Coal Mines in Illinois
Trenton Quadrangle
Clinton & St. Clair Counties, Illinois

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

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

Source of Mine Outline
- Final Mine Map
- Not Final Mine Map
- Updated Mine Map
- Incomplete Mine Map
- Secondary Source Map

Tipple, Shaft, Slope, Drift Locations
- Strip Mine Tipple - Active
- Strip Mine Tipple - Abandoned
- Mine Shaft - Active
- Mine Shaft - Abandoned
- Mine Slope - Active
- Mine Slope - Abandoned
- Mine Drift - Active
- Mine Drift - Abandoned
- Air Shaft
- Uncertain Location
- Uncertain Type of Opening

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

DISCLAIMER
These data were compiled and digitized from the best source maps available. Locations of some features may be offset by 300 feet or more due to errors in the original source maps, the compilation process, digitizing or other factors. The data set is not a complete and current depiction of the mining activity. The directory used is the only one that accompanies this map. It is the user's responsibility to read the documentation and understand the limitations of the data. Though efforts have been made to compile these data accurately, the Illinois State Geological Survey does not guarantee the validity or the accuracy of these data.

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

Illinois State Geological Survey
615 E. Peabody Dr.
Champaign, IL 61820

Mine Outlines Compiled by
Melony E. Barrett
September 25, 2011
Revised August 4, 2010
DIRECTORY OF COAL MINES IN ILLINOIS
7.5-MINUTE QUADRANGLE SERIES
TRENTON QUADRANGLE
CLINTON & ST. CLAIR COUNTIES

2001
REVISED 2010

ILLINOIS STATE GEOLOGICAL SURVEY
William Shilts, Chief

Natural Resources Building
615 East Peabody Drive
Champaign, Illinois 61820

Phone 1-217-244-4610
Fax 1-217-333-2830
Cover photo  Track-mounted duckbill loading machine at a Peabody Coal Company mine, ca. 1915.

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

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

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

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

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 TRENTON QUADRANGLE

Mining in this quadrangle began prior to 1879, and continued until 1996. The most recent mine is Monterey Mine No. 2 (mine index 974), extending west into the Lebanon quadrangle from Breese quadrangle. Southern No. 9 (mine index 84) operated the longest, almost 40 years.

The Herrin Coal was the only coal mined here, ranging from 4.0 to 8.3 feet thick and 180 to 345 feet deep. Where geologic problems were reported, the full range of problems was encountered. The roof contained slips, and faults with 5 to 10 feet of displacement were noted. Clay dikes and rolls were present, and in some areas partings were present in the seam.
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 quarters remain the same size and are oriented (or “registered”) from the southeast corner of the section. Approximate footage from the section lines (FEL = from east line, FNL = from north line, for example) is given when that information is known; this indicates a surveyed location and is not derived from maps. Entry points are also plotted on the map and coded for the type of entry or tipple. A mine opening may have had many purposes during the life of the mine. Old hoist shafts are often later used for air and escape shafts; this information is included in the directory when known. The tipple for underground mines was generally located near the main shaft or slope. At surface mines, coal was sometimes hauled to a central tipple several miles from the mine pit.

GEOLOGY

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

Depth The depth to the top of the seam in the vicinity of the shaft is listed, if known. The depth is determined from notes made by geologists who visited the mine during its operation or from drill hole data in ISGS files. Depth generally varies little over the extent of a mine; however, reported depths for an individual mine may vary. Depth for surface-mined coals varies, and is usually represented as a range.
Thickness  The approximate thickness of the mined seam is shown, if known. Thickness also comes from notes of geologists who visited the mine during its operation or from borehole data in ISGS files. Minimum, maximum, and average thicknesses are given when this information is available.

