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UNDERGROUND COAL MINES OF CENTERVILLE, IOWA AND VICINITY

MINE-RELATED PROBLEMS AND SUBSIDENCE POTENTIAL

Mary R. Howes • Matthew A. Culp • Helene Greenberg • Paul E. VanDorpe

Donald L. Koch, State Geologist and Bureau Chief

Geological Survey Bureau
123 North Capitol Street, Iowa City, Iowa 52242
(319) 335-1575

Iowa Department of Natural Resources

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Cover photograph: Postcard published by the Sunshine Coal Company of Appanoose County, Iowa as an advertisement. The Sunshine Coal Company operated several large mines west of Centerville at Sunshine during the peak years of coal production in the district. Photograph courtesy of Mr. Charles Fox, a retired coal miner, who now resides in Centerville, Iowa.

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Mary R. Howes
Research Geologist, Directed Projects Section

Matthew A. Culp
Research Geologist, Directed Projects Section

Helene Greenberg
Research Geologist, Directed Projects Section

Paul E. VanDorpe
Research Geologist, Water Resources Section

Donald L. Koch
State Geologist and Bureau Chief

Geological Survey Bureau
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ABSTRACT

Extensive underground mining occurred in the Centerville area, Appanoose County, Iowa between 1850 and 1971. Coal production was exclusively from the Mystic Coal Member of the Labette Shale (Pennsylvanian). Both longwall and room-and-pillar mining methods were utilized with the longwall method being the predominant type. Although both crater and trough subsidence have occurred in other areas of Iowa with known underground mining, the Centerville area has relatively few reported mine-related problems, despite extensive undermining.

A map of all coal mines which could be located was compiled for Centerville and the surrounding area using available mine maps and other information. The map locates 228 mines which were categorized into four groups: 1) mines with known extent, outlined from mine maps; 2) mines with known extent, outlined from sources other than mine maps; 3) mines with unknown extent, locations accurate to within 1/4 mile; 4) mines with unknown extent, locations accurate to within 1/2 mile. Data for the mines located on the map, including mine names, dates of operation, and descriptive data (e.g. depth of the coal, mining method used, type of entrance) were compiled from the Iowa Mined Lands Data System. This information is included as Appendices I and II. Appendix III lists 219 mines which probably operated within the study area, but which could not be located on the map because of inadequate records.

INTRODUCTION

Appanoose County, Iowa has a long history of coal mining dating from the 1850s until 1971 (figure 1). Centerville (population 6,558 in 1980), the Appanoose County seat, and the nearby town of Mystic are extensively undermined. This study documents the location and extent of abandoned coal mines and known occurrences of mine-related problems in Centerville and the surrounding area. This type of documentation is essential for planning future land development in areas affected by underground mining. Assessment of potential mine-related problems requires detailed knowledge of the location and extent of underground mining as well as documentation of mine-related problems experienced in the past. Although evaluation of coal resources is beyond the scope of this report, the locations of mined-out areas also help to define remaining coal resources, which should be considered when determining the impact of future land development.

Sources of information for this study included a large collection of restored mine maps reposited at the Geological Survey Bureau, files from the Office of the State Mine Inspector, published literature, and other public and private collections of materials related to coal mining in the Centerville area. Information concerning areas with mine-related problems and possible subsidence was obtained by interview with representatives of Iowa Southern Utilities, the Office of the Appanoose County Engineer, private engineers, and local citizens. Visual inspections of structures built in areas known to be undermined were also conducted.

This report includes a map showing the location and extent of coal mines and a compilation of mine-related information including historical and physical data. This information is intended to assist in land development planning as well as to serve as a historical reference.

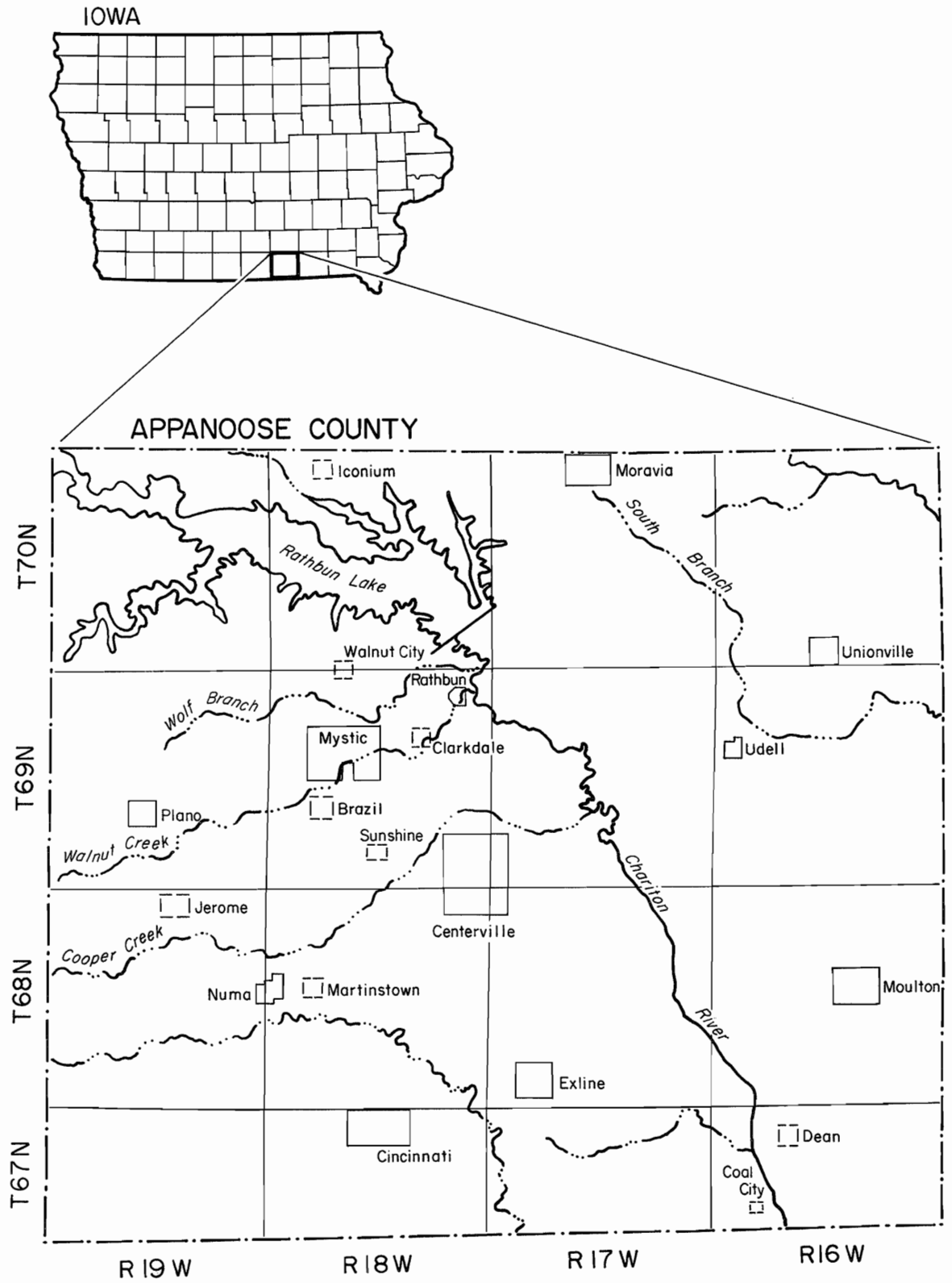


Figure 1. Map showing locations of towns (incorporated and unincorporated), major streams, and township and range boundaries. Inset shows location of Appanoose County.

GEOLOGY OF APPANOOSE COUNTY

Regional and local geologic conditions control the distribution and character of economically mineable coal deposits and associated strata. Geologic circumstances also directly influence the location of mining activity and the methods used. Subsequent changes in the condition of a mine and the overlying land surface after mining ceases also depend in part on the local geology.

Appanoose County occupies an area of 531 square miles (328,220 acres) in southeastern Iowa. The surficial materials of the uplands consist primarily of 5 to 10 feet of loess overlying 50 to 150 feet of Pre-Illinoian glacial deposits (Bettis and Littke, in prep.). The broad valley of the Chariton River, now partially occupied by Rathbun Lake, spans the county from northwest to southeast. The surficial deposits thin in the western part of the county so that bedrock occurs at or near the land surface along stream valleys. Mining and quarrying activity have been concentrated in these areas (Lockridge, 1977).

Pennsylvanian-age sedimentary rocks underlie Pleistocene glacial deposits in the southwestern part of Iowa (figure 2). Lithologically, these rocks consist of alternating layers of shale, siltstone, and sandstone with lesser amounts of limestone and coal (Landis and Van Eck, 1965). Uppermost Pennsylvanian bedrock in Iowa becomes progressively younger to the southwest and dips into the Forest City Basin, a Pennsylvanian-age geologic structure centered in northwestern Missouri. In the eastern half of Appanoose County, the uppermost Pennsylvanian strata are assigned to the Cherokee Group (figure 2). To the west, the younger Marmaton and Bronson Group strata underlie the surficial Pleistocene deposits. The stratigraphic nomenclature and relative positions of these units are shown in figures 2 and 3.

All known coal mining in the study area was in the Mystic Coal Member of

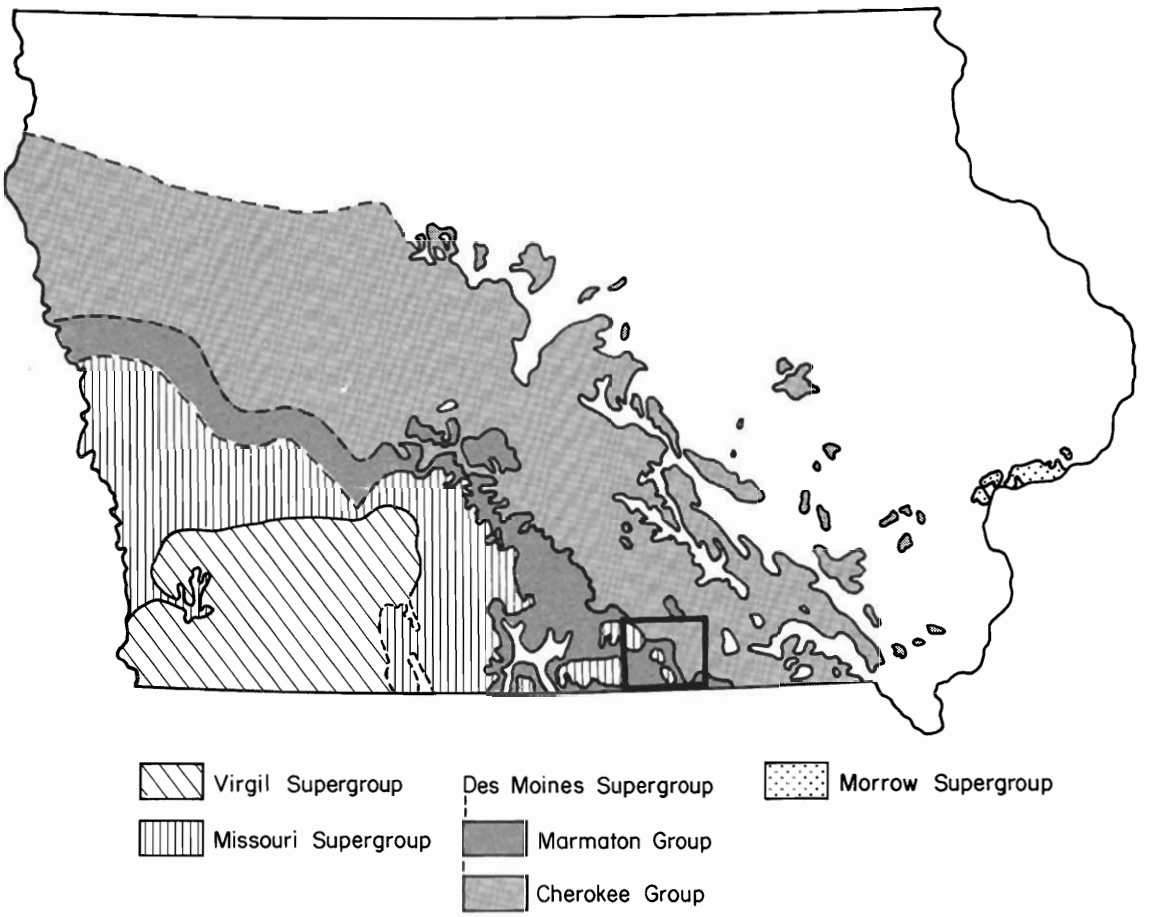


Figure 2. Pennsylvanian geology of Iowa. Appanoose County is outlined.

the Labette Shale (Marmaton Group) (figure 3). The Labette Shale and overlying Pawnee Formation comprise a widespread and readily recognized sequence of strata within Iowa and much of the Midcontinent. The uniform and continuous character of these strata suggest deposition on a stable platform which was subject to gradual and widespread raising and lowering of sea level (Ravn et al., 1984). The cycle (cyclothem) began with the deposition of the Labette Shale in a lowland terrestrial environment with a gradually rising water table. Peat formation was initiated when the water (still nonmarine) reached

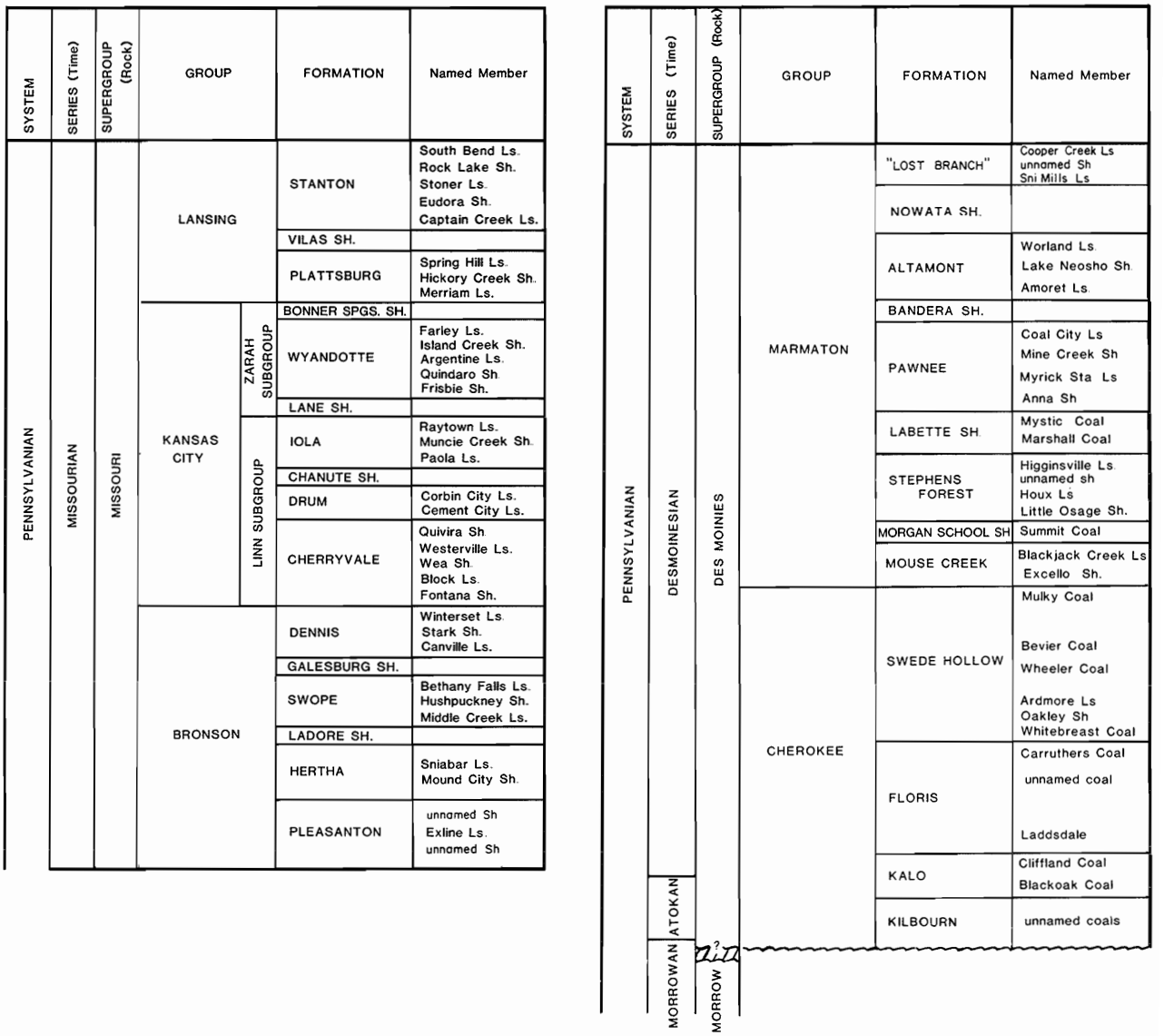


Figure 3. Current stratigraphic nomenclature for the Pennsylvanian System in Iowa (after Swade, 1985). The Mystic Coal, mined in the study area, is a Member of the Labette Shale Formation of the Marmaton Group.

sufficient depth to prevent decay of plant debris. Peat accumulation ended when the swamp was inundated by sea water. This peat eventually became the Mystic Coal Member.

The sea then gradually deepened, without developing the normal vertical

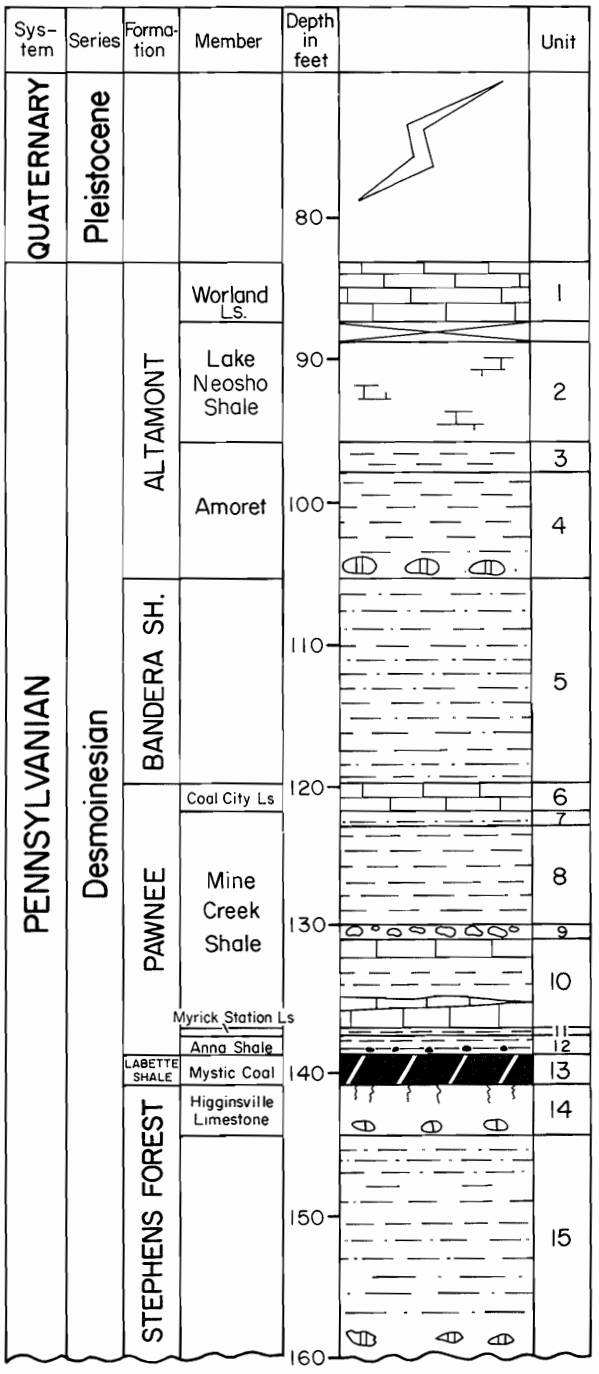
circulation of the open ocean so that at depth, the water was eventually depleted of oxygen. These anoxic conditions resulted in deposition of a distinctive phosphatic, fissile, black shale which records this stage of maximum water depth, or maximum marine transgression. The phosphatic, black shale grades upward into a thin, gray shale with limestone nodules, which probably indicates the return of normal water circulation. Together the black, phosphatic shale and the gray shale comprise the Anna Shale Member of the Pawnee Formation.

Decreasing water depth and renewed oxygenation resulted in deposition of the Myrick Station Limestone Member, described by Swade (1985) as the early regression phase of the cyclothem. Limestone deposition was terminated by the influx of shore-derived sediment as the depth of the sea continued to decrease. This phase of the cycle is represented by the Mine Creek Shale Member. Eventually the source of land-derived sediment was cut off and a return to a limestone-producing environment occurred, resulting in the Coal City Limestone Member (Swade, 1985). Further shallowing of the sea (maximum regression) resulted in subaerial exposure, with development of soil horizons and erosional activity. Initiation of the next depositional cycle is marked by the Bandera Shale Formation (figure 3).

