







WEST FRANKFORT QUADRANGLE **ILLINOIS - FRANKLIN COUNTY 7.5-MINUTE SERIES** 



ILLINOIS

1

QUADRANGLE LOCATION

1 2 3

6 7 8

ADJOINING QUADRANGLES

1 Sesser

3 Ewing

6 Herrin

8 Pittsburg

2 Rend Lake Dam

4 Christopher

5 Thompsonville

7 Johnston City

9000



## Franklin County, Illinois

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

# **Mining Method** Room & Pillar (RP)



## 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
- × Mine Shaft - Active
- Mine Shaft Abandoned **-Z**-
- Mine Slope Active
- Mine Slope Abandoned
- Mine Drift Active
- Mine Drift Abandoned
- Air Shaft 0
- **Uncertain Location**

### Mine Annotation (space permitting) 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 https://www.isgs.illinois.edu 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 one map may 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 digital files used for these studies were compiled from data obtained from a variety of public and private sources and have varying degrees of completeness and accuracy. This compilation map presents reasonable interpretation of the geology of the area and is based on available data. Locations of some mine 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. These data are not intended for use in site-specific screening or decision-making. Use of these documents does not eliminate the need for detailed studies to fully understand the geology of a specific site. The Illinois State Geological Survey, Prairie Research Institute, or the University of Illinois make no guarantee, expressed or implied, regarding the correctness of the interpretations presented in this data set and accept no liability for the consequences of decisions made by others on the basis of the information presented here.

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 for a specific mine to check accuracy of a given portion of the map. Areas with no mines shown may still be undermined; see the unlocated mines list at the back of each mine directory.

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

**Prairie Research Institute** Illinois State Geological Survey 615 E. Peabody Dr. Champaign, IL 61820

Mine Outlines Compiled by Alan R. Myers

June 7, 2002 Revised June 2004 & June 2023

WEST FRANKFORT, IL 2021

# West Frankfort Quadrangle

Room & Pillar Basic (RPB) Modified Room & Pillar (MRP) Checkerboard Room & Pillar (CRP) High Extraction Retreat (HER)

e Map Map

Strip Mine Tipple - Abandoned

Uncertain Type of Opening

# **I** ILLINOIS

Illinois State Geological Survey

PRAIRIE RESEARCH INSTITUTE

## **Other Points Depicted** Non-Coal Mines

**Other Areas Depicted** 

Non-Coal Mines

## Location



## DIRECTORY OF COAL MINES IN ILLINOIS 7.5-MINUTE QUADRANGLE SERIES WEST FRANKFORT QUADRANGLE FRANKLIN COUNTY

Cheri Chenoweth & Alan R. Myers



Department of Natural Resources ILLINOIS STATE GEOLOGICAL SURVEY 2002 REVISED 2004

## DIRECTORY OF COAL MINES IN ILLINOIS 7.5-MINUTE QUADRANGLE SERIES WEST FRANKFORT QUADRANGLE FRANKLIN COUNTY

2002 REVISED 2004

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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.

Printed by authority of the State of Illinois/2002

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.

The directory serves as a key to the accompanying mine map and provides basic information on the coal mines. 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.

#### MINING IN THE WEST FRANKFORT QUADRANGLE

The coal in Franklin County contained a lot of gas and explosions killed many people. Zeigler No. 1 (mine index 53) had one of the worst mine disasters in the state, an explosion that killed 48, with 3 more dying from asphyxiation during rescue attempts. Old Ben Mine No. 11 had a bad explosion, killing 17, in November of 1917. Ventilation was good at the working faces, but gas would accumulate behind stoppings. Factors that contributed to the mines' problems were open flames in miners lamps and coal dust that would promulgate the explosion throughout the mine. The open flames in the miners lamps were a known hazard, but the introduction of closed lamps caused serious labor antagonism, since the lamps only provided about 2 candlepower of illumination. The gradual development of 100-candlepower lamps eased acceptance of the battery-powered lights. Rock dusting required development also, although the process was known in 1917. Lime dust was often too coarse to apply effectively, highway dust was tried, but it became wet in the mine. Old Ben Coal Company worked aggressively to develop a shale dust and this was used from 1918 until 1928, when lime rock dust became available in paper bags. (John E. Jones, 1954 Coal Report, pages 143-145). Gas explosions killed 375 miners in Franklin County. The worst explosion was in 1951 in the Orient No. 2 Mine, mine index 1951, killing 119. Natural hazards also took down mines, a 1912 tornado destroyed the top works of the Possum Ridge Mine (mine index 421).

