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DEPARTMENT OF REGISTRATION AND EDUCATION
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DIVISION OF THE
STATE GEOLOGICAL SURVEY
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URBANA

CIRCULAR NO. 105

STRUCTURE OF HERRIN (No. 6) COAL BED
IN
CHRISTIAN AND MONTGOMERY COUNTIES
AND ADJACENT PARTS OF
FAYETTE, MACON, SANGAMON, AND SHELBY COUNTIES

By

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STRUCTURE OF HERRIN (NO. 6) COAL BED IN CHRISTIAN AND MONTGOMERY AND ADJACENT PARTS OF FAYETTE, MACON, SANGAMON, AND SHELBY COUNTIES

By

J. Norman Payne and Gilbert H. Cady

Introduction

The area included in this report lies near the center of the State (fig. 1) and a short distance south of Springfield and Decatur. It includes the greater parts of Christian and Montgomery counties and lesser parts of Fayette, Macon, Sangamon, and Shelby counties and comprises Ts. 8 to 14 N., Rs. 5 W. to 2 E. of the Third Principal Meridian. Several railroads running between St. Louis and Chicago and between other midwestern industrial cities cross the area, affording convenient means of transportation of the coal to important centers of consumption.

Coal Mining

Most of the coal produced in the region has come from Christian County. The total production from this county up to 1930 was 77,669,381 tons, giving it ninth rank among the coal producing counties in the State up to that time. 15/* In 1931-32 it ranked fifth, and since 1932 the county has ranked second in production. 16/ The total tonnage produced from 1931 to 1942 was 50,241,737 tons. 16/ The total production of coal from Montgomery County up to 1930 was 61,718,866 tons, giving it twelfth rank among coal producing counties in the State. 15/ From 1931 to 1943 it has ranked twelfth to eighteenth, with a total production during these years of 9,001,188 tons. 16/

* References are given in bibliography, page 18.

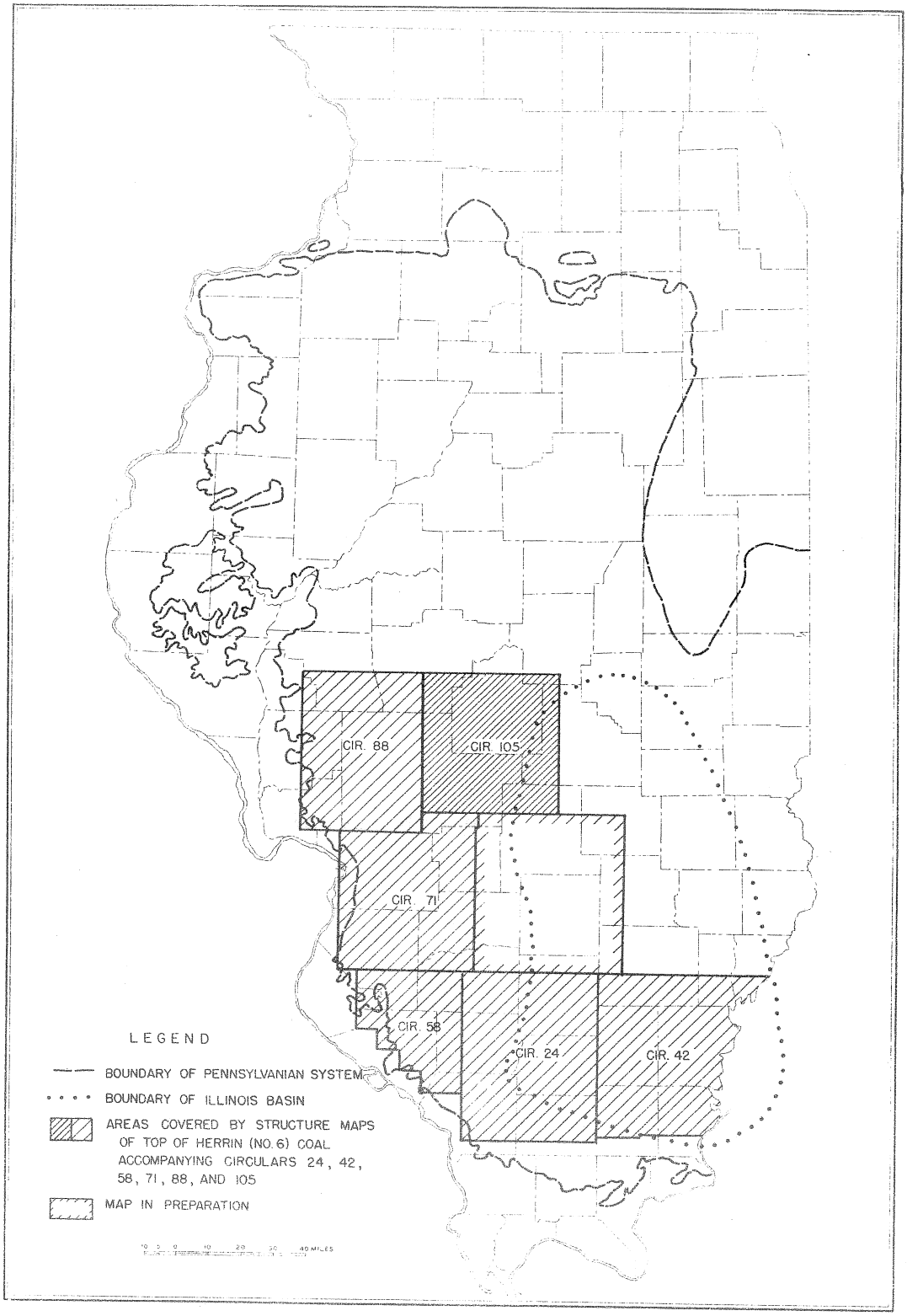


Fig. 1. - Index map.

There are seven active shipping mines in the area.

Minable Coals

Most of the coal produced in this area has come from the Herrin (No. 6) coal bed, although coal was at one time produced from two lower beds at Litchfield and from the Springfield (No. 5) coal bed at Moweaqua. The extent of the No. 6 coal bed, the mined-out areas, and the reserve tonnage (computed on the basis of one million tons per square mile per foot of thickness of the coal bed) are shown in the following tabulation:

Reserves in the No. 6 coal bed

County	Average thickness ft.	Average thickness in.	Area originally underlain by coal bed sq. mi.	Area mined out sq. mi.	Reserve area sq. mi.	Reserve tonnage, millions of tons
Christian	6	8	446	42	404	2707
Fayette	6	-	165	--	165	990
Macon	-	-	-	--	-	-
Montgomery	6	7	430	16	414	2732
Sangamon	7	2	123	5	118	835
Shelby	6	3	197	1	196	1215
Total						8479

Less important resources are represented by the Litchfield and Springfield (No. 5) coal beds but available information is inadequate for estimating the quantity of such coal. The lower of the two coal beds at Litchfield, reported to be as much as 6 feet thick, was encountered at a depth of about 700 feet in the shaft in sec. 32, T. 9 N., R. 5 W. (Montgomery County No. 43), or about 286 feet below the horizon of

the Herrin (No. 6) coal bed. According to David White, the flora of this coal bed is definitely of Pottsville age; consequently he considered it older than the Murphysboro (No. 2) coal bed, but F. H. Kay thought that the two beds might be the same.[6] The coal bed mined at the Assumption mine (Christian County No. 69) at a depth of 987 feet appears to be correlative with the lower Litchfield coal bed.

The upper coal bed mined at Litchfield, ranging from 2 to 4 feet thick, was encountered at a depth of about 530 feet in the shaft in sec. 4, T. 8 N., R. 5 W. (Montgomery County No. 171), and was originally mined through a shaft in sec. 32, T. 9 N., R. 5 W. (Montgomery County No. 43) at a depth of 540 feet, this shaft later being deepened to the lower coal bed.* The upper bed lies about 90 to 100 feet below the horizon of the Herrin (No. 6) bed and is believed to be the equivalent of the Colchester (No. 2) coal bed.[12, 13]

The Springfield (No. 5) coal bed is represented only by black "slate" and a thin bed of coal in the south and central parts of the area, but in T. 14 N., particularly in T. 14 N., R. 2 W. (see tabulated data), it is as much as 5 to 6 feet thick.

