













Mining Method	
	Room & Pillar (RP)
	Room & Pillar Basic (RPB)
	Modified Room & Pillar (MRP)
	Room & Pillar Panel (RPP)
	Blind Room & Pillar (BRP)
	Checkerboard Room & Pillar (CRP)
	High Extraction Retreat (HER)
	Longwall (LW)
	Underground, Method Unknown
	Strip Mine
	Auger Mine
	General Area of Mining

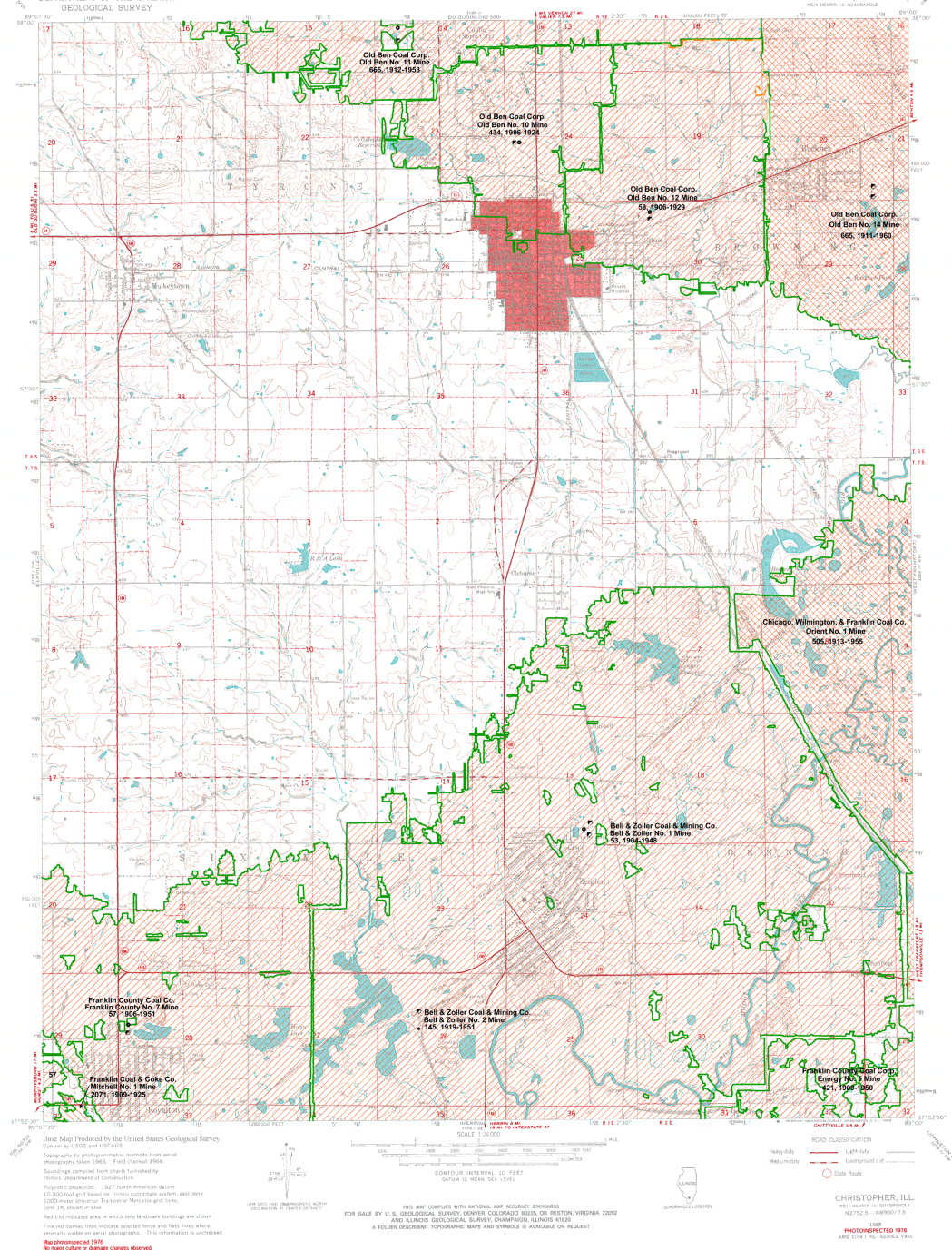
 Final Mine Map
 Not Final Mine Map
 Undated Mine Map
 Incomplete Mine Map
 Secondary Source Map

- * Strip Mine Tipple - Active
- * Strip Mine Tipple - Abandoned
- Mine Shaft - Active
- Mine Shaft - Abandoned
- Mine Slope - Active
- Mine Slope - Abandoned
- ◄ Mine Drift - Active
- ◄ Mine Drift - Abandoned
- Air Shaft
- Uncertain Location
- Uncertain Type of Opening

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

These data were compiled and digitized from the best source maps available. Locations of some features may be offset by 500 feet or more due to errors in the original source maps, the compilation process, digitizing or a combination of these factors. Documentation of the source materials used is contained in the directory that accompanies this map. It is the user's responsibility to read this documentation and understand the limitations of the data. Though efforts have been made to compile these data accurately, the Illinois State Geological Survey does not guarantee the validity or the accuracy of these data.