Geological Survey Bureau rock core (CP10) from the southeastern part of Centerville, includes those portions of the Cherokee and Marmaton Groups below the Worland Limestone Member. The section represented in the upper 160 feet of the core (figure 4) is typical of the Marmaton Group in the vicinity of Centerville and includes the Mystic Coal. The core was inadvertantly drilled through an abandoned mine, so the coal was not recovered.

The Mystic Coal is named from exposures near the town of Mystic in Appanoose County. This coal was described by Holland et al. (1914) as being

County: Appanoose SE$\frac{1}{4}$ SW$\frac{1}{4}$ SW$\frac{1}{4}$ sec. 6 T68N R17W
Geological Survey Bureau core - CP10



0 - 83'1" unconsolidated loess and till.

1 83'1" - 87'4" LIMESTONE - light buff to buff grey, some fossil debris, clay partings.

87'4" - 88'10" core loss.

2 88'10" - 95'8" MUDSTONE -grey, calcareous increasing towards base, red towards base.

3 95'8" - 98' SHALE - green-grey, silty, calcareous with common pyrite.

4 98' - 105'2" SANDSTONE - light green-grey, very fine grained.
Middle - calcareous siltstone.
Base - interbedded sand and silt with calcareous nodules.

5 105'2" - 119'8" SILTSTONE - light green-grey, grades downward to SHALE.

6 119'8" - 121'10" LIMESTONE - light grey, fine-grained with crinoid and brachiopod debris.

7 121'10" - 122'6" SILTSTONE and SANDSTONE - light grey.

8 122'6" - 129'11" SHALE - medium grey, very fine-grained, with minor pyrite.

9 129'11" - 130'5" CONGLOMERATE - sub-rounded clasts of tan limestone in mud matrix.

10 130'5" - 137' interbedded LIMESTONE and SHALE.

11 137' - 137'5" SHALE - medium grey with small limestone nodules.

12 137'5" - 138'7" SHALE - black, very fine-grained, fissile with phosphate nodules.

13 138'7" - 140'8" only 11" recovered mine breccia - silty matrix with large angular coal fragments and small shale clasts.

14 140'8" - 144'4" LIMESTONE and MUDSTONE.

15 144'4" - 160'7" SILTSTONE to SHALE, light grey grades into green-grey shale with fossil debris near base.

Figure 4. Diagram and description of Geological Survey Bureau core CP10 from Centerville. The Labette Shale and Pawnee Formation encountered in this core are typical of the Centerville area. Note that the Mystic Coal is absent; this core was inadvertantly drilled through an abandoned mine.

underlain by a 1.5-foot thick mudstone. A "clay band" occurs near the center of the coal seam, and another "dirt band," near the base, was referred to by local miners as the "dutchman." Keyes (1894) described the Mystic Coal as "...a clean, lustrous variety having in some cases the appearance of anthracite, though softer and more brittle." Small quantities of pyrite were noted in the coal, but were considered insufficient to depreciate its value during the peak years of coal mining in the area.

The Mystic Coal is 2.5 feet thick at Centerville (Landis and Van Eck, 1965) and maintains this thickness over most of Appanoose County, into adjacent Wayne, Monroe, and Lucas Counties, as well as into northern Missouri where it is called the Lexington Coal. The Herrin (No. 6) Coal of Illinois is correlated with the Mystic both lithologically and biostratigraphically, although the Herrin Coal is typically thicker and the overlying roof rock is more variable lithologically (Ravn et al., 1984; Krause et al., 1979).

The Mystic Coal is found at or near the land surface in the northeastern part of central Appanoose County where it was mined by drifts and shallow shafts. At Mystic, the depth to the coal ranges from 35 to 80 feet. Southeastward the coal becomes more deeply buried so that at Centerville, the depth to the mines averages 125 feet. To the southwest, at Numa and Jerome (figure 1), shaft depths average 150 to 160 feet. The depth to the coal increases to approximately 250 feet along the western border of the county (Keyes, 1894).

MINING HISTORY

Coal mining on a commercial scale began in Appanoose County in the 1850s and grew steadily until the county became a leading coal producer in the early 1900s (Kildee, 1936). Favorable geologic conditions enabled coal mining to

develop across most of the county. The major exception was the northeastern quarter where the Mystic Coal is absent. The most extensive mining occurred in and around the towns of Mystic, Centerville, Sunshine, and Rathbun. Other important mining centers included the communities of Brazil, Cincinnati, Coal City, Exline, Numa, and Plano.

From 1880 to 1971 coal production in Appanoose County totalled 46,292,357 tons, with a peak production of 1,663,454 tons in 1917, produced from 74 mines (Landis and Van Eck, 1965; Aubrey, 1966, 1968, 1970, 1972). Annual production from 1906 to 1920 was more than one million tons-per-year. After 1920, however, a sharp decline in coal production resulted when railroads began to use diesel fuel instead of coal.

Commercial mining was an important part of the economy of Appanoose County. The mines were classified informally as "shipping" or "local." Shipping mines produced coal for commercial use in industry or to power steam locomotives, while local mines supplied coal for local use, including steam engines which drove hoists and air-circulation equipment at the mines themselves. There were also numerous small family mines, often operated by farmers during the winter months to produce heating fuel for individual homes. Gullies and stream valleys in this area are now dotted with the remains of these mines.

The profitability of coal mining was greatly enhanced by the development of a railroad system in the county. The town of Mystic in particular benefitted from the advent of rail transportation, as spurs from the Keokuk and Western; and the Chicago, Milwaukee, and St. Paul Railroads were built to connect with the major commercial mines. The main spurs in Mystic were the "Catfish Switch" which came from the west and the "Turkey River Switch" which came from the east paralleling the Chicago, Milwaukee, and St. Paul line

(Bain, 1895). The main railroad lines in Centerville were the Chicago, Rock Island and Pacific, the Iowa Central, and the Keokuk and Western. Here too, spurs to the mine sites increased the value of the coal.

Throughout much of the area's mining history, the deposits were worked by hand labor. The coal was loosened by a controlled blast or "shot" and then loaded by hand into mule or pony-drawn cars. From the mine face, the coal was hauled to the shaft or slope and then taken to the surface (Lees, 1908).

Coal mining also brought prosperity to Appanoose County and Centerville by creating employment in the mines. Unfortunately, a large price was paid for that prosperity in terms of human suffering. Coal mining had always been a hazardous occupation and the industry in Appanoose County was no exception. Scores of serious and fatal accidents occurred over the years. Gradually, however, the number of mine accidents declined, and 1950 was the first year in which no fatal accident was recorded in Iowa (Jervis et al., 1951).

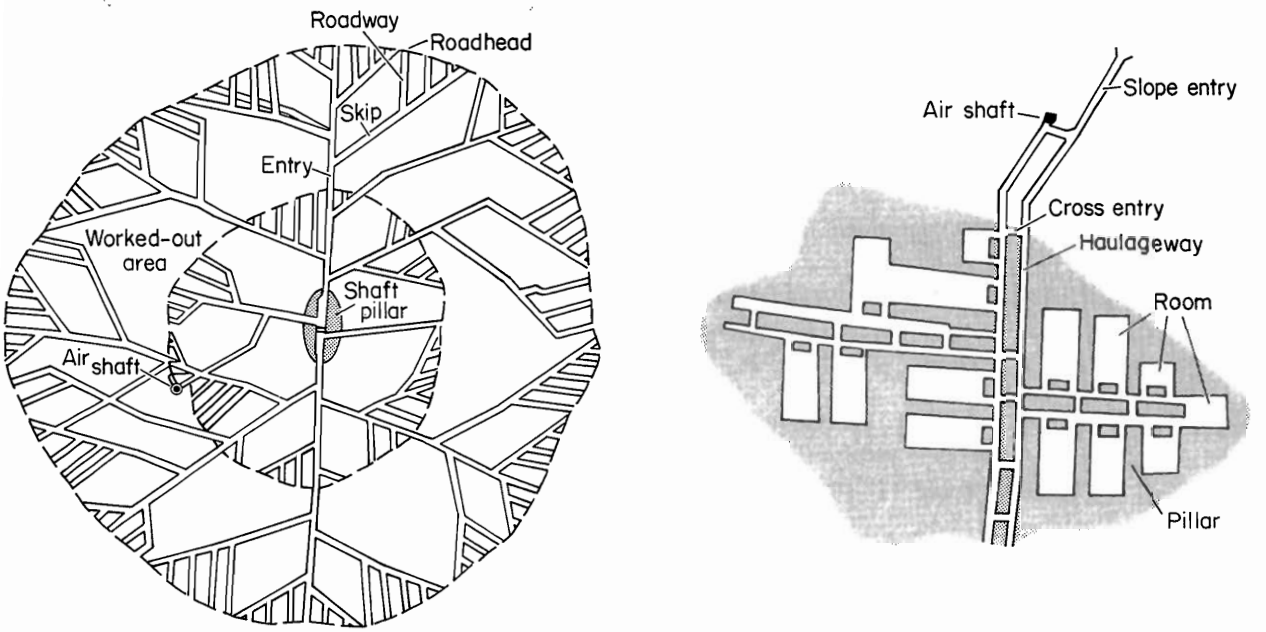
Increased mine safety was only partly responsible for the lessening accident rate in the coal industry. By 1950, coal production had declined steadily from its peak in 1917. The switch to natural gas and petroleum fuels and the development of hydroelectric power, as well as the loss of out-of-state markets for Iowa coal, greatly reduced demand. Labor shortages during World War II caused many mines to close permanently, and the switch to mechanization reduced the number of miners needed to operate a mine. In Appanoose County, as in the rest of the state, mines closed more frequently than new ones opened, so that by 1950 only 26 mines remained in operation (Jervis et al, 1951). The Clarke Coal Company, which closed in 1966, was the last operating mine in Centerville. The New Gladstone Coal Mine, located southeast of Plano, was the last operating mine in Appanoose County. It closed in 1971.

MINING METHODS

The methods employed to mine coal determine the type of tools or machinery required and the percentage of coal that can be recovered. After the coal is removed, mining methods also can contribute to subsequent problems such as subsidence or the hazard of an unsealed mine entrance.

Longwall and room-and-pillar mining methods were used in Appanoose County. Figure 5 shows schematic drawings of both mine types. The majority of mines in the Centerville area used longwall techniques because of the excellent roof conditions afforded by the "slate" and limestone which overlie the Mystic Coal. Longwall mining enabled 85 to 95 percent of the coal to be removed. Timber cribbing was used to support the roof along haulageways. Room-and-pillar mining, in contrast, enabled only 40 to 60 percent recovery of the coal, with the remainder left as pillars to support the roof. However, it was a common practice to remove these pillars just before abandoning a mine. Some mine maps document a switch in mining methods during the course of operation since changes in roof-rock conditions usually made one method preferable over the other. Local roof-rock conditions are occasionally noted on the mine maps.

Mine entries recorded in the study area include both vertical and slope types. Vertical or shaft entrances were dug or drilled straight down from the land surface to the coal seam. They required hoisting machinery, which was either steam or animal powered, to raise the coal to the surface. Slope entrances were tunnels, usually started in a hillside, which sloped downward to the coal seam. The coal was hauled up the tunnel to the surface in cars pulled by animals or pushed by miners. Drift mines, a variation of the slope type, tunneled along the coal seam from a hillside outcrop. Coal mines in Centerville were primarily shaft mines because the depth to the coal averages



A. Longwall mine with vertical shaft entry

B. Room and pillar mine with slope entry

Figure 5. Plan views of longwall (A) and room-and-pillar (B) mines. Note the different entry types, the comparative amount of roof support, and the greater amount of coal removed in longwall mining. "Skip" and "roadway" are branch entries made through the coal seam to the "roadhead" where the coal is mined.

about 125 feet. Figure 6 is a photograph of the surface works at a shaft mine west of Centerville. Both vertical and slope entries were used in the Mystic area where the coal depth is 35 to 80 feet. Slope entries were especially common along Walnut Creek in the vicinity of Mystic where the valley has eroded through the overburden. Here the topography made slope entries practical. Drift mines also could be operated where the coal outcropped high enough above the creek bed to keep water from entering. The drift mines were generally small-scale operations, employing only a few people and producing coal for home use (Lees, 1908).

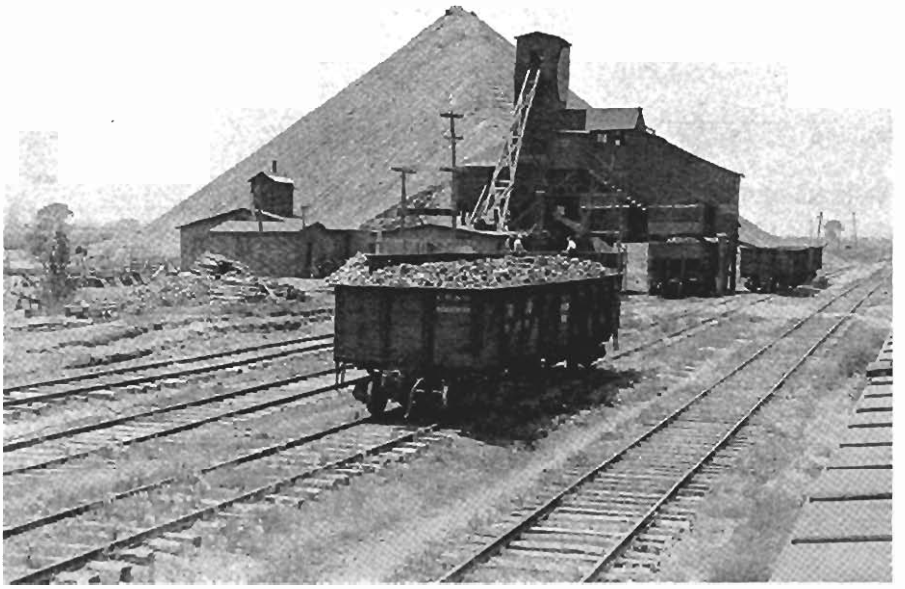


Figure 6. Railroad siding, car loaded with coal, surface works, and gob pile at the Sunshine Coal Company Mine No. 1 west of Centerville (ca. 1920). Photograph courtesy of Mr. Charles Fox, Centerville, Iowa.

SUBSIDENCE

Subsidence is a sinking of the land surface. Its principal cause is the removal of underlying supporting materials, either through natural processes such as subsurface cavern formation or soil piping, or by artificial causes such as collapse of buried structures (e.g. sewer lines) or underground mines.

Past experience in areas of underground coal mining has shown that mine-related subsidence inevitably and eventually occurs. The effects of this subsidence may be limited and fairly subtle, with little surface expression and minimal damage, or the effects may be more widespread and dramatic, with pronounced surface expression and serious damage occurring to structures built over the subsiding area.

Types of Subsidence

Different mine and geologic conditions dictate the type of subsidence features observed at the land surface. These features are divided into two general types, usually referred to by the descriptive names "crater" and "trough." Of the two types, craters may develop rapidly and are limited in areal extent, while troughs develop more slowly, often as subtle, low-relief surface features, but covering larger areas.

Crater subsidence features are small, round or elliptical, steep-sided depressions which develop at the land surface over a short period of time (figure 7A). Where the mine roof fails, the collapse may migrate upward until the land surface is reached, resulting in a crater. The size and depth of the crater depend on several factors including depth to the mine, height of the underground opening, characteristics of the overburden, and local hydrologic conditions. Craters may be deeper than the original mine height in situations where the collapsed material is able to flow outward into the underground opening away from the immediate site of the collapse. Craters which develop where surficial material is fine-grained and unlithified (e.g. loess, silt, sand) are typically bell-shaped in vertical profile; i.e., the opening is narrow at the ground surface and widens with depth. This may result, in part, from the greater cohesiveness of material near the surface, especially in areas where compaction has occurred. The extent of damage to a structure under which a crater develops depends on the type of construction and the location of the crater with respect to major supporting components of the structure (DuMontelle et al., 1981).

Trough subsidence features are broad, elongate, shallow depressions or sags which form when large sections of the mine roof fail (figure 7B). Trough dimensions are largely dependent on mine height, depth to the mine, and area

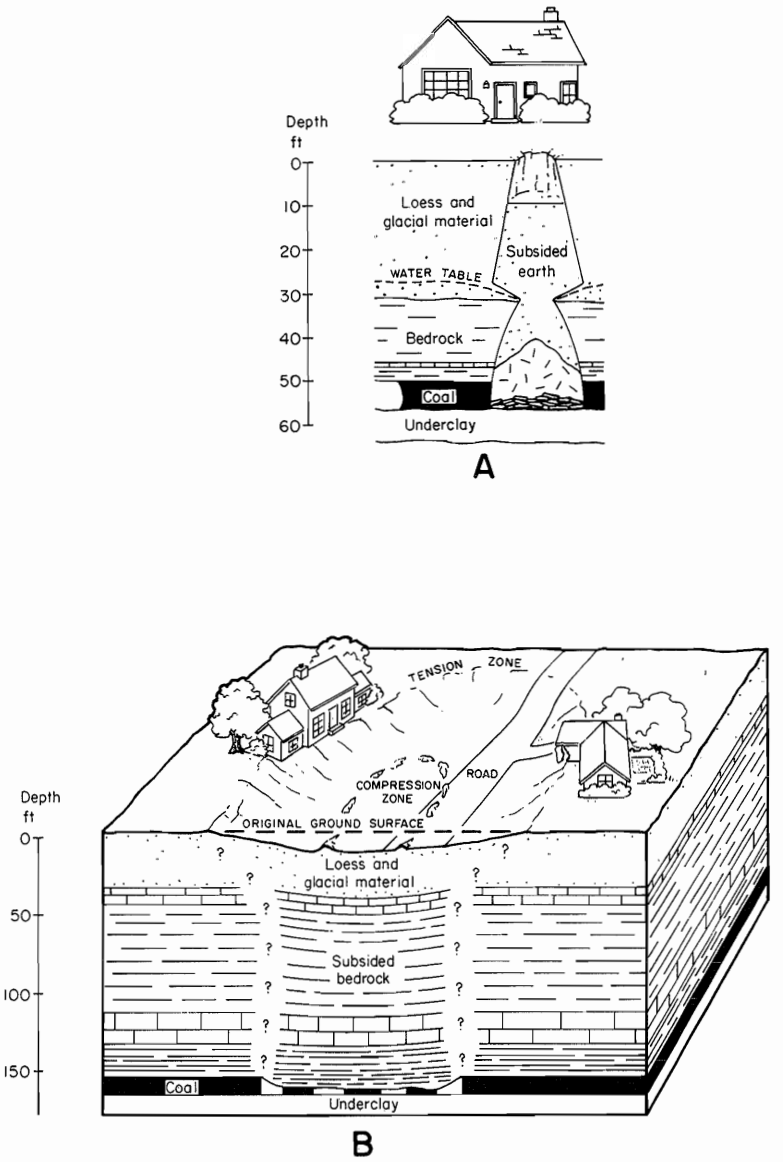


Figure 7. Schematic diagrams showing probable effects of collapse of overlying materials into mine in crater (A) and trough (B) subsidence (after DuMontelle et al., 1981).

of collapse within the mine. In general, the greater the depth to the mine, the larger the trough will be. The trough depth is limited by mine height. Stresses which develop on overlying materials and structures are more complicated than the loss of support seen in crater subsidence. Depending on the amount of subsidence, tensional stress is exerted near the outer edges of

the trough, possibly producing ground cracks, while compressional stress can develop near the center (figure 7B). Structures located on or near these stress zones may sustain serious damage (DuMontelle et al., 1981).

Factors Affecting Subsidence

Occurrences of subsidence are rarely distributed uniformly over an undermined area and are very difficult, if not impossible, to predict. This is because the process of subsidence over abandoned mines is controlled by a number of factors whose interrelationships are poorly understood. Subsidence type, amount, areal extent, and duration are controlled by lithology (rock type), physical properties of the associated strata, thickness of coal, depth and age of the mine, mining methods, groundwater and surfacewater hydrology, and topography. Subsidence of abandoned coal mines is attributed to roof collapse and pillar failure (Dunrud, 1984; Gray and Bruhn, 1984). Assessments of potential subsidence problems should not concentrate on any single factor because geologic and hydrologic conditions vary significantly between regions as do mining methods and histories.

The lithologies of the roof and floor materials in a mine are major factors in the stability of the mine. Poor mine-roof conditions are the most obvious cause of roof collapse. Weakly lithified shales and sandstones, for example, tend to collapse readily, while more durable rocks such as limestone or "slate" (hard, fissile shale) may delay roof failure. Geologic structures such as slickensides (slip surfaces), joints, faults, and lithologic variations which disrupt the structural integrity of the roof rock can contribute to roof failure (Moebs and Stateham, 1985b). Situations in which thin, well-lithified roof rock is overlain by unlithified material also contributes to subsidence.