The Danville (No. 7) coal bed is in general not worth prospecting, although in some records it has been reported as 3 feet or more thick. From available data it appears probable that this bed is generally of less than minable thickness in this area.

Index Strata

Certain beds of fairly definite stratigraphic position and at well established intervals from Herrin (No. 6) coal bed are useful in estimating the depth to No. 6 and other coal beds of commercial importance.

Trivoli** (No. 8) coal bed.[13] - A thin coal bed generally 160-170 feet above

* Personal communication from Dr. J. J. Rutledge of the Maryland Bureau of Mines.
** Exact equivalence of this bed and the Trivoli coal bed of western Illinois has not been definitely established.

No. 6 coal bed (table 1), is believed to be continuous with the Trivoli (No. 8) coal bed found in the adjacent area to the west.[12] Although seldom more than 1 foot thick, this bed is usually reported in diamond-drill records and is often noted in the records of other types of borings. The coal is usually overlain by a varying thickness of sandy and silty shales. Occasionally a thin limestone is encountered a short distance below or even directly below the No. 8 coal bed.

Carlinville* limestone. - The Carlinville limestone generally lies about 200 feet above the Herrin (No. 6) coal bed and about 40 feet above the Trivoli coal bed. Although present throughout Rs. 4 and 5 W., the limestone thins out in R. 3 W. and is rarely reported in drill-holes east of R. 3 W. (pl. 2). It also appears to thin out in the northern townships of the area. This limestone has not been definitely identified in outcrop in this area.

Shoal Creek* limestone. - The Shoal Creek limestone is the most widespread and persistent key bed. The interval from the top of the Shoal Creek limestone to the top of No. 6 coal bed varies from about 280 feet in the northwest part of the area to about 320 to 330 feet in the east part (see pl. 2 and table 1). Exposures of this limestone are numerous in the west and northwest parts of the area (pl. 1). It is gray to light gray, mottled in some places, and nodular. It occurs in beds 2 inches to 3 feet thick and ranges in total thickness from 5 to 25 feet (pl. 2). Locally a thin coal bed is present a few feet above the limestone but in some localities it is overlain by a massive sandstone which is conglomeratic at the base (see section II below). The Shoal Creek limestone is usually underlain by a black shale or "slate" beneath which a thin coal bed may be present in some places. Three of the best exposures of the Shoal Creek limestone and associated beds observed by the

* Confusion and uncertainty exists concerning the correct identification and correlation of the Carlinville and Shoal Creek limestones. [4] Their usage in this report, as in Circular No. 88, [12] follows that of Kay and Lee [6-9] not that of later authors.

writers show the following succession.

I - Outcrop in abandoned quarry on the east bank of Shoal Creek just west of Panama, in the NW. 1/4 NW. 1/4 NE. 1/4 sec. 28, T. 7 N., R. 4 W., Bond County.

Description of strata	Thickness Feet	Thickness Inches
Limestone, gray, crinoidal, fossiliferous; weathers yellowish, brown, and red; occurs as one bed	--	10
Shale, calcareous, gray, fossiliferous; contains thin stringers and nodules of limestone	--	3
Shale, clayey, gray, plastic, underclay-like	2-3	--
Limestone, gray to light gray, fine-grained, fossiliferous, nodular appearing in part; occurs in beds 4 to 30 inches thick	12-14	--
Shale, calcareous, dark gray, fossiliferous	--	6
Shale, carbonaceous, black, sheety	2	6
Shale, light gray, weak, slip-fractured	2	--
Coal, impure, the top 10 inches approaching a coaly shale	1	9
Underclay, noncalcareous, light gray, nearly white; base covered by water	2	--

II - Exposure in quarry on the north bank of a tributary on east side of West Shoal Creek about 2 miles northeast of Litchfield, in the NE. 1/4 NE. 1/4 NW. 1/4 sec. 25, T. 9 N., R. 5 W., Montgomery County.
(Tabulated data, Montgomery County No. 196)

Shale, sandy, gray, micaceous, weathers brownish; interbedded sandstone, gray, fine-grained, micaceous, weathers brownish to brown	5	--
Sandstone, gray, massive, cross-bedded, weathers light to dark brown; coaly zone occurs 3 feet below top	5-8	--
Shale, silty and sandy, gray, micaceous, lenticular	0-1	6
Conglomerate, consisting of limestone and shale pebbles in a sandy matrix, very carbonaceous and containing carbonized plant stems; a lenticular bed of coal 1-1 1/2 inches thick occurs near middle of the bed	1-3	--

	Thickness Feet	Inches
Shale, calcareous, greenish-gray; contains numerous nodules of light gray to brownish, very fine-grained, dense limestone 1/4 to 3 inches in diameter	0-2	--
Limestone, light gray, fine-grained, fossiliferous, nodular-appearing, especially when weathered	10-12	--
Shale, micaceous, dark gray, becoming darker downward; base not exposed	2+	--
(Owner of quarry reports 4 inches of coal 4 feet below base of limestone)		

III - Exposure in quarry of Illinois Quarry Company on the east bank of South Fork Sangamon River, about 1 mile north of Kincaid, in the NE. 1/4 SW. 1/4 SE. 1/4 sec. 34, T. 14 N., R. 3 W., Christian County. (Tabulated data, Christian County No. 58)

Drift	6-7	
Shale, clayey, gray, badly weathered to yellow and brown	--	8
Coal, weathered	--	4
Underclay, gray, weathers yellow and brown; red streak 2 inches thick 8 inches below top	1-2	--
Limestone, shaly, nodular, gray, very fine-grained; weathers yellowish	1	4
Shale, calcareous, chocolate-brown in top inch, becomes lighter downward	--	2
Limestone, gray to light gray with dark gray mottlings, very hard and dense, fine-grained with coarse-grained areas, fossiliferous	1	--
Shale, calcareous, gray, fossiliferous; contains limestone stringers and nodules	--	2
Limestone, nodular, as above	1	4
Shale, calcareous, blue-gray; limestone stringers and nodules in the lower 6 inches	1	2
Limestone, gray, more uniformly colored than the nodules above but with some gray mottlings, fine- to coarse-grained, crinoidal, very hard	1	4
Shale, blue-gray as 1'4" to 2'6" above, fossiliferous	2	--
Limestone, gray to light gray, fine-grained, dense, hard, massive; fossiliferous; base not exposed	4	--

Coal beds between Shoal Creek and Millersville limestones. - Throughout the east part of the area two thin coal beds, 50 to 60 feet apart, are commonly present between the Shoal Creek limestone and the Millersville limestone. The lower of these beds lies 400 to 425 feet above No. 6 coal bed or about 100 feet above the Shoal Creek limestone (table 1). Limestone or calcareous shale and black "slate" are commonly reported above this coal bed. From wells drilled in this area and from others drilled farther east, black argillaceous and fossiliferous limestone cuttings have been recovered from about 20 feet below this coal bed. The upper coal bed lies about 475 to 490 feet above No. 6 coal bed or about 100 feet below the top of the Millersville limestone (table 1). Limestone or black "slate" are not reported above this bed. The lower coal bed is the thicker of the two, usually being 8 inches to more than a foot thick, whereas the upper coal bed is rarely more than 4 inches thick. Relatively thick typical underclays and commonly also nodular argillaceous ("fresh-water") limestones are found in or below the underclay of each coal bed.

Millersville limestone. - The Millersville limestone is the most prominent marker in the east part of the area because of its conspicuous thickness of from 20 to 50 feet (table 1). The top of this limestone lies 575 to 600 feet above the top of Herrin (No. 6) coal bed (pl. 2 and table 1). There are exposures of this limestone west of Millersville in secs. 28 (Christian County No. 40) and 34 (Christian County No. 45), T. 12 N., R. 1 W., and south and southwest of Ramsey in secs. 19 (Fayette County No. 400) and 29 (Fayette County No. 410), T. 8 N., R. 1 E. The outcrop in sec. 28 in Christian County exposes the lower bench of the limestone and the underlying sandy shales and sandstones, whereas the exposure in sec. 34 displays a considerable thickness of the middle and upper beds. The limestone is usually light gray to buff, fine-grained, and fossiliferous. Some beds contain numerous fusulinids and other foraminifera. The lower part of the limestone is possibly algal in origin, being made up almost entirely of rounded and

flattened particles composed of a light colored chalky encrustation of calcite over a more translucent center; many of these fragments are flattened discs or ovals similar in outline to the seed of the hollyhock. West of Millersville the lower bench of this limestone is only about 1 foot thick, whereas at Ramsey this lower bed or one very similar in appearance to it is more than 7 feet thick. Frequently a thin coal bed is reported 10 to 15 feet above the Millersville limestone. This coal bed and an associated thin limestone crop out in sec. 35, T. 12 N., R. 1 W. (Christian County No. 154), and sec. 2, T. 11 N., R. 1 W. (Christian County No. 142).