The Herrin Coal was very thick in Franklin County, over 12 feet in some locations. Orient No. 2 Mine (mine index 366) established a world record of 15,174 tons in 8 hours in 1943.

Old Ben No. 14 (mine index 665) and Old Ben No. 24 (mine index 866) had several large faults passing through the workings. These faults are part of the Rend Lake Fault Zone, and had offsets up to 55 feet. For details on the Rend Lake Fault System, see ISGS Circular 513, noted in the Reference section on page 8 of this report.

#### 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 quarter of the southwest quarter of the northwest quarter. When sections are irregular in size, the guarters 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.
- 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, 185 p.
- Keys, J. N., and W. J. Nelson, 1980, The Rend Lake Fault System in Southern Illinois: Illinois State Geological Survey Circular 513, 23p.

#### PART II DIRECTORY OF MINES IN THE WEST FRANKFORT QUADRANGLE

#### MINE SUMMARY SHEETS

A summary sheet on the geology and production history of each mine in the West Frankfort 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 51

#### Peabody Coal Company, Peabody No. 19 Mine

Type: Underground Total mined-out acreage shown: 1,915

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft	Franklin	7S 3E	18	Center SE SW
Air shaft	Franklin	7S 3E	18	1100 FSL, 2050 FWL

#### GEOLOGY

		Thickness (ft)			Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	500	9.0	11.0	10.0	RPP

<u>Geologic Problems Reported</u>: The mine had gas problems; eight people were killed in four explosions between 1907 and 1925. One or two small faults were reported. The shale roof was soft and projected into the coal in several places as rolls. Generally 3 feet of top coal was left to protect the roof. Sulfur balls were scattered through the coal.

#### **PRODUCTION HISTORY**

Company	Mine Name	Years	Production (tons)
Dering Coal Company	Dering No. 11	1904-1908	659,781
Brazil Block Coal Company	Brazil Block No. 11	1908-1911	808,564
Dering Coal Company	Dering No. 11	1911-1915	967,681
Producer's Coal Company	Producer's No. 19	1915-1916	254,826
By-Products Coal Corporation	By-Products No. 19	1916-1922	1,668,873
Industrial Coal Company	Industrial No. 19	1922-1927	2,928,714
Peabody Coal Company	Peabody No. 19	1927-1936	4,844,040
			12,132,479

Last reported production: June 1936

#### SOURCES OF DATA

	Original	Digitized	
Date	Scale	Scale	Мар Туре
7-1936	1:2400	1:2813	Final
7-1-1960	1:2400	1:5296	Secondary source
	Date 7-1936 7-1-1960	Original           Date         Scale           7-1936         1:2400           7-1-1960         1:2400	Original         Digitized           Date         Scale         Scale           7-1936         1:2400         1:2813           7-1-1960         1:2400         1:5296

#### 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. Mine notes (Franklin County) - Mine type, shaft locations, seam, depth, thickness, geologic problems. Microfilm map, document 351419, reel 03136, frames 54-62 - Shaft locations, mine outline, mining method. Microfilm map, document 351453, reel 03136, frames 160-171, map of Orient No. 2 Mine (mine index 366) - Mine

outline (southwestern extension).

#### Mine Index 52 Chicago, Wilmington & Franklin Coal Company, Benton No. 2 Mine

Type: Underground Total mined-out acreage shown: 725

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage	
Main shaft (10'x14')	Franklin	6S 3E	30	NE NE NE	
Air shaft	Franklin	6S 3E	30	NE NE NE	

#### GEOLOGY

		Thie	ckness (f	t)	Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	617-630	6.5	12.0	7.0-9.5	MRP with HER *

\* High extraction retreat was indicated on the 1919 source map in scattered areas throughout the mine.