The image of the U.S.G.S. Christopher Quadrangle used as a basemap was projected from the original UTM to Lambert Conformal Conic.



DIRECTORY OF COAL MINES IN ILLINOIS 7.5-MINUTE QUADRANGLE SERIES CHRISTOPHER QUADRANGLE FRANKLIN COUNTY

Alan R. Myers



Department of Natural Resources
ILLINOIS STATE GEOLOGICAL SURVEY
2008

**DIRECTORY OF COAL MINES IN ILLINOIS
7.5-MINUTE QUADRANGLE SERIES
CHRISTOPHER QUADRANGLE
FRANKLIN COUNTY**

2008

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

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.

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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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 CHRISTOPHER QUADRANGLE

The earliest mining in the Christopher Quadrangle was the Bell & Zoller No. 1 Mine (mine index 53) in 1904. The last mining in the quadrangle was Orient No. 1 Mine (mine index 505), which closed in 1955. The Herrin Coal was mined, averaging between 7 and 9 feet thick. The seam bottom undulated, sometimes resulting in steep grades of 8% or more, impeding haulage. The roof was a gray shale, sometimes sandy. Most of the mines left up to 2 feet of top coal to protect the shale from moisture in the ventilating air, which exacerbated the propensity of the shale to come down. The depth of the coal (200 to 619 feet) was probably a factor in forcing gas out of the seam. At least 11 explosions were noted, with a total of 154 fatalities. Some faults, associated with the Rend Lake Fault System, were noted in the mines. Displacement along the faults varied from as little as 5 feet to 35 feet or more.

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 USGS 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 a 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.