A limestone 10 or more feet thick and about 130 feet above the Millersville limestone is reported in a few wells. This limestone may possibly be the correlative of the Omega limestone as identified in the vicinity of Shelbyville. 11/

Structural Features of Special Interest With Respect to Coal Mining

The regional dip of the Herrin (No. 6) coal bed in this area is to the southeast. The highest recorded altitude of the coal bed is 340 feet above sea-level in sec. 33, T. 13 N., R. 5 W. (Sangamon County No. 90), and the lowest is 256 feet below sea-level in sec. 29, T. 9 N., R. 2 E. (Fayette County No. 605), giving an average dip of about 14 feet per mile across the intervening distance of 42 miles. Deviations and reversals from the regional dip are numerous (pl. 1), and should be taken into consideration in selecting sites for proposed mining operations. Small faults have been encountered in some of the mines, but according to available data the maximum displacement does not exceed 10 feet.

Areas in Which the Herrin (No. 6) Coal Bed is Thin or Absent

An elongated area several miles wide in which the No. 6 coal bed is thin or absent extends from northern Shelby County (T. 12 N., R. 2 E.) almost due west to R. 3 W. and thence west of south through western Montgomery County (pl. 1). Because

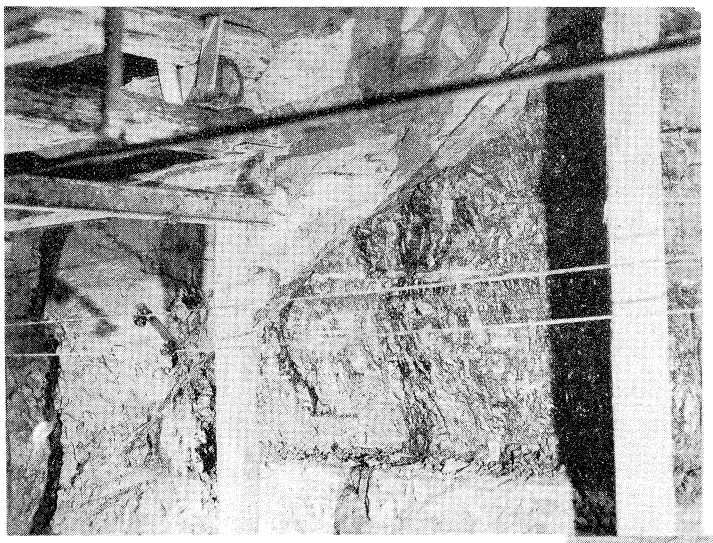


Fig. 2. - North side of south "cut-out" 4th NW entry, Peabody Coal Company No. 9, Taylorville, Illinois. The "cut-out" cuts across the coal into the underclay.

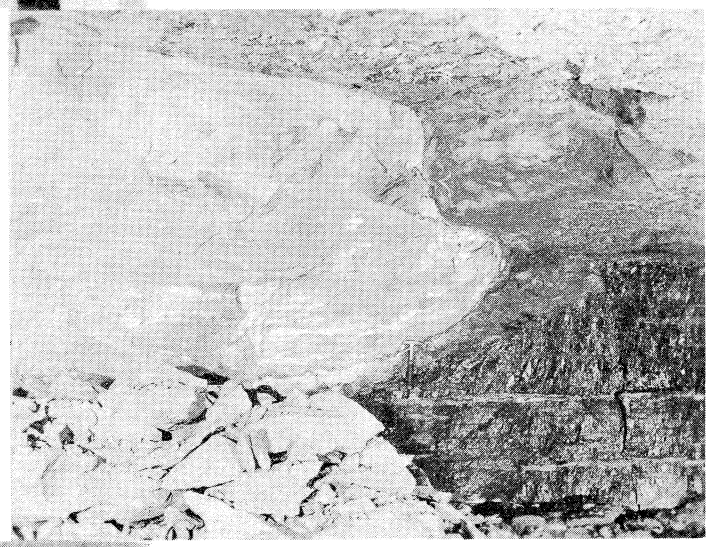


Fig. 3. - East side of "island" of coal off 4th NW entry. Here the fill material consists almost entirely of silty shale. The light streaks are clay.

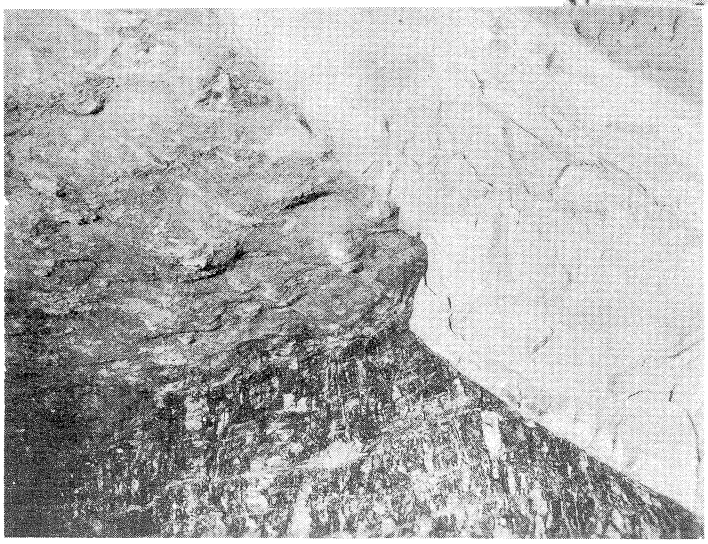


Fig. 4. - South side of south "cut-out" on west side of 4th NW back entry. The dark material at the upper left is limestone, that in the extreme upper right corner is silty shale, and the light colored material is coarse-grained sandstone. Note the smoothness of the contact of the coal and sandstone at the coal-limestone contact.

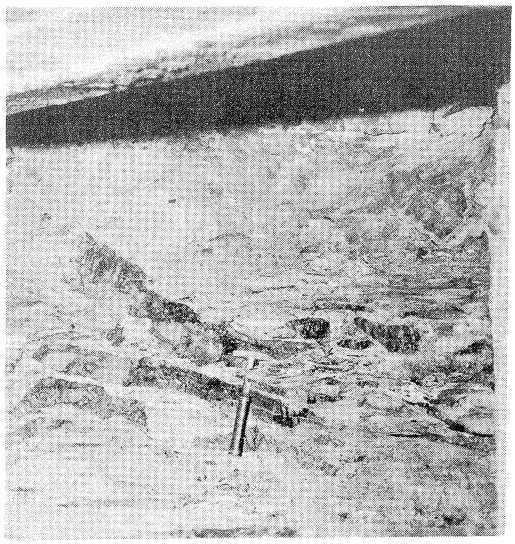


Fig. 5. - Conglomerate near the center of the south "cut-out" on east side of 4th NW back entry. Note the rounded blocks of coal at upper right of hammer head. The blocks of lighter colored speckled material at lower left end of hammer handle are limestone.