<u>Geologic Problems Reported</u>: The roof was gray shale up to 18 feet thick; limestone or black shale made up the roof where the gray shale was absent. Generally 1.4 feet of top coal was left to support the roof. The roof was especially difficult to keep up in rooms and entries driven in the north-south direction, due to tectonic stresses. A few rolls were present. The seam occurred as a succession of small folds, with the swags about 7 feet deep. The floor was a soft sandy underclay that heaved badly.

#### **PRODUCTION HISTORY**

			Production	
Company	Mine Name	Years	(tons)	
Hart-Williams Coal Company	Hart-Williams No. 1	1907-1916 **	2,274,859	
Taylor Collieries Company	Taylor No. 6	1916-1917	206,636	
Chicago, Wilmington & Franklin Coal Co.	Hart-Williams	1917-1918	328,026	
Benton Coal Mining Company	Benton No. 2	1918-1922	941,871	
Chicago, Wilmington & Franklin Coal Co.	Benton No. 2	1922-1923	163,256	
			3,914,648	

\*\* Idle 1916

Last reported production: March 1923

#### SOURCES OF DATA

O	Dete	Original	Digitized	Man Tana
Source Map	Date	Scale	Scale	мар туре
Company, 4103.F7 i5.1-3	4-5-1919	1:2400	1:2400	Not final
Microfilm, document 351455	12-15-1972	1:2400	1:3972	Secondary source
Microfilm, document 351453	7-1-1960	1:2400	1:5296	Secondary source ***

\*\*\* The mined area shown on the accompanying map is the approximate size expected for the production reported. This suggests that the mine outline is complete.

#### Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, shaft size. Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation. Mine notes (Franklin County) - Mine type, shaft locations, seam, depth, thickness, geologic problems. Company map, ISGS map library, 4103.F7 i5.1-3 - Shaft locations, mine outline, mining method. Microfilm map, document 351453, reel 03136, frames 162, 165, 166, map of Orient No. 2 Mine (mine index 366) -Mine outline (southern).

Microfilm map, document 351455, reel 03136, frames 176-185, map of Orient No. 4 (mine index 847) - Mine outline (eastern).

#### Mine Index 139 United States Fuel Company, Middle Fork Mine

Type: Underground Total mined-out acreage shown: 810

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft (12'x17')	Franklin	6S 3E	21	NE NE NE
Air shaft (12'x15')	Franklin	6S 3E	21	NW NE NE

#### GEOLOGY

		Thickness (ft)			
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	602-609	5.0	11.5	6.0-7.67	RPP

<u>Geologic Problems Reported</u>: The roof in the north part of the mine was light gray shale (white top) and came down readily. "Several feet" of top coal had to be left to support this roof. Other areas had 6 inches to 6 feet of black shale as roof, which drew in some places, or limestone roof. The mine manager noted that the roof in east-west entries held, while the roof in north-south entries fell in a very short time. The coal rolled considerably in the east and south, making it difficult to maintain easy grades on the haulage roads. The roadbeds had many hills and valleys. Rolls and slips were present in the seam, but not of sufficient density to have a detrimental affect on mining. Pyrite lenses and calcite veinlets were also present in the coal. The underclay was 4 to 5 feet thick and heaved when wet.

#### PRODUCTION HISTORY

			Production
Company	Mine Name	Years	(tons)
Middle Fork Mining Company	Middle Fork	1915-1916	51,115
United States Fuel Company	Middle Fork	1916-1924	4,016,768
			4,067,883

Last reported production: July 1925

#### SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Microfilm, document 351418	7-3-1924	1:3600	1:7696	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. Mine notes (Franklin County) - Mine type, shaft locations, seam, depth, thickness, geologic problems. Microfilm map, document 351418, reel 03136, frame 53 - Shaft locations, mine outline, mining method.

#### Mine Index 143 Old Ben Coal Corporation, Old Ben No. 8 Mine

Type: Underground Total mined-out acreage shown: 4,270

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft (10'x18')	Franklin	7S 2E	25	625 FNL, 200 FEL
Air shaft (9'x16')	Franklin	7S 2E	25	NW NE NE
Auxiliary shaft	Franklin	7S 3E	31	1650 FNL, 125 FWL - nwswnw

#### GEOLOGY

		Thick	kness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	440-472			8.5-10.0	RPP *

\* Some areas of HER are shown on the source map; room pillars and some barrier pillars were removed in various parts of the mine.