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

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

PRODUCTION HISTORY

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

SOURCE OF DATA

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

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

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

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

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

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

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

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


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.
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**


PART II  DIRECTORY OF MINES IN TRENTON QUADRANGLE

MINE SUMMARY SHEETS
A summary sheet on the geology and production history of each mine in the Trenton 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 84
Southern Coal, Coke & Mining Company, Southern Mine No. 9

Type: Underground   Total mined-out acreage shown:  1,300

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

<table>
<thead>
<tr>
<th>Type</th>
<th>County</th>
<th>Twp-Rge</th>
<th>Section</th>
<th>Quarters-Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main shaft (9'x18')</td>
<td>Clinton</td>
<td>1N 5W</td>
<td>17</td>
<td>50 FNL, 200 FWL SW</td>
</tr>
<tr>
<td>Air shaft (6'x9')</td>
<td>Clinton</td>
<td>1N 5W</td>
<td>17</td>
<td>NW NW SW</td>
</tr>
</tbody>
</table>

GEOLOGY

<table>
<thead>
<tr>
<th>Seam(s) Mined</th>
<th>Depth (ft)</th>
<th>Thickness (ft)</th>
<th>Mining</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Min</td>
<td>Max</td>
<td>Ave</td>
</tr>
<tr>
<td>Herrin</td>
<td>319-326</td>
<td>6.5</td>
<td>9.0</td>
<td>7.5-8.3</td>
</tr>
</tbody>
</table>

Geologic Problems Reported: The mine is crossed by a number of faults trending WNW-ESE in which the offset is about the thickness of the seam, upthrown on the south side. Limestone forms the immediate roof over most of the mine, black shale is the roof over the remainder. Black shale is very poor roof and must be heavily timbered. Sometimes coal is left with the black slate as a good clean parting occurs there. The floor clay heaves very badly when wet or if pillars are robbed. The source map shows areas of squeeze in the north central part of the mine, some rooms labeled “caved” in the north part of the mine, and several offsets in the mining pattern (throughout the mine) due to faults.

PRODUCTION HISTORY

<table>
<thead>
<tr>
<th>Company</th>
<th>Mine Name</th>
<th>Years</th>
<th>Production (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muren Coal &amp; Ice Company</td>
<td>Muren No. 1 &amp; 2</td>
<td>1899-1905</td>
<td>918,829</td>
</tr>
<tr>
<td>Southern Coal &amp; Mining Company</td>
<td>Southern No. 9</td>
<td>1905-1912</td>
<td>1,842,303</td>
</tr>
<tr>
<td>Southern Coal, Coke &amp; Mining Company</td>
<td>Southern No. 9, New Baden</td>
<td>1912-1938</td>
<td>7,138,850</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9,899,982</td>
</tr>
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</table>

Last reported production: March 1938

SOURCES OF DATA

<table>
<thead>
<tr>
<th>Source Map</th>
<th>Date</th>
<th>Original Scale</th>
<th>Digitized Scale</th>
<th>Map Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microfilm, document 351119</td>
<td>4-24-1939</td>
<td>1:2400</td>
<td>1:4303</td>
<td>Final</td>
</tr>
</tbody>
</table>

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, seam, depth, thickness, geologic problems.
Directory of Illinois Coal Mines (Clinton County) - Mine names, mine index, ownership, years of operation.
Mine notes (Clinton County) - Mine type, shaft locations, seam, depth, thickness, geologic problems.
Microfilm map, document 351119, reel 03134, frames 248-251 - Shaft locations, mine outline, mining method, geologic problems.
Mine Index 331
Trenton Coal Company, Trenton No. 1 Mine

Type: Underground    Total mined-out acreage shown: 257    Production indicates approximately 125 acres were mined after the map date, yet the area shown is the approximate size expected for the reported total production of the Trenton No. 1 Mine. The 1905 map date indicates the map is not final, but the map date may be incorrect, or may not have been changed when the mine workings were updated.

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

<table>
<thead>
<tr>
<th>Type</th>
<th>County</th>
<th>Twp-Rge</th>
<th>Section</th>
<th>Quarters-Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main shaft</td>
<td>Clinton</td>
<td>2N 5W</td>
<td>20</td>
<td>NE SE SE</td>
</tr>
<tr>
<td>Air shaft</td>
<td>Clinton</td>
<td>2N 5W</td>
<td>20</td>
<td>SE NE SE</td>
</tr>
</tbody>
</table>

GEOLOGY

<table>
<thead>
<tr>
<th>Seam(s) Mined</th>
<th>Depth (ft)</th>
<th>Thickness (ft)</th>
<th>Mining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herrin</td>
<td>333-335</td>
<td>6.0 (4.5-7.0)</td>
<td>MRP</td>
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Geologic Problems Reported:

