on mine ownership, production, employment, and accidents. Some volumes include short descriptions made by mine inspectors of physical features and conditions in selected mines.

Directory of Illinois Coal Mines This source is a compilation of basic data about Illinois coal mines, originally gathered by ISGS staff in the early 1950s. Sources used for this directory are undocumented, but they are primarily Illinois Department of Mines and Minerals annual reports, ISGS mine notes, and coal company officials.

ENR Document 85/01, Guither, H. D., J. K. Hines, and R. A. Bauer, 1985 The Economic Effect of Underground Mining Upon Land Used for Illinois Agriculture: Illinois Department of Energy and Natural Resources Document 85/01, 185 p.

Microfilm map The U.S. Bureau of Mines maintains a microfilm archive of mine maps. A microfilm file for Illinois is available for public viewing at the ISGS.

Mine notes ISGS geologists have visited mines or contacted mine officials throughout the state since the early 1900s. Notes made during these visits range from brief descriptions of the mine location to long narratives (including sketches) of mining conditions and geology.

Federal Land Bank of St. Louis, Preliminary Reports on Subsidence Investigations Mining engineers working for the Federal Land Bank of St. Louis mapped areas of subsidence due to coal mining in the early 1930s. These reports often include county maps of mine properties with mined-out areas including shaft locations, as well as subsidence areas.

REFERENCES

- Bauer, R. A., B. A. Trent, and P. B. Dumontelle, 1993, Mine Subsidence in Illinois: Facts for the Homeowner Considering Insurance, Illinois State Geological Survey, Environmental Geology Note 144, 16p.
- Brinkman, G., 1968, This is Washington County; its first 150 years, 1818-1968, Sesquicentennial Committee of the Historical Society of Washington County, 96p.
- Guither, H. D., J. K. Hines, and R. A. Bauer, 1985, The Economic Effects of Underground Mining Upon Land Used for Illinois Agriculture, Illinois Department of Energy and Natural Resources Document 85/01, 185p.
- Treworgy, C. G., C. P. Korose, and C. L. Wiscombe, 2000, Availability of the Herrin Coal for Mining in Illinois, Illinois State Geological Survey, Illinois Minerals 120, 54p.

PART II DIRECTORY OF MINES IN THE TAMAROA QUADRANGLE

MINE SUMMARY SHEETS

A summary sheet on the geology and production history of each mine in the Tamaroa Quadrangle is provided. These summary sheets are arranged numerically by mine index number. Consult Part I for a complete explanation of the data listed in the summary sheet.

Mine Index 175

Vaughn Coal Company, Interstate Victory No. 43 Mine

Type: Underground Total mined-out acreage shown: 134 Production indicates approximately 6 acres were mined after the map date.

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft	Perry	4S 1W	20	NE SE SE
Air shaft	Perry	4S 1W	20	SE SE SE

GEOLOGY

		Thick	kness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Avg	Method
Herrin	237-240	5.0	6.58	5.67	MRP

<u>Geologic Problems Reported</u>: Some slips and rolls were encountered. All the faults were small but some extended down into the coal. The rolls were common within 150 feet of the shaft, and were associated with coal balls in the roof shale. The roof was very difficult to keep up in the north-south entries, while the roof in the east-west entries held much better. The Du Quoin Anticline is about 10 miles northeast of the mine, and the regional stresses may have caused the roof problems. Limestone, up to 8 feet thick, was the cap rock in this mine. Between the coal and the limestone was a dark shale that occasionally pinched out completely. The coal was thicker east of the shaft than west of the shaft. Pyrite was present in patchy spots, 5 to 9 inches above the underclay, generally in lenses. This pyrite was easily rejected in the mine, by tapping it free from the coal.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Victory Collieries Company	Victory No. 1	1917-1923	322,505
Chicago Fuel Company	Chicago Fuel No. 3	1923-1927 *	29,894
Tamaroa Coal Company	Tamaroa No. 43	1928-1935	32,007
Tamaroa Fuel Company	Tamaroa No. 43	1935-1936	3,221
Home Coal Company	Tamaroa No. 43	1937-1939	69,664
Blanchard Coal Company	Interstate Victory No. 43	1940-1945	221,753
Blanchard Coal Company	Interstate Victory No. 43	1944-1945	29,397 **
Vaughn Coal Company	Interstate Victory No. 43	1946-1946	961 **
			709,402

* Idle 1925 & 1927
** Production after map date
Last reported production: December 1946

SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Microfilm, document 352130	12-16-1944	1:2400	1:3972	Not final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation. Directory of Illinois Coal Mines (Perry County) - Mine names, mine index, ownership, years of operation. Mine notes (Perry County) - Mine type, shaft locations, seam, depth, thickness, geologic problems. Microfilm map, document 352130, reel 03138, frames 137 & 138 - Shaft locations, mine outline, mining method.