<u>Geologic Problems Reported</u>: Gas explosions killed 36 men in four accidents between 1921 and 1947. The main roof was massive shale that fell readily. Generally 18 to 24 inches of top coal was left up to protect the roof. Only one fault was noted, with a throw of a few inches, and a few small slips were reported. The underclay was soft and heaved readily. The source map showed northwest-southeast trending faults in the southern part of the mine. Throw on these faults was commonly 1 foot, and did not greatly interfere with the mining pattern, but some faults had throws of up to 9 feet, and resulted in some inaccessible areas where the coal was not mined.

#### **PRODUCTION HISTORY**

			Production
Company	Mine Name	Years	(tons)
Wilmington Star Mining Company	Wilmington Star No. 8	1910-1911	39,946
Ohio Valley Mining Company	Ohio Valley	1911-1913	814,304
Old Ben Coal Corporation	Old Ben No. 8	1913-1952	<u>30,930,704</u>
			31,784,954

Last reported production: February 1952

#### SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Company map	2-27-1952	1:4591	1:4591	Final

#### Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, shaft sizes, depth, thickness, geologic problems. Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation. Mine notes (Franklin County) - Mine type, shaft locations, seam, depth, geologic problems. Company map, ISGS map library, Old Ben Archive Collection - Mine outline, shaft locations, mining method,

geologic problems.

#### Mine Index 256 Peabody Coal Company, Peabody No. 18 Mine

Type: Underground Total mined-out acreage shown: 2,822

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft (10'x14')	Franklin	7S 3E	8	SE SE SE
Air shaft	Franklin	7S 3E	9	SW SW SW

#### GEOLOGY

		Thick	ness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	504			7.0-10.0	RPP

<u>Geologic Problems Reported</u>: Two gas explosions occurred at this mine. The first killed 4 men in February 1909, and set the shaft on fire. The mine had to be flooded and the works idled until August 1910, when reclamation work began. The second explosion killed 21 men in 1928.

#### **PRODUCTION HISTORY**

			Production
Company	Mine Name	Years	(tons)
Dering Coal Company	Dering No. 18	1907-1908	38,300
Brazil Block Coal Company	Brazil Block No. 18	1908-1911 *	137,632
Dering Coal Company	Dering No. 18	1911-1915	482,228
Producer's Coal Company	Producer's No. 18	1915-1916	203,061
By-Products Coke Corporation	By-Products No. 18	1916-1922	1,558,589
Peabody Coal Company	Peabody No. 18	1922-1924	363,936
Industrial Coal Company	Industrial No. 18	1924-1927	1,712,924
Peabody Coal Company	Peabody No. 18	1928-1947 **	9,775,959
			14,272,629

\* Idle 1910

\*\* Idle 1935

Last reported production: January 1947

#### SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Microfilm, document 351439	5-3-1947	1:9600	1:19200	Final
Company, 4103.F7 i5.1-13	3-15-1932	1:2400	1:2400	Not 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. Mine notes (Franklin County) - Mine type, shaft locations, seam, depth, thickness. Microfilm map, document 351439, reel 03136, frames 110 & 111 - Mine outline, mining method. Company map, ISGS map library, 4103.F7 i5.1-13 - Shaft locations.

#### Mine Index 366 Orient Number Two Coal Company, Orient No. 2 Mine

Type: Underground Total mined-out acreage shown: 9,638 An additional 46 acres may have been mined after the map date.

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft	Franklin	7S 2E	13	NW SE SW
Auxiliary shaft	Franklin	7S 2E	13	NE SE SW
Shaft No. 3 (air)	Franklin	7S 2E	1	SE NE NW
Shaft No. 4 (motor)	Franklin	6S 2E	36	NE NE SW

#### GEOLOGY

		Thick	ness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	480-500	8.0	12.5	9.0	HER