Less obvious causes of subsidence are the failure of the materials which make up the mine floor or the roof supports. If the floor material, often a soft shale, is not strong enough to support the coal pillars or cribs, the weight of the roof will push the supports into the floor in a phenomenon known as "pillar punching." Pillars may also sink as a result of "floor heave," where the mine floor is unable to withstand induced stress and buckles upward (Moebs and Stateham, 1985a). Pillars of coal left behind as roof supports may eventually weaken and collapse, removing support from the mine roof.

The mine height generally limits the depth of the subsidence feature. The depth to the mine determines, in part, the type of subsidence feature observed at the surface. Troughs can occur over mines at any depth. Craters are limited to shallower mines, usually less than 150 feet deep (VanDorpe, 1986; Hunt, 1980; Gray and Bruhn, 1984).

The mining method and the length of time which has passed since the coal was removed also are important aspects of subsidence problems. The most serious problems currently observed in Iowa seem to be associated with room-and-pillar mines where the greater amount of remaining roof support probably slows the rate of subsidence (VanDorpe et al., 1984). Craters are the most abundant subsidence feature observed at this time, generally 80 to 100 years after mining. Longwall mines, which have a relatively small area of supported roof, tend to collapse soon after the coal is removed, so the surface effects of subsidence often are seen shortly after mining is completed (Mavrolas and Schechtma, 1981). A study by GAI Consultants (1977) suggested that the frequency of subsidence events increases as the mine ages, then decreases after an undetermined period of time until complete collapse has occured. Mine subsidence will be perceived as severe for an area where collapse is occurring frequently.

Hydrologic conditions in the vicinity of the mine are another important influence on subsidence, especially if the overburden materials are fine-grained, poorly lithified, or already fragmented by partial collapse (Wildanger et al., 1980). Mines below a stable water table appear to be less likely to collapse; but where there are marked fluctuations in the water table, either naturally or artificially induced, mine subsidence seems to be more common (VanDorpe et al., 1984).

Topography can have an influence on the subsidence features. Landscape position in high relief areas increases or decreases the depth to the mine, which may influence crater development. The surface slope angle can alter overburden stresses which may affect a trough subsidence profile (Dunrud, 1984).

Mine-related Problems and Subsidence in Iowa

Problems related to abandoned coal mines have been documented throughout the coal-mining regions of Iowa, although their physical characteristics and contributing geologic factors have not been given thorough study (VanDorpe, 1986). A search of the State Mine Inspectors' reports (1880-1972) and other publications revealed little data on mine-related subsidence or other problems (VanDorpe et al., 1984). More recently, these problems have been identified and studied in Des Moines (Avcin, 1978, 1979; Lancaster and Avcin, 1979; Abandoned Mine Lands Inventory files), What Cheer (VanDorpe et al., 1984), and at numerous scattered locations in rural areas (Abandoned Mine Lands Inventory files). In these areas, craters tend to occur over mines less than 80 feet deep, and are generally less dramatic than those reported in other coal-mining areas (e.g. Mahar et al., 1981; Wildanger et al., 1980). A few cases of probable trough subsidence were observed in Des Moines.

In Appanoose County, the Mystic Coal is primarily overlain by the Anna Shale and the Myrick Station Limestone (Landis and VanEck, 1965) which provide relatively good roof support. This may be significant in terms of observed differences in subsidence between Iowa and Illinois. The Herrin No. 6 Coal of Illinois (correlated with the Mystic Coal) is overlain by roof rock with greater lithologic variability (Krause et al., 1979), partly accounting for the greater number of observed subsidence features in Illinois.

In 1975, the Iowa Geological Survey coal resource program inadvertantly drilled a core (figure 4) through the Center Coal Company mine at a depth of approximately 140 feet. The core above the mine showed no evidence of large-scale collapse. Subsequent drilling into or near mines in other areas also supports the conclusion that significant collapse had not occurred in the CP10 hole.

LOCATION AND EXTENT OF MINING IN THE CENTERVILLE AREA

Underground mines of known extent affect 8,752 acres or 13.7 square miles of the study area. Mines for which maps exist (solid lines on Plate I) cover 6,433 acres or 10.1 square miles, while mines with extents determined from sources other than mine maps (dashed lines on Plate I) affect a total of 2,310 acres or 3.6 square miles. Areas affected by mines of unknown extent (triangles and squares on Plate I) could not be measured and are not included in the totals.

Locations for 228 of the 447 underground coal mines believed to have operated in the Centerville area were identified during the course of this study. The exact locations and areas affected by 97 of these mines were obtained from historical mine maps. The locations and extents of 17 additional mines were obtained from other sources. No maps were available for 114 mines,

so the extent of the mined-out areas could not be determined; however, general locations were obtained from other records. Sixty-eight of this latter group of mines could be located with an accuracy of 1/4 mile and 46 are accurate to within 1/2 mile. The locations of these mines are shown on Plate I. The supporting data for all mines which could be located are listed in Appendices I and II. Data for 219 (of 447) mines were inadequate to locate the mine sites. The data for these additional mines are listed in Appendix III.

The mines which could be located were added to the Iowa Mined Lands Data System, a computerized database at the Geological Survey Bureau. Information compiled for the data system includes: names under which the mine operated, locations, dates of operation, physical data about the mine, and availability of maps. The mines which could not be located were not entered in the Iowa Mined Lands Data System. Nevertheless, data were collected for them where possible. Generally, a name, business address, date, and mine type could be determined for each of these mines.

MINE-RELATED PROBLEMS OF THE CENTERVILLE AREA

The existance of conditions and problems related to undermining in the study area were investigated in two ways: 1) accounts of accidents and problems were collected from interviews with local residents and officials; 2) visual inspections were made of buildings, streets, and other structures in known undermined areas to look for signs of damage which might be related to mine subsidence.

A number of reports of mine-related problems were received during the course of this project. As expected, subsidence was the most frequently cited, but other significant problems were reported as well. Descriptions of five situations which were related by more than one source are given below:

1) A portion of Iowa Highway 2 between Centerville and the old mining community of Sunshine developed a "roller" in the 1960s according to a local engineering firm. The "roller" was described as a drop in the road surface which progressed across several feet over a period of time. The road surface was damaged, hampering travel and requiring repairs. Subsidence of one of the Sunshine Coal Company mines probably occurred at this location. The description of the "roller" and how it developed is somewhat vague, but seems to be consistent with trough subsidence.

2) A crater developed in the Clarkdale Road in the town of Mystic across from the school, "about 20 years ago," according to Mystic residents.

3) Numerous accounts were received of varying degrees of structural problems with homes and other buildings in the study area. Some of the problems were clearly perceived by the residents to be related to mine subsidence, while in other cases the perception of undermining as the cause was less certain.

4) Contractors for Iowa Southern Utilities drilled into an underground mine in Centerville in 1984 while installing a ground-circulating heat pump. The mine, reached at a depth of 80 feet, was filled with gas and water under sufficient hydrostatic pressure to flow to the surface with considerable force. The gas and water were reported to smell of sulfur. Concern over the possible presence of methane caused local authorities to evacuate several city blocks around the well for a short period of time. One of the former Scandinavian Coal Company mines underlies the site.

5) Three boys were killed by "black damp" (carbon monoxide poisoning) while exploring an abandoned mine. The accident occurred in the mid-1960s. The name and exact location of the mine where the accident occurred could not be ascertained. However, the consensus was that it was somewhere in the northeastern part of Centerville. All known accessible mine openings have since been filled in.

These incidents clearly demonstrate that subsidence and other problems related to underground coal mining have occurred in the Centerville area. Although such problems appear to occur infrequently, they are recognized by the residents as being related to the abandoned mines which underlie the area and they have affected the residents' lives and property to varying degrees.

As in most communities, the residents of the Centerville area have considerable pride in their heritage. They are especially proud of the area's history as a once-flourishing coal mining district. Indeed, it is unusual to find anyone who does not have some personal connection with the coal industry that operated in the area. Many retired miners still live in the area, and

many other people are related to someone who worked in the mines or know someone who did. Because of this connection to the coal industry, many mine-related problems may be seen by the local inhabitants as a part of everyday life. Most of the damage is minor and is regarded as a nuisance attendant to living in the community.

Observations and perceptions of the local populace form an important part of a study of this kind, particularly where a historical perspective is needed. The tendency to view mine-related problems as routine, however, may influence the number of problems reported and the concern with which they are viewed. The local perception that mine-related problems are minor with little cause for concern is probably reasonable given the infrequency with which they have been observed. It was also an expected response based on earlier work in Iowa (Howes, 1982; Van Dorpe et al., 1984).

Visual inspections of buildings, streets, and other structures were made by the authors in selected areas known to be undermined. During the period of field investigation, no new subsidence problems were discovered in the Centerville area that could definitely be attributed to abandoned coal mines. Numerous examples of damage caused by settling were noted, but in nearly all cases the visible damage was minor. The damage observed may be mine-related or may be attributable to other artificial or natural causes. Among these are expansion and shrinkage of soils in response to changes in moisture content, changes in the local water table, use of inadequate construction materials or techniques, or failure of buried structures (e.g. sewer lines). Whether the damage can be attributed to mine subsidence or to other causes could not be determined by visual inspection. In addition, street resurfacing and construction activities in the town of Centerville may have masked surface effects of subsidence.

CONCLUSIONS

Centerville and the surrounding area is extensively undermined by abandoned coal mines. Approximately one-half of the coal mines known to have operated in the area were located during the course of this study. However, the mined-out areas of only one-fourth of the mines could be mapped. Therefore, the exact location and extent of the area impacted by three-fourths of the mines which operated in the Centerville area is unknown. While many of these poorly documented mines were probably small local operations, there is potentially a large area of undocumented abandoned mines present in the Centerville area.

The extensive mining in the Centerville area suggests that the potential for locating economically recoverable deposits of Mystic Coal in the immediate vicinities of Centerville and Mystic is low. As previously stated, evaluation of coal resources is beyond the scope of this report. However, the map (Plate I) and data contained in Appendix I comprise an important data source for determining remaining coal resources in the area. In this respect, the map and data will be useful for determining the impact of land development on those resources.

Subsidence and mine-related problems have occurred in the Centerville area. Reported occurrences of such problems, however, have been less frequent and more widely scattered than might be predicted from the large area of undermined land. Field investigations discovered no new unreported problems which could definitely be attributed to mining. This may be because problems associated with abandoned mines are not being recognized and reported as such, or because fewer problems have developed in recent times. This suggests that there is no immediate threat to persons or property in this area.

Methods used in longwall mining in the Centerville area suggests possible

explanations for the infrequency of mine-related problems. Typically this mining method allows the roof to collapse soon after the coal is removed, suggesting that most of the mines may have collapsed sometime ago. However, the good mine-roof conditions afforded by the Myrick Station Limestone and the Anna Shale, along with partial roof support provided by beams and rock fill (cribbing) along the haulageways, may have slowed the rate of subsidence. Some of the mines clearly have not collapsed. Recent subsidence events and mine voids encountered in bore holes (e.g. CP10, figure 4, and the heat-pump well installed for Iowa Southern Utilities) suggest the underground mines in the Centerville area will continue to cause problems.

The current condition of the underground mines and the specific factors which contribute to mine-related problems remain largely unknown in the Centerville area. Therefore, it is difficult to explain the problems which have occurred in terms of any one set of circumstances.

Centerville and the surrounding area will continue to experience problems related to abandoned coal mines. Although such occurrences will probably be infrequent, the potential for serious damage continues to exist. The location, extent, timing, or severity of any future problems cannot be reliably predicted based on data currently available.

It is recommended that land development in the Centerville area be preceded by investigation for abandoned mines. The map (Plate I) showing the known areas of mining and mine data (Appendices I and II) will aid in locating undermined areas. Plans for future development on undermined land should take potential problems related to abandoned mines into consideration.

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APPENDICES

Appendices I and II consist of data retrieved from the Iowa Mine Lands Data System, a computerized database system, which was developed by the Geological Survey Bureau, Iowa Department of Natural Resources under contract with the Division of Soil Conservation, Department of Agriculture and Land Stewardship. Its purpose is to store and organize coal mine related data from a variety of sources and to facilitate efficient use of that data.

EXPLANATION OF MAP AND APPENDICES

Appendix I lists the mine name and all names previously associated with that particular site, dates of operation, type of mine, entrance type and depth, and any additional information concerning that mine locality. Information from different sources was compiled to create this list, and in those instances where conflicting information existed, the mine map was considered the most reliable.

Appendix II is an alphabetical cross-reference of mine names and map numbers which correspond to entries in Appendix I.

Appendix III includes data collected from the State Mine Inspectors' files and from other sources which provided no locations or sufficiently vague locations that mine sites could not be accurately plotted.

All mines which could be located are plotted on U.S. Geological Survey 7.5 minute topographic quadrangle base maps (Plate I). Figure 8 is the location map for Plate I. The data were compiled and assembled into the appendices of this report. The mines for which maps are available are outlined on the base maps using solid lines (KEY in Appendix I = SL). The entrances to these mines are also plotted and symbols are used to indicate a shaft or a slope entrance. Dashed outlines (KEY = DL) are used to delineate mines with extents taken from sources other than mine maps. Names for mines in both of these categories are shown on the map. A number enclosed in a circle corresponds to an entry for the mine site in Appendix I. Mines of unknown extent which could be located to within 1/4 mile (KEY = TR) are plotted as numbered triangles on the map; those located to within 1/2 mile (KEY = SQ) are plotted as numbered squares on the map. The numbers refer to entries in Appendix I.

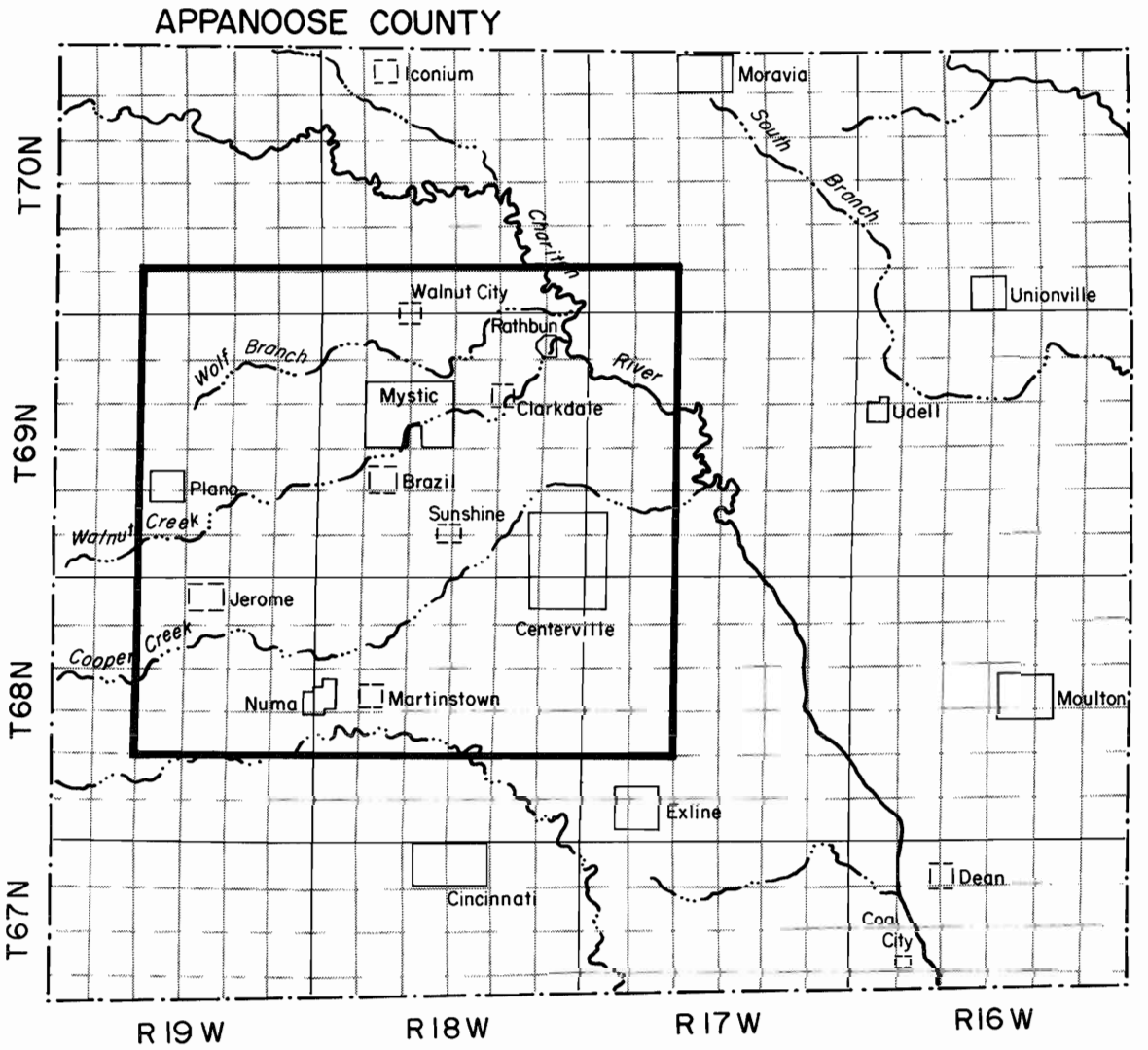

Figure 8. Location map for Plate I. Locations of the old mining communities named in the text or appendices are shown on this map.

LIST OF ABBREVIATIONS USED IN APPENDICES

Appendix I

KEY: SL = solid outline (circle)

KEY: DL = dashed outline (circle)

KEY: TR = triangle (no outline)

KEY: SQ = square (no outline)

MAP: date, e.g. 1934 = map available; date is last revision of that map

MAP: unkn = map available; last revision date unknown

MAP: ---- = no map available

All Appendices

sl	=	slope
ver	=	vertical shaft
lw	=	longwall
r & p	=	room and pillar
unkn	=	unknown

APPENDIX I: LIST OF MINES

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
1	SQ	Rathbun Coal Co. No.3	1943-1943	----
		Shamrock Coal Co.	-	----

LOCATION: SE 35 T070N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
2	SL	Rathbun Coal Co. No.1	1936-1946	1942
		Rathbun Coal Co. No.1	-	1936
		Rathbun Coal Co. No.1	-	1935

LOCATION: SW NE NW 01 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: 95
ENTRANCE TYPE/MINING TYPE: sl & ver/longwall
SHAFT DEPTH: 75 ft.

COMMENTS FOR MINE Rathbun Coal Co. No.1:
Map shows Evans Mine also.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
3	SQ	Sunnyside Coal Co.	1946-1947	----
		Rathbun Coal Co. No.2	1944-1945	----
		Shamrock Coal Co.	1941-1943	----
		New Diamond Lump Coal Co.	-	----
		Shamrock Coal Co.	1917-	----

LOCATION: SE 35 T070N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 55 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
4	SQ	Dennis Coal Co.	1933-1936	----

LOCATION: SW SE 36 T070N R18W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: slope /longwall
SHAFT DEPTH: unkn ft.

COMMENTS FOR MINE Dennis Coal Co.:
Local sales.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
5	SL	Darby Coal Co.	1939-1941	----
		Tropic Coal Co., Dewey Clark Coal Mine	1933-1939	1936

LOCATION: NE SW NE 36 T070N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: 3
ENTRANCE TYPE/MINING TYPE: slope /longwall
SHAFT DEPTH: unkn ft.

COMMENTS FOR MINE Tropic Coal Co., Dewey Clark Coal Mine:
Location on map is T69N, should be T70N.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
6	TR	Superior Block Coal Co. No.1	1893-1895	----

LOCATION: SE NE 36 T070N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
7	TR	Superior Block Coal Co. No.2	1893-1895	----

LOCATION: NE SE 36 T070N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

COMMENTS FOR MINE Superior Block Coal Co. No.2:
Mine type is most likely longwall.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
8	SQ	Arctic Coal Co. Mine No.1	1897-1897	----

LOCATION: NE SE 36 T070N R18W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

COMMENTS FOR MINE Arctic Coal Co. No.1:
Arctic Coal Co. also spelled Artic. Not the same mine as the Artic Coal Mine No.1 located in Sec 17 T69N R18W.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
9	SQ	Arctic Coal Co. Mine No.2	1897-1897	----

LOCATION: NE SE 36 T070N R18W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

COMMENTS FOR MINE Arctic Coal Co. Mine No.2:
The name of this mine has been spelled both Artic and Arctic.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
10	TR	Darby Block Coal Co.	-1901	----
		Darby Coal Co.	1891-1897	----

LOCATION: NE SE 36 T070N R18W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
12	vertical/r & p	50 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
11	TR	Unity Block Coal Co.	1906-1914	----

LOCATION: SW SE SE 36 T070N R18W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
12	DL	Rosebrook Coal Co.	1908-1922	----
		Sunnyside Coal Mine	-	----

LOCATION: NW 06 T069N R17W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
56	vertical/longwall	unkn ft.

COMMENTS FOR MINE Rosebrook Coal Co.:
Mine name spelled both Rossbrook and Rosebrook.