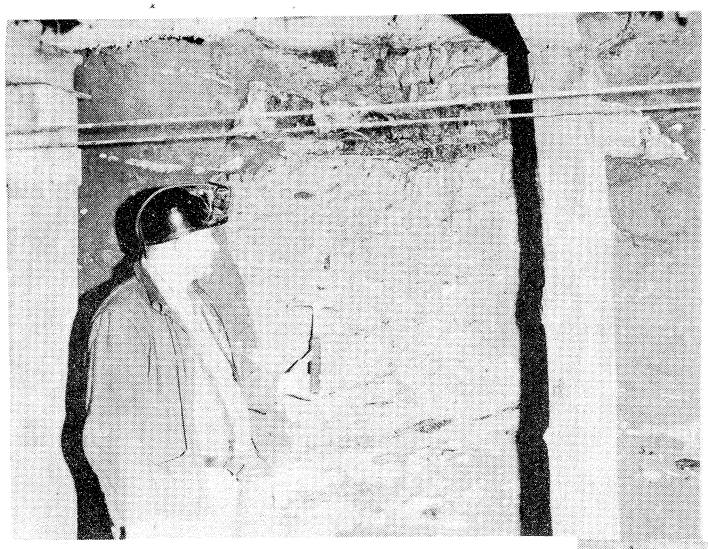


Fig. 6. - Calcareous conglomerate near center of south "cut-out" on west wall of 4th NW front entry. Crinoid stems and fossil fragments are abundant in this conglomerate.

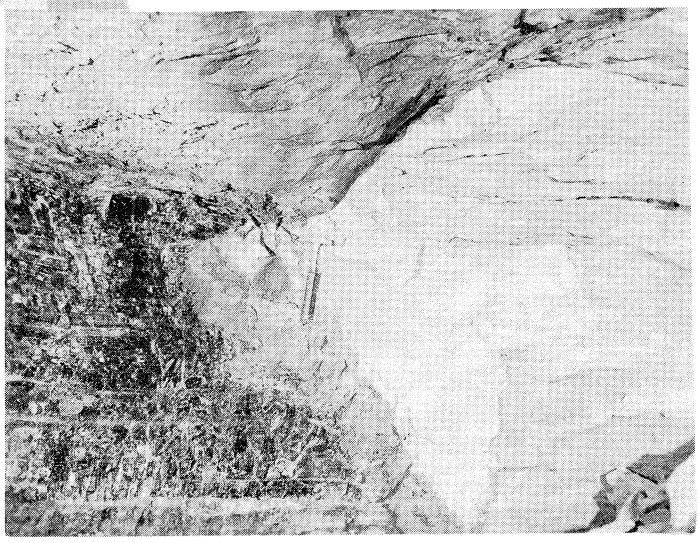


Fig. 7. - Irregular contact between coal and "cut-out" fill shown on east side of "island" of coal in room off 4th NW entry.

there has been little drilling in the area of the so-called "cut-out" the boundaries of the area believed to be barren are drawn near the holes in which little or no No. 6 coal was encountered. Small "cut-outs" have been discovered south of Hillsboro and northwest of Taylorville, and it is probable that others may be encountered here and there in the area. The form and pattern of the "cut-outs" suggest that they represent stream channels.

An excellent opportunity to examine one of these smaller "cut-outs" was afforded when the Peabody Coal Company drove an entry across one in their No. 9 mine near Taylorville, and the writer and other members of the Survey staff were permitted to examine it. Here the "cut-out" splits, leaving an "island" of coal in the center (pl. 1). In the "cut-out" the coal has been completely removed (fig. 2) and the resulting channel is filled with shale, silty shale, siltstone, sandstone, and conglomerate (figs. 3, 4, 5). The sediments are usually fine-grained (fig. 3) but occasionally coarse-grained sandstone (fig. 4) or conglomerate (fig. 5) is present. The conglomerate is usually composed of blocks and pebbles of coal, black "slate", shale, and limestone in a sandstone matrix (fig. 5). In certain localities the conglomerate is extremely calcareous and contains abundant crinoid stems and other fossil fragments (fig. 6); in the calcareous conglomerate the fragments are usually smaller than in the noncalcareous conglomerate. The conglomerate thins out to the north toward the edge of the "cut-out" and was apparently a bar-like deposit similar to the gravel bars developed in our present streams. The regularity of the contact of the "cut-out" material and the coal (fig. 4) in some localities in the mine is striking, but there is no evidence of any appreciable amount of movement along this contact. At other localities the contact is irregular. (fig. 7). The appearance of dark shale overlying the gray shale in figures 3 and 7 is a photographic illusion.

Another peculiarity developed along the borders of the "cut-out" is the thickening of the coal, or in some places the bands of the coal bend upward toward the

contact with the "cut-out" material (fig. 8). This may be due to differential compaction of the "cut-out" materials as compared with that of the coal, limestone, and shale originally deposited.

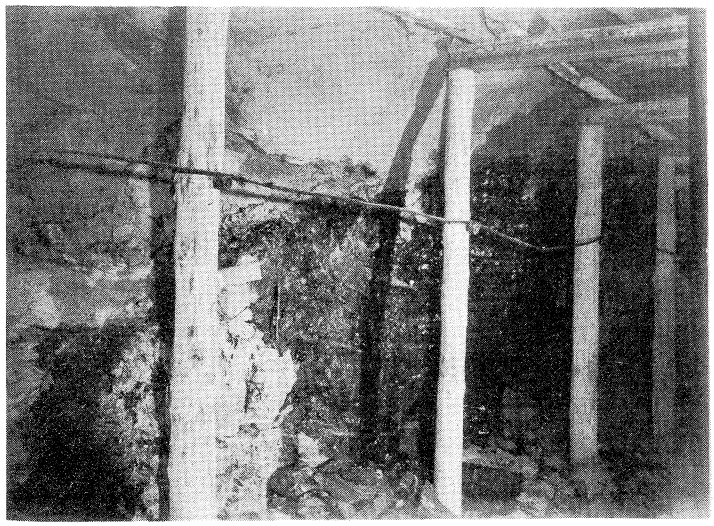


Fig. 8.- Contact between "cut-out" fill and coal showing upward bending of bands of coal toward the contact, on south side of north "cut-out" on east side of 4th NW back entry.

Revision of Present Map and Preparation of Maps of Other Areas

The present map is the sixth of a series of maps showing the structure of Herrin (No. 6) coal bed in southern Illinois (Circulars 24, 42, 58, 71, and 88). Like the others, it is a progress map on which additions and corrections can be readily made. Because of new drilling and the occasional discovery of records of earlier drilling, it is expected that additional data will become available from time to time. The map covering Marion and parts of adjacent counties is well advanced and should be completed within the next year.

Bibliography

Information on the geology of the Pennsylvanian rocks and on the structure and occurrence of the Herrin (No. 6) coal bed and associated strata in this area may be found in the following publications.

1. Bement, A., Illinois coal: Illinois Geol. Survey Bull. 56, pp. 13-45, 61-62, 1929.

2. _____The Illinois coal field: Illinois Geol. Survey Bull. 16, pp. 182-202, 1910

3. Blatchley, R. S., Oil and gas in Bond, Macoupin, and Montgomery counties: Illinois Geol. Survey Bull. 28, 1914.

4. Cady, G. H., Significant uncertainties in Pennsylvanian correlation in Illinois coal basin: Am. Assoc. Petrol. Geologists, vol. 23, No. 10, pp. 1507-1524, 1939; Illinois Geol. Survey Cir. 57, 1939.

5. Collingwood, D. M., Further consideration of prospects for oil in the Decatur area: Illinois Geol. Survey Rept. Inv. No. 1, 1924.

6. Kay, F. H., Coal resources of District VII (southwestern Illinois); Illinois Geol. Survey Coop. Mining Ser. Bull. 11, pp. 13-40, 65-89, 138-155, 204-223, 1922.

7. Lee, Wallace, Geology and mineral resources of the Gillespie-Mount Olive quadrangles: U. S. Geol. Survey Geol. Atlas, Folio No. 220, 1926.

8. _____, Coal in Gillespie and Mount Olive quadrangles, Illinois: Illinois Geol. Survey Bull. 30, pp. 51-59, 1917.

9. _____, Oil and gas in the Gillespie and Mount Olive quadrangles, Illinois: Illinois Geol. Survey Bull. 31, pp. 71-107, 1915

10. Moulton, Gail F., Proper testing for oil structures in Illinois and some favorable areas deserving such testing: Illinois Geol. Survey Rept. Inv. No. 6, pp. 18-20, 1925.

11. Newton, W. A., Surface structure map of Shelby, Effingham, and Fayette counties: Illinois Geol. Survey Rept. Inv. No. 76, 1941.

