





# **DIRECTORY OF COAL MINES IN ILLINOIS**

## **7.5-MINUTE QUADRANGLE SERIES**

### **SALINE MINES QUADRANGLE**

### **GALLATIN & HARDIN COUNTIES**

Alan R. Myers & C. Chenoweth



2009

Institute of Natural Resource Sustainability  
William W. Shilts, Executive Director  
**ILLINOIS STATE GEOLOGICAL SURVEY**  
E. Donald McKay III, Interim Director

Natural Resources Building  
615 East Peabody Drive  
Champaign, Illinois 61820

Phone 217-244-4610  
Fax 217-333-2830



This material is based upon work supported by the Illinois Department of Transportation. Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect the views of the Illinois Department of Transportation.

**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.

© 2009 The Board of Trustees of the University of Illinois. All rights reserved.  
For permission information, contact the Illinois State Geological Survey.

# CONTENTS

INTRODUCTION .....	1
MINING IN THE SALINE MINES QUADRANGLE .....	1
PART I EXPLANATION OF MAP AND MINE SUMMARY SHEET .....	2
INTERPRETING THE MAP .....	2
Mine Type and Mining Method .....	2
Source Maps .....	3
Points and Labels .....	3
INTERPRETING A MINE SUMMARY SHEET .....	6
REFERENCES .....	8
PART II DIRECTORY OF MINES IN THE SALINE MINES QUADRANGLE .....	9
MINE SUMMARY SHEETS .....	9
Mine Index 431 .....	
J. L. Lowery, Lowry Mine .....	9
Mine Index 883 .....	
Peabody Coal Company, Eagle Surface Mine .....	10
Mine Index 2297 .....	
Boswell Coal Company, Boswell Mine .....	11
Mine Index 2301 .....	
Independent Coal Company, Independent Mine .....	12
OTHER MINES SHOWN ON SALINE MINES QUADRANGLE .....	13
Mine Index 6453 .....	13
Mine Index 7280 .....	13
Mine Index 7281 .....	13
Mine Index 7282 .....	13
Mine Index 7283 .....	13
NON-COAL MINES IN THE SALINE MINES QUADRANGLE .....	13
Spivey Mine Company, Greene Fluorspar and Zinc Mine .....	13
Rigsby, Martin & Frailey, J. Oxford Fluorspar Prospect Mine .....	13
Hoeb Mining Company, Hoeb Fluorspar Mine .....	14
Goose Creek Mining Company, Goose Creek Fluorspar Mine .....	14
Rock Creek Mining Company, Dutton Fluorspar Prospect Mine .....	14
Ozark-Mahoning Company, Hill-Ledford Lead & Fluorspar Mine .....	15
Eureka Lead Company, Eureka Lead-Fluorspar Mine .....	15
Martin Fluorspar Prospect Mine .....	15
Minerva Oil Company, Minerva Fluorspar & Zinc Mine .....	16
Ozark-Mahoning Company, East Green Fluorspar & Zinc Mine .....	16
Ozark-Mahoning Company, Oxford Fluorspar & Zinc Mine .....	16
Ozark-Mahoning Company, Edgar Davis Fluorspar Mine .....	17
Ozark-Mahoning Company, North Green Fluorspar & Zinc Mine .....	17
R. S. Tams, Tams Fluorspar Prospect .....	17
Inland Steel Company, Wall Fluorspar Mine .....	18
Ozark-Mahoning Company, W. L. Davis No. 2 Fluorspar Mine .....	18
Ozark-Mahoning Company, Davis-Deardorff Fluorspar, Lead & Zinc Mine .....	18
Austin Company, Defender Fluorspar Mine .....	19
Minerva Oil Company, Victory Fluorspar & Zinc Mine .....	19
Minerva Oil Company, North Victory Fluorspar Mine .....	19
Austin Company, Green Fluorspar Mine .....	20
Crystal Fluorspar Company, Crystal Fluorspar, Lead & Zinc Mine .....	20
Lackey Fluorspar Prospect .....	20
Ozark-Mahoning Company, Annbell Lee Fluorspar, Lead & Zinc Mine .....	21
Ozark-Mahoning Company, Davis Fluorspar Mine .....	21
Ozark-Mahoning Company, West Green Fluorspar & Zinc Mine .....	21
Austin Company, Cleveland Lead & Fluorspar Mine .....	22