COMMENTS FOR MINE Sunnyside Coal Mine:
The relationship of the Rosebrook Coal Co. to the Sunnyside Coal Co. is uncertain.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
13	TR	Willam Henry Mine	-	----

LOCATION: SE NW 06 T069N R17W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/unknown	18 ft.

COMMENTS FOR MINE Willam Henry Mine:
Small local mine.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
14	TR	unnamed	-	----

LOCATION: SW 06 T069N R17W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	unknown /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
15	SL	American Coal Co.	-1899	1942
		Evans Coal Co.	1893-1899	----

LOCATION: NW SE NW 01 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
4	vertical/longwall	unkn ft.

COMMENTS FOR MINE American Coal Co.:
Mine shown on Rathbun Coal Co. No.1 map. Date is for the Rathbun Coal Co. No.1 mine.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
16	SL	Fowler & Wilson Coal Co. Mine No.2	1909-1928	1912

LOCATION: NE SE SW SW 01 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
18	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
17	TR	Harbour Mine	-	unkn

LOCATION: SE NE 02 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: unknown /unknown
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
18	SL	Star Coal Co.	-	unkn

LOCATION: NW SW 01 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: 7
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 82 ft.

COMMENTS FOR MINE Star Coal Co.:
The old works of this Star Coal Co. mine are shown on the Enterprise Coal Co. map. These mines were connected underground.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
19	SL	New Enterprise Coal Co.	1944-1949	1944
		Enterprise Coal Co.	1932-1944	1942
		Enterprise Coal Co.	-	1940

LOCATION: SW SE 02 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: 25
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 95 ft.

COMMENTS FOR MINE New Enterprise Coal Co.:
Map locates this mine in T69N R19W, this is incorrect based on the neighboring Fowler & Wilson Mine which is correctly located in T69N R18W. Also shows workings of old "Star Mine".

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
20	DL	Fowler & Wilson Coal Co. Mine No.1	1908-1928	unkn
		Star Coal Co. Mine	1892-1908	----

LOCATION: SW SE 02 T069N R18W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE: 520
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 82 ft.

COMMENTS FOR MINE Fowler & Wilson Coal Co. Mine No.1:
There is a profile map of the shaft and part of the mine. The map indicates that the coal seam lies in a shallow depression that falls 10 feet from the shaft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
21	SQ	Scott Coal Co.	1936-1936	----

LOCATION: SW 04 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 25 ft.

COMMENTS FOR MINE Scott Coal Co.:
Local sales, abandoned because of water.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
22	SL	Valentine Maddaloza Coal Mine	1917-1941	1931
		Valentine Maddaloza Coal Mine	-	1930

LOCATION: NW NW NW 04 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
15	slope /longwall	unkn ft.

COMMENTS FOR MINE Valentine Maddaloza Coal Mine:
Location on map, R28W, should be R18W.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
23	SQ	A.J. Morman Mine No.1	1887-1887	----

LOCATION: SE 06 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
24	SQ	Square Deal Coal Co.	1952-1962	----
		Seeley Coal Co.	1952-1952	----

LOCATION: NE 12 T069N R19W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	50 ft.

COMMENTS FOR MINE Square Deal Coal Co.:
Local sales.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
25	SQ	Carter Coal Co.	1941-1942	----
		Sunny Glo Coal Co.	1940-1941	----
		Glaspie & Dickey Coal Co.	1938-1940	----
		Carter Coal Co.	1936-1938	----

LOCATION: SW 12 T069N R19W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	50 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
26	SL	Roberts Coal Co.	1947-1948	----
		Roberts & Stolz Coal Co.	1946-1947	----
		J.C. Smith Mine	1933-1946	1950

LOCATION: NW NW 07 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
5	vertical/longwall	45 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
27	SQ	George W. McCloud Mine No.1	1885-	----

LOCATION: NE 07 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
28	SL	Flash Coal Co.	1938-1942	1941
		Kauslarich - (Julious & Sons)	1936-1938	----

LOCATION: NE NE NW NE 08 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
6	slope /longwall	unkn ft.

COMMENTS FOR MINE Flash Coal Co.:
Map incorrectly locates mine in the NW NW Sec 8, should be NW NE Sec 8 T69N R18W.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
29	SL	Hillside Coal Co.	1929-1943	1942

LOCATION: NE NE NE 08 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
11	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
30	SL	New Mystic Coal Co.	1949-1950	----
		Mystic Coal Co.	1949-1949	----
		Stepnoski & Charles Coal Co.	1947-1949	----
		Mystic Coal Co.	1946-1947	----
		Mystic Coal Co., Dave Risher Mine	1935-1946	1938

LOCATION: SW SW SW 04 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
5	vertical/longwall	38 ft.

COMMENTS FOR MINE Mystic Coal Co., Dave Risher Mine:
The map locates this mine in R19W, correct location is R18W which is north of Mystic.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
31	SQ	Big Oak Coal Co.	1934-1936	----

LOCATION: NW 09 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

COMMENTS FOR MINE Big Oak Coal Co.:
Local sales.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
32	SL	Battle Creek Coal Co., Valkovich Mine	1930-1957	1942

LOCATION: SW SE NE 09 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
8	slope /longwall	unkn ft.

COMMENTS FOR MINE Battle Creek Coal Co., Valkovich Mine:
Map locates this mine at R28W, should be R18W. The eastern boundary of the Diamond Block Coal Co. Mine No.12 and northern boundary of the Winnifred Coal Mine No.30 are shown on the Battle Creek Coal Co. map.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
33	SL	Battle Creek Coal Co., Valkovich Mine	1930-1957	1942

LOCATION: NW NE SE 09 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
8	slope /longwall	unkn ft.

COMMENTS FOR MINE Battle Creek Coal Co., Valkovich Mine:
Map locates this mine at R28W, should be R18W. The eastern boundary of the Diamond Block Coal Co. Mine No.12 and northern boundary of the Winnifred Coal Mine No.30 are shown on the Battle Creek Coal Co. map.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
34	SL	Mystic Block Coal Co. Mine No.12	1907-1920	1920
		Diamond Block Coal Co. Mine No.12	1905-1914	----
		Lodwick Brothers Coal Co. No.1	1889-1899	----
		Lodwick Brothers Coal Co. No.2	1889-1899	----

LOCATION: NE SE SW 09 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
123	sl & ver/lw & r&p	unkn ft.

COMMENTS FOR MINE Mystic Block Coal Co. Mine No.12:
Map locates this mine in R28W, should be R18W. Two other slopes shown on this map might be the original Lodwick Brothers slopes. Lodwick Brothers and Ludwick Brothers are the same mine. Also, there appears to be a connection between Diamond Block Coal Company No.12 and this mine. May also have been known as the Lodwick Brothers Mine No. 12.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
35	SQ	White Oak Coal Co.	1938-1943	----
		Tait Coal Co.	1937-1938	----

LOCATION: SE 09 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
36	DL	Winnifred Coal Co. Mine No.30	1908-1926	----

LOCATION: SW 10 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
168	vertical/longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
37	DL	Appanoose Coal & Fuel Co. Mine No.22	1905-1922	----

LOCATION: NE NW 15 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
26	vertical/longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
38	SL	Mystic Coal Co., Inter-Ocean Mine	1908-1919	1919
		Interocean Coal Co. Mine No.6	1908-1908	----
		Orr Brothers No.2	1899-1908	----

LOCATION: NW SE NW NE 15 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
42	vertical/longwall	73 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
39	SL	High Test Coal Co.	1921-1938	1936
		High Test Coal Co.	-	1929

LOCATION: NE SE SW 11 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
12	vertical/longwall	57 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
40	SQ	Diamond Block Coal Co.	1903-1903	----

LOCATION: SW 11 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	unkn ft.

COMMENTS FOR MINE Diamond Block Coal Co.:
May also have been known as Diamond Block Mine No.5.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
41	SQ	Water Lily Coal Co.	1932-1942	----

LOCATION: NW 12 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

COMMENTS FOR MINE Water Lily Coal Co.:
Local sales.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
42	SL	Forbush Mine	1891-1901	unkn
		Whitebreast Fuel Co. No.19	1891-1899	----

LOCATION: NE SE 13 T069N R18W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
83	vertical/r & p	65 ft.

COMMENTS FOR MINE Forbush Mine:
Coal drill hole data on map.

COMMENTS FOR MINE Whitebreast Fuel Co. No.19:
May have been related to Fowler & Wilson Coal Co.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
43	SQ	Black Diamond Coal Co. No.2	1891-1891	----

LOCATION: SE 14 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
44	TR	Clark & Son Coal Co. No.1	1891-1914	----
		Clarkdale Coal Co.	-1893	----

LOCATION: SE NE NE 15 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	70 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
45	TR	Mystic Block Coal Co. No.5	-1908	----
		Diamond Block Coal Co. No.5	1905-1906	----

LOCATION: SE NE 15 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	70 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
46	DL	Barrett & Voyce Coal Co., Barrett Mine	1921-1931	----

LOCATION: NE SE 15 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
9	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
47	DL	Barrett & Voyce Coal Co., Barrett Mine	1919-1919	----

LOCATION: SE 15 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
224	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
48	TR	Elgin & Barrett Coal Co.	1905-1914	----

LOCATION: SW NE 15 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: slope /longwall
SHAFT DEPTH: unkn ft.

COMMENTS FOR MINE Elgin & Barrett Coal Co.:
Coal reached through old workings of the Iowa Block Coal Co. The slope entry was located on the south side of Walnut Creek, and the tipple was located on north side of creek.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
49	SQ	Buban Coal Co.	1936-1942	----

LOCATION: NW 15 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: slope /longwall
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
50	TR	Beggs Coal Mine	1905-1919	----

LOCATION: SE NE 15 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/r & p
SHAFT DEPTH: 50 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
51	TR	Iowa Block Coal Co.	1895-1906	----

LOCATION: SE NW 15 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: slope /longwall
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
52	SQ	New Clark Coal Co.	1936-1936	----

LOCATION: NW 15 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: slope /longwall
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
53	SQ	Walnut Block Coal Co. Mine No.4	-1891	----

LOCATION: NW 15 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/unknown
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
54	TR	Winnifred Coal Co., Lady Mary Mine	1894-1908	----

LOCATION: NE NE 16 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

COMMENTS FOR MINE Winnifred Coal Co., Lady Mary Mine:
Local sales.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
55	TR	Peerless Coal Co. No.7	1893-	----

LOCATION: NE SE NE 16 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
56	SL	Appanoose Coal Co.	1945-1945	----
		Four Coal Co.	1942-1944	----
		Electric Coal Co.	1920-1945	1944
		Arnutt Mines 3,4,6	1894-1901	1937
		Arnutt Mines 3,4,6	-	1919

LOCATION: SW SE NE 16 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
128	slope /longwall	35 ft.

COMMENTS FOR MINE Electric Coal Co.:
Map for Electric Coal Co. shows old works of Kansas City Mine and slope entries which are labeled No.3 and No.6. These entries may have been the old Arnutt Mines.

COMMENTS FOR MINE Arnutt Mines 3,4,6:
Arnutt Mines, also spelled Arnot, were connected underground to the Kansas City Mine. Arnutt Mines may be associated with the Peerless Mines Nos. 3, 4 & 6.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
57	TR	Peerless Coal Co. Mine No.3	1893-1908	----

LOCATION: SE NE 16 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
58	TR	Peerless Coal Co. Mine No.6	1903-1915	----

LOCATION: SW NE 16 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

COMMENTS FOR MINE Peerless Coal Mine No.6:
This is a different mine from the Peerless No.6 associated with Lee Brothers, Twin Mines.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
59	TR	Peerless Coal Co. Mine No.2	1893-1899	----

LOCATION: SW NE 15 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

COMMENTS FOR MINE Peerless Coal Co. No.2:
This mine is differentiated from Peerless No.2, located NW NW Sec 17 T69N R18W.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
60	TR	Peerless Coal Co. Mine No.1	1893-1908	----
		Walnut Block Coal No.7	1891-1893	----
		Henrietta Coal Co. No.1	1889-1891	----

LOCATION: SW NE 16 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
61	TR	Sandbar Mine	1894-1894	----

LOCATION: SW NE 16 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
62	SL	Kansas City Mine	-1905	1905

LOCATION: NW SE SW NE 16 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
80	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
63	TR	Orr Brothers No.1	1887-1897	----

LOCATION: NE SW 16 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
64	SL	Appanoose Coal Co.	1945-1945	----
		Four Coal Co.	1942-1944	----
		Electric Coal Co.	1920-1945	----
		Arnutt Mines 3,4,6	1894-1901	1937
		Arnutt Mines 3,4,6	-	1919

LOCATION: NW NE 21 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
117	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
65	SL	Beggs Coal Co. Mine No.7	1921-1921	1921

LOCATION: NE SW SE 16 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: 14
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: unkn ft.

COMMENTS FOR MINE Beggs Coal Co. Mine No.7:
Map shows old works of Orr Brothers Mine No.1.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
66	TR	Lone Star Coal Co.	1891-1894	----

LOCATION: SW NW SW 16 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: slope /longwall
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
67	DL	Acken Coal Co. Mines No.1 & 2	1903-1926	----

LOCATION: NE NW NW 17 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: 326
ENTRANCE TYPE/MINING TYPE: sl & ver/longwall
SHAFT DEPTH: 25 ft.

COMMENTS FOR MINE Acken Coal Co. Mines No.1 & 2:
Acken No.1 was a slope mine, Acken No.2 had a 25 foot shaft. These mines were connected underground and worked as one.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
68	TR	Iowa & Missouri Coal Co.	1891-1901	----

LOCATION: NW NE 17 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: slope /longwall
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
69	TR	Cooperative Coal Co.	1895-1899	----
		Peerless Coal Co.	-	----

LOCATION: SW NE 17 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: slope /longwall
SHAFT DEPTH: unkn ft.

COMMENTS FOR MINE Cooperative Coal Co.:
Mine located west of Mystic on the "Catfish Switch".

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
70	TR	Mystic Block No.29, Klondyke Mine Diamond Block Coal Co. Mine No.29	1899-1901 1905-1906	1923 ----

LOCATION: SW NE 17 T069N R18W

TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	50 ft.

COMMENTS FOR MINE Mystic Block No.29, Klondyke Mine:
Map shows part of mine, approximately 60 acres. No location given on map. Whole mine probably larger.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
71	TR	Artic Coal Mine No.1	-1910	----

LOCATION: SE SE NW 17 T069N R18W

TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

COMMENTS FOR MINE Artic Coal Mine No.1:
The Artic Coal Mine No.1 slope is shown on the Lee Brothers, Twin Mine map.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
72	TR	Columbia Coal and Mining	-	----

LOCATION: SE NW 17 T069N R18W

TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	unknown /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
73	TR	Peerless Coal Co. Mine No.1	1903-1908	----

LOCATION: NW NW 17 T069N R18W

TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

COMMENTS FOR MINE Peerless Coal Co. Mine No.1:
This mine is different from the Peerless No.1 located in the SW NE 16 T69N R18W. This mine was also connected to Peerless No.2 Mine.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
74	TR	Peerless Coal Mine No.2	1905-1906	----

LOCATION: NW NW 17 T069N R18W

TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
75	TR	Mystic Coal Co. No.2	1901-1914	----

LOCATION: NE NE NE 18 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	sl & ver/longwall	unkn ft.

COMMENTS FOR MINE Mystic Coal Co. No.2:
Mystic No.2 is connected to Mystic No.3 and coal was brought out from both openings.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
76	TR	Mystic Coal Co. No.3	-	----

LOCATION: NE NE NE 18 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	sl & ver/longwall	unkn ft.

COMMENTS FOR MINE Mystic Coal Co. No.3:
Connected to Mystic Coal Co. No.2.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
77	TR	Mystic Coal Co. No.1	1899-1914	----

LOCATION: NE NE NE 18 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
78	SL	Waterloo Mine	-	1912

LOCATION: NW SE NW 17 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
18	vertical/longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
79	SL	Brown & Bowers Slope	1891-1914	1919

LOCATION: NW NW SE 17 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
23	slope /longwall	unkn ft.

COMMENTS FOR MINE Brown & Bowers Slope:
This mine is shown on the Lee Brothers Coal Co., Twin Mines map.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
80	SL	Lee Brothers Coal Co., Twin Mines	1910-1919	1919
		Lee Brothers Coal Co., Twin Mines	-	1918
		Lee Brothers Coal Co., Twin Mines	-	1913
		Twin Mines	1910-1919	unkn
		West Twin Mine	-	1913
		Peerless Coal Co. Mine No.5 & No.6	-1893	----

LOCATION: NE NW NW 20 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
87	vertical/longwall	40 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
81	TR	Raven Mine	-1894	----
		Silknetter Mine No.2	1889-1891	----

LOCATION: SW SE 17 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
82	SL	Horridge Shaft	-	1913

LOCATION: NE SE NE 18 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
13	vertical/longwall	unkn ft.

COMMENTS FOR MINE Horridge Shaft:
This mine is shown on the Waterloo Mine map.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
83	TR	Everman Slope	-	----

LOCATION: SE SE SE 18 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
84	SQ	New Thirty Coal Co.	1939-1941	----

LOCATION: NW 18 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

COMMENTS FOR MINE New Thirty Coal Co.:
Local sales.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
85	SQ	Willam Baker No.1	1889-1889	----

LOCATION: SE 13 T069N R19W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/unknown
SHAFT DEPTH: 50 ft.

COMMENTS FOR MINE Willam Baker No.1:
Local sales.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
86	SQ	unnamed	-	----

LOCATION: SW NE 21 T069N R19W
TOPOGRAPHIC MAP: Plano

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: unknown /unknown
SHAFT DEPTH: 90 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
87	DL	Scandinavian Coal Co. Mine No.2	1905-1914	----

LOCATION: SE SW 21 T069N R19W
TOPOGRAPHIC MAP: Plano

ACREAGE: 25
ENTRANCE TYPE/MINING TYPE: vertical/lw & r&p
SHAFT DEPTH: 200 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
88	SL	Numa Coal Co. Mine No.2	1938-1947	1944
		Numa Coal Co. Mine No.2	-	1941
		Garfield Coal Co., Garfield Mine	1926-1938	----

LOCATION: SE NW NW 24 T069N R19W
TOPOGRAPHIC MAP: Mystic

ACREAGE: 54
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 120 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
89	SL	Zaputil Coal Co. Mine	1940-1952	1952

LOCATION: NW NW NE 19 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: 12
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 45 ft.

COMMENTS FOR MINE Zaputil Coal Co. Mine:
This mine may have been associated with the Pellin Coal Co.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
90	SQ	Peerless Coal Co. Mine No.7	1901-1903	----

LOCATION: NE 19 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: unkn ft.

COMMENTS FOR MINE Peerless No.7:
This mine is differentiated from the Peerless No.7 which was located NE SE NE Sec 16 T69N R18W.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
91	SQ	Willam Campbell Coal Co.	1936-1940	----

LOCATION: NE 19 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

COMMENTS FOR MINE Willam Campbell Coal Co.:
Local sales.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
92	TR	Peerless Coal Co. Mine No.4	1893-1906	----
		Herl Coal Co.	1895-1897	----

LOCATION: NE NE 19 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	30 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
93	DL	Appanoose Coal and Fuel Co., Diamond Mine	1917-1924	----

LOCATION: SE NW 19 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
320	vertical/longwall	unkn ft.

COMMENTS FOR MINE Appanoose Coal and Fuel Co., Diamond Mine:
This area also worked by several other unidentified mines.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
94	TR	Diamond Block Coal Co. Mine No.22	1914-1914	----
		Mystic Block Coal Co. Mine No.22	-	----

LOCATION: SE SW NW 19 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	75 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
95	TR	Tipton Coal Co. Mine No.2	-	---
		Phillips Fuel Co.	-	---

LOCATION: SE NW 19 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

COMMENTS FOR MINE Tipton Coal Co. Mine No.2:
Only known date of operation is 1895.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
96	TR	Keokuk & Western, Baker Slope	1908-1908	----

LOCATION: SE SW NE 19 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

MAP NO.: KEY: MINE NAME(S): YEARS OF OPERATION: MAP:
97 SQ Campbell & Phillips Coal Co. - ----
Tipton Mine No.4 -1894 ----
Phillips Fuel Co. Mine - ----

LOCATION: TOPOGRAPHIC MAP:
SE NE 19 T069N R18W Mystic

ACREAGE: ENTRANCE TYPE/MINING TYPE: SHAFT DEPTH:
unkn slope /unknown ft.

MAP NO.: KEY: MINE NAME(S): YEARS OF OPERATION: MAP:
98 SQ Campbell & Phillips Coal Co. - ----
Tipton Mine No.3 -1894 ----
Phillips Fuel Co. Mine - ----

LOCATION: TOPOGRAPHIC MAP:
SE NE 19 T069N R18W Mystic

ACREAGE: ENTRANCE TYPE/MINING TYPE: SHAFT DEPTH:
unkn slope /unknown unkn ft.