PRODUCTION HISTORY

<table>
<thead>
<tr>
<th>Company, Mine Name</th>
<th>Years</th>
<th>Production (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trenton Coal, Light &amp; Power Company Trenton No. 1</td>
<td>1896-1901</td>
<td>302,430</td>
</tr>
<tr>
<td>Trenton Coal Company Trenton No. 1</td>
<td>1901-1905</td>
<td>489,719</td>
</tr>
<tr>
<td>Trenton Coal Company Trenton No. 1</td>
<td>1905-1909</td>
<td>677,645*</td>
</tr>
</tbody>
</table>

* Production after map date

Last reported production: 1909

SOURCES OF DATA

<table>
<thead>
<tr>
<th>Source Map</th>
<th>Date</th>
<th>Original Scale</th>
<th>Digitized Scale</th>
<th>Map Type</th>
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<tr>
<td>Company, Coal Section files</td>
<td>1905</td>
<td>1:1200</td>
<td>1:2400</td>
<td>Not final</td>
</tr>
</tbody>
</table>

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, mine type, seam, depth, thickness.
Directory of Illinois Coal Mines (Clinton County) - Mine names, mine index, ownership, years of operation.
ISGS mine notes - Thickness.
Company map, Coal Section files - Shaft locations, mine outline, mining method.
Mine Index 867
Breese-Trenton Mining Company, Trenton Mine or West Mine

Type: Underground  Total mined-out acreage shown:  162  The area shown is too large for the production shown by the map date. The map may have been updated after 1910 without designation; the area is large enough to encompass the entire production. If this is not the case, an additional 100 to 150 acres were mined after the map date.

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

<table>
<thead>
<tr>
<th>Type</th>
<th>County</th>
<th>Twp-Rge</th>
<th>Section</th>
<th>Quarters-Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main shaft</td>
<td>St. Clair</td>
<td>2N 6W</td>
<td>25</td>
<td>NE SE NE</td>
</tr>
<tr>
<td>Air shaft</td>
<td>St. Clair</td>
<td>2N 6W</td>
<td>25</td>
<td>NE SE NE</td>
</tr>
</tbody>
</table>

GEOLOGY

<table>
<thead>
<tr>
<th>Seam(s) Mined</th>
<th>Thickness (ft)</th>
<th>Depth (ft)</th>
<th>Mining Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herrin</td>
<td>4.5-5.0</td>
<td>320-345</td>
<td>MRP</td>
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</table>

Geologic Problems Reported:

PRODUCTION HISTORY

<table>
<thead>
<tr>
<th>Company</th>
<th>Mine Name</th>
<th>Years</th>
<th>Production (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breese-Trenton Mining Company</td>
<td>Trenton, West</td>
<td>1905-1910</td>
<td>479,283</td>
</tr>
<tr>
<td>Breese-Trenton Mining Company</td>
<td>Trenton, West</td>
<td>1910-1912</td>
<td>494,151 *</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>973,434</td>
</tr>
</tbody>
</table>

* Production after map date

Last reported production: 1912

SOURCES OF DATA

<table>
<thead>
<tr>
<th>Source Map</th>
<th>Date</th>
<th>Original Scale</th>
<th>Digitized Scale</th>
<th>Map Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microfilm, document 351129</td>
<td>5-1910</td>
<td>1:2400</td>
<td>1:4800</td>
<td>Not final</td>
</tr>
</tbody>
</table>

Annotated Bibliography  (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, seam, depth, thickness.
Directory of Illinois Coal Mines (St. Clair County) - Mine names, mine index, ownership, years of operation.
ENR Document 85/01 - Mining method.
Microfilm map, document 351129, reel 03134, frame 264, 265 - Mine outline, shaft locations, mining method.
Mine Index 974
Monterey Coal Company, Monterey No. 2 Mine

Type: Underground     Total mined-out acreage shown: 7,565

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

<table>
<thead>
<tr>
<th>Type</th>
<th>County</th>
<th>Twp-Rge</th>
<th>Section</th>
<th>Quarters-Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main slope</td>
<td>Clinton</td>
<td>1N 5W</td>
<td>13</td>
<td>NW SW SE</td>
</tr>
<tr>
<td>Air/escape shaft</td>
<td>Clinton</td>
<td>1N 5W</td>
<td>13</td>
<td>NW SW SE</td>
</tr>
<tr>
<td>Air shaft</td>
<td>Clinton</td>
<td>1N 5W</td>
<td>13</td>
<td>SE SW SW</td>
</tr>
</tbody>
</table>