12. Payne, J. N., Structure of Herrin (No. 6) coal bed in Macoupin County, eastern Greene and Jersey, southeastern Scott, and southern Morgan and Sangamon counties, Illinois: Illinois Geol. Survey Cir. 88, 1942.

13. Wanless, H. R., Pennsylvanian correlations in the Eastern Interior and Appalachian coal fields: Geol. Soc. America, Spec. Paper 17, pp. 80, 104, 1939.

14. Worthen, A. H., Geological Survey of Illinois: Christian County, vol. VI, pp. 156-162, 1875; Fayette County, vol. VI, pp. 135-148, 1875 Macon County, vol. VI, pp. 185-194, 1875; Montgomery County, vol. VI, pp. 149-155, 1875; Sangamon County, vol. V. pp. 306-319, 1873; Shelby County, vol. VI, pp. 163-174, 1875.

15. A compilation of the reports of the mining industry of Illinois from the earliest records to the close of the year 1930: Illinois State Department of Mines and Minerals, p. 16, 1931.

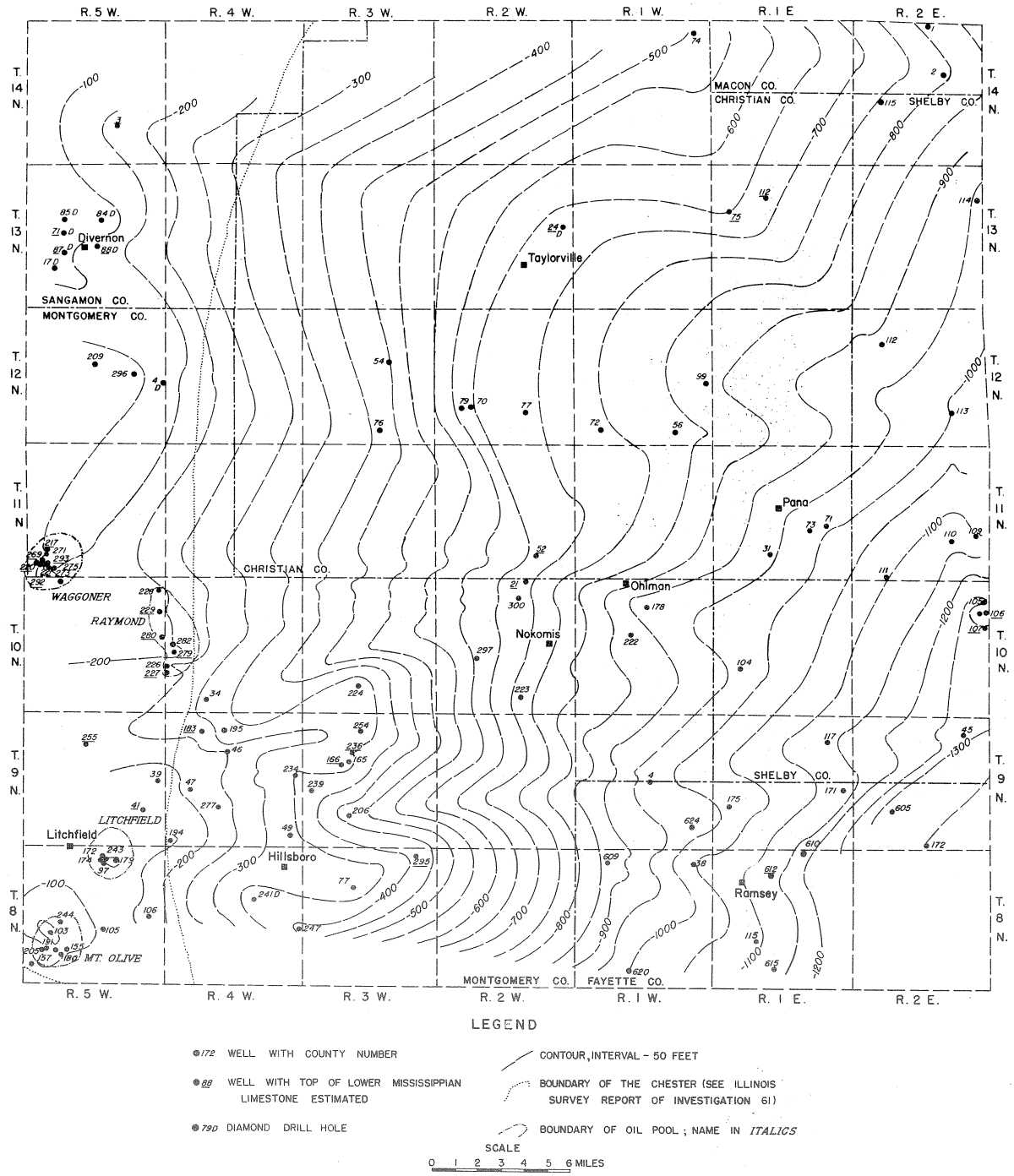
16. Fiftieth to sixty-first coal reports of Illinois: Illinois State Department of Mines and Minerals, 1931-1942.

OIL AND GAS POSSIBILITIES

Introduction

Commercial production of oil and gas in this area has been obtained only from sandstone in the lower part of the Pennsylvanian succession in the Litchfield, Mt. Olive, Raymond, and Waggoner pools (figs. 9 and 10). Nevertheless, because in the important Louden pool that lies but a short distance beyond the southeast corner of this area the production is from various Chester sandstones and the Devonian limestone, it is possible that some of these pre-Pennsylvanian formations may be productive in this area. Consequently the structure of the pre-Pennsylvanian beds and the relation of such structure to that of the Herrin (No. 6) coal bed is of interest in providing a basis for appraising the usefulness of the coal-bed structure map in indicating the position of pre-Pennsylvanian structures favorable for oil and gas accumulation.

To make possible this comparison a contour map of the top of the Lower Mississippian limestone has been prepared, this being the datum below the Pennsylvanian beds for which the greatest amount of information is available (fig. 9). The graphic comparison of the structure of this datum and that of the Herrin (No. 6) coal bed is provided by the isopach map (fig. 10), which shows the variations in thickness of the strata comprising the interval. It should be understood that the structure map of the limestone is much more generalized than that of the coal bed, being based upon fewer datum points, and hence was prepared on a small scale and a greater contour interval. Furthermore the elevation of the limestone in some places was estimated from the position of higher formations.



LEGEND

- ●172 WELL WITH COUNTY NUMBER
- ●88 WELL WITH TOP OF LOWER MISSISSIPPIAN LIMESTONE ESTIMATED
- ●79D DIAMOND DRILL HOLE
- CONTOUR, INTERVAL - 50 FEET
- BOUNDARY OF THE CHESTER (SEE ILLINOIS SURVEY REPORT OF INVESTIGATION 61)
- BOUNDARY OF OIL POOL ; NAME IN *ITALICS*

SCALE
0 1 2 3 4 5 6 MILES

Fig. 9. - Structure map of the top of the Lower Mississippian limestone in Christian and Montgomery and adjacent parts of Fayette, Macon, Sangamon, and Shelby Counties, by J. Norman Payne.