MAP NO.: KEY: MINE NAME(S): YEARS OF OPERATION: MAP:
99 TR Centerville Block Coal Co. Mine No.7 - ----
Walnut Block Coal Co. Mine No.3 - ----
Enterprise Coal Co. - ----

LOCATION: TOPOGRAPHIC MAP:
NE NE 19 T069N R18W Mystic

ACREAGE: ENTRANCE TYPE/MINING TYPE: SHAFT DEPTH:
unkn slope /unknown unkn ft.

MAP NO.: KEY: MINE NAME(S): YEARS OF OPERATION: MAP:
100 SL Gorman Coal Mine 1938-1940 1940
Fuller & Showers Coal Co. 1937-1938 ----
Gorman Coal Co. 1933-1937 ----

LOCATION: TOPOGRAPHIC MAP:
NW NE SE 19 T069N R18W Mystic

ACREAGE: ENTRANCE TYPE/MINING TYPE: SHAFT DEPTH:
5 slope /longwall unkn ft.

MAP NO.: KEY: MINE NAME(S): YEARS OF OPERATION: MAP:
101 TR Tipton Coal Co. 1895- ----
Carlton Coal Co. (Diamond Mine) -1895 ----

LOCATION: TOPOGRAPHIC MAP:
NE SW 19 T069N R18W Mystic

ACREAGE: ENTRANCE TYPE/MINING TYPE: SHAFT DEPTH:
unkn vertical/unknown 50 ft.

COMMENTS FOR MINE Carlton Coal Co. (Diamond Mine):
Extent of mine may be 40 acres.

MAP NO.: KEY: MINE NAME(S): YEARS OF OPERATION: MAP:
102 SQ Stewart Coal Co. 1937-1938 ----

LOCATION: TOPOGRAPHIC MAP:
SW 19 T069N R18W Mystic

ACREAGE: ENTRANCE TYPE/MINING TYPE: SHAFT DEPTH:
unkn slope /longwall

COMMENTS FOR MINE Stewart Coal Co.:
Local sales.

MAP NO.: 103 KEY: TR MINE NAME(S): Mystic Block Coal Co. Mine No.21 YEARS OF OPERATION: 1908-1908 MAP: ----

LOCATION: SW SW 19 T069N R18W TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn ENTRANCE TYPE/MINING TYPE: slope /unknown SHAFT DEPTH: unkn ft.

MAP NO.: 104 KEY: TR MINE NAME(S): Columbia Coal Co. No.1 YEARS OF OPERATION: 1893-1904 MAP: ----

LOCATION: SW SW 19 T069N R18W TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn ENTRANCE TYPE/MINING TYPE: slope /lw & r&p SHAFT DEPTH: unkn ft.

MAP NO.: 105 KEY: SQ MINE NAME(S): Enterprise Coal Co. No.2 YEARS OF OPERATION: 1889-1889 MAP: ----

LOCATION: NW 20 T069N R18W TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn ENTRANCE TYPE/MINING TYPE: vertical/unknown SHAFT DEPTH: 40 ft.

MAP NO.: 106 KEY: SQ MINE NAME(S): Silknetter Mine No.3 YEARS OF OPERATION: 1889-1889 MAP: ----

LOCATION: NW 20 T069N R18W TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn ENTRANCE TYPE/MINING TYPE: slope /unknown SHAFT DEPTH: unkn ft.

MAP NO.: 107 KEY: SL MINE NAME(S): Quality Coal Co. YEARS OF OPERATION: 1938-1941 MAP: 1939

LOCATION: SE SW SE 17 T069N R18W TOPOGRAPHIC MAP: Mystic

ACREAGE: 3 ENTRANCE TYPE/MINING TYPE: slope /longwall SHAFT DEPTH: unkn ft.

MAP NO.: 108 KEY: TR MINE NAME(S): Walnut Creek Coal Co. YEARS OF OPERATION: 1893-1899 MAP: ----

LOCATION: NE NE 20 T069N R18W TOPOGRAPHIC MAP: Mystic

ACREAGE: unkn ENTRANCE TYPE/MINING TYPE: slope /longwall SHAFT DEPTH: unkn ft.

COMMENTS FOR MINE Walnut Creek Coal Co.:
Also known as the Stormfeldt and De France Mine.

MAP NO.: KEY: MINE NAME(S): YEARS OF OPERATION: MAP:
109 SQ Walnut Block Coal Co. No.6 1891-1891 ----

LOCATION: TOPOGRAPHIC MAP:
NW 20 T069N R18W Mystic

ACREAGE: ENTRANCE TYPE/MINING TYPE: SHAFT DEPTH:
unkn vertical/unknown unkn ft.

MAP NO.: KEY: MINE NAME(S): YEARS OF OPERATION: MAP:
110 SQ Walnut Block Coal Co. No.5 1891-1891 ----

LOCATION: TOPOGRAPHIC MAP:
NW 20 T069N R18W Mystic

ACREAGE: ENTRANCE TYPE/MINING TYPE: SHAFT DEPTH:
unkn vertical/unknown unkn ft.

MAP NO.: KEY: MINE NAME(S): YEARS OF OPERATION: MAP:
111 DL Egypt Coal Co., Egypt Mine 1901-1926 ----

LOCATION: TOPOGRAPHIC MAP:
NE NE 20 T069N R18W Mystic

ACREAGE: ENTRANCE TYPE/MINING TYPE: SHAFT DEPTH:
103 sl & ver/longwall unkn ft.

MAP NO.: KEY: MINE NAME(S): YEARS OF OPERATION: MAP:
112 TR Padovich Coal Co. 1940-1940 ----

LOCATION: TOPOGRAPHIC MAP:
SE NW 20 T069N R18W Mystic

ACREAGE: ENTRANCE TYPE/MINING TYPE: SHAFT DEPTH:
unkn slope /longwall unkn ft.

MAP NO.: KEY: MINE NAME(S): YEARS OF OPERATION: MAP:
113 TR R. Campbell Coal Co. No.1 1889-1901 ----

LOCATION: TOPOGRAPHIC MAP:
SE NW 20 T069N R18W Mystic

ACREAGE: ENTRANCE TYPE/MINING TYPE: SHAFT DEPTH:
unkn slope /longwall unkn ft.

COMMENT FOR MINE R. Campbell Coal Co. No.1:
Local sales.

MAP NO.: KEY: MINE NAME(S): YEARS OF OPERATION: MAP:
114 SQ Eagle Coal Co. - ----

LOCATION: TOPOGRAPHIC MAP:
NE 20 T069N R18W Mystic

ACREAGE: ENTRANCE TYPE/MINING TYPE: SHAFT DEPTH:
unkn unknown /unknown unkn ft.

COMMENTS FOR MINE Eagle Coal Co.:
Local sales. Only known date of operation is 1893.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
115	TR	E. Stern Mine	-	----

LOCATION: NE SW 20 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	unknown /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
116	SL	New Star Coal Co.	1937-1942	----
		Star Coal Co.	1937-1937	1942

LOCATION: NE NE NW 29 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
13	slope /longwall	55 ft.

COMMENTS FOR MINE Star Coal Co.:
Map shows old works of Walnut Block Coal Co. and Philby Coal Co.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
117	TR	Brazil Coal Co.	-	----

LOCATION: SW SW 20 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

COMMENTS FOR MINE Brazil Coal Co.:
Mine operated in 1889 and 1902, other years of operation unknown.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
118	SL	Walnut Block Coal Co.	1905-1915	1915

LOCATION: NE NW SW SW 20 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
43	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
119	TR	Centerville Block Coal Co. Mine No.6	1895-1901	----
		Silknetter Coal Mine	1887-1897	----

LOCATION: SE SW 20 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
120	SL	Phoenix Coal Co.	1897-1913	1911

LOCATION: SE SW 20 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
78	slope /longwall	unkn ft.

COMMENTS FOR MINE Phoenix Coal Co.:
Map title Egypt Coal Co., Phoenix Coal Mine. Map locates this mine in T68N, correct location is in T69N.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
121	SL	Sunshine Coal Co. Mine No.2	1932-1942	1942
		Sunshine Coal Co. Mine No.2	-	1937
		Sterling Coal Co.	1917-1926	1923

LOCATION: NE NW SE SW 21 T069N R18W

TOPOGRAPHIC MAP: Mystic

ACREAGE: 195

ENTRANCE TYPE/MINING TYPE: vertical/longwall

SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
122	SL	Sunshine Coal Co. Mine No.3	1931-1957	1957
		Sunshine Coal Co. Mine No.3	-	1956
		Sunshine Coal Co. Mine No.3	-	1955
		Sunshine Coal Co. Mine No.3	-	1949
		Sunshine Coal Co. Mine No.3	-	1947
		Sunshine Coal Co. Mine No.3	-	1944
		Sunshine Coal Co. Mine No.3	-	1942
		Sunshine Coal Co. Mine No.3	-	1941
		Sunshine Coal Co. Mine No.3	-	1937

LOCATION: NE SE SE 21 T069N R18W

TOPOGRAPHIC MAP: Mystic

ACREAGE: 400

ENTRANCE TYPE/MINING TYPE: vertical/longwall

SHAFT DEPTH: 125 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
123	SL	New Midway Coal Co.	1940-1946	1944
		McConville No.2	1926-1938	----
		Midway Coal Co.	1920-1942	1942
		Midway Coal Co.	-	1920

LOCATION: NE NE SW SE 22 T069N R18W

TOPOGRAPHIC MAP: Mystic

ACREAGE: 108

ENTRANCE TYPE/MINING TYPE: vertical/longwall

SHAFT DEPTH: 141 ft.

COMMENTS FOR MINE New Midway Coal Co., McConville Mine No.2:
May also have been known as Independence Coal Co. from 1938 to 1940.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
124	SL	Number Four Coal Co.	1962-1967	----
		Sunshine Coal Co. Mine No.4	1944-1962	1962
		Sunshine Coal Co. Mine No.4	-	1961
		Sunshine Coal Co. Mine No.4	-	1959

LOCATION: NE SE SW NE 23 T069N R18W

TOPOGRAPHIC MAP: Mystic

ACREAGE: 100

ENTRANCE TYPE/MINING TYPE: vertical/lw & rp

SHAFT DEPTH: 140 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
125	SL	McConville Coal Co. No.1, North Mine	1913-1945	1944

LOCATION: NE SW SW NW 24 T069N R18W

TOPOGRAPHIC MAP: Mystic

ACREAGE: 250

ENTRANCE TYPE/MINING TYPE: vertical/longwall

SHAFT DEPTH: unkn ft.

COMMENTS FOR MINE McConville Coal Co. No.1, North Mine:
The map is in two parts.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
126	SL	Centerville Coal Co.	1929-1952	1952
		Centerville Coal Co.	-	1951
		Centerville Coal Co.	-	1949
		Centerville Coal Co.	-	1947

LOCATION: SE NE SW 19 T069N R17W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
44	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
127	SL	Appanoose Coal Co. (Ragona Coal Co.)	1953-1965	1964
		Appanoose Coal Co. (Ragona Coal Co.)	-	1961
		Appanoose Coal Co. (Ragona Coal Co.)	-	1955
		Ragona Coal Co.	1936-1953	1952

LOCATION: NW SW NW SE 19 T069N R17W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
32	slope /longwall	110 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
128	SL	Silver King Coal Co.	1936-1942	1942
		Cooper Creek Coal Co.	1935-1936	----

LOCATION: SW NW NE 30 T069N R17W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
18	slope /longwall	65 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
129	SQ	Jimmerson Huston Mine No.1	1884-1887	----

LOCATION: NE 25 T069N R18W
TOPOGRAPHIC MAP: Hiattsville

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

COMMENTS FOR MINE Jimmerson Huston Mine No.1:
This mine was also listed as the Jenison Huston Mine No.1.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
130	SL	City Fuel Coal Mine	1932-1943	1942
		Koontz Coal Mine	1905-1932	1932

LOCATION: SW NE 25 T069N R18W
TOPOGRAPHIC MAP: Centerville East

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
47	vertical/longwall	83 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
131	SL	Empire Mine	1930-1941	1937

LOCATION: NE SE NE 26 T069N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
52	vertical/longwall	125 ft.

COMMENTS FOR MINE Empire Mine:
Empire Mine also known as Empire Fuel Company.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
132	TR	Centerville Block Coal Co. Mine No.4	1895-1901	----
		Philby Mine	1885-1894	----

LOCATION: NE NW 29 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
133	TR	Peacock Coal Mine	1895-1924	----

LOCATION: NE NW 29 T069N R18W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
16	slope /longwall	10 ft.

COMMENTS FOR MINE Peacock Coal Mine:
As of 1908 16 of 160 acres leased had been mined out.
The coal dips east and is undulatory.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
134	TR	Big Joe Coal Co. Mine No.2, Juckett Mine	1897-1910	----
		Juckett Mine	1901-1910	----
		F.H. Juckett Mine	1903-	----

LOCATION: NW NE 25 T069N R19W
TOPOGRAPHIC MAP: Mystic

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	130 ft.

COMMENTS FOR MINE Big Joe Coal Co. Mine No.2, Juckett Mine:
Local sales.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
135	SL	Neal Coal Co.	1936-1937	1936

LOCATION: NW SW NE 30 T069N R17W
TOPOGRAPHIC MAP: Centerville East

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
1	vertical/longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
136	SL	Shamrock Coal Co.	1943-1953	1949
		Columbus Coal Co.	1925-1943	----

LOCATION: NW NW SE 30 T069N R17W
TOPOGRAPHIC MAP: Centerville East

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
22	slope /longwall	unkn ft.

COMMENTS FOR MINE Shamrock Coal Co.:
This mine may have been known as Shamrock No.2.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
137	SL	New Rock Valley Coal Co.	1929-1943	1942
		Rock Valley Coal Co.	1895-1929	----

LOCATION: SE SE NW 30 T069N R17W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: 18
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 80 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
138	SQ	R.L. Dora Mine No.1	1887-1891	----

LOCATION: SW 30 T069N R17W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: unknown /unknown
SHAFT DEPTH: unkn ft.

COMMENTS FOR MINE R.L. Dora Mine No.1:
Mine name also spelled Daraah Coal Co. Small mine, local sales.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
139	SL	Clark Coal Co.	1898-1966	1966
		Clark Coal Co.	-	1961
		Clark Coal Co.	-	1960
		Clark Coal Co.	-	1956
		Clark Coal Co.	-	1936

LOCATION: SW NW SW 30 T069N R17W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: 79
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 145 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
140	SL	Fairlawn Coal Co.	1925-1951	1949
		Fairlawn Coal Co.	-	1946

LOCATION: NW NE SE SE 25 T069N R18W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: 68
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 165 ft.

COMMENTS FOR MINE Fairlawn Coal Co.:
Fairlawn Coal Co. mine holed into the Clark Coal Co. mine for an escapeway.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
141	SL	North Hill Mine	1916-1937	1935
		Schramm Mine	1905-1916	1929
		North Hill Coal Co. (Frisby Mine)	1893-1902	----

LOCATION: SE NW SE 25 T069N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: 17
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 120 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
142	SL	Eagle Coal Co. Mine No.1	1914-1924	1924
		Eagle Coal Co. Mine No.1	1914-1924	1920

LOCATION: NE SE SW 25 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
30	vertical/lw & r&p	unkn ft.

COMMENTS FOR MINE Eagle Coal Co. Mine No.1:
This is not a complete map of the mine.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
143	SL	Woodland Coal Mine	1910-1923	1923
		Woodland Coal Mine	-	1919
		Woodland Coal Mine	-	1913

LOCATION: SE SE SW 25 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
27	vertical/r & p	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
144	SL	White Oak Mine	1911-1914	1914

LOCATION: SE SW SW 25 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
24	vertical/r & p	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
145	SL	Centerville Block Coal Co. Mine No.9	1895-1914	1912

LOCATION: NW SW SE 26 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
140	vertical/lw & r&p	72 ft.

COMMENTS FOR MINE Centerville Block Coal Co. Mine No.9:
Map only shows west half of mine.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
146	SL	New Citizen Coal Co.	1938-1942	1940

LOCATION: SE SW SW 26 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
7	vertical/longwall	137 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
147	SL	Centerville Block Coal Co. Mine No.5	1894-1928	1912
		Walnut Block No.1	-	----
		Hawkeye Mine	-	----

LOCATION: NE NE NW 29 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
100	slope /longwall	100 ft.

COMMENTS FOR MINE Centerville Block Coal Co. Mine No.5:
Map title: Brazil No.5, Centerville Block No.5.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
148	SQ	Rimby's Mine	1882-1883	----

LOCATION: NW 29 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
149	TR	Tipton Cooperative Drift	-	----
		Tipton Coal Mine No.1	1895-1908	----

LOCATION: SW NE 29 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
40	slope /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
150	DL	New Oriental Coal Co.	1915-1922	----
		Oriental Coal Co. No.1	1903-1914	----

LOCATION: NW NW SE 29 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
89	slope /longwall	40 ft.

COMMENTS FOR MINE New Oriental Coal Co.:
320 acres of land were leased to the company.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
151	SQ	Crawford and Widner Coal Co.	-	----

LOCATION: SE 29 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	unknown /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
152	SQ	Domestic Coal Co.	1903-1903	----

LOCATION: SE 29 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
153	SL	Louis Anderson Coal Co.	1912-1912	1912

LOCATION: SW SE SE 29 T069N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
25	vertical/longwall	unkn ft.

COMMENTS FOR MINE Louis Anderson Coal Co.:
Also known as the Laneville Mine.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
154	TR	Lane Coal Co.	1889-1901	----

LOCATION: SE SE 29 T069N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	75 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
155	TR	Perfection Block Coal Co.	1906-1908	----

LOCATION: SE SE 29 T069N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	sl & ver/longwall	72 ft.

COMMENTS FOR MINE Perfection Block Coal Co.:
In 1908, 160 acres of land was leased by the Perfection Block Coal Co. west of the mine.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
156	SQ	Keystone Coal Co.	1903-1905	----

LOCATION: SE 29 T069N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
157	DL	Prospect Mine	-	----

LOCATION: SW SW NW 29 T069N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
38	unknown /unknown	unkn ft.

COMMENTS FOR MINE Prospect Mine:
This Prospect Mine is different from the Prospect Coal Co. which is located in Sec 25 T68N R18W.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
158	SL	Seddon Brothers Coal Co.	1941-1942	----
		Fred Kauzarich Mine, Sunny Slope Coal Co.	1934-1941	1937

LOCATION: SE SW NW 30 T069N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

COMMENTS FOR MINE Fred Kauzarich Mine, Sunny Slope Coal Co.:
Map locates mine in T68N, should be T69N.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
159	SL	Porter Coal Co.	1942-1944	----
		Diamond (Block) Coal Co.	1940-1942	1940
		Green Market Coal Co.	1936-1940	----

LOCATION: NW NE 25 T069N R19W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
2	slope /longwall	115 ft.

MAP NO.:	KEY:	MINE NAME(S:	YEARS OF OPERATION:	MAP:
160	TR	Hazelton Mine	1893-1897	----

LOCATION: SW NE 25 T069N R19W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	sl & ver/r & P	70 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
161	DL	Liberty Coal Co.	-	----

LOCATION: SE SE NW 25 T069N R19W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
95	unknown /unknown	unkn ft.

COMMENTS FOR MINE Liberty Coal Co.:
May have also been associated with Diamond Coal Co..

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
162	SL	K & K Coal Co.	1945-1958	1954
		K & K Coal Co.	-	1951
		Coravia Coal Co.	1942-1944	----
		Corby Coal Co.	1937-1942	1942

LOCATION: SE SW SE 25 T069N R19W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
10	slope /longwall	unkn ft.

MAP NO.: 163 KEY: TR
MINE NAME(S): Oakridge Coal Co.; Poli & Elliott Coal Co.
YEARS OF OPERATION: 1961-1962; - MAP: ----; ----
LOCATION: SW NW 25 T069N R19W
TOPOGRAPHIC MAP: Centerville West
ACREAGE: unkn ENTRANCE TYPE/MINING TYPE: slope /unknown SHAFT DEPTH: unkn ft.

MAP NO.: 164 KEY: TR
MINE NAME(S): Kruzich Coal Co.
YEARS OF OPERATION: 1940- MAP: ----
LOCATION: SE NE 26 T069N R19W
TOPOGRAPHIC MAP: Plano
ACREAGE: unkn ENTRANCE TYPE/MINING TYPE: slope /unknown SHAFT DEPTH: unkn ft.

MAP NO.: 165 KEY: SL
MINE NAME(S): New Gladstone Coal Co. Mine; New Gladstone Coal Co. Mine
YEARS OF OPERATION: 1939-1971; - MAP: 1962; 1959
LOCATION: SE SW SE SE 26 T069N R19W
TOPOGRAPHIC MAP: Seymour East
ACREAGE: 50 ENTRANCE TYPE/MINING TYPE: slope /longwall SHAFT DEPTH: 100 ft.

MAP NO.: 166 KEY: SL
MINE NAME(S): D.C. Coal Co.; D.C. Coal Co.
YEARS OF OPERATION: 1941-1966; - MAP: 1962; 1960
LOCATION: SW SE SW 26 T069N R19W
TOPOGRAPHIC MAP: Seymour East
ACREAGE: 62 ENTRANCE TYPE/MINING TYPE: slope /longwall SHAFT DEPTH: 70 ft.