Mine Index 320 Bois Coal Company, Kuhn Mine

Type: Underground Total mined-out acreage shown: 304

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft (5.5 x 13 ft)	Washington	3S 1W	33	NW NW NE
Air & escape shaft	Washington	3S 1W	33	SE NW NE

GEOLOGY

		Thickness (ft)			Mining
Seam(s) Mined	Depth (ft)	Min	Max	Avg	Method
Herrin	294	5.5	6.5	6.0	MRP

Geologic Problems Reported: The immediate roof was commonly 2 to 3 feet of black shale under limestone. A limey shale "rock" was locally present between the black shale and the coal. The "rock" was 1.5 to 2 feet thick and 25 to 100 feet across, and contained coal balls of lime carbonate. The coal thinned under these wedges, the thinning about the same as the thickness of the wedge. The "rock" wedges were the major problem in the mine, with good roof otherwise and a uniform coal seam. Pyrite was present in lenses and in some vertical fractures (not persistent or numerous), and not easily removed from the coal at the face. A ½ inch thick clay band was common about 3 feet below the top of the coal. The blue band was 1 to 2 inches thick, and usually 4 inches above the bottom of the seam. The mine was generally dry, but the oldest entries were entirely closed off due to heaving. The bench of coal under the blue band was not mined in some parts of the mine, perhaps to keep the heaving to a minimum. The mine was closed due to a serious cave-in at the shaft. This was the oldest operating mine through modern times.

PRODUCTION HISTORY

			Production
Company	Mine Name	Years	(tons)
G. W. Brown	Brown	1865-1884 *	56,000
Du Bois Coal Company	Du Bois	1884-1885	18,000
G. W. Brown	Brown	1885-1887	36,914
Du Bois Coal Company	Du Bois	1887-1889	35,800
Kuhn & Schwind	Kuhn & Schwind	1889-1890	15,000
J. D. Schwind	Schwind	1890-1891	21,000
A. Kuhn & J. D. Schwind	Kuhn & Schwind	1891-1893	44,000
Adam Kuhn	Du Bois	1893-1907 **	280,688
Kuhn Colliery Company	Du Bois	1907-1933 ***	301,927
Bois Coal Company	Kuhn	1934-1961	451,499
			1.260.828

* Production and years of operation before 1882 are not known. The 1883 Coal Report indicated 10 acres were mined. A 1956 newspaper article indicated that the mine opened in 1865.

** Idle 1904

*** Idle 1928 to 1933

Last reported production: February 1961

SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Microfilm, document 353035	3-10-1961	1:2400	1:4138	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation.

Directory of Illinois Coal Mines (Washington County) - Mine names, mine index, ownership, years of operation. Mine notes (Washington County) - Mine type, shaft size & location, seam, depth, thickness, geologic problems. Brinkman, Grover, 1968 - Ownership (1910-1921), geologic problems.

Microfilm map, document 353035, reel 03141, frame 217 - Shaft locations, mine outline, mining method.

Mine Index 690 Freeman United Coal Mining Company, Orient No. 3 Mine

Type: Underground Total mined-out acreage shown: 9,999

Туре	County	Township-Range	Section	Quarters-Footage	
Hoist slope (2)	Jefferson	4S 1E	12	NE NW SW	
Man shaft	Jefferson	3S 1E	35	NE SE NW	
Air shaft (upcast)	Jefferson	3S 1E	35	NE SE NW	
Air shaft (downcast)	Jefferson	4S 1E	11	SW NW SE	
Air shaft (upcast)	Jefferson	4S 1E	10	SE SE NW	
Air / escape shaft	Jefferson	4S 1E	4	NW SE NE	

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

GEOLOGY

		Thick	ness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Avg	Method
Herrin		4.5	14 *	6.9-7.0	CRP

* The coal was split in the western part of the mine. In this thickest area, the roof control was so difficult that the panels were shortened (not driven all the way south) to avoid entering the worst roof control area. The general maximum thickness was 9 ft.