<u>Geologic Problems Reported</u>: An explosion in 1951 resulted in 119 men killed, ranking second only to the Cherry Mine fire (Bureau County, 1909) in number of deaths. The mine had been classified as gassy, and had additional safety procedures (rock dusting to alleviate combustible coal dust in the mine, certified examiners monitoring the mine prior to each shift, etc.) An exhaustive investigation of the cause of ignition was narrowed down to two possibilities: an electrical arc from the operation of a motor or personnel smoking underground. The methane gas had apparently migrated from abandoned workings. The roof was at least 40 feet of shale, and generally up to 19 inches of top coal was left to support this roof. Some calcite appeared as fracture filler, and some thin pyrite stringers were present in the top coal. Some small slips were present, but did not seriously affect mining. The northward dip of the bed and the presence of a few rolls required some grading to be performed. The floor consisted of 4 to 18 inches of underclay that heaved "readily but not far". The microfilm source map shows generally north-trending faults along the west side of the mine, part of the Rend Lake Fault System. In some cases, mining was not badly impacted, but in other areas, entries and rooms were truncated due to faulting.

#### **PRODUCTION HISTORY**

			Production
Company	Mine Name	Years	(tons)
Chicago, Wilmington & Franklin Coal Co.	New Orient, Orient No. 2	1922-1959	60,003,670
Orient Number Two Coal Company	Orient No. 2	1959-1960	810,507
Orient Number Two Coal Company	Orient No. 2	1960-1960	293,263 *
			61,107,440

\* Production after map date

Last reported production: November 30, 1960

#### SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Microfilm, document 351453	7-1-1960	1:2400	1:5296	Not final
Company, 4103.F7 i5.1-63	1-1-1960	1:12000	1:12000	Not final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, depth, geologic problems. Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation. Mine notes (Franklin County) - Mine type, shaft location, seam, depth, thickness, geologic problems. Microfilm map, document 351453, reel 03136, frames 160-171 - Shaft locations, mine outline, mining method. Company map, ISGS map library, 4103.F7 i5.1-63 - Shaft locations identified.

#### 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

Туре	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

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

<u>Geologic Problems Reported</u>: 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**

			Production	
Company	Mine Name	Years	(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	16,206,395	
			19,478,803	

Last reported production: April 1950

#### SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
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. 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 428 Old Ben Coal Corporation, Old Ben No. 15 Mine

Type: Underground Total mined-out acreage shown: 3,154

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft	Franklin	7S 2E	35	740 FNL, 445 FWL
Air shaft	Franklin	7S 2E	35	SE NW SW

#### GEOLOGY

		Thick	ness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	419			8.0-8.83	RPP (with HER)

<u>Geologic Problems Reported</u>: Gas may have been a problem at this mine; an explosion killed one man. Top coal was left to protect the shale roof, and recovered on retreat. Pillars were sometimes drawn on retreat also. Some steep grades due to swags in the seam were present. Only a few pyrite facings were found, along with a "noticeable" amount of calcite facings. The company map showed numerous northwest-southeast trending faults in the southern part of the mine. These faults had throws ranging from 2 to 8 feet.

#### **PRODUCTION HISTORY**

			Production	
Company	Mine Name	Years	(tons)	
Old Ben Coal Corporation	Old Ben No. 15	1919-1954 *	<u>20,917,351</u> 20,917,351	

Due due the se

\* Idle 1925

Last reported production: January 1954

#### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Мар Туре
Microfilm, document 351435	6-30-1954	1:4800	1:9931	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. Mine notes (Franklin County) - Mine type, shaft location, seam, depth, geologic problems. Microfilm map, document 351435, reel 03136, frames 103, 104 - Shaft locations, mine outline, mining method. Company map, ISGS map library, 4102 i5.1-6 - Shaft locations, geologic problems.

#### Mine Index 432 Chicago, Wilmington & Franklin Coal Company, Benton No. 1 Mine

Type: Underground Total mined-out acreage shown: 959

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft	Franklin	6S 3E	19	1825 FSL, 625 FWL
Air shaft ("old")	Franklin	6S 3E	19	1750 FSL, 850 FWL
Air shaft ("new")	Franklin	6S 2E	24	SE SE SW

#### GEOLOGY

		Thick	ness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	618-624	6.0	13.0	8.5-9.25	RPP

<u>Geologic Problems Reported</u>: Gas may have been a problem; one man was killed in an explosion. The roof was shale, and approximately 2 feet of top coal was left to support the roof.