Austin Company, Austin Lead & Fluorspar Mine .....	22
Austin Company, East Green Fluorspar Mine .....	22
Austin Company, Hillside Lead & Fluorspar Mine .....	23
Austin Company, Blue Valley Fluorspar Mine .....	23
Fluorspar Products Company, Lead Hill Fluorspar & Lead Mine .....	23
Grischy Mining Company, Cave-In-Rock Fluorspar & Lead Mine .....	24
Oxford West Company, Morrison Fluorspar Mine .....	24
Ozark-Mahoning Company, Denton Fluorspar, Lead & Zinc Mine .....	24
E. W. Frazer (Fluorspar Products Company), Robinson Lead & Fluorspar Mine .....	25
OTHER NON-COAL MINES ON SALINE MINES QUADRANGLE .....	25
Lead Hill Fluorspar Mine .....	25
Wolf Fluorspar Mine .....	25
Oxford Fluorspar Mine .....	25
Shipp Fluorspar Mine & Covert Fluorspar Mine .....	25
Walnut Fluorspar Mine .....	25
Little Fluorspar Mine .....	25
Keeling Fluorspar Mine .....	25
Magazine Fluorspar Mine .....	26
MINES WHOSE LOCATIONS ARE NOT KNOWN, SALINE MINES QUADRANGLE .....	26
INDEX OF MINES IN THE SALINE MINES QUADRANGLE .....	27

## **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 SALINE MINES QUADRANGLE**

The Davis Coal was mined in the northern part of the quadrangle, an extension of the Eagle Surface Mine (mine index 883). The Tartar Coal was mined in the Saline Mines Quadrangle, but it was thin. Because of the podlike nature of the coal deposition, the mines were small and the product was used only locally. The majority of the mining was fluorspar extraction in the southern half of the quadrangle.



## 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

- Bastin, E. S., 1931, The Fluorspar Deposits of Hardin and Pope Counties, Illinois, Illinois State Geological Survey, Bulletin 58, 116p., 9 pl.
- 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.
- Baxter, J. W., P. E. Potter, and F. L. Doyle, 1963, Areal Geology of the Illinois Fluorspar District, Part 1, Saline Mines, Cave in Rock, Dekoven, and Repton Quadrangles, Illinois State Geological Survey, Circular 342, 43p.
- 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.
- Weller, J. M., R. M. Grogan, and F. E. Tippie, 1952, Geology of the Fluorspar Deposits of Illinois, Illinois State Geologic Survey, Bulletin 76, 147p., 7 pl.
- Worthen, A. H., G. C. Broadhead, and E. T. Cox, 1875, Geology and Paleontology of Illinois, Volume VI, Illinois State Geological Survey, 532p.

## PART II DIRECTORY OF MINES IN THE SALINE MINES QUADRANGLE

### MINE SUMMARY SHEETS

A summary sheet on the geology and production history of each mine in the Saline Mines 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 431

#### J. L. Lowery, Lowry Mine

Type: Underground Total mined-out acreage shown: 289 The outline shown is a general area of mining that includes other mines. One of these mines operated about 1850, and ownership and production are unknown. Production for the Lowery Mine indicates approximately 2 acres were mined.

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Main shaft	Gallatin	10S 9E	27	NE SE SE

### GEOLOGY

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Avg	
Springfield				5.0	RPP

Geologic Problems Reported:

### PRODUCTION HISTORY

Company	Mine Name	Years	Production (tons)
Strong & Lowery	Strong & Lowery	1917-1918	612
J. L. Lowery *	Lowery	1918-1920	8,587
			9,199

\* Coal Section mine notes indicate this mine may have been known as Saline Coal Company. The 1950 mined out area map used for the outline of the general area mining also had some text indicating a Saline River Mine, circa 1850, operated in this area.

Last reported production: 1920

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS mined-out area map, Area 32	1950	1:62500	1:62500	Secondary source

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation.

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

ENR Document 85/01 - Mining method.

Mine notes (Gallatin County) - Mine location, seam.

ISGS mined-out area map, Area 32 - Mine outline.



**Mine Index 883****Peabody Coal Company, Eagle Surface Mine**

Type: Surface Total mined-out acreage shown: 1,336 This area encompasses several other small mines. Some were small underground mines whose pillars were retrieved by the Eagle Mine, some were small surface mines whose outlines are no longer relevant, and there is some evidence that a previously auger-mined area was surface-mined by the Eagle Mine.

**SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS**

Type	County	Township-Range	Section	Quarters-Footage
Tipple	Gallatin	10S 9E	8	NE NE NE

**GEOLOGY**

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Avg	
Herrin	6-80			3.0-4.67	Surface
Briar Hill				2.5	Surface
Springfield	20-40			4.5	Surface
Dekoven				3.17	Surface
Davis				3.17	Surface

Geologic Problems Reported: This mine uncovered traces of several faults of the Shawneetown Fault Zone. Many thrust faults and some normal faults were seen. In one case, the Herrin Coal was triplicated in the section caused by large-scale thrusting. The south side of one thrust fault was up-thrown about 10 feet. The faulting caused displaced coal and made the coal elevation pitch and roll steeply, and caused instability of the highwall. In some pits, the Pleistocene material directly overlay the Herrin Coal and appeared to have cut down into the coal in some spots. The overburden over the Herrin Coal consisted of black Anna Shale (sometimes pods or not present at all), a thin layer (from a few inches thick up to 3 or 4 feet) of Brereton Limestone, gray Lawson Shale (from 2 to 15 feet thick), and Anvil Rock Sandstone. In some places the Anvil Rock Sandstone was present as a channel fill about 1,000 feet wide that had eroded down to within a few inches of the coal, and up to 50 feet thick in the channel phase. In two pits, coal balls were commonly associated with the Herrin Coal. In one pit, the coal balls were pyritic and weathered easily to a brown powdery material in the spoil pile. A few thin pyrite lenses were also present in the coal, as well as calcite and pyrite on cleat faces. At least one clay dike was seen in the Briar Hill Coal. The Dekoven Coal was overlain by 35 to 40 feet of hard gray silty shale with numerous thin beds of sandstone in the upper part.