GEOLOGY

<table>
<thead>
<tr>
<th>Seam(s) Mined</th>
<th>Depth (ft)</th>
<th>Thickness (ft)</th>
<th>Mining Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herrin</td>
<td>330</td>
<td>6.0-7.0</td>
<td>BRP</td>
</tr>
</tbody>
</table>

Geologic Problems Reported: Large slips which weaken the roof are common in the gray shale. Most of the roof is black Anna Shale; the gray shale occurs in pods. A series of slips occurs in the Anna Shale; this made an unstable roof. Roof falls were generally minor, as bolting to limestone (30 inches to 17 feet up) was the common practice. This was interpreted not as a roof control problem, but rather that the miners must wait for the bolter when the 17-foot bolts were required. Some of the bolts failed 9 years later, and the map shows numerous roof falls. Rolls were reported where both top comes down and the bottom comes up. At least one large clay dike was present, which pinched out in about the middle of the seam. A large clay-dike (not tectonic) fault is present, with a throw of about 5 feet, with another series of parallel slips (seriously weakening the roof). The map shows several faulted areas with 5 to 10 feet of displacement. Gas emission was high on freshly-mined face. High reject partings were present in the north and east parts of mine.

PRODUCTION HISTORY

<table>
<thead>
<tr>
<th>Company</th>
<th>Mine Name</th>
<th>Years</th>
<th>Production (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monterey Coal Company</td>
<td>Monterey No. 2</td>
<td>1977-1996</td>
<td>46,677,010</td>
</tr>
</tbody>
</table>

Last reported production: 1996

SOURCES OF DATA

<table>
<thead>
<tr>
<th>Source Map</th>
<th>Date</th>
<th>Original Scale</th>
<th>Digitized Scale</th>
<th>Map Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company</td>
<td>7-19-1996</td>
<td>1:4800</td>
<td>1:4800</td>
<td>Final</td>
</tr>
</tbody>
</table>

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, seam, depth, thickness.
Directory of Illinois Coal Mines (Clinton County) - Mine names, mine index, ownership, years of operation.
ENR Document 85/01 - Mining method.
Mine notes (Clinton County) - Mine type, shaft location and size, seam, depth, thickness, geologic problems.
Company map, Coal Section files - Mine outline, shaft locations, mining method, geologic problems.
Mine Index 2047
Consolidated Coal Company of St. Louis, Trenton Mine

Type: Underground    Total mined-out acreage shown: 117  An additional 31 acres are shown as a general area of mining near the shafts. This area was probably mined. An additional 100 acres, probably on the east side of the mine, was probably mined; the area shown is not sufficient for the tonnage produced, and the source maps show indications that additional acreage may have been mined to the east.

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

<table>
<thead>
<tr>
<th>Type</th>
<th>County</th>
<th>Twp-Rge</th>
<th>Section</th>
<th>Quarters-Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main shaft</td>
<td>Clinton</td>
<td>2N 5W</td>
<td>19</td>
<td>NW SE SE</td>
</tr>
<tr>
<td>Air shaft</td>
<td>Clinton</td>
<td>2N 5W</td>
<td>19</td>
<td>SW NE SE</td>
</tr>
</tbody>
</table>

GEOLOGY

<table>
<thead>
<tr>
<th>Seam(s) Mined</th>
<th>Depth (ft)</th>
<th>Thickness (ft)</th>
<th>Mining Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herrin</td>
<td>314</td>
<td>4.25-6.0</td>
<td>MRP</td>
</tr>
</tbody>
</table>

Geologic Problems Reported: The mine takes on a good deal of water.