#### **PRODUCTION HISTORY**

Company	Mine Name	Years	Production (tons)
Benton Coal Company	Benton No. 1	1905-1922	5,243,181
Chicago, Wilmington & Franklin Coal Co.	Benton No. 1	1922-1924	<u>811,192</u> 6,054,373

Last reported production: March 1924

#### SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Company, 4103.F7 i5.1-2	12-1-1922	1:2400	1:2400	Not final
Microfilm, document 351453	7-1-1960	1:2400	1:5296	Secondary source

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. Mine notes (Franklin County) - Mine type, shaft locations, seam, depth, thickness, geologic problems. Company map, ISGS map library, 4103.F7 i5.1-2 - Shaft locations, mine outline (north & east), mining method. Microfilm map, document 351453, reel 03136, frames 160-171, map of Orient No. 2 Mine (mine index 366) - Mine outline (southern & western extensions).

#### Mine Index 433 Southern Illinois Coal Company, Southern Illinois No. 21 Mine

Type: Underground Total mined-out acreage shown: 1,107 Production indicates an additional 18 acres may have been mined after the map date.

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft (9.5'x17.5')	Franklin	7S 2E	24	SE NE SW
Air shaft (9.5'x14')	Franklin	7S 2E	24	SW NW SE

#### GEOLOGY

		Thick	ness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	450-460	6.0	10.0	8.5-9.0	MRP

<u>Geologic Problems Reported</u>: Some squeezes occurred in the east half of SW 24-T7S-R2E; the SW SW part of 23-T7S-R2E has an area labeled "caved".

#### **PRODUCTION HISTORY**

Company	Mine Name	Years	Production (tons)
West Frankfort Coal Company	West, West Frankfort No. 1	1911-1919	2,926,185
Southern Gem Coal Corporation	Southern Gem No. 1	1919-1926 **	2,296,249
Brewerton Coal Company	Brewerton No. 21	1927-1932	1,520,700
West Frankfort Coal Company	West Frankfort No. 21	1933-1934	229,735
West Mine Coal Corporation	West No. 21	1935-1936 ***	64,958
Frankfort Coal Company	Frankfort No. 21	1936-1937	86,997
Southern Illinois Coal Company	Southern Illinois No. 21	1937-1937	116,221 ****
			7,241,045

\*\* Idle 1925 & 1926

\*\*\* Idle 1935

\*\*\*\* Production after map date; reported under the name Southern Illinois Coal Company; the map indicates the company operated as Interstate Coal Company, No. 21 Mine

Last reported production: December 1937

#### SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Microfilm, document 351425	5-15-1937	1:2400	1:4634	Not final
Microfilm, document 351435	6-30-1954	1:4800	1:9931	Secondary source

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

Microfilm map, document 351425, reel 03136, frames 78-88 - Shaft locations, mine outline, mining method, geologic problems.

Microfilm map, document 351435, reel 03136, frames 103, 104, map of Old Ben No. 15 Mine (mine index 428) -Mine outline (southwest).

Company map, ISGS map library, Old Ben Coal Company Archive Collection - Mine outline (southwest).

#### Mine Index 448 Old Ben Coal Corporation, Old Ben No. 9 Mine

Type: Underground Total mined-out acreage shown: 6,184

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage	
Hoist shaft	Franklin	7S 3E	20	SE NE SE	
A shaft	Franklin	7S 3E	20	SE SW NE	
C shaft	Franklin	7S 3E	29	NE SE SE	
D shaft	Franklin	7S 3E	27	SW SE SW	
E shaft	Williamson	8S 3E	2	SW SW NW	

A shaft was a material, air and escapement shaft; the hoist shaft may have been the B shaft; C shaft was an auxiliary shaft; D shaft was auxiliary, air and escapement; E shaft was an air, man and material shaft.

#### GEOLOGY

		Thick	kness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	440-482	6.0	9.3	9.0	HER *

\* RPP over most of mine; some pillars removed over most of the mine, in some areas very few pillars left.

<u>Geologic Problems Reported</u>: The mine had some gas; an explosion killed one man in 1923. Top coal (15 to 24 inches) was generally left to protect the gray shale roof. The underclay showed a tendency to heave and squeeze, sometimes even before mining was completed.