MAP NO.: 167 KEY: TR
MINE NAME(S): Charles Knight Mine No.1
YEARS OF OPERATION: 1887-1895 MAP: ----
LOCATION: SE NE 27 T069N R19W
TOPOGRAPHIC MAP: Seymour East
ACREAGE: unkn ENTRANCE TYPE/MINING TYPE: vertical/unknown SHAFT DEPTH: 50 ft.
COMMENTS FOR MINE Charles Knight Mine No.1: Local sales.

MAP NO.: 168 KEY: TR
MINE NAME(S): Morris Bank
YEARS OF OPERATION: 1894-1894 MAP: ----
LOCATION: SE NE 27 T069N R19W
TOPOGRAPHIC MAP: Seymour East
ACREAGE: unkn ENTRANCE TYPE/MINING TYPE: slope /unknown SHAFT DEPTH: unkn ft.
COMMENTS FOR MINE Morris Bank: Small mine, local sales.

MAP NO.: 169 KEY: SL

MINE NAME(S): Stepnoski Mine

YEARS OF OPERATION: 1935-1942 MAP: 1935

LOCATION: SE SW SE 27 T069N R19W

TOPOGRAPHIC MAP: Seymour East

ACREAGE: 2 ENTRANCE TYPE/MINING TYPE: vertical/longwall SHAFT DEPTH: 60 ft.

COMMENTS FOR MINE Stepnoski Mine: Connected underground to Douglas Coal Co..

MAP NO.: 170 KEY: SL

MINE NAME(S): Blue Flame Coal Co. Mine No.2 — YEARS OF OPERATION: 1948-1953 — MAP: 1950
Plano Block Coal Co. — - — ----
Victory Coal Co. — 1943-1947 — ----
Monitor Coal Co. Mine No.2 — 1943-1943 — ----
Plano Fuel Co. — 1939-1943 — ----
Plano Coal Co. — 1934-1939 — ----

LOCATION: SW SE NE 28 T069N R19W

TOPOGRAPHIC MAP: Seymour East

ACREAGE: 7 ENTRANCE TYPE/MINING TYPE: vertical/longwall SHAFT DEPTH: 112 ft.

MAP NO.: 171 KEY: SQ

MINE NAME(S): Douglas Coal Co. No.2

YEARS OF OPERATION: 1941-1941 MAP: ----

LOCATION: NW 28 T069N R19W

TOPOGRAPHIC MAP: Seymour East

ACREAGE: unkn ENTRANCE TYPE/MINING TYPE: vertical/longwall SHAFT DEPTH: unkn ft.

MAP NO.: 172 KEY: SL

MINE NAME(S): Walnut Creek Coal Co.

YEARS OF OPERATION: 1934-1943 MAP: 1942

LOCATION: NE NE NW 34 T069N R19W

TOPOGRAPHIC MAP: Seymour East

ACREAGE: 27 ENTRANCE TYPE/MINING TYPE: vertical/longwall SHAFT DEPTH: 75 ft.

MAP NO.: 173 KEY: SL

MINE NAME(S): Douglas Coal Co. — YEARS OF OPERATION: 1941-1942 — MAP: ----
C & F Coal Co. — 1940-1941 — ----
Black Diamond Coal Co. — 1934-1940 — 1940
Seals Coal Co.(or Hog Farm Mine) — 1934-1934 — ----

LOCATION: NE NW NE 34 T069N R19W

TOPOGRAPHIC MAP: Seymour East

ACREAGE: 10 ENTRANCE TYPE/MINING TYPE: slope /longwall SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
174	SL	Gladstone Coal Co. Mine No.1	1913-1913	1913
		Harkes Mine (No.1)	-	----
		Big Joe Block Mine (No.1)	1897-1910	----
		Big Joe Mine No.1	-	1913

LOCATION: NE NW NE 35 T069N R19W

TOPOGRAPHIC MAP: Seymour East

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
203	vertical/longwall	80 ft.

COMMENTS FOR MINE Gladstone Coal Co. Mine No.1:
Map locates this mine in R17W should be in R19W. Correct location on Big Joe Mine No.1 map.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
175	SL	Big Five Coal Co.	1961-1963	----
		Reed Coal Co.	1960-1961	----
		H & R Coal Co. Mine	1960-1960	----
		New Diamond Coal Co.	1952-1955	1954
		Pellin Coal Co.	1946-1952	----
		Big Five Coal Co.	1933-1946	1944

LOCATION: NE NW NE 36 T069N R19W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
23	slope /longwall	127 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
176	SL	McConville Coal Co. No.3, Laneville Mine	1923-1933	1932

LOCATION: NW SE NE NE 32 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
57	vertical/longwall	115 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
177	SQ	H.C. Barker Mine No.1	1886-	----

LOCATION: NE 32 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/unknown	74 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
178	SL	Old King Coal Co.	1928-1957	1942

LOCATION: SW SE NW NW 33 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
84	vertical/longwall	120 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
179	SL	Sunshine Coal Co. Mine No.1	1906-1945	1946
		Sunshine Coal Co. Mine No.1	-	1945
		Sunshine Coal Co. Mine No.1	-	1944
		Sunshine Coal Co. Mine No.1	-	1937

LOCATION: NW NE NE 33 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
283	vertical/lw & r&p	140 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
180	SQ	Turtle Dove Coal Co.	1934-1941	----

LOCATION: SE 33 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	unkn ft.

COMMENTS FOR MINE Turtle Dove Coal Co.:
Local sales.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
181	SL	Monarch Coal Co.	1935-1944	1942

LOCATION: SE SW SE 33 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
6	vertical/longwall	83 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
182	DL	Padovich Mine	-	----

LOCATION: SW SW 34 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
16	unknown /unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
183	SL	Shamrock Coal Co.	1957-1964	1964
		Shamrock Coal Co.	-	1962
		Shamrock Coal Co.	-	1957
		New Relay Coal Co.	1940-1957	1956
		New Relay Coal Co.	-	1949
		Padavich Coal Mine	1939-1939	----

LOCATION: SE SW SE SW 35 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
37	vertical/longwall	121 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
184	SL	Centerville Block No.3, Relay Mine	1895-1928	1923
		Relay Mine	-	----

LOCATION: NE SW NE 35 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
300	vertical/lw & r&p	107 ft.

COMMENTS FOR MINE Centerville Block No.3, Relay Mine:
Map shows only southern half of mine.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
185	TR	Centerville Block Coal Co. Mine No.8	1895-1899	----
		E.J. Richardson Mine No.1	-	----

LOCATION: NE SE 35 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/r & p	68 ft.

COMMENTS FOR MINE E.J. Richardson Mine No.1:
Local sales. May have been associated with Ulrich Mine and Cobb Mine, dates unknown.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
186	SL	Citizen's Coal Co.	1906-1936	1936
		Citizen's Coal Co.	-	1913

LOCATION: SW NW NW 36 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
50	vertical/lw & r&p	160 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
187	SQ	Centerville Coal Co.	1879-1881	----

LOCATION: SW 36 T069N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/unknown	140 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
188	SL	Anchor Coal Co. Mine No.1	1889-1906	1906

LOCATION: NW NE NW NW 01 T068N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
70	vertical/lw & r&p	70 ft.

COMMENTS FOR MINE Anchor Coal Co. Mine No.1:
Map locates this mine in the NW Sec 1 T69N R18W, should be in the NW Sec 1 T68N R18W and SW corner Sec 36 T69N R18W.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
189	SL	Scandinavian Coal Co.	1882-1922	1914
		Scandinavian Coal Co.	-	1913
		Scandinavian Coal Co.	-	1910
		Scandinavian Coal Co.	-	1902

LOCATION: NE SW NE 01 T068N R18W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: 150
ENTRANCE TYPE/MINING TYPE: vertical/r & p
SHAFT DEPTH: 100 ft.

COMMENTS FOR MINE Scandinavian Coal Co.:
Map shows location of the Happy Hollow Coal Co. An outlying portion of the Scandinavian mine had been interpreted as a separate mine. In addition, the map shows workings of the Anchor Mine No.1. Scandinavian Coal co. incorrectly located in Sec 36 T68N R18W, was actually in Sec 36 T69N R18W, and Sec 1 T68N R18W. The complete map of the Scandinavian Coal Co. is in three parts.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
190	SL	Monitor Coal Co., Hitchens Mine	1893-1962	1959
		Hitchens Mine	-	1944

LOCATION: NW SW NW NW 31 T069N R17W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: 50
ENTRANCE TYPE/MINING TYPE: vertical/lw & r&p
SHAFT DEPTH: 114 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
191	TR	Star Coal Co.	1895-1901	----
		James Wilson Mine No.1	1885-1891	----

LOCATION: SW SW 31 T069N R17W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 74 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
192	SQ	Diamond Coal Co. Mine No. 2	1883-1887	----

LOCATION: NW 5 T068N R17W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/unknown
SHAFT DEPTH: 157 ft.

COMMENTS FOR MINE Diamond Coal Co. Mine No. 2:
This mine was located in the same area as a Centerville Block mine.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
193	TR	Centerville Block Coal Co. No.1	1895-1914	----
		Diamond Coal Co. No.1	1881-1889	----

LOCATION: NE NE 06 T068N R17W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/r & p
SHAFT DEPTH: 138 ft.

COMMENTS FOR MINE Centerville Block Coal Co. No.1:
This mine was connected underground to the Centerville Block Coal Co. No.10 mine.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
194	SL	Centerville Block Coal Co. No.10, Raven Mine	1899-1928	1923
		Raven Coal Co., Raven Mine	1893-1899	----

LOCATION: NW NW 05 T068N R17W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: 60
ENTRANCE TYPE/MINING TYPE: vertical/lw & r&p
SHAFT DEPTH: 130 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
195	TR	Standard Coal Co. No. 1	1885-1897	----

LOCATION: NE NW 6 T068N R17W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 135 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
196	SL	Happy Hollow Coal Co.	1895-1908	----

LOCATION: NE NW 01 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: 17
ENTRANCE TYPE/MINING TYPE: vertical/lw & r&p
SHAFT DEPTH: 106 ft.

COMMENTS FOR MINE Happy Hollow Coal Co.:
Shown on the Scandinavian Coal Co. mine map. It was also known as Happy Coal Co. This mine was surrounded by and connected to the Scandinavian Mine.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
197	SL	Globe Coal Co.	1917-1919	----
		Burkland Coal Mine	1915-1917	1917

LOCATION: SW NW SE 01 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: 12
ENTRANCE TYPE/MINING TYPE: vertical/r & p
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
198	DL	National Coal Co. Mine No.1	1889-1895	----
		Watson Coal Mine No.4	1872-1887	----

LOCATION: NE SE 01 T068N R18W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: 13
ENTRANCE TYPE/MINING TYPE: vertical/unknown
SHAFT DEPTH: 160 ft.

COMMENTS FOR MINE National Coal Co. Mine No.1:
National Coal Co. also known as National Fuel Co.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
199	SL	Rathbun Coal Co. No.2	1937-1941	----
		Diamond Lump Mine	-	----
		South Side Coal Co.	1924-1934	1927

LOCATION: SW SW NW 1 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: 10
ENTRANCE TYPE/MINING TYPE: slope /longwall
SHAFT DEPTH: unkn ft.

COMMENTS FOR MINE Rathbun Coal Co. No.2:
This mine was located near the Centerville city water plant.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
200	SL	Padavich Coal Co., Jack Padavich Mine	1930-1941	1942

LOCATION: NE NE 04 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: 3
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 52 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
201	SL	McCarty Coal Co.	-1943	1942
		Seeley Coal Co.	1934-	----

LOCATION: NE NW NE 04 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: 5
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 54 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
202	SQ	Little Ann Coal Co. Mine	1956-1965	----

LOCATION: NE 04 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: slope /longwall
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
203	SL	Kennis Coal Co.	1940-1942	1935
		Big Slope Coal Co.	1932-1936	----

LOCATION: NW SW NW 04 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: 5
ENTRANCE TYPE/MINING TYPE: slope /longwall
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
204	TR	Big Four Coal Co. Mine	1892-1895	----

LOCATION: NW NW 02 T068N R19W
TOPOGRAPHIC MAP: Seymour East

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 127 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
205	TR	Consumers Coal Co.	1899-1906	----

LOCATION: NE NE 03 T068N R19W
TOPOGRAPHIC MAP: Seymour East

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	125 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
206	SL	Harkes Coal Co. Mine No.2	1914-1923	1923

LOCATION: NW SW NE 03 T068N R19W
TOPOGRAPHIC MAP: Seymour East

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
230	vertical/longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
207	DL	Gladstone Coal Co. Mine No.2	1893-1895	----

LOCATION: SW NW 03 T068N R19W
TOPOGRAPHIC MAP: Seymour East

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
21	vertical/unknown	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
208	TR	Walnut Grove Coal Co.	1905-1908	----

LOCATION: SE SW 07 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	64 ft.

COMMENTS FOR MINE Walnut Grove Coal Co.:
This mine is located immediately north of the Numa Cemetary.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
209	SQ	Archie F. Martin Coal Co.	1941-1941	----
		Dodson Coal Co.	1940-1940	----
		Bertilli Coal Co.	1938-1940	----
		Martin Coal Co.	1937-1938	----

LOCATION: NE 09 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	slope /longwall	unkn ft.

COMMENTS FOR MINE Archie F. Martin Coal Co.:
Local sales.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
210	DL	Prairie Block Coal Co.	1905-1914	----

LOCATION: NW NW 15 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
270	vertical/longwall	160 ft.

COMMENTS FOR MINE Prairie Block Coal Co.:
560 acres of land leased by the company in 1980.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
211	SL	Center Coal Mine	1905-1935	1935

LOCATION: SE NE NE 12 T068N R18W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: 330
ENTRANCE TYPE/MINING TYPE: vertical/lw & r&p
SHAFT DEPTH: 136 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
212	SL	National Coal Mining Co. No.2	1920-1924	----
		Anchor Coal Co. No.2	1892-1920	1924
		National Fuel & Mining Co.	-	1924

LOCATION: NE SE SW SE 12 T068N R18W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: 285
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 155 ft.

COMMENTS FOR MINE Anchor Coal Co. No.2:
Map shows old works of the Carbon Block Coal Co. Mine No.30 to the east. Map shows a connection between this mine and the Shawville/Star/Anchor Coal Co. to the west.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
213	SL	Carbon Block Coal Co. Mine No.30	1908-1926	1924
		Carbon Block Coal Co. Mine No.30	-	1921
		Carbon Block Coal Co. Mine No.30	-	1914
		Carbon Block Coal Co. Mine No.30	-	1911
		Manufacturers Coal & Coke Co.	1905-1908	----

LOCATION: NE SW SW 07 T068N R17W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: 340
ENTRANCE TYPE/MINING TYPE: vertical/lw & r&p
SHAFT DEPTH: unkn ft.

COMMENTS FOR MINE Carbon Block Coal Co. Mine No.30:
Carbon Block Coal Co. No.30 also known as Carbon Fuel No.30.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
214	SL	Dewey Coal Co.	1899-1917	1911

LOCATION: NE NW NW 08 T068N R17W
TOPOGRAPHIC MAP: Centerville East

ACREAGE: 100
ENTRANCE TYPE/MINING TYPE: vertical/r & p
SHAFT DEPTH: 65 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
215	SL	Anchor Coal Co. Mine No.3	1899-1912	1905

LOCATION: NW SW NW 13 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: 60
ENTRANCE TYPE/MINING TYPE: vertical/lw & r&p
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
216	SQ	Eagle Coal Co.	1941-1943	----
		Stoker Coal Co.	1938-1941	----

LOCATION: SW 13 T068N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/r & p	40 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
217	TR	Eldon Coal Co. No.2	1887-1897	----

LOCATION: SW NE 14 T068N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/r & p	145 ft.

COMMENTS FOR MINE Eldon Coal Co. No.2:
Cooperative Coal Co. sunk the shaft in 1884 but it remained undeveloped until Eldon took over in 1887. Also known as Eldon Coal and Mining Co.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
218	SL	New Block Coal Co.	1929-1967	1965
		New Block Coal Co.	-	1963
		New Block Coal Co.	-	1962
		New Block Coal Co.	-	1960
		New Block Coal Co.	-	1957
		New Block Coal Co.	-	1956
		New Block Coal Co.	-	1955
		New Block Coal Co.	-	1954
		New Block Coal Co.	-	1952

LOCATION: NE SW NE 16 T068N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
100	vertical/longwall	160 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
219	TR	Ballard Coal Co.	1940-1940	----
		Enterprise Coal Co.	1938-1939	----
		Heavlin Mine	1936-1938	----

LOCATION: SW NE 17 T068N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
unkn	vertical/longwall	60 ft.

COMMENTS FOR MINE Ballard Coal Co.:
Local sales.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
220	SL	Numa Coal Co.	1923-1937	1935

LOCATION: SE NW SW 17 T068N R18W

TOPOGRAPHIC MAP: Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
96	vertical/longwall	150 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
221	SL	Numa Block Coal Co. Numa Mine	1908-1915	1915

LOCATION: SW NW SE 18 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: 240
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 150 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
222	SL	Centerville Block Coal Co., Numa Mine No.2	1895-1928	1922
		Diamond Coal Co. No.2	1893-1895	----

LOCATION: NE SE SE 13 T068N R19W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: 300
ENTRANCE TYPE/MINING TYPE: vertical/longwall
SHAFT DEPTH: 145 ft.

COMMENTS FOR MINE Centerville Block Coal Co., Numa Mine No.2:
Map only shows 135 acres of the western half of the mine.
Total acreage approximately 300.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
223	SL	Grundy Block Mine	1912-1916	1916

LOCATION: SW NW 19 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: 10
ENTRANCE TYPE/MINING TYPE: vertical/lw & r&p
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
224	TR	Coal Valley Mine	-	----

LOCATION: NE NW 19 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/unknown
SHAFT DEPTH: 132 ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
225	SQ	Keller Mine	1881-	----

LOCATION: NE 19 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: unkn
ENTRANCE TYPE/MINING TYPE: vertical/unknown
SHAFT DEPTH: unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
226	SL	unnamed	-	1915

LOCATION: SE NE NW 19 T068N R18W
TOPOGRAPHIC MAP: Centerville West

ACREAGE: 3
ENTRANCE TYPE/MINING TYPE: vertical/r & p
SHAFT DEPTH: unkn ft.

COMMENTS FOR MINE unnamed:
This mine is shown on the Numa Block Coal Co., Numa Mine map.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
227	SL	(New) New Deal Coal Co.	1942-1942	----
		New Deal Coal Co.	1935-1942	1940

LOCATION:
SW NW SW 20 T068N R18W

TOPOGRAPHIC MAP:
Centerville West

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
10	vertical/longwall	unkn ft.

MAP NO.:	KEY:	MINE NAME(S):	YEARS OF OPERATION:	MAP:
228	SL	Boyle Coal Co.	1934-1944	1940

LOCATION:
NE SE NE 24 T068N R18W

TOPOGRAPHIC MAP:
Centerville East

ACREAGE:	ENTRANCE TYPE/MINING TYPE:	SHAFT DEPTH:
15	slope /longwall	unkn ft.
unkn	vertical/longwall	unkn ft.