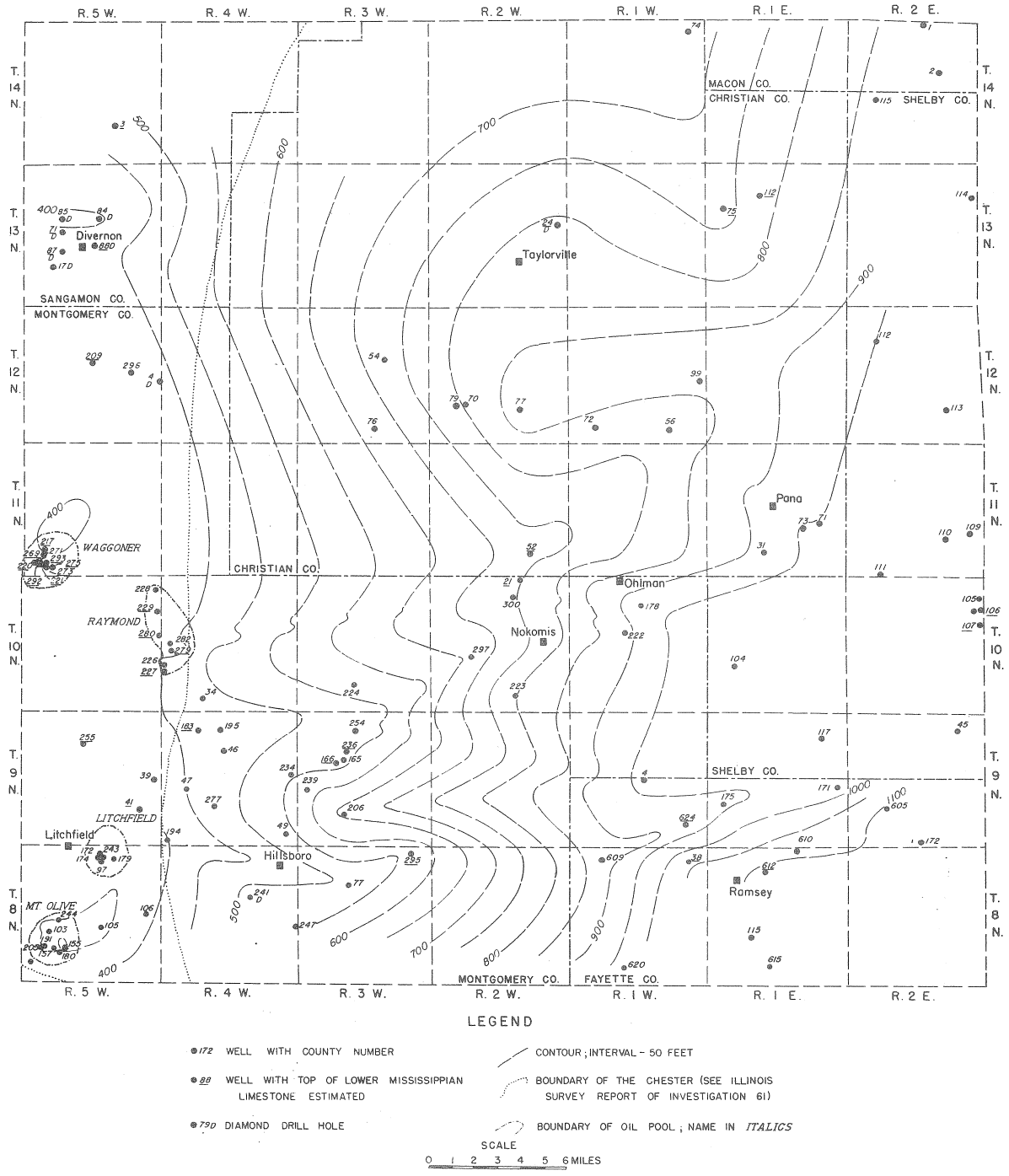


Fig. 10. - Isopach map showing interval between the top of the Herrin (No. 6) coal bed and the top of the Lower Mississippian limestone in Christian and Montgomery and adjacent parts of Fayette, Macon, Sangamon, and Shelby Counties, by J. Norman Payne.

Structural Features

It is believed that areas deserving special attention are those in which the structure of the coal bed and that of the limestone show more or less parallel deformation in the form of anticlines or anticlinal noses. Also of special interest are those areas in which the position of an anticlinal structure in the coal bed more or less coincides with an area of thinning of the interval between the two key beds. (pl. 1 and figs. 9 and 10). The more strongly developed anticlines and anticlinal noses shown on plate 1 are listed below from north to south, those for which there is more or less correspondence between the two datum planes being marked with an asterisk (*) after the number.

1 An anticlinal nose extending irregularly from sec. 2, T. 14 N., R. 3 W., to sec. 11, T. 13 N., R. 1 E.

2 Extending from Blue Mound in T. 14 N., R. 1 E., to Moweaqua, T. 14 N., R. 2 E.

3 Extending irregularly from SE part T. 14 N., R. 4 W., to southeast of Taylorville in T. 12 N., R. 2 W. (the eastern part of this structure has been previously recommended for testing, see bibliography, ref. 5, pp. 12-15 and pl. 1).

4* Extending from sec. 7, T. 13 N., R. 5 W., to sec. 9, T. 13 N., R. 4 W.

5* From sec. 3, T. 12 N., R. 5 W., to sec. 19, T. 12 N., R. 4 W.

6 From sec. 15, T. 11 N., R. 5 W., to sec. 9, T. 11 N., R. 4 W.

7 Waggoner oil pool, secs. 31 and 32, T. 11 N., R. 5 W.

8 Ohlman dome or arch, previously described (see bibliography, Refs. 3 and 10) as located in southeast part of T. 11 N., R. 2 W. and the adjacent part of the township to the south, is now shown by additional data to extend across the south part of T. 11 N., R. 1 W. and R. 1 E.

9 In the northeast quarter T. 9 N., R. 4 W., the northwest quarter T. 9 N., R. 3 W., and southwest quarter T. 10 N., R. 3 W. (Mississippian structure map only).

10 Raymond oil pool in T. 10 N., R. 4 and 5 W.

11 Nokomis arch in central part of T. 10 N., Rs. 1 and 2 W. Previously described (see bibliography, Ref. 10).

12 From Rosamond and vicinity, T. 11 N., R. 1 W., to Pana, T. 11 N., R. 1 E.

13 Litchfield pool in Ts. 8 and 9 N., R. 5 W. (Mississippian structure map only)

14* From sec. 14, T. 9 N., R. 1 W., to sec. 14, T. 9 N., R. 1 E.

15* From sec. 12, T. 8 N., R. 4 W., to sec. 9, T. 8 N., R. 3 W.

16 Through Ramsey in the north half of T. 8 N., R. 1 E. based mainly on driller's log of drill hole, Fayette County No. 612.

Possible Producing Formations

The possible producing formations underlying this area are, in descending order, (1) Pennsylvanian sandstones, (2) Chester sandstones, (3) Ste. Genevieve limestone and sandstone, (4) St. Louis limestone, (5) Salem limestone, (6) Burlington-Keokuk limestones or sandstones, (7) Devonian-Silurian limestones, (8) "Trenton" limestone, and (9) possibly limestones and sandstones below the "Trenton."

The Chester formations and possibly part of the Ste. Genevieve are bevelled** off as the western edge of the area is approached, and consequently the number of producing horizons is reduced considerably in the western portion of the area. This is the reason for the 700-foot increase in the interval between coal No. 6 and the top of the Lower Mississippian from west to east (fig. 10).**

**For further information see "Subsurface geology of the Chester Series in Illinois," by L. E. Workman, Illinois Geol. Survey Rept. Inv. No. 61, fig. 1, p. 210 (Areal geologic map of Chester series below Pennsylvanian system); fig. 3, pp. 220-221 (Isopach map of Chester series below Pennsylvanian system); "Subsurface geology of Iowa (Lower Mississippian) series in Illinois," by J. Norman Payne, same report, fig. 3, pp. 234-235 (Isopach map of Iowa (Lower Mississippian) series).

Table 1.--Tabulation of intervals between top of No. 6 coal and top of various key beds, with average thickness of key beds in Montgomery and Christian counties

MONTGOMERY COUNTY

Bed	T. 8 N., R. 1 W.				T. 8 N., R. 2 W.				T. 8 N., R. 3 W.			
	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
(Above No. 6 coal)												
Millersville ls.												
Shoal Creek Coal No. 2					No data							
Shoal Creek Coal No. 1	408-440	425	0'- 8"	5								
Shoal Creek ls.	291-339	315	11'- 0"	10					310-311	310	19'-0"	2
Macoupin Coal	232-265	249	0'- 8"	8					242-255	248	0'-5"	2
Carlinville ls.		Absent							170-184	177	2'-0"	2
Trivoli (No. 8) coal	162-170	167	0'-11"	3					148-161	154	0'-7"	3
No. 7 coal	20-33	28	0'-11"	7					39		1'-0"	1
Horizon of top of No. 6 coal from which measurements are made												
(Below No. 6 coal)												
No. 5 coal	68		6"	1					44		Blk. slate	1
Upper Litchfield coal												
Lower Litchfield coal												