#### **PRODUCTION HISTORY**

			Production	
Company	Mine Name	Years	(tons)	
Old Ben Coal Corporation	Old Ben No. 9	1913-1968 **	<u>42,588,301</u> 42,588,301	

\*\* Idle 1929-1943. One of the shafts was used for disposal of acid water after 1968.

Last reported production: February 1968

#### SOURCES OF DATA

		Original	Digitized		
Source Map	Date	Scale	Scale	Мар Туре	
State archive, msha_540_03	2-15-1968	1:4800	1:4800	Final	

#### Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, depth, mining method, geologic problems. 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. State archive map, msha\_540\_03 - 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

Туре	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

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

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

<u>Geologic Problems Reported</u>: 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**

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

Last reported production: March 1955

#### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Мар Туре	
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. 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

Туре	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	

#### GEOLOGY

		Thio	ckness (f	ït)	Mining		
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method		
Herrin	451			8.5-10.0	HER		

<u>Geologic Problems Reported</u>: 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 roof was a massive brittle shale that fell readily. 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.

#### **PRODUCTION HISTORY**

			Production	
Company	Mine Name	Years	(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

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Company map	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.
 Mine notes (Franklin County) - Mine type, shaft location, seam, depth, thickness, geologic problems.
 Company map, ISGS map library, Old Ben Coal Company Archive collection - Shaft locations, mine outline, mining method, geologic problems.

#### Mine Index 847 Freeman Coal Mining Corporation, Orient No. 5 Mine

Type: Underground Total mined-out acreage shown: 2,260 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

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft	Franklin	6S 3E	34	NW NW NE
Man & material shaft	Franklin	6S 3E	34	NW NW NE

#### GEOLOGY

		Thickness (ft)			Mining	
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method	
Herrin	630			9.08-10.08	RPP, LW *	

\* The Annual Coal Report indicates that mining was longwall and room & pillar from 1965 to 1968; the mine notes reported that longwall (and other) machines had been used. Some areas of RPP method had pillars removed.

<u>Geologic Problems Reported</u>: The roof was gray Energy Shale. Most roof falls at this mine ran north-south. Many small (8-10 feet) roof falls and at least one large (100 feet) roof fall occurred. Where the coal was 10 feet thick, vertical rib rashing was a problem. The coal had a high sulfur content with numerous pyrite concretions, but high Btu. The mine was reputedly very gassy. Rolls were noted. The coal was very hard and tough on the bits of the machines that mined the coal. Coal balls 2-3 feet in diameter were found, and they were most numerous at the Anna Shale – Energy Shale contact. The floor heaved 2-3 feet in one instance.

#### **PRODUCTION HISTORY**

			FIGUUCION	
Company	Mine Name	Years	(tons)	
Freeman Coal Mining Corporation	Orient No. 5	1960-1972	<u>14,789,089</u> 14,789,089	

Draduation

Last reported production: December 15, 1972

#### SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Microfilm, document 351455	12-15-1972	1:2400	1:3972	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, thickness, mining methods.

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

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

Microfilm map, document 351455, reel 03136, frames 176-185 - Shaft locations, mine outline, mining method, abandonment date.

#### Mine Index 866 Old Ben Coal Corporation, Old Ben No. 24 Mine

Type: Underground Total mined-out acreage shown: 6,884

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
A shaft, hoist	Franklin	6S 2E	11	SW SE NE
B shaft	Franklin	6S 2E	11	NE SE NE
C shaft, man & material	Franklin	6S 2E	2	NE SE NE
D shaft, exhaust fan	Franklin	6S 2E	2	NE SE NE
E shaft, fan	Franklin	5S 2E	25	SE NW NE

#### GEOLOGY

		Thickness (ft)			Mining	
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method	
Herrin	625-666			6.6-8.5	HER, LW , RP *	

\* The older parts of the mine were worked with RPP from 1965 to 1977. The Coal Report lists LW and RP after 1978. The source map shows areas where pillars were removed as mining ended in different areas.

<u>Geologic Problems Reported</u>: The east part of the mine had faults. The near west portion of the mine was hilly and had poor roof conditions.