**PRODUCTION HISTORY**

Company	Mine Name	Years	Production (tons)
Equality Coal Company	Equality	1945-1945	8,663
Idle		1946-1965	
Peabody Coal Company	Eagle Surface	1966-1980	<u>6,475,653</u>
			6,484,316

Last reported production: May 1980

**SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, 10-6-12	7-18-1983	1:12000	1:12000	Final
Company, 4103.G3 i5.1-13	1-1-1979	1:12000	1:12000	Not final

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation.

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

Mine notes (Gallatin County) - Mine type, mine location, seam, depth, thickness, geologic problems.

Company map, ISGS Coal Section files, 10-6-12 - Mine outline, mining method.

Company map, ISGS map library, 4103.G3 i5.1-13 - Tipple location.

**Mine Index 2297**  
**Boswell Coal Company, Boswell Mine**

Type: Underground    Total mined-out acreage shown: None

**SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS**

Type	County	Township-Range	Section	Quarters-Footage
Main slope	Gallatin	10S 9E	26	NW SE SW

**GEOLOGY**

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Avg	
Herrin					RPB

Geologic Problems Reported:

**PRODUCTION HISTORY**

Company	Mine Name	Years	Production (tons)
Boswell Coal Company	Boswell	1865-1865	Unknown *

\* Production before 1882 is unknown.

Last reported production:

**SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
Mine notes	Undated	(text only)	1:24000 **	Secondary source

\*\* The mine location was plotted on a 1:24000 USGS topographic map from the mine location description and digitized.

Annotated Bibliography (data source, brief description of information)

Directory of Illinois Coal Mines (Gallatin County) - Mine names, mine index, ownership, years of operation.  
 ENR Document 85/01 - Mining method.  
 Mine notes (Gallatin County) - Mine location, seam.  
 Worthen, A. H et al., 1875, Geology & Paleontology of Illinois - Mine type, mine ownership, years of operation.

**Mine Index 2301**  
**Independent Coal Company, Independent Mine**

Type: Underground    Total mined-out acreage shown: None

**SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS**

Type	County	Township-Range	Section	Quarters-Footage
Main slope	Gallatin	10S 9E	35	SW SW NW
Air shaft	Gallatin	10S 9E	35	SW NW NW

**GEOLOGY**

Seam(s) Mined	Depth (ft)	Thickness (ft)			Mining Method
		Min	Max	Avg	
Dekoven	90			3.0	RP
Davis	116			4.0	RP

Geologic Problems Reported: This mine reportedly closed because of water problems with the air shaft. A fault was encountered 60 to 90 feet west of the slope in the Dekoven Coal. The coal was replaced by sandstone there, either by erosion or faulting. The roof was shale.

**PRODUCTION HISTORY**

Company	Mine Name	Years	Production (tons)
Independent Coal Company	(Country Bank)	pre1875-1880 *	Unknown *

\* The Independent Coal Company was not listed in the Coal Reports. The mine was apparently active when Worthen visited before his 1875 publication. Wallace Lee includes the same data in his field notes of 1915, but his additional information is from the local postmaster. There is no indication that Lee entered the mine or that the mine was active when he visited in 1915.

Last reported production:

**SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS field notes (Wallace Lee)	1915	(text only)	1:24000 **	Secondary source

\*\* The mine location was plotted on a 1:24000 USGS topographic map from the mine location description and digitized.

Annotated Bibliography (data source, brief description of information)

Directory of Illinois Coal Mines (Gallatin County) - Mine names, mine index, ownership, years of operation.  
 Mine notes (Gallatin County) - Mine type, slope location, seam, thickness, geologic problems.  
 ISGS field notes (Gallatin County) - Mine type, slope & air shaft locations, geologic problems.  
 Microfilm map, document 351452, reel 03136, frame 158 - Slope & shaft locations, mine outline, mining method.  
 Worthen Report, Vol. VI, p. 206, Geology of Gallatin County - Mine name, general location, seams, depth, thickness, geologic problems.