APPENDIX II: ALPHABETICAL INDEX OF MINES

MINE NAME	MAP NO.	DATES OF OPERATION	
Acken Coal Co. Mines No.1 & 2	67	1903	1926
American Coal Co.	15	----	1899
Anchor Coal Co. Mine No.1	188	1889	1906
Anchor Coal Co. Mine No.3	215	1899	1912
Anchor Coal Co. No.2	212	1892	1920
Anderson, Louis Coal Co.	153	1912	1912
Appanoose Coal & Fuel Co. Mine No.22	37	1905	1922
Appanoose Coal & Fuel Co., Diamond Mine	93	1917	1924
Appanoose Coal Co.	56	1945	1945
Appanoose Coal Co.	64	1945	1945
Appanoose Coal Co. (Ragona Coal Co.)	127	1953	1965
Arctic Coal Co. Mine No.2	9	1897	1897
Arctic Coal Co. No.1	8	1897	1897
Arnutt Mines 3,4,6	56	1894	1901
Arnutt Mines 3,4,6	64	1894	1901
Artic Coal Mine No.1	71	----	1910
Ballard Coal Co.	219	----	----
Baker, William No.1	85	1889	1889
Barker, H.C. Mine No.1	177	1886	----
Barrett & Voyce Coal Co., Barrett Mine	47	1919	1919
Barrett & Voyce Coal Co., Barrett Mine	46	1921	1931
Battle Creek Coal Co., Valkovich Mine	32	1930	1957
Battle Creek Coal Co., Valkovich Mine	33	1930	1957
Beggs Coal Co. Mine No.7	65	1921	1921
Beggs Coal Mine	50	1905	1919
Bertilli Coal Co.	209	1938	1908
Big Five Coal Co.	175	1933	1946
Big Five Coal Co.	175	1961	1963
Big Four Coal Co. Mine	204	1892	1895
Big Joe Block Mine No.1	174	1897	1910
Big Joe Coal Co. Mine No.2, Juckett Mine	134	1897	1910
Big Joe Mine No.1	174	----	----
Big Oak Coal Co.	31	1934	1936
Big Slope Coal Co.	203	1932	1936
Black Diamond Coal Co.	173	1934	1940
Black Diamond Coal Co. No.2	43	1891	1891
Blue Flame Coal Co. Mine No.2	170	1948	1953
Boyle Coal Co.	228	1934	1944
Brazil Coal Co.	117	----	----
Brown & Bowers Slope	79	1891	1914
Buban Coal Co.	49	1936	1942
Burkland Coal Mine	197	1915	1917
C & F Coal Co.	173	1940	1941
Campbell, R. Coal Co. No.1	113	1889	1901
Campbell, William Coal Co.	91	1936	1940
Campbell & Phillips Coal Co.	98	----	----
Campbell & Phillips Coal Co.	97	----	1894
Carbon Block Coal Co. Mine No.30	213	1908	1926
Carlton Coal Co. (Diamond Mine)	101	----	----
Carter Coal Co.	25	1936	1942

MINE NAME	MAP NO.	DATES OF OPERATION	
Carter Coal Co.	25	1936	1938
Center Coal Mine	211	1905	1935
Centerville Block Coal Co. Mine No.1	193	1895	1914
Centerville Block Coal Co. Mine No.3	184	1895	1928
Centerville Block Coal Co. Mine No.4	132	1895	1901
Centerville Block Coal Co. Mine No.5	147	1894	1928
Centerville Block Coal Co. Mine No.6	119	1895	1901
Centerville Block Coal Co. Mine No.7	99	----	----
Centerville Block Coal Co. Mine No.8	185	1895	1899
Centerville Block Coal Co. Mine No.9	145	1895	1914
Centerville Block Coal Co. Mine No.10	194	1899	1928
Centerville Block Coal Co. Numa Mine No.2	222	1895	1928
Centerville Coal Co.	126	1929	1952
Centerville Coal Co. Mine	187	1879	1881
Citizen's Coal Co.	186	1906	1936
City Fuel Coal Co.	130	1932	1943
Clark & Son Coal Co. No.1	44	1891	1914
Clark Coal Co.	139	1898	1966
Clarkdale Coal Co.	44	----	1893
Coal Valley Mine	224	----	----
Columbia Coal & Mining	72	----	----
Columbia Coal Co. No.1	104	1893	1904
Columbus Coal Co.	136	1925	1943
Consumers Coal Co.	205	1899	1906
Cooper Creek Coal Co.	128	1935	1936
Cooperative Coal Co.	69	1895	1899
Coravia Coal Co.	162	1942	1944
Corby Coal Co.	162	1937	1942
Crawford & Widner Coal Co.	151	----	----
D.C. Coal Co.	166	1941	1966
Darby Block Coal Co.	10	----	1901
Darby Coal Co.	5	1939	1941
Darby Coal Co.	10	1891	1897
Dennis Coal Co.	4	1933	1936
Dewey Coal Co.	214	1899	1917
Diamond (Block) Coal Co.	159	1940	1942
Diamond Block Coal Co.	40	1903	1903
Diamond Block Coal Co. Mine No.5	45	1905	1906
Diamond Block Coal Co. Mine No.12	34	1905	1914
Diamond Block Coal Co. Mine No.22	94	1914	1914
Diamond Block Coal Co. Mine No.29	70	1905	1906
Diamond Coal Co. Mine No.1	193	1881	1889
Diamond Coal Co. Mine No.2	192	1883	1887
Diamond Coal Co. Mine No.2	222	1893	1895
Diamond Lump Mine	199	----	----
Dodson Coal Co.	209	1940	1940
Domestic Coal Co.	152	1903	1903
Dora, R.L Mine No.1	138	1887	1891
Douglas Coal Co.	173	1941	1942
Douglas Coal Co. No.2	171	1941	1941
Eagle Coal Co.	114	----	----
Eagle Coal Co.	216	1941	1943
Eagle Coal Co. Mine No.1	142	1914	1924

MINE NAME	MAP NO.	DATES OF OPERATION	
Egypt Coal Co., Egypt Mine	111	1901	1926
Eldon Coal Co. No.2	217	1887	1897
Electric Coal Co.	56	1920	1945
Electric Coal Co.	64	1920	1945
Elgin & Barrett Coal Co.	48	1905	1914
Empire Mine	131	1930	1941
Enterprise Coal Co.	19	1932	1944
Enterprise Coal Co.	99	----	----
Enterprise Coal Co.	219	----	1938
Enterprise Coal Co. No.2	105	1889	1889
Evans Coal Co.	15	1893	1899
Everman Slope	83	----	----
Fairlawn Coal Co.	140	1925	1951
Flash Coal Co.	28	1938	1942
Forbush Mine	42	1891	1901
Four Coal Co.	56	1942	1944
Four Coal Co.	64	1942	1944
Fowler & Wilson Coal Co. Mine No.1	20	1908	1928
Fowler & Wilson Coal Co. Mine No.2	16	1909	1928
Fuller & Showers Coal Co.	100	1937	1938
Garfield Coal Co., Garfield Mine	88	1926	1938
Gladstone Coal Co. Mine No.1	174	1913	1913
Gladstone Coal Co. Mine No.2	207	1893	1895
Glaspie & Dickey Coal Co.	25	1938	1940
Globe Coal Co.	197	1917	1919
Gorman Coal Co.	100	1933	1937
Gorman Coal Mine	100	1938	1940
Green Market Coal Co.	159	1936	1940
Grundy Block Mine	223	1912	1916
H & R Coal Co. Mine	175	1960	1960
Happy Hollow Coal Co.	196	1895	1908
Harbour Mine	17	----	----
Harkes Coal Co. Mine No.1	174	----	----
Harkes Coal Co. Mine No.2	206	1914	1923
Hawkeye Mine	147	----	----
Hazelton Mine	160	1893	1897
Heavlin Mine	219	1936	----
Henrietta Coal Co. No.1	60	1889	1891
Herl Coal Co.	92	1895	1897
Henry, William Mine	13	----	----
High Test Coal Co.	39	1921	1938
Hillside Coal Co.	29	1929	1943
Hitchens Mine	190	----	----
Horridge shaft	82	----	----
Interocean Coal Co. Mine No.6	38	1908	1908
Iowa & Missouri Coal Co.	68	1891	1901
Iowa Block Coal Co.	51	1895	1906
Jimmerson Huston Mine No.1	129	1884	1887
Juckett Mine	134	1901	1910
Juckett, F.H. Mine	134	1903	----
K & K Coal Co.	162	1945	1958
Kansas City Mine	62	----	1905
Kauslarich - (Julious & Sons)	28	1936	1938

MINE NAME	MAP NO.	DATES OF OPERATION	
Kauzarich, Fred Mine	158	1934	1941
Keller Mine	225	1881	----
Kennis Coal Co.	203	1940	1942
Keokuk & Western, Baker Slope	96	1908	1908
Keystone Coal Co.	156	1903	1905
Knight, Charles Mine No.1	167	1887	1895
Koontz Coal Mine	130	1905	1932
Kruzich Coal Co.	164	1940	----
Lane Coal Co.	154	1889	1901
Lee Brothers Coal Co., Twin Mines	80	1910	1919
Liberty Coal Co.	161	----	----
Little Ann Coal Co. Mine	202	1956	1965
Lodwick Brothers Coal Co. No.1	34	1889	1899
Lodwick Brothers Coal Co. No.2	34	1889	1899
Lone Star Coal Co.	66	1891	1894
Maddaloza, Valentine Coal Mine	22	1917	1941
Manufactures Coal & Coke Co.	213	1905	1908
Martin Coal Co.	209	1937	1938
Martin, Archie F. Coal Co.	209	1941	1941
McCarty Coal Co. Mine	201	----	1943
McCloud, George W. Mine No.1	27	1885	----
McConville Coal Co. No.1, North Mine	125	1913	1945
McConville Coal Co. No.2	123	1926	1938
McConville Coal Co. No.3, Laneville Mine	176	1923	1933
Midway Coal Co.	123	1920	1942
Monarch Coal Co.	181	1935	1944
Monitor Coal Co. Mine No.2	170	1943	1943
Monitor Coal Co., Hitchens Mine	190	1893	1962
Morman, A.J. Mine No.1	23	1887	1887
Morris Bank	168	1894	1894
Mystic Block Coal Co. Mine No.5	45	----	1908
Mystic Block Coal Co. Mine No.12	34	1907	1920
Mystic Block Coal Co. Mine No.21	103	1908	1908
Mystic Block Coal Co. Mine No.22	94	----	----
Mystic Block No.29, Klondyke Mine	70	1899	1901
Mystic Coal Co.	30	1946	1947
Mystic Coal Co.	30	1949	1949
Mystic Coal Co., Inter-Ocean Mine	38	1908	1919
Mystic Coal Co., Dave Risher Mine	30	1935	1946
Mystic Coal Co. No.1	77	1899	1914
Mystic Coal Co. No.2	75	1901	1914
Mystic Coal Co. No.3	76	----	----
National Coal Co. Mine No.1	198	1889	1895
National Coal Mining Co. No.2	212	1920	1924
National Fuel & Mining Co.	212	----	----
Neal Coal Co.	135	1936	1937
New Block Coal Co.	218	1929	1967
New Citizen Coal Co.	146	1938	1942
New Clark Coal Co.	52	1936	1936
New Deal Coal Co.	227	1935	1942
New Diamond Coal Co.	175	1952	1955
New Diamond Lump Coal Co.	3	----	----
New Enterprise Coal Co.	19	1944	1949

MINE NAME	MAP NO.	DATES OF OPERATION	
New Gladstone Coal Co. Mine	165	1939	1971
New Midway Coal Co.	123	1940	1946
New Mystic Coal Co.	30	1949	1950
(New) New Deal Coal Co.	227	1942	1942
New Oriental Coal Co.	150	1915	1922
New Relay Coal Co.	183	1940	1957
New Rock Valley Coal Co.	137	1929	1943
New Star Coal Co.	116	1937	1943
New Thirty Coal Co.	84	1939	1941
North Hill Coal Co.	141	1893	1902
North Hill Mine	141	1916	1937
Numa Block Coal Co. Numa Mine	221	1908	1915
Numa Coal Co.	220	1923	1937
Numa Coal Co. Mine No.2	88	1938	1947
Number Four Coal Co.	124	1962	1967
Oakridge Coal Co.	163	1961	1962
Old King Coal Co.	178	1928	1957
Oriental Coal Co. No.1	150	1903	1914
Orr Brothers No.1	63	1887	1897
Orr Brothers No.2	38	1899	1908
Padavich Coal Co., Jack Padavich Mine	200	1930	1941
Padavich Coal Mine	183	1939	1939
Padovich Coal Co.	112	1940	1940
Padovich Mine	182	----	----
Peacock Coal Mine	133	1895	1924
Peerless Coal Co.	69	----	----
Peerless Coal Co. Mine No.1	60	1893	1908
Peerless Coal Co. Mine No.1	73	1903	1908
Peerless Coal Co. Mine No.2	59	1893	1899
Peerless Coal Co. Mine No.2	74	1905	1906
Peerless Coal Co. Mine No.3	57	1893	1908
Peerless Coal Co. Mine No.4	92	1893	1906
Peerless Coal Co. Mine No.5 & No.6	80	----	1893
Peerless Coal Co. Mine No.6	58	1903	1915
Peerless Coal Co. Mine No.7	55	1893	----
Peerless Coal Co. Mine No.7	90	1901	1903
Pellin Coal Co.	175	1946	1952
Perfection Block Coal Co.	155	1906	1908
Philby Mine	132	1885	1894
Phillips Fuel Co.	95	----	----
Phillips Fuel Co. Mine	97	----	----
Phillips Fuel Co. Mine	98	----	----
Phoenix Coal Co.	120	1897	1913
Plano Block Coal Co.	170	----	----
Plano Coal Co.	170	1934	1939
Plano Fuel Co.	170	1939	1943
Poli & Elliott Coal Co.	163	----	----
Porter Coal Co.	159	1942	1944
Prairie Block Coal Co.	210	1905	1914
Prospect Mine	157	----	----
Quality Coal Co.	107	1938	1941
Ragona Coal Co.	127	1936	1953
Rathbun Coal Co. No.1	2	1936	1946

MINE NAME	MAP NO.	DATES OF OPERATION	
Rathbun Coal Co. No.2	3	1944	1945
Rathbun Coal Co. No.2	199	1937	1941
Rathbun Coal Co. No.3	1	1943	1943
Raven Coal Co., Raven Mine	194	1893	1899
Raven Mine	81	----	1894
Reed Coal Co.	175	1960	1961
Relay Mine	184	1895	1928
Richardson, E.J. Mine No.1	185	----	----
Rimby's Mine	148	1882	1883
Roberts & Stolz Coal Co.	26	1946	1947
Roberts Coal Co.	26	1947	1948
Rock Valley Coal Co.	137	1895	1929
Rosebrook Coal Co.	12	1908	1922
Sandbar Mine	61	1894	1894
Scandinavian Coal Co.	189	1882	1922
Scandinavian Coal Co. Mine No.2	87	1905	1914
Schramm Mine	141	1905	1916
Scott Coal Co.	21	1936	1936
Seals Coal Co.(or Hog Farm Mine)	173	1934	1934
Seddon Brothers Coal Co.	158	1941	1942
Seeley Coal Co.	24	1952	1952
Seeley Coal Co.	201	1934	----
Shamrock Coal Co.	1	----	----
Shamrock Coal Co.	3	1917	----
Shamrock Coal Co.	3	1941	1943
Shamrock Coal Co.	136	1943	1953
Shamrock Coal Co.	183	1957	1964
Silknetter Coal Mine	119	1887	1897
Silknetter Mine No.2	81	1889	1891
Silknetter Mine No.3	106	1889	1889
Silver King Coal Co.	128	1936	1942
Smith, J.C. Mine	26	1933	1946
South Side Coal Co.	199	1924	1934
Square Deal Coal Co.	24	1952	1962
Standard Coal Co. No.1	195	1885	1897
Star Coal Co.	18	----	----
Star Coal Co.	116	----	----
Star Coal Co.	191	1895	1901
Star Coal Co.	20	1892	1908
Stepnoski & Charles Coal Co.	30	1947	1949
Stepnoski Mine	169	1935	1942
Sterling Coal Co.	121	1917	1926
Stern, E. Mine	115	----	----
Stewart Coal Co.	102	1937	1938
Stoker Coal Co.	216	1938	1941
Sunny Glo Coal Co.	25	1940	1940
Sunny Slope Coal Co.	158	1934	1941
Sunnyside Coal Co.	3	1946	1947
Sunnyside Coal Mine	12	----	----
Sunshine Coal Co. Mine No.1	179	1906	1945
Sunshine Coal Co. Mine No.2	121	1932	1942
Sunshine Coal Co. Mine No.3	122	1931	1957
Sunshine Coal Co. Mine No.4	124	1944	1962

MINE NAME	MAP NO.	DATES OF OPERATION	
Superior Block Coal Co. No.1	6	1893	1895
Superior Block Coal Co. No.2	7	1893	1895
Tait Coal Co.	35	1937	1938
Tipton Coal Co.	101	----	----
Tipton Coal Co. Mine No.1	149	1895	1908
Tipton Coal Co. Mine No.2	95	----	----
Tipton Cooperative Drift	149	----	----
Tipton Mine No.3	98	----	1894
Tipton Mine No.4	97	----	----
Tropic Coal Co., Dewey Clark Coal Mine	5	1933	1939
Turtle Dove Coal Co.	180	1934	1941
Twin Mines	80	1910	1919
Unity Block Coal Co.	11	1906	1914
unnamed	14	----	----
unnamed	86	----	----
unnamed	226	----	----
Victory Coal Co.	170	1943	1947
Walnut Block Coal Co.	118	1905	1915
Walnut Block Coal Co. Mine No.1	147	----	----
Walnut Block Coal Co. Mine No.3	99	----	----
Walnut Block Coal Co. Mine No.4	53	----	1891
Walnut Block Coal Co. Mine No.5	110	1891	1891
Walnut Block Coal Co. Mine No.6	109	1891	1891
Walnut Block Coal Co. Mine No.7	60	1891	1893
Walnut Creek Coal Co.	108	1893	1899
Walnut Creek Coal Co.	172	1934	1943
Walnut Grove Coal Co.	208	1905	1908
Water Lily Coal Co.	41	1932	1942
Waterloo Mine	78	----	----
Watson Coal Mine No.4	198	1872	1887
West Twin Mine	80	----	----
White Oak Coal Co.	35	1938	1943
White Oak Mine	144	1911	1914
Whitebreast Fuel Co. No.19	42	1891	1899
Wilson, James Mine No.1	191	1885	1891
Winifred (Lady Mary) Mine	54	1894	1908
Winnifred Coal Co. Mine No.30	36	1908	1926
Woodland Coal Mine	143	1910	1923
Zaputil Coal Mine	89	1940	1952

APPENDIX III: LIST OF MINES NOT LOCATED

MINE NAME	LOCATION	ENTRANCE/ MINE TYPE	DATE	OTHER INFORMATION
1) Achon Coal Co. No.1	Mystic	shaft/lw	1901	shipping mine
2) Achon Coal Co. No.2	Mystic	slope/lw	1901	shipping mine
3) Ackers Coal Co.	Near Mystic on C.M.& ST.P. R.R.	shaft/lw	1897	
4) Anderson Coal Co.	Centerville	shaft/lw	1924	small mine
5) Anderson, Peter Coal Co.	Mystic	slope/lw	1901	small mine
6) Appanoose Coal & Fuel No.21	Diamond on C.M.& ST.P. R.R.	slope/lw	1906	
7) Appanoose Coal & Fuel No.3	West of Brazil	slope/--	1906	
8) Appanoose Coal & Mining Co.	Southern Iowa Utilities	shaft/lw	1930	
9) Besse Coal Co.	Centerville	shaft/--	1934	
10) Big Three Coal Co.	West of Mystic on C.M.& ST.P. R.R.	slope/lw	1903	coal 30 in.
11) Big Three Coal Co.	Centerville	slope/lw	1922	shipping mine
12) Big Walnut Coal Co.	Centerville	slope/lw	1943	
13) Bite Coal Co.	Centerville	slope/lw	1932	small mine
14) Bittinger Coal Co.	Mystic	slope/lw	1905	
15) Black Diamond Coal Co. No.1	Mystic	slope/--	1891	coal 33 in.
16) Blackbird Coal Co.	Centerville	shaft/lw	1926	
17) Blackburn & Arborgast Mine No.1	Numa	shaft/--	1887	shaft 50 ft.
18) Blackrod Coal Co.	Mystic	slope/--	1893	
19) Bradley, William Mine No.1	Numa	shaft/--	1885	
20) Brand Coal Co.	Plano	shaft/lw	1928	small mine
21) Broser, James Coal Co.	Jerome	shaft/lw	1901	small mine
22) Burton Coal Co.	Mystic	shaft/lw	1917	small mine
23) Campbell Coal Co.	Mystic	slope/lw	1932	small mine
24) Campbell, Luther Mine No.1	South of Centerville	slope/--	1887	
25) Ceder Rapids Fuel Co.	Mystic on C.M.& ST.P. R.R.	slope/lw	1906	
26) Center Coal Co. No.2	East of Centerville, on K.& W. R.R.	shaft/lw	1914	
27) Centerville Coal Co., Cobb Mine	Centerville	shaft/--	1881	shaft 170 ft.
28) Chariton Coal Co.	Diamond	slope/--	1895	
29) Chicago Coal Co. No.2	Numa on C.R.I.& P. R.R.	shaft/--	1897	
30) Colgan Coal Co.	Mystic on C.M.& ST.P. R.R.	shaft/--	1934	
31) Columbia Coal Co. No.2	Centerville	slope/lw	1901	shipping mine
32) Columbia Coal Co. No.3	West of Brazil on K.& W. R.R.	slope/lw	1903	shipping mine
33) Consumers Coal Co.	Centerville on I.S.I. R.R.	shaft/lw	1924	
34) Cowan Coal Co.	Brazil	slope/--	1939	
35) Dean & McFall Coal Co.	Jerome	shaft/lw	1901	small mine
36) Dennic Coal Co.	Centerville on C.B.& Q. R.R.	shaft/lw	1922	shipping mine
37) Dew Drop Coal Co.	Mystic on C.M.& ST.P. R.R.	slope/lw	1934	shipping mine
38) Diamond Coal co	Brazil	slope/--	1942	
39) Diamond Coal Co.	Mystic	slope/lw	1942	small mine
40) Dickey Coal Co.	Mystic on C.M.& ST.P. R.R.	slope/lw	1934	
41) Dickson & Frost Coal Co.	Mystic	slope/lw	1922	small mine
42) Dixon Coal Co.	Mystic	slope/lw	1920	small mine
43) Doggett Coal Co.	Centerville on C.M.& ST.P. R.R.	slope/lw	1934	
44) Domestic Coal Co.	Mystic	shaft/lw	1930	small mine
45) Drake Coal Co.	Mystic	slope/lw	1936	small mine
46) Eddy Brothers Coal Co.	Centerville	unkn./--	1895	small mine
47) Eldon Coal Co.	Brazil on K.& W. R.R.	slope/--	1889	coal 36 in.
48) Electric Coal Co. No.1	Centerville	slope/lw	1901	coal 30 in.
49) Electric Coal Co. No.2	Centerville	shaft/lw	1901	coal 30 in.