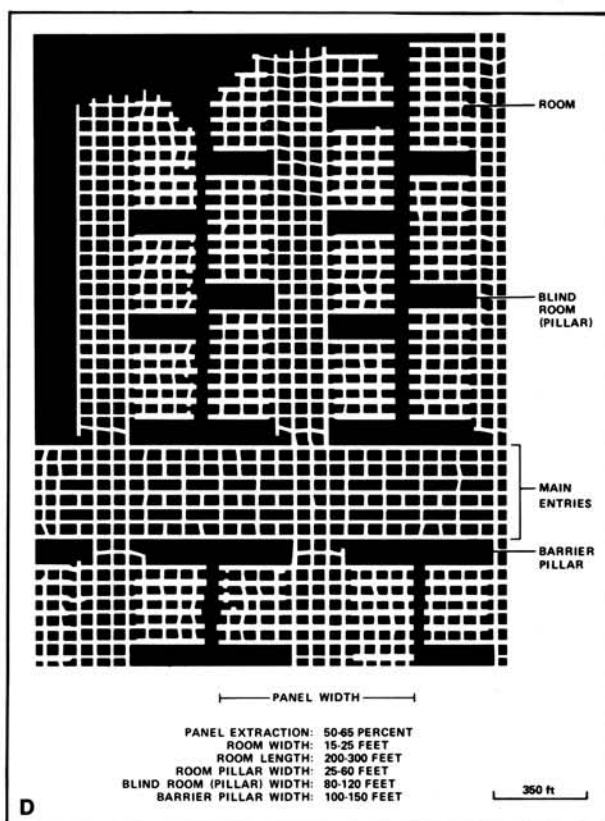
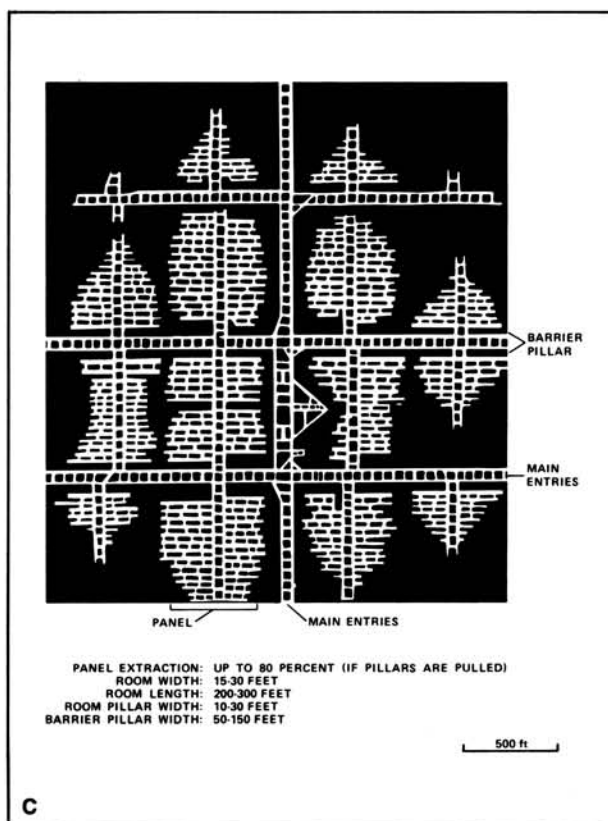
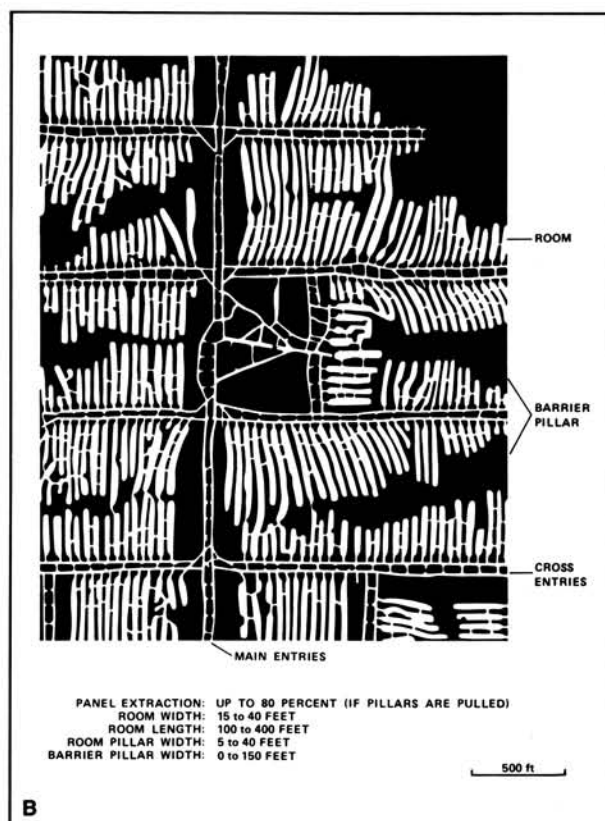
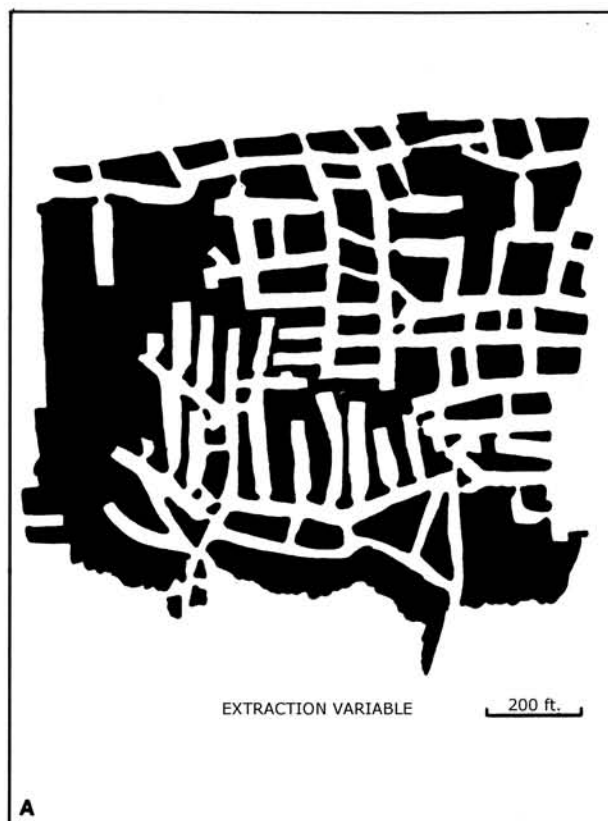


Figure 1 Mining methods: (A) room-and-pillar basic (RPB), (B) modified room and pillar (MRP), (C) room-and-pillar panel (RPP), (D) blind room and pillar (BRP).