## OTHER MINES SHOWN ON SALINE MINES QUADRANGLE

Mine Index 6453 NW NE NW 17-T11S-R10E, drift source: ISGS field notes (H. B. Stonehouse, 6-8-1954)

Mine Index 7280 SE SW SW 32-T11S-R9E, old mine, 1.5 ft thick source: ISGS field notes (H. B. Stonehouse, 6-25-1954)

Mine Index 7281 NE SW NE 2-T11S-R9E, old shaft source: ISGS field notes (H. B. Stonehouse, 6-8-1954)

Mine Index 7282 NW SE NW 27-T10S-R9E, 5 ft coal at local drift source: ISGS field notes (Wallace Lee, 1915)

Mine Index 7283 SW SE SE 31-T11S-R9E, local coal bank source: ISGS field notes (Wallace Lee, 1915)

## NON-COAL MINES IN THE SALINE MINES QUADRANGLE

### Spivey Mine Company, Greene Fluorspar and Zinc Mine

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	16	SW NW SW

#### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:24000	1:24000	Secondary source

Annotated Bibliography (data source, brief description of information)

ISGS Circular 342, Plate 1 - Mine location.

### Rigsby, Martin & Frailey, J. Oxford Fluorspar Prospect Mine

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

Type	County	Township-Range	Section	Quarters-Footage
Pit	Hardin	11S 9E	17	SW SW SE

#### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Bulletin 76, p. 140	1952	(text only)	1:24000	Secondary source

Annotated Bibliography (data source, brief description of information)

ISGS Bulletin 76, pg. 140 - Mine location.

## Hoeb Mining Company, Hoeb Fluorspar Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	17	NE SW SE

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:24000	1:24000	Secondary source

Annotated Bibliography (data source, brief description of information)

ISGS Circular 342, pg. 37 & Plate 1 - Mine location.

## Goose Creek Mining Company, Goose Creek Fluorspar Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	17	SE SE SW

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:24000	1:24000	Secondary source

Annotated Bibliography (data source, brief description of information)

ISGS Circular 342, pg 37 & Plate 1 - Mine location.

## Rock Creek Mining Company, Dutton Fluorspar Prospect Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	20	SW NW SE

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:24000	1:24000	Secondary source

Annotated Bibliography (data source, brief description of information)

ISGS Circular 342, pg. 37 & Plate 1 - Mine location.

## **Ozark-Mahoning Company, Hill-Ledford Lead & Fluorspar Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	23	NE NE SE

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, document 355126	4-29-1974	1:4800	1:4800	Non-coal

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

Microfilm, document 355126, reel 3149, frame 99 - Mine location, mine outline.  
ISGS Circular 342, pg. 38 & Plate 1 - Mine location.

## **Eureka Lead Company, Eureka Lead-Fluorspar Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	23	SE NE SW

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:24000	1:24000	Secondary source

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

ISGS Bulletin 58, pg. 85 - Mine location.  
ISGS Bulletin 76, pg 140 & Plate 7 - Mine location.  
ISGS Circular 342, pg 38 & Plate 1 - Mine location.

## **Martin Fluorspar Prospect Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	23	SW SW SW

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Bulletin 76, Plate 1	1952	1:4800	1:4800	Secondary source

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

ISGS Bulletin 76, pg. 140 & Plate 1 - Mine name, type, location.  
ISGS Circular 342, pg. 38 & Plate 1 - Mine location.

## Minerva Oil Company, Minerva Fluorspar & Zinc Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	24	NW SE SE
Air shaft	Hardin	11S 9E	24	SW SE SE

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Bulletin 76, Pl. 7	1952	1:4800	1:4800	Secondary source
Company, document 300246	1948	1:600	1:600	Non-coal
Company, document 300249	Undated	1:1200	1:1200	Non-coal

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

ISGS Bulletin 76, Plate 4 & Plate 7 - Mine location (property outline to register microfilm to).  
Microfilm, document 300246, reel 30002, frames 42-46 - Mine outline.  
Microfilm, document 300249 - Property outline.

## Ozark-Mahoning Company, East Green Fluorspar & Zinc Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Shaft (& drift)	Hardin	11S 9E	35	SE NW NE

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Bulletin 76	1952	1:4800	1:4800	Secondary source
Company, document 355121	7-12-1949	1:600	1:1448	Non-coal

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

ISGS Bulletin 76, pg. 106, Plate 4 & Plate 7 - Mine outline.  
Microfilm, document 355121, reel 03149, frame 90 - Mine outline

## Ozark-Mahoning Company, Oxford Fluorspar & Zinc Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	25	SE NW NW

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:24000	1:24000	Secondary source

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

ISGS Circular 342, pg. 38 & Plate 1 - Mine name, location.



## **Ozark-Mahoning Company, Edgar Davis Fluorspar Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	26	SW SE SW

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:24000	1:24000	Secondary source

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

ISGS Circular 342, pg. 37 & Plate 1 - Mine name, location.

## **Ozark-Mahoning Company, North Green Fluorspar & Zinc Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	35	NE NE NE

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:24000	1:24000	Secondary source

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

ISGS Bulletin 76, pg. 106 - Mine name, location.  
ISGS Circular 342, pg. 17 & Plate 1 - Mine location.