#### **PRODUCTION HISTORY**

			Production
Company	Mine Name	Years	(tons)
Old Ben Coal Corporation	Old Ben No. 24	1965-1996 **	<u>51,487,488</u> 51,487,488

\*\* Idle 1981 and 1982

Last reported production: 1996

#### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Мар Туре
Company map	12-31-1996	1:4800	1:4800	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, seam, depth, thickness. Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation. Mine notes (Franklin County) - Mine type, shaft location, geologic problems. Company map, ISGS Coal Section files (digital) - Shaft locations, mine outline, mining method.

#### Mine Index 962 Old Ben Coal Corporation, Old Ben No. 25 Mine

Type: Underground Total mined-out acreage shown: 4,246

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
A shaft (hoist)	Franklin	7S 3E	26	NE NE NW
B shaft (man & material)	Franklin	7S 3E	26	SE NE NW

#### GEOLOGY

		Thickness (ft)			Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	598			6.5-8.5	LW

<u>Geologic Problems Reported</u>: A group of small faults was mapped along the 7<sup>th</sup> through 10<sup>th</sup> Main East entries. These were high angle, normal faults that strike NNW with displacements from a few inches to about 1 foot. These faults had the typical trend and style of subsidiary faults of the Cottage Grove Fault System, the major faults of which lie about 6 miles south of this mine. Although the faults were small, they weakened the roof. A large roof fall developed where such a fault ran the length of a crosscut between the 9<sup>th</sup> and 10<sup>th</sup> Main. Roof falls tended to be in north-south trending mains and rooms. Although top coal was left to protect the roof (composed primarily of gray shales), many falls of 10 feet or more occurred. The Energy Shale had a preferred fracture pattern trending northeast-southwest. Rolls were present, reducing the coal thickness to 2 feet. These rolls were up to 30 feet wide and 5 feet deep, and commonly occurred in parallel sets. Recently active faces bled gas. Concentrated masses of coal balls were found.

#### **PRODUCTION HISTORY**

			Production
Company	Mine Name	Years	(tons)
Old Ben Coal Corporation	Old Ben No. 25 *	1977-1994	<u>34,315,692</u> 34,315,692

\* This mine became the National Coal Mine Museum in the 1990s.

Last reported production: August 1994

#### SOURCES OF DATA

		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
State archive, MS_15	1-10-1995	1:4800	1:4800	Final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, thickness. Directory of Illinois Coal Mines (Franklin County) - Mine names, mine index, ownership, years of operation. Mine notes (Franklin County) - Mine type, shaft location (A), seam, depth, geologic problems. State archive map, MS 15 - Shaft locations, mine outline, mining method.

#### Mine Index 2070 Franklin Mining Company, Ward Mine

Type: Underground Total mined-out acreage shown: 792

#### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Туре	County	Township-Range	Section	Quarters-Footage
Main shaft (11.33'x17.2')	Franklin	6S 3E	17	SW SW NE
Air shaft (11.33'x15.17')	Franklin	6S 3E	17	SE SW NE

#### GEOLOGY

		Thick	ness (ft)		Mining
Seam(s) Mined	Depth (ft)	Min	Max	Ave	Method
Herrin	623	6.0		6.5-8.0	RPP

<u>Geologic Problems Reported</u>: The seam contained some small slips, but the effect of these slips on mining was negligible. Pyrite stringers and calcite facings were also present. The coal contained rolls, some of which nearly cut out the coal.

#### **PRODUCTION HISTORY**

Company	Mine Name	Years	Production (tons)
Franklin County Mining Company	Franklin County No. 1	1917-1920	285,824
Franklin Coal & Mining Company	Franklin	1920-1921	334,447
Franklin County Mining Company	Franklin County	1921-1932 *	3,174,790
Benton-Franklin Coal Company	Ward	1933-1933	63,216
Franklin Mining Company	Ward	1934-1934	153,925
			4,012,202

\* Idle 1931-1932

Last reported production: October 1934

#### SOURCES OF DATA

SOURCES OF DATA				
		Original	Digitized	
Source Map	Date	Scale	Scale	Мар Туре
Microfilm, document 351452	4-26-1961 **	1:2400	1:4303	Final

\*\* Mine survey extended to 11-30-1934

#### 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. Mine notes (Franklin County) - Mine type, shaft locations, seam, depth, thickness, geologic problems. Microfilm map, document 351452, reel 03136, frames 158, 159 - Shaft locations, mine outline, mining method.

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