Bed	T. 8 N., R. 4 W.				T. 8 N., R. 5 W.				T. 9 N., R. 1 W.			
	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
					(Above No. 6 coal)							
Millersville ls.									578-584	581	26'- 0"	2
Shoal Creek Coal No. 2									482		0'- 4"	1
Shoal Creek Coal No. 1									424	424	1'- 3"	2
Shoal Creek ls.	309-333	324	11'- 0"	9	305-335	317	17'- 0"	6	337	337	18'- 0"	2
Macoupin coal	231-256	248	0'- 8"	11	230-259	248	0'- 4"	6	264		B.sl.	1
Carlinville ls.	199-206	203	4'- 0"	6	199-224	210	7'- 0"	12				
Trivoli (No. 8) coal	151-174	162	1'- 3"	8	156-178	165	0'- 5"	6	168-173	170	1'- 4"	2
No. 7 coal	25-35	29	0'- 3"	3	28-36	31	0'- 7"	4	28-30	29	1'- 4"	2
	Horizon of top of No. 6 coal from which measurements are made											
					(Below No. 6 coal)							
No. 5 coal	37-53	45	1'- 9"	2	28-42	34	2'- 4"	3				
Upper Litchfield coal	150		3'- 6"	1	142-155	149	4'- 7"	6				
Lower Litchfield coal					230-262	243	4'- 0"(?)	3				

Bed	T. 9 N., R. 2 W.				T. 9 N., R. 3 W.				T. 9 N., R. 4 W.			
	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
(Above No. 6 coal)												
Millersville ls.												
Shoal Creek coal No. 2												
Shoal Creek coal No. 1	398-454	425	1'-4"	3								
Shoal Creek ls.	306-347	329	9'-0"	4	318-333	323	9'-0"	4	305-321	315	14'-0"	4
Macoupin coal	250-269	256	0'-3"	4	238-262	247	0'-3"	4	235-254	243	Blk.sl.	3
Carlinville ls.					197-198	198	3'-0"	2	200-205	204	9'-0"	4
Trivoli (No. 8) coal	152-172	166	1'-2"	4	175		1'-0"	1				
No. 7 coal	30-35	33	1'-0"	2								
Horizon of top of No. 6 coal from which measurements are made.												
(Below No. 6 coal)												
No. 5 coal					55		Blk. sl.	1	50		Blk. sl.	1
Upper Litchfield coal												
Lower Litchfield coal					262		?	1				

Bed	T. 9 N., R. 5 W.				T. 10 N., R. 1 W.				T. 10 N., R. 2 W.			
	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
					(Above No. 6 coal)							
Millersville ls.					578-611	593	40'- 0"	6	573-613	591	31'- 0"	7
Shoal Creek coal No. 2					478-493	486	0'- 6"	2	462-495	480	0'- 4"	6
Shoal Creek coal No. 1					422-435	427	0'- 8"	6	404-431	420	1'- 0"	7
Shoal Creek ls.	290-308	296	15'- 0"	5	321-354	337	13'- 0"	9	329-354	341	17'- 0"	11
Macoupin coal	223-237	228	0'- 5"	4	258-270	264	0'- 6"	5	257-275	267	0'- 7"	9
Carlinville ls.	187-190	189	5'- 0"	5					215		5'- 0"	1
Trivoli (No. 8) coal	143-150	146	0'- 8"	4	161-181	168	1'- 3"	6	161-180	173	1'- 0"	5
No. 7 coal					27-34	30	2'- 1"	7	20-40	30	1'-10"	7
	Horizon of top of No. 6 coal from which measurements are made.											
					(Below No. 6 coal)							
No. 5 coal	38-53	47	3'- 3"	5								
Upper Litchfield coal	120-136	126	5'- 8"	6								
Lower Litchfield coal	270-293	279	5'- 8"	3								

Bed	T. 11 N., R. 4 W.*				T. 11 N., R. 5 W.				T. 12 N., R. 4 W.			
	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
					(Above No. 6 coal)							
Millersville ls.												
Shoal Creek coal No. 2												
Shoal Creek coal No. 1												
Shoal Creek ls.	293-304	299	12'- 0"	3	281-294	286	9'- 0"	6	281-292	287	10'- 0"	2
Macoupin coal	246-258	252	0'- 4"	2	235-256	247	Blk. sl.	4	253		Blk. sl.	1
Carlinville ls.									173		?	1
Trivoli (No. 8) coal	162-176	169	1'- 0"	2	162-184	173	1'- 0"	9				
No. 7 coal					28		0'- 4"	1				
	Horizon of top of No. 6 coal from which measurements are made.											
					(Below No. 6 coal)							
No. 5 coal												
Upper Litchfield coal												
Lower Litchfield coal												

* Data in T. 10 N., Rs. 3, 4, and 5 W., insufficient and too poor for tabulation.

T. 12 N., R. 12 W.

Bed	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
		(Above No. 6 coal)		
Millersville ls.				
Shoal Creek coal No. 2				
Shoal Creek coal No. 1				
Shoal Creek ls.	283-292	288	9'- 0"	2
Macoupin coal	249-252	250	Blk. sl.	2
Carlinville ls.				
Trivoli (No. 8) coal				
No. 7 coal				
Horizon of top of No. 6 coal from which measurements are made				
		(Below No. 6 coal)		
No. 5 coal				
Upper Litchfield coal				
Lower Litchfield coal				

CHRISTIAN COUNTY

Bed	T. 11 N., R. 1 E.				T. 11 N., R. 1 W.				T. 11 N., R. 2 W.			
	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
(Above No. 6 coal)												
Millersville ls.	562-605	579	42'- 0"	4	579-611	595	39'-0"	2				
Shoal Creek coal No. 2	438-463	450	0'- 3"	2	478		0'-8"	1	477-482	479	0'- 3"	2
Shoal Creek coal No. 1	391-415	403	0'- 3"	2	425-426	425	1'-4"	2				
Shoal Creek ls.	301-340	318	15'- 0"	4	331-343	338	13'-0"	3	325-340	333	17'- 0"	3
Macoupin coal	220-247	234	0'- 4"	2	255-260	257	0'-4"	2	256-270	263	0'-10"	3
Carlinville ls.					214		4'-0"	1				
Trivoli (No. 8) coal	150-153	151	0'- 7"	2	159-163	161	0'-8"	2	160		1'- 6"	1
No. 7 coal	31		2'- 8"	1	29		0'-11"	1	29-30	30	0'- 9"	2
Horizon of top of No. 6 coal from which measurements are made												
(Below No. 6 coal)												
No. 5 coal												
Upper Litchfield coal												
Lower Litchfield coal												

Bed	T. 12 N., R. 1 E.* Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	T. 12 N., R. 1 W. Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	T. 12 N., R. 2 W. Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
(Above No. 6 coal)												
Millersville ls.	570		46'- 0"	1	569		60'- 0"	1				
Shoal Creek coal No. 2	458		2'- 6"	1								
Shoal Creek coal No. 1	405		0'- 6"	1								
Shoal Creek ls.	328		9'- 0"	1	306-309	307	12'- 0"	2	300-322	313	10'- 0"	11
Macoupin coal	261		2'- 0"	1	244		2'- 0"	1	220-242	236	0'- 4"	4
Carlinville ls.												
Trivoli (No. 8) coal	190		0'- 6"	1	154		2'- 0"	1	167-182	172	0'-11"	4
No. 7 coal												
Horizon of top of No. 6 coal from which measurements are made												
(Below No. 6 coal)												
No. 5 coal									31		4'- 3"	1
Upper Litchfield coal												
Lower Litchfield coal												

* Data in T. 11 N., R. 3 W. not satisfactory for tabulation.