## **R. S. Tams, Tams Fluorspar Prospect**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	33	SE SW SE

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:24000	1:24000	Secondary source

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

ISGS Bulletin 76, pg. 140 - Mine name, location.  
ISGS Circular 342, pg 37 & Plate 1 - Mine location.

## Inland Steel Company, Wall Fluorspar Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Shaft & adits	Hardin	11S 9E	34	SW SW SE
Shaft	Hardin	11S 9E	35	SE SW SW

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:24000	1:24000	Secondary source

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

ISGS Bulletin 76, pg. 129 & 140 - Mine name, location.

ISGS Circular 342, p 37 & Plate 1 - Mine location.

## Ozark-Mahoning Company, W. L. Davis No. 2 Fluorspar Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	34	SE NE NE

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 359109	1-1-1958	1:4800	1:4800	Non-coal

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

Microfilm, document 359109, reel 06160, frame 408, map of Minerva No. 1 Mine - Mine name, type, location.

## Ozark-Mahoning Company, Davis-Deardorff Fluorspar, Lead & Zinc Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	34	NW SW NE
Shaft	Hardin	11S 9E	34	SW SE NW
Shaft	Hardin	11S 9E	34	NW NW SE
Shaft	Hardin	11S 9E	34	SE NW NE

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, document 359109	1-1-1958	1:4800	1:4800	Non-coal

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

Microfilm, document 359109, reel 06160, frame 408 - Shaft locations, mine outline.

ISGS Bulletin 76, pg. 106, Plates 4 & 7 - Mine name, location.

## **Austin Company, Defender Fluorspar Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Drift	Hardin	11S 9E	34	SE SE SW

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Bulletin 76, Pl. 7	1952	1:4800	1:4800	Secondary source

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

ISGS Bulletin 76, Plate 7 - Mine outline.

ISGS Bulletin 58, pg. 91 - Mine name, type, location.

## **Minerva Oil Company, Victory Fluorspar & Zinc Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	34	SE SW SW

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, document 355097	1-1975	1:4800	1:8937	Non-coal

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

Microfilm, document 355097, reel 03148, frame 64 - Mine outline.

ISGS Bulletin 58, pg. 91 & 92 - Mine name, type, location.

## **Minerva Oil Company, North Victory Fluorspar Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Drift	Hardin	11S 9E	34	NW NE SW

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:4800	1:4800	Secondary source

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

ISGS Circular 342, pg. 37 & Plate 1 - Mine name, type, location, depth.

## Austin Company, Green Fluorspar Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Drift (2)	Hardin	11S 9E	34	SE SE SW

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Bulletin 76, Pl. 7	1952	1:4800	1:4800	Secondary source

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

ISGS Bulletin 76, Plate 7 - Mine outline.

ISGS Bulletin 58, pg. 91 - Mine name, type, location.

## Crystal Fluorspar Company, Crystal Fluorspar, Lead & Zinc Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Shaft (4)	Hardin	11S 9E	34	NE SE
Shaft (4)	Hardin	11S 9E	34	SE NE

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 355097	1-1975	1:4800	1:8937	Non-coal

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

Microfilm, document 355097, reel 03148, frame 64, map of Minerva & Victory Mines & area - Mine outline, shafts.

## Lackey Fluorspar Prospect

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	34	SW NE SE

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Bulletin 76, Pl. 6	1946	1:1200	1:1200	Secondary source

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

ISGS Bulletin 76, Plate 6 - Mine location.

## **Ozark-Mahoning Company, Annbell Lee Fluorspar, Lead & Zinc Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
No. 16 Shaft	Hardin	11S 9E	35	SW SW NW

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 359109	1-1-1958	1:4800	1:4800	Non-coal

Annotated Bibliography (data source, brief description of information)

Microfilm, document 359109, reel 06160, frame 408, map of Deardorff shaft - Mine name, location.

## **Ozark-Mahoning Company, Davis Fluorspar Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	35	NE SW NW

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:24000	1:24000	Secondary source

Annotated Bibliography (data source, brief description of information)

ISGS Circular 342, p. 37 & Plate 1 - Mine location.

## **Ozark-Mahoning Company, West Green Fluorspar & Zinc Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	35	NW NW NE

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company, document 355121	7-12-1941	1:600	1:1448	Non-coal

Annotated Bibliography (data source, brief description of information)

Microfilm, document 355121, reel 03149, frame 90 - Mine name, type, location.

## **Austin Company, Cleveland Lead & Fluorspar Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft (2)	Hardin	12S 9E	3	SW NE NW
Slope (3)	Hardin	12S 9E	3	SW NE NW
Slope	Hardin	12S 9E	3	SE NE NW

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Bulletin 76, Pl. 7	1952	1:4800	1:4800	Secondary source
ISGS map library, 4103.H33 i5.5-4	4-1943	1:2400	1:2400	Non-coal

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

ISGS Bulletin 76, Plate 7 - Mine name, type, location.

ISGS map library, 4103.H33 i5.5-4 - Mine name, type, location.