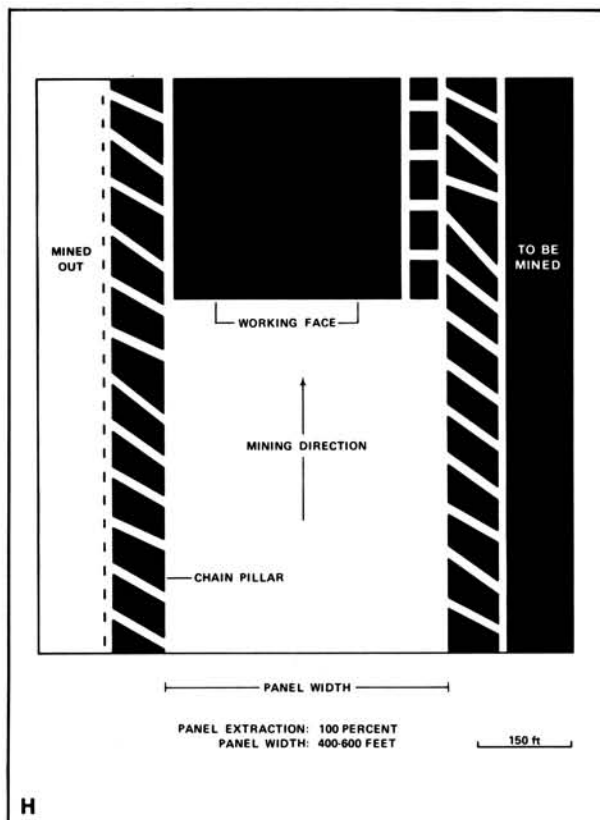
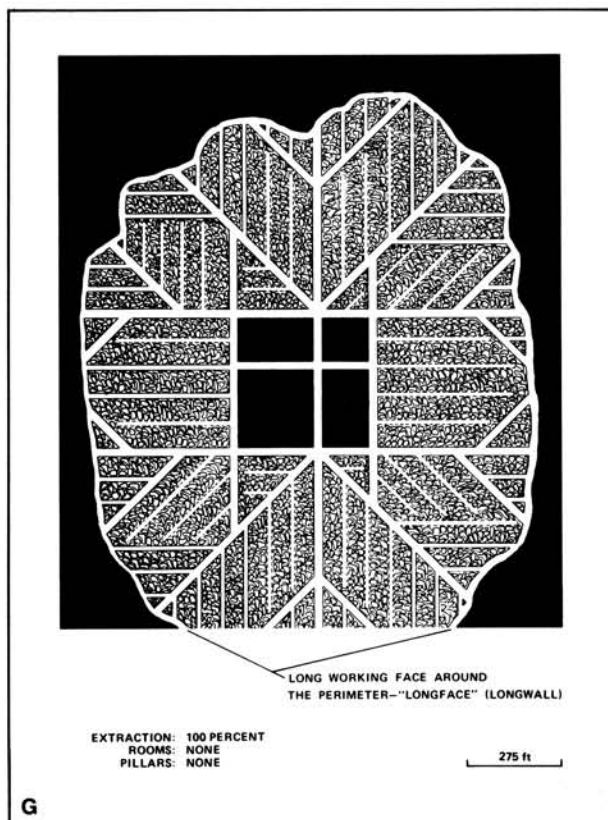
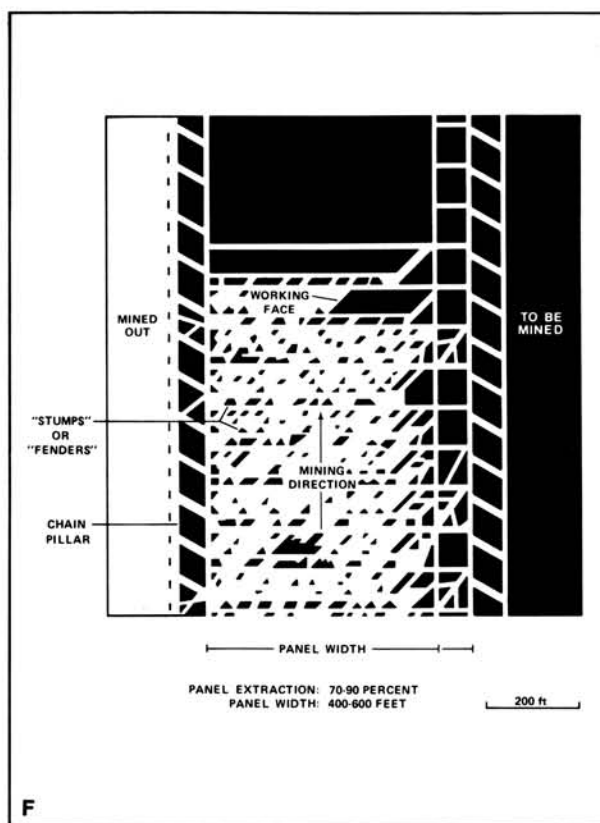
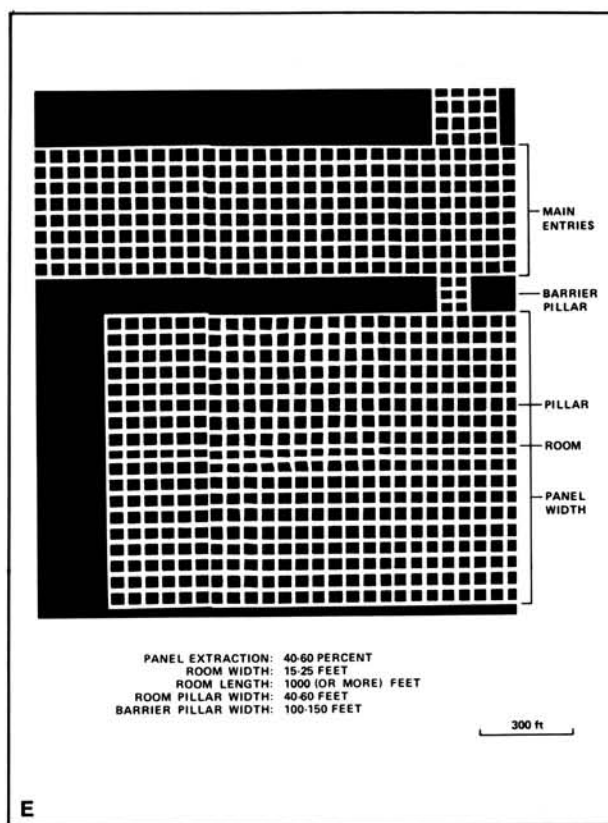