<u>Geologic Problems Reported</u>: A fault was noted in the extreme northeastern part of the mine, most likely part of the Rend Lake Fault System. Faults were also present in other parts of the mine, as well as high-angle shear fractures with no displacement, associated with normal faults downthrown (sometimes more than 12 feet) to the east. The faulting halted eastward expansion, and Orient No. 6 Mine (mine index 885) mined westward until that mine encountered the fault problems (poor roof and coal offsets). Roof falls were caused by silty shale (the layers did not adhere well to each other), intersecting slips, thin coal rider seams, and fractures in the roof. The roof was generally an irregular thickness of Energy Shale. Rolls were noted occasionally. Top coal was left on the roof and floor. Pyrite and calcite were present on vertical joint facings.

PRODUCTION HISTORY

			Production
Company	Mine Name	Years	(tons)
Chicago, Wilmington & Franklin Coal Co.	Orient No. 3	1949-1955	5,126,881
Freeman Coal Mining Corporation	Orient No. 3	1955-1974	52,542,613
Freeman United Coal Mining Company	Orient No. 3	1975-1982	<u>12,725,933</u>
			70,395,427

Last reported production: December 1982

SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Company	1-1-1983	1:4800	1:4800	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation.

Directory of Illinois Coal Mines (Jefferson County) - Mine names, mine index, ownership, years of operation. Mine notes (Jefferson County) - Mine type, slope location, seam, thickness, mining method, geologic problems. Company map, Coal Section files, 6-425 - Slope & shaft locations, mine outline, mining method.

Mine Index 716 Mathes Coal Company, Mathes Mine

Type: Underground Total mined-out acreage shown: 140

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft	Perry	4S 1W	29	NE SW SE
Air shaft	Perry	4S 1W	29	NE SW SE

GEOLOGY

		Thie	ckness (f	it)	Mining	
Seam(s) Mined	Depth (ft)	Min	Max	Avg	Method	
Herrin	216	3.0	6.5	5.67	MRP	

<u>Geologic Problems Reported</u>: Considerable gas was emitted when the mine opened, and occasionally afterwards. Rolls in the roof were common. The roof was 5 feet of gray shale with black shale above that, topped by 6 feet of limestone. Limestone made the immediate roof over the coal in about one-fifth of the mine. The black shale sometimes contained limestone concretions or coal balls. The gray shale occurred as lenticular layers under the black shale, and slips occurred at the edges. These slips made the roof difficult to keep up. The coal was thicker under the gray shale than under the black shale. Under the gray shale, the coal averaged 5.83 to 6.25 feet thick, but only 5.5 feet thick under the black shale. However, the coal under the black shale was heavier, so that the same tonnage was produced from rooms with either type of roof. The coal had two layers of impurities, a clay vein about 3 feet from the top of the coal, ½ to 1 inch thick, and a pyrite band 6 to 8 inches above the floor. The pyrite band was also ½ to 1 inch thick, and the coal separated easily from the pyrite. The mine was generally dry. The floor was 7 feet of fire clay that heaved very badly where it got wet.

PRODUCTION HISTORY

Company	Mine Name	Years	(tons)	
Little Muddy Coal Company	Little Muddy	1901-1906	138,050	_
Tamaroa & Little Muddy Coal Company	Little Muddy	1906-1910	124,444	
Little Muddy Fuel Company	Little Muddy	1910-1915 *	83,123	
Collier Coal Company	Little Muddy	1915-1920	301,994	
Alladin Coal Mining Company	Alladin No. 3	1920-1921	49,697	
Tamaroa & Little Muddy Coal Company	Little Muddy	1921-1930 **	142,059	
Collier Coal Company	Collier	1931-1932	6,406	
Mathes Coal Company	Mathes	1933-1933	4,269	
			850,042	

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* Idle 1915

** Idle 1926-1930

Last reported production: October 1933

SOURCES OF DATA

		Original	Digitized		
Source Map	Date	Scale	Scale	Мар Туре	
Microfilm, document 352097	2-1938	1:2400	1:4800	Final	

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation.

Directory of Illinois Coal Mines (Perry County) - Mine names, mine index, ownership, years of operation. Mine notes (Perry County) - Mine type, shaft location, seam, depth, thickness, geologic problems. Microfilm map, document 352097, reel 03138, frame 81 - Shaft locations, mine outline, mining method.

Mine Index 4416 Tamaroa Colliery Company, Tamaroa Mine

Type: Underground Total mined-out acreage shown: None; production indicates approximately 45 acres were mined in addition to the area mined before July 1881. The general area of mining on the accompanying map shows the most likely approximate area where the mining took place.