## **Austin Company, Austin Lead & Fluorspar Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	12S 9E	3	SW NE NW

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Bulletin 76, Pl. 7	1952	1:4800	1:4800	Secondary source

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

ISGS Bulletin 76, page 129 & Plate 7 - Mine name, type, location.

## **Austin Company, East Green Fluorspar Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	12S 9E	3	NW NE NE

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Bulletin 76, Pl. 7	1952	1:4800	1:4800	Secondary source

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

ISGS Bulletin 76, pg. 139 & Plate 7 - Mine name, type, location.

## **Austin Company, Hillside Lead & Fluorspar Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	12S 9E	4	NE NE NE

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 355097	1-1975	1:4800	1:8937	Non-coal

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

Microfilm, document 355097, reel 03148, frame 64 - Mine location.

## **Austin Company, Blue Valley Fluorspar Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	12S 9E	4	center NE NE

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
Microfilm, document 355097	1-1975	1:4800	1:8937	Non-coal

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

Microfilm, document 355097, reel 03148, frame 64 - Mine location.

ISGS Circular 342, page 37 & Plate 1 - Mine name, location.

## **Fluorspar Products Company, Lead Hill Fluorspar & Lead Mine**

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

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	12S 9E	4	NW SE NW

### **SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:24000	1:24000	Secondary source

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

ISGS Circular 342, page 37 & Plate 1 - Mine location.



## Grischy Mining Company, Cave-In-Rock Fluorspar & Lead Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	12S 9E	4	SE NW NE

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Bulletin 76, Pl. 7	1952	1:4800	1:4800	Secondary source

Annotated Bibliography (data source, brief description of information)

ISGS Bulletin 76, pg. 129 & Plate 7 - Mine name, mine location.

## Oxford West Company, Morrison Fluorspar Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Pit	Hardin	12S 9E	3	SW NW NW
Pit	Hardin	12S 9E	4	NE SE NE

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Bulletin 76, Pl. 7	1952	1:4800	1:4800	Secondary source

Annotated Bibliography (data source, brief description of information)

ISGS Bulletin 76, Plate 7 - Mine name, type, location.

## Ozark-Mahoning Company, Denton Fluorspar, Lead & Zinc Mine

### SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

Type	County	Township-Range	Section	Quarters-Footage
Shaft	Hardin	11S 9E	9	SW SE SW

### SOURCES OF DATA

Source Map	Date	Original Scale	Digitized Scale	Map Type
Company Correspondence	11-28-1988	(text only)	1:24000	Secondary source

Annotated Bibliography (data source, brief description of information)

Company correspondence, Eric Livingston, Mining Division - Mine name, location.

**E. W. Frazer (Fluorspar Products Company), Robinson Lead & Fluorspar Mine**  
(shown on accompanying map with the label FPC)

**SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS**

Type	County	Township-Range	Section	Quarters-Footage
Robinson shaft	Hardin	12S 9E	4	NE NW SW
Miller drift	Hardin	12S 9E	4	SE SW NW
Shaft	Hardin	12S 9E	4	NW SW NW
Shafts (3)	Hardin	12S 9E	4	NW NE SW
Pit	Hardin	12S 9E	4	SE SW NW
Drifts (7)	Hardin	12S 9E	4	NE NW SW
Pits (2)	Hardin	12S 9E	4	NE NW SW
Shaft	Hardin	12S 9E	4	NE NW SW
Slopes or drifts (8)	Hardin	12S 9E	4	NW NE SW
Pits (3)	Hardin	12S 9E	4	NW NE SW
Shafts (3)	Hardin	12S 9E	4	NW NE SW

**SOURCES OF DATA**

Source Map	Date	Original Scale	Digitized Scale	Map Type
ISGS Circular 342, Pl. 1	1963	1:24000	1:24000	Secondary source
Company map, 4103.H33 i5.5-4	4-1943	1:24000	1:24000	Non-coal

Annotated Bibliography (data source, brief description of information)

ISGS Circular 342, Plate 1 - Mine name, location.

Company map, ISGS map library, 4103.H33 i5.5-4 - Mine locations.

Microfilm, document 355097, reel 03148, frame 64 - Mine ownership (links Frazer to Fluorspar Products Company).