Figure 1 (cont.) Mining methods: (E) checkerboard room and pillar (CRP), (F) high extraction retreat (HER), (G) early (pre-1960) longwall, (H) post-1959 longwall



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 tippie locations Locations of all known former entry points to underground mines or the location of coal cleaning, tippie, 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 quarter of the southwest quarter of the northwest quarter. 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 tippie. 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 tippie for underground mines was generally located near the main shaft or slope. At surface mines, coal was sometimes hauled to a central tippie 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.

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.

PART II DIRECTORY OF MINES IN THE CHRISTOPHER QUADRANGLE

MINE SUMMARY SHEETS

A summary sheet on the geology and production history of each mine in the Christopher 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 53

Bell & Zoller Coal & Mining Company, Bell & Zoller No. 1 Mine

Type: Underground Total mined-out acreage shown: 10,007 Boundaries between separate mines could not be distinguished. The area shown includes Bell & Zoller No. 2 Mine (mine index 145).

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Franklin	7S 1E	13	NE SW SE
Material shaft	Franklin	7S 1E	13	SE SW SE
Air shaft	Franklin	7S 1E	13	600 FSL, 1960 FEL

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Avg	
Herrin	392-420	7.0	25.0	9.0-12.17	RPP (with HER)

Geologic Problems Reported: The mine had gas problems; 50 men died in a 1905 explosion, and in 1909, two explosions killed 29 men. The roof was a hard gray shale. Top coal was generally left to support and protect the roof. Some rolls were present in the seam. The seam had very frequent and prevalent flexures and swags that maintained a general southeast-northwest trending direction. This created serious haulage problems because of the steep grades. The top coal contained a considerable number of calcite seams. Pyrite balls were present but the distribution was very irregular. A squeeze occurred because of drawn pillars (1913), but generally the underclay floor did not heave.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Zeigler Coal Company	Zeigler No. 1	1904-1909	1,425,223
Bell & Zoller Mining Company	Bell & Zoller No. 1	1909-1925 *	12,527,759
Bell & Zoller Coal & Mining Company	Bell & Zoller No. 1	1925-1948	<u>26,069,539</u> 40,022,521

* Idle 1910

Last reported production: December 1948

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 351444	12-21-1948	1:2400	1:441	Final
Microfilm, document 351446	6-27-1951	1:2400	1:428	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, geologic problems.

Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation.

ENR Document 85/01 - Mining method.

Mine notes (Franklin County) - Mine type, shaft locations, seam, depth, thickness, geologic problems.

Microfilm map, document 351444, reel 03136, frames 116-123 - Shaft locations, mine outline, mining method.

Microfilm map, document 351446, reel 03136, frames 129-136 - Shaft locations, mine outline, mining method.