PRODUCTION HISTORY

<table>
<thead>
<tr>
<th>Company</th>
<th>Mine Name</th>
<th>Years</th>
<th>Production (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph Hanke</td>
<td>Hanke</td>
<td>pre 1879-1886</td>
<td>262,000</td>
</tr>
<tr>
<td>Consolidated Coal Company of St. Louis</td>
<td>Trenton</td>
<td>1886-1905</td>
<td>1,414,013</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1,676,013</td>
</tr>
</tbody>
</table>

Last reported production: 1905

SOURCES OF DATA

<table>
<thead>
<tr>
<th>Source Map</th>
<th>Date</th>
<th>Original Scale</th>
<th>Digitized Scale</th>
<th>Map Type</th>
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</thead>
<tbody>
<tr>
<td>Old Ben archives map</td>
<td>Undated</td>
<td>1:1200</td>
<td>1:1200</td>
<td>Secondary source</td>
</tr>
<tr>
<td>Map of Monterey No. 2 (index 974)</td>
<td>7-19-1996</td>
<td>1:4800</td>
<td>1:4800</td>
<td>Secondary source</td>
</tr>
</tbody>
</table>

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, mine type, thickness, mining method, geologic problems.
Directory of Illinois Coal Mines (Clinton County) - Mine names, mine index, ownership, years of operation.
Mine notes (Clinton County) - Shaft location, seam, depth, thickness.
Old Ben Collection archive map - Mine outline, shaft locations, mining method.
Coal Section files, company map of Monterey No. 2 (mine index 974) - Partial outline, southeast portion of mine.
Mine Index 4313
McKinley Coal Company, Summerfield Mine

Type: Underground     Total mined-out acreage shown: 11

SHAFT, SLOPE, DRIFT or TIPPLE LOCATIONS

<table>
<thead>
<tr>
<th>Type</th>
<th>County</th>
<th>Twp-Rge</th>
<th>Section</th>
<th>Quarters-Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main shaft</td>
<td>St. Clair</td>
<td>2N 6W</td>
<td>22</td>
<td>SW SE SE</td>
</tr>
<tr>
<td>Air/escapement shaft</td>
<td>St. Clair</td>
<td>2N 6W</td>
<td>22</td>
<td>SW SE SE</td>
</tr>
</tbody>
</table>

GEOLOGY

<table>
<thead>
<tr>
<th>Seam(s) Mined</th>
<th>Depth (ft)</th>
<th>Thickness (ft)</th>
<th>Mining Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herrin</td>
<td>180-285</td>
<td>4.0-5.0</td>
<td>RPB</td>
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Geologic Problems Reported:

PRODUCTION HISTORY

<table>
<thead>
<tr>
<th>Company</th>
<th>Mine Name</th>
<th>Years</th>
<th>Production (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Wingler</td>
<td>Summerfield</td>
<td>pre1882-1883</td>
<td>12,380 *</td>
</tr>
<tr>
<td>Fisher &amp; Harrison</td>
<td>Summerfield</td>
<td>1883-1884</td>
<td>1,700 **</td>
</tr>
<tr>
<td>Summerfield Coal Company</td>
<td>Summerfield</td>
<td>1884-1887</td>
<td>6,280</td>
</tr>
<tr>
<td>Bessemer Coal Company</td>
<td>Summerfield</td>
<td>1887-1889</td>
<td>29,651</td>
</tr>
<tr>
<td>McKinley Coal Company</td>
<td>Summerfield</td>
<td>1889-1890</td>
<td>10,520</td>
</tr>
</tbody>
</table>

60,531

* Production and ownership prior to 1883 unknown. The Coal Report of 1883 indicates 15 acres mined.
** The inspector noted in the Coal Report of 1884 that this mine had changed hands three times. These owners are unknown. The production reported may not include all the tonnage mined under these unknown operators.
*** Idle 1886

Last reported production: 1890

SOURCES OF DATA

<table>
<thead>
<tr>
<th>Source Map</th>
<th>Date</th>
<th>Original Scale</th>
<th>Digitized Scale</th>
<th>Map Type</th>
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<tr>
<td>Microfilm, document 351058</td>
<td>3-15-1889</td>
<td>1:1800</td>
<td>1:2731</td>
<td>Not final</td>
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</table>

Annotated Bibliography (data source, brief description of information)

Coal Reports - Production, ownership, years of operation, thickness.
Directory of Illinois Coal Mines (St. Clair County) - Mine names, mine index, ownership, years of operation.
ENR Document 85/01 - Mining method.
Mine notes (St. Clair County) - Shaft locations, seam, depth, thickness.
Microfilm map, document 351058, reel 03134, frame 156 - Shaft locations, mine outline, mining method.
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Funding for this project was supplied by the Illinois Mine Subsidence Insurance Fund.