**OTHER NON-COAL MINES ON SALINE MINES QUADRANGLE**

Fluorspar Mine SW NW NW 4-T12S-R9E source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine SE NE SW 33-T11S-R9E source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine NE NE NW 4-T12S-R9E, 4 shafts source: ISGS Circular 342, Plate 1  
 Lead Hill Fluorspar Mine SW SE NW 4-T12S-R9E, shaft source: ISGS map library, 4103.H33 i5.5-4  
 Wolf Fluorspar Mine SW SE NW 4-T12S-R9E, drift source: ISGS map library, 4103.H33 i5.5-4  
 Oxford Fluorspar Mine SW SE NW 4-T12S-R9E, drift source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine SW SE NW 4-T12S-R9E, 2 mines source: ISGS map library, 4103.H33 i5.5-4  
 Shipp Fluorspar Mine & Covert Fluorspar Mine NW SE NW 4-T12S-R9E, drifts source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine SE NE NW 4-T12S-R9E source: ISGS map library, 4103.H33 i5.5-4  
 Walnut Fluorspar Mine SE NW NE 4-T12S-R9E, shaft & drift source: ISGS map library, 4103.H33 i5.5-4  
 Little Fluorspar Mine SE NW NE 4-T12S-R9E, shaft source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mines SE NW NE 4-T12S-R9E, 2 shafts & 1 pit source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mines NW NE NE 4-T12S-R9E, 1 shaft, 2 drifts & 1 pit source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine NE SW SE 33-T11S-R9E, shaft source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine SW SE SE 33-T11S-R9E, shaft source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine SW NE NW 3-T12S-R9E, drift source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine SW SW SE 34-T11S-R9E, 3 pits source: ISGS map library, 4103.H33 i5.5-4  
 Keeling Fluorspar Mine NW NE NE 3-T12S-R9E, drift source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine SE SE SW 34-T11S-R9E, drift source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine SW SW SE 34-T11S-R9E, pit source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine NW SW SE 34-T11S-R9E source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine NW NW SE 3-T12S-R9E, 2 shafts source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine SE NW NE 4-T12S-R9E, prospect pit source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine NE NW NE 4-T12S-R9E, 2 prospect pits source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine NW NE NE 4-T12S-R9E, 3 prospect pits source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine NE NE NE 4-T12S-R9E, prospect pit source: ISGS map library, 4103.H33 i5.5-4

Fluorspar Mine SW NE NE 4-T12S-R9E, prospect pit source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine NE NE NW 4-T12S-R9E, 2 prospect pits source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine SW NE NW 4-T12S-R9E source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine NW SE NW 4-T12S-R9E, prospect pit source: ISGS map library, 4103.H33 i5.5-4  
 Fluorspar Mine SE NW NE 4-T12S-R9E, prospect pit source: ISGS map library, 4103.H33 i5.5-4  
 Magazine Fluorspar Mine SW NW NE 4-T12S-R9E, drift, shaft & pit source: ISGS map library, 4103.H33 i5.5-4

## **MINES WHOSE LOCATIONS ARE NOT KNOWN, SALINE MINES QUADRANGLE**

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

The total tons mined by these unlocated mines is 26,041 (20,569 underground and 5,472 mined by unspecified method), which would represent approximately 5 to 10 acres, depending on the recovery factor, mining method, and numerous other factors. (Note: 1 square mile = 640 acres)

### **SALINE MINES, Gallatin County**

Saline Mine, 1887-1888	2,512 tons
Reid (Andrew), 1889-1898, drift, Herrin, 25-30, 3.67-4.83, RP	4,110 tons
Reid (Robert) Coal Company, No. 07 Mine, 1898-1901	<u>894 tons</u>
	5,004 tons
Reid (Robert) Coal Company, No. 09 Mine, 1899-1901, drift, Herrin, 30, 4.5	934 tons
Reid (Robert) Coal Company, No. 11 Mine, 1899-1901, drift, Herrin, 30, 4.5	1,094 tons
Strong & Wood, 1901-1902, slope, Herrin, 30, 4.5, RP	954 tons
Strong & Company, 1902-1903	800 tons
Strong & Wood, 1903-1904	1,000 tons
Strong (J. P.), 1904-1905	<u>1,200 tons</u>
	3,954 tons
Smith (A. J.), 1901-1903, slope, Herrin, 30, 4.5, RP	900 tons
Mitchell (Robert), 1923-1924	2,960 tons
Brazier & Son, 1926-1926, underground	160 tons
Hina & Young, 1927-1927	67 tons
Hina (Henry), 1928-1929	<u>4,400 tons</u>
	4,627 tons
Logsdon (John) & Son, 1926-1928, underground	250 tons
Evans (A. S.), Logsdon & Vickery, 1929-1929	<u>190 tons</u>
	440 tons
Wallace (Harry), 1926-1926	90 tons
Big Hill Coal Company, 1934-1935, underground	278 tons