Mine Index 57**Franklin County Coal Company, Royalton Mine or Franklin County No. 7 Mine**

Type: Underground Total mined-out acreage shown: 3,915

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft (10'x16')	Franklin	7S 1E	28	SW SW NW
Air shaft (9'x8')	Franklin	7S 1E	28	NW SW NW

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Avg	
Herrin	210-320		10.5	9.83 (8.75-10.0)	RPP

Geologic Problems Reported: A major fault was present, with a 200-400 foot gouge zone and 35 feet of throw. The roof consisted of a dense sandy gray shale that tended to fall in irregular masses. Generally 24 to 36 inches of top coal was left to support and protect the roof. Considerable gas seeped out of the face. The coal seam in this mine did not have the flexure noted in other Franklin County mines, just a gentle undulation with no steep grades to hinder haulage. The coal contained a very small number of slips. A few pyrite balls and streaks were present in the lower bench. The underclay did not heave.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Big Muddy & Carterville Mining Company	Big Muddy & Carterville	1906-1914 *	448,352
Franklin Coal & Coke Company	Franklin No. 2	1914-1923 **	555,109
Franklin County Coal Company	Royalton, Franklin County No. 7	1923-1951	20,666,363
			21,669,824

* Idle 1913

** Idle 1922

Last reported production: September 1951

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 351432	10-8-1951	1:2400	1:3476	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, shaft sizes, depth, thickness.

Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation.

ENR Document 85/01 - Mining method.

Mine notes (Franklin County) - Mine type, shaft locations, seam, thickness, geologic problems.

Microfilm map, document 351432, reel 03136, frames 95-98 - Shaft locations, mine outline, mining method.

Mine Index 58**Old Ben Coal Corporation, Old Ben No. 12 Mine**

Type: Underground Total mined-out acreage shown: 1,586

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft (10'x16')	Franklin	6S 2E	30	SW NW NW
Air shaft (9'x13.5')	Franklin	6S 2E	30	NW NW NW

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin	493-500			9.25 (8.5-9.58)	RPP (some HER)

Geologic Problems Reported: This mine had difficulties with gas; one man was killed in a 1913 explosion, and nine were killed by a 1916 explosion. The roof was gray shale, reportedly 107 feet thick, which fell readily after exposure. Generally 14 to 30 inches of top coal was left to support the roof at the active face; this top coal and some of the pillars were mined on retreat. The seam contained pyrite and calcite lenses, but less than was common in the district. The underclay heaved when wet. A squeeze was noted in SE 19-T6S-R2E.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
United Coal Corporation	United No. 1	1906-1916	3,868,601
Old Ben Coal Corporation	Old Ben No. 12	1916-1929	<u>5,068,606</u>
			8,937,207

Last reported production: March 1929

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 351424	6-30-1929	1:2400	1:5296	Final
Company, Old Ben Archive Collection	4-29-1953	1:4800	1:4800	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, shaft sizes, depth, thickness, mining method, geological problems.
 Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation.
 ENR Document 85/01 - Mining method.
 Mine notes (Franklin County) - Mine type, shaft location, seam, thickness, geological problems.
 Microfilm map, document 351424, reel 03136, frames 73-76 - Shaft locations, mine outline, mining method.
 Company map, Old Ben Coal Company Archive Collection, map of Old Ben No. 11 Mine (mine index 666) - Mine outline, northern part).

Mine Index 145**Bell & Zoller Coal & Mining Company, Bell & Zoller No. 2 Mine**

Type: Underground Total mined-out acreage shown: 10,007 Boundaries between separate mines could not be distinguished. The area shown includes Bell & Zoller No. 1 Mine (mine index 53).

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft (12'x21.67')	Franklin	7S 1E	26	NW SE NW
Air shaft (12'x22.67')	Franklin	7S 1E	26	SW SE NW

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin	301-310	7.5	11.5	9.0	RPP, HER

Geologic Problems Reported: Generally 18 to 30 inches of top coal was left throughout the mine to support the gray shale roof. A few rolls were present, which necessitated timbering. Pyrite was present in stringers and lenses. The underclay heaved very little.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Bell & Zoller Coal & Mining Company	Bell & Zoller No. 2	1919-1951	<u>32,153,887</u> 32,153,887

Last reported production: June 1951

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 351444	7-1948	1:2400	1:441	Not final
Microfilm, document 351446	6-27-1951	1:2400	1:428	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, shaft sizes, depth, mining method.
 Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation.
 Mine notes (Franklin County) - Mine type, shaft locations, seam, thickness, geologic problems.
 Microfilm map, document 351444, reel 03136, frames 116-123 - Shaft locations, mine outline, mining method.
 Microfilm map, document 351446, reel 03136, frames 129-136 - Shaft locations, mine outline, mining method.