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft	Perry	4S 1W	32	NE SE NW

GEOLOGY

		Thick	ness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Avg	Method
Herrin	240			5.0-6.5	RP

Geologic Problems Reported:

PRODUCTION HISTORY

			Production
Company	Mine Name	Years	(tons)
Cox & Company	Cox	pre1872-1883 *	29,060
Tamaroa Coal Company	Tamaroa	1883-1886	44,910
P. White & Cox Coal Company	White & Cox	1886-1888	27,800
E. C. Cuhl	Cox	1888-1892	39,600
T. L. Stockton	Stockton	1892-1895	29,500
Tamaroa Colliery Company	Tamaroa	1895-1898	33,380
Tamaroa Co-operative Coal Company	Tamaroa	1898-1900	19,000
Tamaroa Colliery Company	Tamaroa	1900-1901	100
			223,350

* Production and years of operation before 1881 are not known. The 1882 Coal Report indicates 10 acres were mined.

Last reported production: 1901

SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
WPA, T4S-R1W	circa 1934	1:53923	1:53923	Secondary source
Federal Land Bank Report	10-1934	1:126720	1:126720	Secondary source
Microfilm, document 352158	10-1-1872	Unknown **	Not digitized **	Not final

** The map has no scale, no locational data (township, range, and section) and no land surface features to register the mine details with a topographic map. The map was too poor to use, except for the date. In 1872, the mine extended 850 feet west of the shaft, 500 feet north of the shaft. The areas south and east of the shaft have no measurements.

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, depth, thickness, mining method. Directory of Illinois Coal Mines (Perry County) - Mine names, mine index, ownership, years of operation. Mine notes (Perry County) - Mine type, shaft location, seam. WPA map, T4S-R1W - Shaft location. Federal Land Bank Report - General area of mining. Microfilm map, document 352158, reel 03138, frame 188 - Mine shape, mining method.

Mine Index 4417 Cicero Barber & Brother, Barber Mine

Type: Underground Total mined-out acreage shown: None; production indicates approximately 44 acres were mined after 1881. The 1882 Coal Report indicated 14 acres were mined before 1881.

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft	Perry	4S 1W	32	SE NW SE

GEOLOGY

010100.		Thickness (ft)	Mining	
Seam(s) Mined	Depth (ft)	Min Max Avg	Method	
Herrin	200-210	5.0-6.0	RP	

Geologic Problems Reported:

PRODUCTION HISTORY

			Production
Company	Mine Name	Years	(tons)
D. C. Barber & Sons	Barber	1870-1888 *	87,550 *
Barbour Brothers	Barbour	1888-1890	26,100
Barbour & Sons	Barbour	1890-1891	14,650
Barbour Brothers	Barbour	1891-1892	14,200
D. C. Barber & Son	Barber	1892-1895	33,000
Cicero Barber & Brother	Barber	1895-1898	27,335
			202,835

* Production and years of operation before 1881 are uncertain. The 1882 Coal Report indicates 14 acres were mined.

Last reported production: 1898

SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
WPA, T4S-R1W	circa 1934	1:53923	1:53923	Secondary source
Federal Land Bank Report	10-1934	1:126720	1:126720	Secondary source

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, mining method. Directory of Illinois Coal Mines (Perry County) - Mine names, mine index, ownership, years of operation. Mine notes (Perry County) - Mine type, shaft location, seam, depth, thickness. WPA map, T4S-R1W - Shaft location. Federal Land Bank Report - General area of mining.

MINES WHOSE LOCATIONS ARE NOT KNOWN, TAMAROA QUADRANGLE

The locations of the following mines are unknown, but the production tonnage, operating names, and nearest town were reported in the Annual Coal Reports. The operators listed below mined in or near the Tamaroa Quadrangle. The information shown is similar to that presented on the summary sheets in the previous pages of this directory. The first item is the name the mine operated under as listed in the Coal Report, then the years the mine reported. If no physical data are available, the next item listed is the total tons produced by the mine. If physical data are available, the order of presentation is as follows: type of opening for the mine (drift, slope or shaft), depth of coal in feet, and thickness of coal in feet.

The total tons mined by these unlocated mines is 41,734 (all underground), which would represent approximately 7 to 10 acres, depending on the recovery factor, mining method, and numerous other factors. (Note: 1 square mile = 640 acres)

TAMAROA

Old Kentucky Coal Company, 1901-1903, shaft, Herrin, 200, 5.5, RP40,714 tonsMiller (Aaron) Coal Company, 1944-1944, underground1,018 tons

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Tamaroa & Little Muddy Coal Company	12
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Tamaroa Fuel Company	9
Vaughn Coal Company	ğ
Victory Collieries Company	ğ
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