## INDEX OF MINES IN THE SALINE MINES QUADRANGLE

Austin Company	
Austin Lead & Fluorspar Mine	22
Blue Valley Fluorspar Mine	23
Cleveland Lead & Fluorspar Mine	22
Defender Fluorspar Mine	19
East Green Fluorspar Mine	22
Green Fluorspar Mine	20
Hillside Lead & Fluorspar Mine	23
Big Hill Coal Company	26
Blue Valley Fluorspar Mine	23
Boswell Coal Company	11
Brazier & Son	26
Cave-In-Rock Fluorspar & Lead Mine	24
Cleveland Lead & Fluorspar Mine	22
Covert Fluorspar Mine	25
Crystal Fluorspar Company, Crystal Fluorspar, Lead & Zinc Mine	20
Davis (Edgar) Fluorspar Mine	17
Davis (W. L.) No. 2 Fluorspar Mine	18
Davis Fluorspar Mine	21
Davis-Deardorff Fluorspar, Lead & Zinc Mine	18
Defender Fluorspar Mine	19
Denton Fluorspar, Lead & Zinc Mine	24
Dutton Fluorspar Prospect Mine	14
Eagle Surface Mine	10
East Green Fluorspar & Zinc Mine	16
East Green Fluorspar Mine	22
Equality Coal Company	10
Eureka Lead Company, Eureka Lead-Fluorspar Mine	15
Evans (A. S.), Logsdon & Vickery	26
Fluorspar Products Company	25
Fluorspar Products Company, Lead Hill Fluorspar & Lead Mine	23
FPC (Fluorspar Products Company)	25
Frailey (Rigsby, Martin & Frailey, Oxford Fluorspar Mine)	13
Frazer (E. W.), (Fluorspar Products Company)	25
Goose Creek Mining Company, Goose Creek Fluorspar Mine	14
Green Fluorspar Mine	20
Greene Fluorspar and Zinc Mine	13
Grischy Mining Company, Cave-In-Rock Fluorspar & Lead Mine	24
Hill-Ledford Lead & Fluorspar Mine	15
Hillside Lead & Fluorspar Mine	23
Hina (Henry)	26
Hina & Young	26
Hoeb Mining Company, Hoeb Fluorspar Mine	14
Independent Coal Company	12
Inland Steel Company, Wall Fluorspar Mine	18
Keeling Fluorspar Mine	25
Lackey Fluorspar Prospect	20
Lead Hill Fluorspar & Lead Mine	23
Lead Hill Fluorspar Mine	25
Lee (Annbell) Fluorspar, Lead & Zinc Mine	21
Little Fluorspar Mine	25
Logsdon (Evans, Logsdon & Vickery)	26
Logsdon (John) & Son	26
Lowery (J. L.)	9
Lowery (Strong & Lowery)	9
Magazine Fluorspar Mine	26
Martin (Rigsby, Martin & Frailey, Oxford Fluorspar Mine)	13
Martin Fluorspar Prospect Mine	15
Miller fluorspar drift	25
Minerva Oil Company, Minerva Fluorspar & Zinc Mine	16
Minerva Oil Company, North Victory Fluorspar Mine	19
Minerva Oil Company, Victory Fluorspar & Zinc Mine	19
Mitchell (Robert)	26

Morrison Fluorspar Mine .....	24
North Green Fluorspar & Zinc Mine .....	17
North Victory Fluorspar Mine .....	19
Oxford (J.) Fluorspar Prospect Mine .....	13
Oxford Fluorspar & Zinc Mine .....	16
Oxford Fluorspar Mine .....	25
Oxford West Company, Morrison Fluorspar Mine .....	24
Ozark-Mahoning Company	
Davis (Edgar) Fluorspar Mine .....	17
Davis (W. L.) No. 2 Fluorspar Mine .....	18
Davis Fluorspar Mine .....	21
Davis-Deardorff Fluorspar, Lead & Zinc Mine .....	18
Denton Fluorspar, Lead & Zinc Mine .....	24
East Green Fluorspar & Zinc Mine .....	16
Hill-Ledford Lead & Fluorspar Mine .....	15
Lee (Annbell) Fluorspar, Lead & Zinc Mine .....	21
North Green Fluorspar & Zinc Mine .....	17
Oxford Fluorspar & Zinc Mine .....	16
West Green Fluorspar & Zinc Mine .....	21
Peabody Coal Company, Eagle Surface Mine .....	10
Reid (Andrew) .....	26
Reid (Robert) Coal Company, No. 07 Mine .....	26
Reid (Robert) Coal Company, No. 09 Mine .....	26
Reid (Robert) Coal Company, No. 11 Mine .....	26
Rigsby, Martin & Frailey, J. Oxford Fluorspar Prospect Mine .....	13
Robinson Lead & Fluorspar Mine .....	25
Rock Creek Mining Company, Dutton Fluorspar Prospect Mine .....	14
Saline Coal Company .....	9
Saline Mine .....	26
Saline River Mine .....	9
Shipp Fluorspar Mine .....	25
Smith (A. J.) .....	26
Spivey Mine Company, Greene Fluorspar and Zinc Mine .....	13
Strong (J. P.) .....	26
Strong & Company .....	26
Strong & Lowery .....	9
Strong & Wood .....	26
Tems (R. S.), Tems Fluorspar Prospect .....	17
Vickery (Evans, Logsdon & Vickery) .....	26
Victory Fluorspar & Zinc Mine .....	19
Wall Fluorspar Mine .....	18
Wallace (Harry) .....	26
Walnut Fluorspar Mine .....	25
West Green Fluorspar & Zinc Mine .....	21
Wolf Fluorspar Mine .....	25
Wood (Strong & Wood) .....	26
Young (Hina & Young) .....	26