Mine Index 421
Franklin County Coal Corporation, Energy No. 5 Mine

Type: Underground Total mined-out acreage shown: 2,669

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft (9.5'x16')	Franklin	7S 2E	33	NW SW SW
Air shaft	Franklin	7S 2E	32	610 FSL, 360 FEL

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin	339			10.0 (8.0-12.5)	RPP

Geologic Problems Reported: Gas may have been a problem; one man was killed by an explosion. The roof was a gray sandy shale that was soft and full of slips. Top coal was generally left to protect and support the roof; this top coal was recovered on retreat. The seam was very hilly. Grades of 8% were common. A northwest-southeast trending cutout was present at the shaft bottom. A fault with 27 feet of throw and a 10 foot gouge zone was present. There were very few impurities in the seam, only a few faces of calcite were observed. The underclay did not heave much.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Southern Illinois Coal & Coke Company	Possum Ridge	1909-1914	724,785
Taylor Mining Company	Possum Ridge	1914-1916	384,334
Taylor Coal Corporation	Taylor No. 5	1916-1923	2,163,289
Franklin County Coal Corporation	Energy No. 5	1923-1950	<u>16,206,395</u>
			19,478,803

Last reported production: April 1950

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 351445	4-15-1950	1:6000	1:14068	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, shaft size, thickness, geologic problems.
 Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation.
 ENR Document 85/01 - Mining method.
 Mine notes (Franklin County) - Mine type, shaft locations, seam, depth, thickness, geologic problems.
 Microfilm map, document 351445, reel 03136, frames 124-128 - Shaft locations, mine outline, mining method.
 Company map, ISGS map library, 4102 i5.1-3 - Shaft locations (used to locate air shaft on microfilm).

Mine Index 434**Old Ben Coal Corporation, Old Ben No. 10 Mine**

Type: Underground Total mined-out acreage shown: 1,104

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft (10'x16')	Franklin	6S 1E	24	NW NW SW
Air shaft (8'x12.5')	Franklin	6S 1E	24	NW NW SW

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin	505			7.5 (9.0-10.0)	RPP (some HER)

Geologic Problems Reported: Top coal was left to support the roof, then taken on retreat. The bottom rolled a little. A few faults and rolls were encountered.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Zeigler District Colliery Company	Zeigler North	1906-1914	2,775,251
Christopher Coal Mining Company	Christopher No. 1	1914-1916	1,244,359
Old Ben Coal Corporation	Old Ben No. 10	1916-1924	3,609,737
			<u>7,629,347</u>

Last reported production: February 1924

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, Old Ben Archive Collection	6-30-1929	1:2400	1:2400	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, shaft sizes, thickness.

Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation.

ENR Document 85/01 - Mining method.

Mine notes (Franklin County) - Mine type, shaft location, seam, depth, thickness, mining method, geological problems.

Company map, Old Ben Coal Company Archive Collection - Shaft locations, mine outline, mining method.

Mine Index 505**Chicago, Wilmington & Franklin Coal Company, Orient No. 1 Mine**

Type: Underground Total mined-out acreage shown: 5,874

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Franklin	7S 2E	10	SW SE SW
Air shaft	Franklin	7S 2E	10	SE SW SW
Air shaft	Franklin	7S 2E	3	NW NE NW

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin	512-520			9.0-10.0	HER *

* Formerly RPP mining, but pillars were removed throughout the mine.

Geologic Problems Reported: The mine had some gas; two men were killed in a gas explosion in 1923. Some faults were present in the mine, which caused long re-grading projects. The faults had up to 5 feet of throw and 12- to 14-inch gouge zones. Several north-south trending faults of the Rend Lake Fault System were shown on the source map. Top coal (12 to 24 inches) was left to support the shale roof. Bad top was particularly noted in section 17 and in the SW quarter of section 16 of T7S-R2E. Water was noted in SE SE section 17, and steep grades in SE SE section 17. The underclay heaved readily.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Chicago, Wilmington & Vermilion Coal Co.	Chicago, Wilmington & Vermilion	1913-1914	107,522
Chicago, Wilmington & Franklin Coal Co.	Orient No. 1	1914-1955	<u>38,666,889</u>
			38,774,411

Last reported production: March 1955

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 351450	3-31-1955	1:2400	1:5296	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, depth, thickness, geologic problems.

Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation.

ENR Document 85/01 - Mining method.

Mine notes (Franklin County) - Mine type, shaft location, seam, thickness, geologic problems.

Microfilm map, document 351450, reel 03136, frames 145-152 - Shaft locations, mine outline, mining method, geologic problems.