MINE NAME	LOCATION	ENTRANCE/ MINE TYPE	DATE	OTHER INFORMATION
50) Electric Coal Co. No.3	Centerville	shaft/lw	1902	coal 30 in.
51) Electric Coal Co. No.4	Centerville	shaft/lw	1901	coal 30 in.
52) Electric Coal Co. No.5	Mystic	slope/lw	1914	
53) Electric Coal Co. No.6	Mystic	slope/lw	1914	
54) Electric Coal Co. No.7	East of Mystic on C.M.& ST.P. R.R.	slope/lw	1914	railroad mine
55) Elgin, A.M. Mine No.1	Walnut City	slope/--	1885	
56) Elgin, A.M. Mine No.2	Walnut City	slope/--	1885	
57) Elliott Coal Co.	North of Centerville	slope/--	1941	
58) Engle Coal Co.	Centerville	shaft/lw	1926	small mine
59) Espsy & Day Coal Co.	Centerville	slope/lw	1920	small mine
60) Farmers Coal Co.	Mystic on C.M.& ST.P. R.R.	shaft/lw	1924	shipping mine
61) Feeley Coal Co.	Brazil	slope/lw	1917	small mine
62) Fisher Coal Co.	Plano	slope/lw	1922	small mine
63) Flash Coal Co. No.2	North of Mystic	slope/--	1943	
64) Flour Coal Co.	Mystic on C.M.& ST.P. R.R.	slope/--	1940	
65) Fox Coal Co.	Centerville	shaft/lw	1901	local mine
66) Frowsel, Thomas Mine No.1	Dennis	shaft/lw	1885	
67) Fuller, Isac Coal Co.	Mystic	--- /--	1858	earliest mine
68) Gallagher & Brynn Coal Co.	Mystic	slope/--	1915	small mine
69) Gill, George Coal Co.	Darby on C.M.& ST.P. R.R.	slope/lw	1903	coal 30 in.
70) Gillispie & Lovendusky Coal Co.	Mystic	slope/lw	1922	small mine
71) Glick, Samual Coal Co.	Dennis	slope/--	1891	small mine
72) Gold Standard Coal Co.	Plano	shaft/lw	1934	small mine
73) Gordon, John Mine No.1	Centerville	shaft/--	1885	
74) Gott Coal Co.	Centerville	shaft/lw	1922	small mine
75) Graham & Parker Coal Co.	South of Centerville on A.& C. R.R.	shaft/rp	1914	railroad mine
76) Graham, A.F. Mine No.1	Dennis	shaft/--	1885	
77) Grandon & Anders Coal Co.	Plano	shaft/lw	1922	
78) Grant Coal Co.	Brazil on K.& W. R.R.	shaft/lw	1914	railroad mine
79) Gray Coal Co.	Centerville	shaft/--	1928	small mine
80) Green & Pearson, National Mine	Centerville on C.M.& ST.P. R.R.	shaft/--	1893	shaft 147 ft.
81) Green Valley Coal Co.	Centerville	shaft/lw	1934	small mine
82) Hail Coal Co.	Plano	shaft/lw	1926	small mine
83) Hall, Joseph Coal Co.	Centerville	shaft/--	1897	small mine
84) Harrington Coal Co.	Centerville	slope/lw	1936	small mine
85) Harris Coal Co.	Mystic	shaft/lw	1917	small mine
86) Hart Coal Co.	Centerville	slope/lw	1926	small mine
87) Hawkeye Coal Co. No.1	Brazil on K.& W. R.R.	shaft/rp	1887	shipping mine
88) Hawkeye Coal Co. No.5	Mystic on C.B.& Q. R.R.	slope/lw	1922	shipping mine
89) Heiman Coal Co.	Plano	shaft/lw	1928	small mine
90) Helman Brothers Coal Co.	Plano	shaft/lw	1924	small mine
91) Helme, J. Coal Co.	West of Mystic on C.M.& ST.P. R.R.	slope/lw	1905	
92) Henderson Mine	One mile west of Centerville	--- /--	1883	
93) Hern Coal Co.	Numa	shaft/--	1928	small mine
94) Hollenbeck Coal Co.	Centerville	shaft/lw	1926	small mine
95) Hooten, William Coal Co.	Mystic	slope/rp	1917	small mine
96) Hopper, Thomas Coal Co.	Plano	shaft/lw	1920	small mine
97) Hunt Brothers Coal Co.	Mystic on C.B.& Q. R.R.	slope/lw	1922	shipping mine
98) Ideal Coal Co.	Plano	shaft/lw	1926	small mine
99) Illinois & Iowa Coal Co.	Forbush on Iowa Central R.R.	shaft/lw	1905	coal 30 in.
100) Independent Coal Co.	Mystic	slope/--	1936	
101) Inskeep Coal Co.	Plano	shaft/lw	1924	small mine

MINE NAME	LOCATION	ENTRANCE/ MINE TYPE	DATE	OTHER INFORMATION
102) Interurban Coal Co.	Mystic on Interurban R.R.	slope/lw	1924	
103) Jackson Coal Co.	Centerville	slope/lw	1934	small mine
104) Jackson, Mace Mine No.1	Walnut City	slope/--	1885	
105) Jerome Coal Co.	Jerome on C.M.& ST.P. R.R.	shaft/lw	1930	shipping mine
106) Johns, James Mine	Numa	shaft/--	1883	
107) Johnson Coal Co.	Mystic	slope/lw	1924	small mine
108) Judy Coal Co. No.7	West of Mystic on C.M.& ST.P. R.R.	shaft/lw	1915	railroad mine
109) Knapp Coal Co.	West of Forbush	slope/--	1941	
110) Kincade Coal Co.	Centerville	slope/lw	1924	small mine
111) Leard Coal Co. Mine No.1	Mystic on C.M.& ST.P. R.R.	slope/lw	1910	
112) Lee & Jones Coal Co.	Mystic on C.M.& ST.P. R.R.	shaft/lw	1922	shipping mine
113) Lee Coal Co.	Mystic	slope/lw	1926	small mine
114) Lee, Aston Coal Co.	Mystic	slope/lw	1901	small mine
115) Lee, D.A. Coal Co.	Mystic	shaft/lw	1920	shipping mine
116) Leehill Coal Co.	Centerville	slope/lw	1932	small mine
117) Lemasney Coal Co.	North of Mystic	slope/rp	1914	railroad mine
118) Leslie Coal Co.	Mystic	shaft/lw	1910	
119) Liberty Coal Co. No.2	Mystic	slope/lw	1928	shipping mine
120) Liberty Coal Co. No.23	Mystic on C.M.& ST.P. R.R.	shaft/lw	1928	shipping mine
121) Liberty Coal Co. No.5	Mystic	slope/lw	1920	shipping mine
122) Linn, Maggie Coal Co.	South of Centerville	shaft/rp	1914	railroad mine
123) Little Creek Coal Co.	Mystic on C.M.& ST.P. R.R.	shaft/rp	1914	railroad mine
124) Little Egypt Coal Co.	Centerville	slope/lw	1934	
125) Little Walnut Coal Co.	Mystic	shaft/lw	1934	small mine
126) Lodwick Brothers No.29	West of Mystic on C.M.& ST.P. R.R.	shaft/lw	1910	railroad mine
127) Lodwick Brothers No.3	West of Brazil on K.& W. R.R.	slope/rp	1912	
128) Lodwick Brothers No.5	Clarkdale on C.M.& ST.P. R.R.	shaft/lw	1900	
129) Lodwick-White Coal Co.	Centerville	shaft/lw	1920	shipping mine
130) Lone Star Mine No.1	Centerville	shaft/--	1889	shaft 80 ft.
131) Long Coal Co.	Centerville	shaft/lw	1926	small mine
132) Long, Allen Coal Co.	Mystic	shaft/rp	1922	small mine
133) Lowe & Sons Coal Co.	Northwest of Brazil on C.B.& Q. R.R.	slope/lw	1941	small mine
134) Lynch, J.A. Mine No.1	Walnut City	slope/--	1885	
135) Marshall & Beers Coal Co.	Mystic	slope/--	1915	small mine
136) Marshall Coal Co.	Mystic	slope/lw	1932	small mine
137) Martin Block Coal Co.	East of Numa on C.R.I.& P. R.R.	shaft/lw	1914	railroad mine
138) Martin Block Coal Co. No.5	Centerville	shaft/lw	1920	railroad mine
139) Martin, William Coal Co.	Centerville	--- /--	1899	small mine
140) McClard, Thomas Mine No.1	Centerville	shaft/--	1887	shaft 60 ft.
141) McGrann Coal Co.	Mystic on C.M.& ST.P. R.R.	slope/lw	1903	coal 30 in.
142) McMurray Coal Co.	Mystic	shaft/lw	1924	small mine
143) McVey Brothers Coal Co.	Rathbun	shaft/lw	1917	small mine
144) Milburn Coal Co. No.1	Mystic	slope/--	1889	coal 33 in.
145) Milburn, W. Coal Co.	Mystic	slope/lw	1934	small mine
146) Miller Brothers Coal Co.	Centerville	--- /--	1895	small mine
147) Morris Coal Co.	Centerville	slope/lw	1934	small mine
148) Morris, Ben Coal Co.	Mystic	slope/--	1901	small mine
149) Murray & Askern Coal Co.	Mystic	shaft/lw	1922	small mine
150) Mystic Block Coal Co.	Mystic on C.M.& ST.P. R.R.	slope/--	1891	coal 33 in.
151) Mystic Block Coal Co. No.3	West of Brazil on K.& W. R.R.	shaft/--	1908	
152) Mystic Coal & Mining	Mystic	slope/--	1891	coal 33 in.
153) Mystic Fuel Co. No.2	Near Mystic on C.M.& ST.P. R.R.	slope/--	1897	

	MINE NAME	LOCATION	ENTRANCE/ MINE TYPE	DATE	OTHER INFORMATION
154)	Mystic Fuel Co. No.3	Near Mystic on C.M.& ST.P. R.R.	slope/--	1906	shipping mine
155)	New Black Diamond Coal Co.	Six miles west of Centerville	slope/--	1940	
156)	New Peacock Coal Co.	Brazil on C.B.& Q. R.R.	slope/lw	1934	shipping mine
157)	New Phenoix Coal Co.	Brazil	slope/lw	1934	shipping mine
158)	New Star Coal Co.	Centerville	slope/--	1926	
159)	New Walnut Block Coal Co.	Centerville	slope/lw	1920	shipping mine
160)	Norris, Samual Mine No.1	Centerville	shaft/--	1885	
161)	Numa Coal Co.No.1, Bradley & Jones	Numa on C.R.I.& P. R.R.	shaft/--	1889	shaft 144 ft.
162)	Oak Grove Coal Co.	South of Numa	shaft/lw	1910	
163)	Old Egypt Coal Co.	Mystic	slope/--	1940	
164)	Old Oak Coal Co.	Plano	shaft/--	1928	
165)	Oriental Coal Mine No.2	South of Brazil on K.& W. R.R.	slope/lw	1908	
166)	Pace Coal Co.	Centerville	slope/lw	1932	small mine
167)	Peck Coal Co.	Mystic	slope/lw	1928	small mine
168)	Phillips Brothers	Mystic on C.M.& ST.P. R.R.	slope/lw	1903	coal 30 in.
169)	Phillips Fuel Co. No.4	Diamond on C.M.& ST.P. R.R.	shaft/--	1891	coal 33 in.
170)	Phillips Fuel Co. No.5	Near Diamond	slope/--	1891	coal 33 in.
171)	Phillips, Thomas & Co. No.1	Brazil on K.& W. R.R.	slope/--	1889	coal 36 in.
172)	Potier Coal Co.	Mystic	slope/lw	1922	small mine
173)	Prairie Block Coal Co. No.5	Centerville	shaft/lw	1926	shipping mine
174)	Pandall Coal Co.	Mystic	shaft/lw	1920	small mine
175)	Raney, John Coal Co.	Dennis	shaft/--	1891	small mine
176)	Rasky Coal Co.	Northeast of Cincinnati	slope/--	1953	
177)	Remy, John Mine No.1	Walnut City	slope/--	1885	
178)	Richter, J.H. Coal Co.	Centerville	shaft/--	1915	
179)	Rinehart Coal Co.	Plano	shaft/lw	1922	small mine
180)	Risher Coal Co.	One mile north of Mystic	slope/lw	1917	small mine
181)	Roach Coal Co.	Plano	shaft/lw	1922	small mine
182)	Rock Island Block Coal Co.	Numa on C.R.I.& P. R.R.	shaft/--	1891	coal 33 in.
183)	Rolston, Mathew Coal Co.	Plano	shaft/--	1891	small mine
184)	Romesburg Coal Co.	Brazil-Mystic road	slope/--	1936	
185)	Rosebud Coal Co.	Brazil	shaft/--	1914	
186)	Sacco Coal Co.	Brazil	slope/lw	1915	small mine
187)	Samativich Coal Co.	Centerville	--- /--	1930	
188)	Sears, J. Coal Co.	South of Centerville	shaft/--	1910	
189)	Seddon & Brothers No.1	Mystic on C.M.& ST.P. R.R.	slope/--	1889	coal 33 in.
190)	Sheeks Coal Co.	Mystic	slope/lw	1938	small mine
191)	Shirley, J.W. Coal Co.	Centerville	shaft/rp	1905	
192)	Silknetter, B.F. Mine No.1	Brazil on K.& W. R.R.	slope/rp	1885	shipping mine
193)	Smith Coal Co.	East of Centerville	shaft/lw	1914	railroad mine
194)	Smith, Noah Coal Co.	Plano	shaft/lw	1926	small mine
195)	Smith, William Coal Co.	South of Centerville	shaft/--	1910	
196)	Square Deal Coal Co.	Centerville	slope/lw	1938	small mine
197)	Stanton & Grundy Coal Co.	Numa	shaft/--	1915	small mine
198)	Star Coal Co.	Mystic on C.B.& Q. R.R.	slope/--	1924	
199)	Stearns Coal Co.	North of Mystic	slope/rp	1914	railroad mine
200)	Stone Coal Co.	East of Rathbun on C.M.& ST.P. R.R.	shaft/lw	1903	coal 30 in.
201)	Superior Coal Co.	South of Jerome	shaft/lw	1906	small mine
202)	Swenson Coal Co.	Centerville	slope/lw	1924	small mine
203)	Talbert, G.H. Mine No. 1	Centerville	shaft/--	1885	
204)	Tomatich Coal Co.	Numa	slope/--	1928	small mine
205)	Trio Coal Co.	Northeast of Centerville	slope/rp	1910	

MINE NAME	LOCATION	ENTRANCE/ MINE TYPE	DATE	OTHER INFORMATION
206) Truby Coal Co.	Mystic	shaft/lw	1926	small mine
207) U. S. Coal Co.	Centerville	shaft/lw	1922	small mine
208) Victory Coal Co.	Mystic	shaft/lw	1947	small mine
209) Wakefield Coal Co.	Brazil	slope/lw	1924	small mine
210) Walden Mine No.1	Centerville	shaft/--	1889	shaft 125 ft.
211) Walker Coal Co.	Numa	shaft/rp	1917	small mine
212) Walker Coal Co.	Centerville	slope/lw	1936	small mine
213) Walnut Coal Co.	Brazil on K.& W. R.R.	slope/--	1887	
214) Walnut Coal Co.	South of Centerville	shaft/--	1912	
215) Welsh Coal Co.	Mystic	shaft/lw	1934	small mine
216) Whiticar & Summers Coal Co.	Centerville	slope/lw	1934	small mine
217) Wilson & Seddon Coal Co.	Mystic	shaft/lw	1906	
218) Wright, J.R. Coal Co.	South of Centerville	shaft/--	1910	
219) Young Coal Co.	Centerville	slope/lw	1928	small mine

Plate I

UNDERGROUND COAL MINES OF CENTERVILLE, IOWA AND VICINITY

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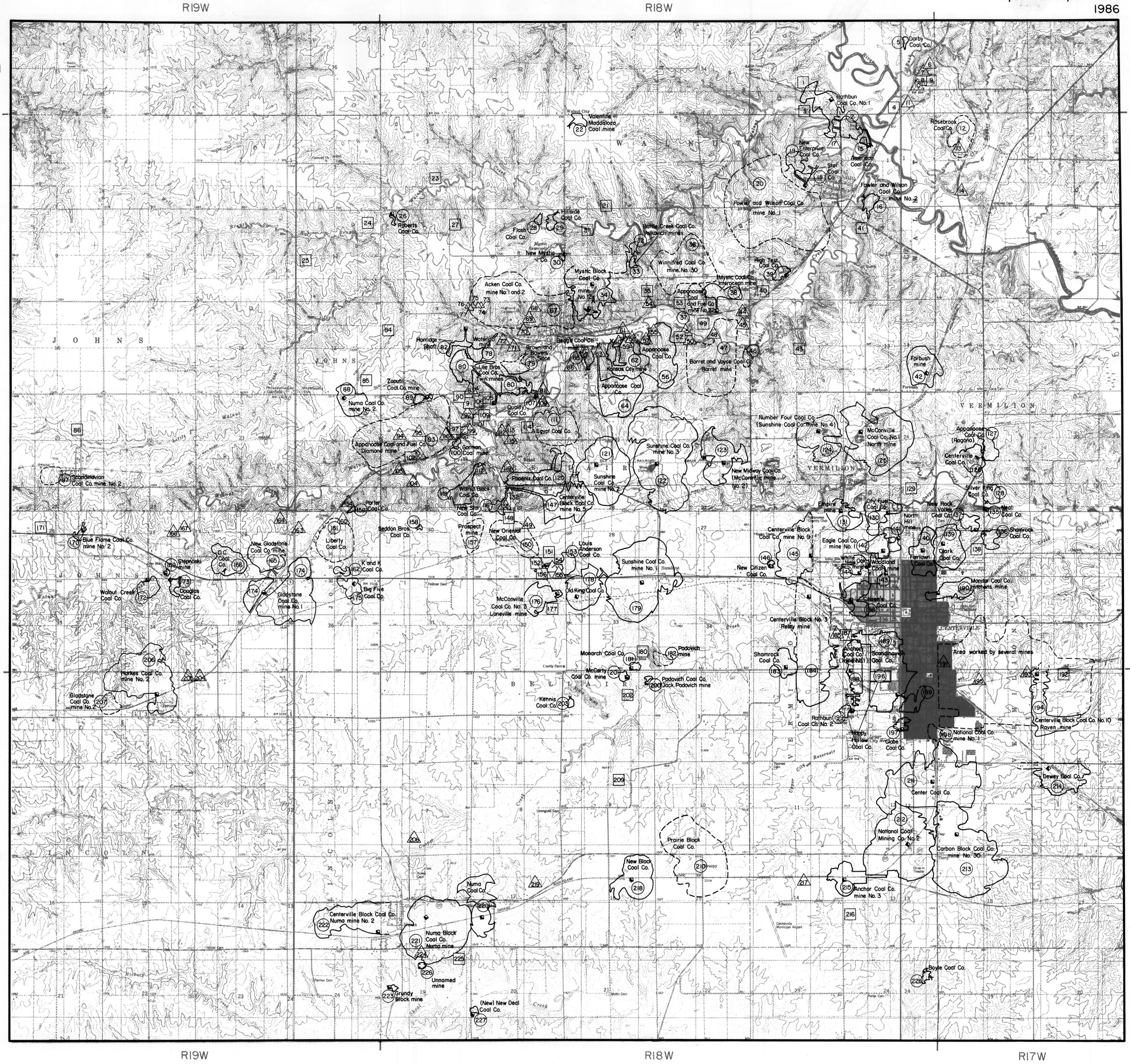
1986

R19W R18W R17W

T70N T69N T68N



KEY

(2) Mines with known extent and known location. Key = SL (mine maps on file at Geological Survey Bureau)

(3) Mines with known extent and known location. Key = DL (sources other than mine maps)

(41) Mine locations accurate to 1/4 mile. Key = TR

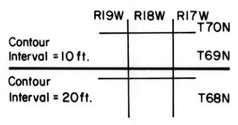
[101] Mine locations accurate to 1/2 mile. Key = SQ

Vertical coal mine shaft.

Slope coal mine entrance.

Numbered labels refer to List of Mines, Appendix 1.

INDEX MAP



SCALE