Mine Index 665

Old Ben Coal Corporation, Old Ben No. 14 Mine

Type: Underground Total mined-out acreage shown: 5,369 The area shown is too large for the reported production and coal thickness. It is probable that a foot or more of top coal was left to support the roof.

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft (11'x19')	Franklin	6S 2E	20	580 FSL, 860 FEL
Air shaft (10.5'x11') *	Franklin	6S 2E	20	SW SE SE

* The air shaft is also a man and material shaft and is shown by a shaft symbol (instead of an air shaft symbol) on the accompanying map. The air, man & material shaft is the southern symbol; the northern symbol is the production shaft.

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin	451			8.5-10.0	HER (RPP)

Geologic Problems Reported: The mine had gas; eight men were killed in an explosion in 1915 and one man was killed in a gas explosion in 1931. The source map shows a series of north-south trending faults through the centers and east halves of sections 22 and 27 of T6S-R2E. Individual faults had offsets of up to 25 feet. These faults are part of the Rend Lake Fault System. The roof was a massive brittle shale that fell readily.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
United Coal Mining Company	United No. 2	1911-1915	1,667,066
United Coal Corporation	United No. 2	1915-1916	708,421
Old Ben Coal Corporation	Old Ben No. 14	1916-1960 **	33,638,787
			36,014,274

** Idle 1933

Last reported production: March 1960

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, Old Ben Archive Collection	6-24-1960	1:2400	1:2400	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, shaft sizes, thickness, geologic problems.

Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation.

ENR Document 85/01 - Mining method.

Mine notes (Franklin County) - Mine type, shaft location, seam, depth, thickness, geologic problems.

Company map, Old Ben Coal Company Archive Collection - Shaft locations, mine outline, mining method, geologic problems.

Mine Index 666**Old Ben Coal Corporation, Old Ben No. 11 Mine**

Type: Underground Total mined-out acreage shown: 3,207

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft (13'x21')	Franklin	6S 1E	14	NE SW SW
Air shaft (12'x24')	Franklin	6S 1E	14	SE NW SW

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Ave	
Herrin	619	8.33	12.5	9.0-9.5	RPP, some HER

Geologic Problems Reported: The mine had some gas; one man was killed in a gas explosion in 1932. The roof was gray shale over 30 feet thick, locally somewhat sandy. This shale was too fractured to stay up and top coal was left to support the roof. Slips were common in the western and northern parts of the mine. The coal contained shale and pyrite bands. The underclay heaved readily, even when dry.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Christopher Coal Mining Company	Christopher No. 1	1912-1914	201,813
Christopher Coal Mining Company	Christopher No. 2	1914-1916	890,182
Old Ben Coal Corporation	Old Ben No. 11	1916-1953 *	<u>21,835,086</u>
			22,927,081

* Idle 1932-1935

Last reported production: April 1953

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, Old Ben Archive Collection	4-29-1953	1:4800	1:4800	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, shaft sizes, geological problems.
 Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation.
 ENR Document 85/01 - Mining method.
 Mine notes (Franklin County) - Mine type, shaft location, seam, depth, thickness, geological problems.
 Company map, Old Ben Coal Company Archive Collection - Shaft locations, mine outline, mining method.

Mine Index 2071**Franklin Coal & Coke Company, Mitchell No. 1 Mine**

Type: Underground Total mined-out acreage shown: 129 Recorded production indicates approximately 700 acres were mined, but source map is final. Production from mine index 57 (Franklin County No. 7 Mine, just east and north of mine index 2071) may have been shipped through the Franklin No. 11 Mine tipple.

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Franklin	7S 1E	33	NW NW SW
Air shaft	Franklin	7S 1E	33	NW NW SW

GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Avg	
Herrin	214			8.9-10.33	MRP

Geologic Problems Reported: The mine had gas, and an explosion in 1914 killed 52 men.

PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Big Muddy & Carterville Coal Company	Big Muddy & Carterville	1909-1910 *	(none)
Franklin Coal & Coke Company	Mitchell No. 1	1910-1923	6,136,556
Franklin County Coal Company	Franklin No. 11 **	1925-1925	<u>(none)</u>
			6,136,556

* No production was reported under this name; this company may have only dug the shaft.

** No production was reported under this name, the company and mine name are from Coal Section mine notes.

Last reported production: June 1923

SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, 4103.F7 i5.1-6	1-6-1948	1:4800	1:4800	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, thickness, geologic problems.

Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation.

ENR Document 85/01 - Mining method.

Mine notes (Franklin County) - Mine type, shaft locations, seam, depth, thickness, ownership.

Company map, ISGS map library, 4103.F7 i5.1-6 - Shaft locations, mine outline, mining method.

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