Bed	T. 12 N., R. 3 W.				T. 13 N., R. 1 E.				T. 13 N., R. 1 W.			
	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
					(Above No. 6 coal)							
Millersville ls.												
Shoal Creek coal No. 2												
Shoal Creek coal No. 1					421		1'- 0"	1	414		0'-6"	1
Shoal Creek ls.	281		11'- 0"	1	306'				294-			
					326	316	11'- 0"	2	306	300	11'-0"	5
Macoupin coal									240-			
									245	243	0'-8"	5
Carlinville ls.												
Trivoli (No. 8) coal									158- 165	160	0'-9"	5
No. 7 coal									25-33	29	1'-9"	4
	Horizon of top of No. 6 coal from which measurements are made											
					(Below No. 6 coal)							
No. 5 coal					36		3'- 0"	1	20-25	22	1'-11"	3
Upper Litchfield coal												
Lower Litchfield coal												

Bed	T. 13 N., R. 2 W.				T. 13 N., R. 3 W.				T. 13 N., R. 4 W.			
	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
					(Above No. 6 coal)							
Millersville ls.												
Shoal Creek coal No. 2												
Shoal Creek coal No. 1												
Shoal Creek ls.	281-317	294	9'- 0"	11	278-295	285	8'- 0"	12	280-282	281	13'- 0"	2
Macoupin coal	220-246	234	0'- 4"	3								
Carlinville ls.												
Trivoli (No. 8) coal	152-168	160	1'- 2"	5	159-176	167	1'- 5"	9	164-170	167	0'- 9"	2
No. 7 coal	24	24	0'- 7"	2	31		1'- 5"	1				
	Horizon of top of No. 6 coal from which measurements are made											
	(Below No. 6 coal)											
No. 5 coal												
Upper Litchfield coal												
Lower Litchfield coal												

Bed	T. 14 N., R. 1 W.* Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	T. 14 N., R. 2 W. Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	T. 14 N., R. 3 W. Range of interval, top of bed to top of No. 6 coal (ft.)	Average interval, top of bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
					(Above No. 6 coal)							
Millersville ls.												
Shoal Creek coal No. 2												
Shoal Creek coal No. 1												
Shoal Creek ls.	310-316	313	8'- 0"	2	280-311	292	10'- 0"	8	310		19'- 0"	1
Macoupin coal					231-249	240	0'- 8"	4	249		Blk. sl.	1
Carlinville ls.												
Trivoli (No. 8) coal	152-175	163	1'- 6"	2	151-182	163	0'-11"	8	161		1'- 0"	1
No. 7 coal	20-32	26	1'- 1"	2	20-28	24	1'-10"	4				
	Horizon of top of No. 6 coal from which measurements are made											
					(Below No. 6 coal)							
No. 5 coal	26		4'- 2"	1	27-33	29	5'- 5"	9				
Upper Litchfield coal												
Lower Litchfield coal												

* Data in T. 14 N., R. 1 E. not satisfactory for tabulation.

Table 2. - Summary of Formations Encountered in Deep Wells

Fayette County No. 172

R. E. Garland - Miller No. 1.
SE. 1/4 SE. 1/4 SW. 1/4 sec. 34, T. 9 N., R. 2 E.
Drilled October 1938.
Cuttings examined by G. W. Prescott; set No. 3111.
Surface altitude 545.5 feet: datum sea-level.

	Thickness ft.	Depth to bottom ft.	Altitude of top ft.
Pleistocene system	180	180	+546
Pennsylvanian system	1110	1290	+366
Mississippian system			
Chester series			
Elvira group			
Menard-Vienna limestone, shale, and sandstone	100	1390	-744
Tar Springs sandstone	86	1476	-844
Homberg group			
Glen Dean limestone	24	1500	-930
Hardinsburg sandstone	10	1510	-954
Golconda limestone and shale	150	1660	-964
Cypress sandstone	30	1690	-1114
New Design group			
Paint Creek limestone and shale	58	1748	-1144
Bethel sandstone	40	1788	-1202
Renault limestone and shale	12	1800	-1242
Aux Vases sandstone	44	1844	-1254
Iowa series			
Meramec group			
Ste. Genevieve formation			
Levias dolomite	12	1856	-1298

Fayette County (Six Miles East of Area)

Carter Oil Co. - Mary Miller No. 1.
Cen. W. 1/2 NW. 1/4 NW. 1/4 sec. 12, T. 8 N., R. 3 E.
Drilled 1937.
Cuttings examined by G. W. Prescott; set No. 2341.
Surface altitude approximately 570 feet (barometer): datum sea-level.

	Thickness ft.	Depth to bottom ft.	Altitude of top ft.
No cuttings	210	210	+570
Pennsylvanian system	1140	1350	+360
Mississippian system			
Chester series			
Homberg group			
Glen Dean formation	20	1370	-780
Hardinsburg sandstone	20	1390	-800
Golconda formation	98	1488	-820
Cypress sandstone	57	1545	-918
New Design group			
Paint Creek formation	40	1585	-975
Bethel sandstone	21	1606	-1015
Renault formation	17	1623	-1036
Aux Vases sandstone	77	1700	-1053
Iowa series			
Meramec group			
Ste. Genevieve formation			
Levias limestone	22	1722	-1130
Rosiclare sandstone	43	1765	-1152
Fredonia limestone	127	1892	-1195
St. Louis limestone and dolomite	243	2135	-1322
Salem limestone and dolomite	170	2305	-1565
Osage group	652	2957	-1735
Kinderhook group			
Chouteau limestone	10	2967	-2387
Hannibal-Grassy Creek shale	105	3072	-2397
Devonian system			
Limestone and dolomite	98	3170	-2502

Montgomery County No. 224

Jack Brown - Cecil Lipe No. 1.
SW. 1/4 SW. 1/4 SE. 1/4 sec. 28, T. 10 N., R. 3 W.
Drilled in 1940.
Cuttings examined by F. E. Tippie; set No. 5232.
Surface altitude 646 feet: datum sea-level.

	Thickness ft.	Depth to bottom ft.	Altitude of top ft.
Pleistocene system - glacial drift	40	40	+646
Pennsylvanian system	670	710	+606
Mississippian system			
Chester series			
Homberg group			
Golconda formation	80	790	- 64
Cypress sandstone	15	805	-144
New Design group			
Paint Creek formation	55	860	-159
Bethel sandstone	25	885	-214
Renault formation	38	923	-239
Aux Vases sandstone	47	970	-277
Iowa series			
Meramec group			
Ste. Genevieve formation			
Levias limestone	5	975	-324
Rosiclare sandstone	22	997	-329
Fredonia limestone	58	1055	-351
St. Louis limestone	280	1335	-409
Salem limestone	145	1480	-689
Osage group	494	1974	-834
Kinderhook group			
Chouteau limestone	11	1985	-1328
Hannibal-Grassy Creek shale	91	2076	-1339
Devonian system			
Limestone	34	2110	-1430

Sangamon County No. 17

Madison Coal Corporation - Diamond-drill hole No. 3 at Divernon Mine No. 6
Near SW. cor. NW. 1/4 sec. 29, T. 13 N., R. 5 W.
Drilled before 1934.
Core examined by C. L. Cooper to 1635 feet; Company description 1635 to 2000 feet.
Surface altitude 616.3 feet: datum sea-level.

	Thickness ft.	Depth to bottom ft.	Altitude of top ft.
No core	15	15	+616
Pennsylvanian system	688	703	+601
Mississippian system			
Iowa series			
Meramec group			
Ste. Genevieve formation (?)	25	728	- 87
St. Louis limestone	200	928	-112
Salem limestone, sandstone, and shale	183	1111	-312
Osage group			
Warsaw shale and limestone	80	1191	-495
Keokuk limestone	57	1248	-575
Burlington limestone	92	1340	-632
Fern Glen shale and limestone	85	1425	-724
Kinderhook group			
Shale	223	1648	-809
Devonian-Silurian systems			
Limestone	259	1907	-1032
Ordovician system			
Cincinnatian series			
Maquoketa shale	93	2000	-1291

Sangamon County No. 66 (5 1/2 miles north of area)

Lucille Millar - G. W. Sample No. 1.
SW. 1/4 SW. 1/4 NE. 1/4 sec. 11, T. 15 N., R. 3 W.
Drilled in 1939.
Cuttings examined by E. A. Atherton; set No. 3326.
Surface altitude 595.9 feet: datum sea-level.

	Thickness ft.	Depth to bottom ft.	Altitude to top ft.
Pleistocene system	130	130	+596
Pennsylvanian system	592	722	+466
Mississippian system			
Chester series			
New Design group			
Renault limestone and shale	39	761	-126
Aux Vases sandstone	42	803	-165
Iowa series			
Meramec group			
Ste. Genevieve formation	13	816	-207
Levias limestone	14	830	-220
Rosiclare sandstone	36	866	-234
Fredonia limestone	229	1095	-270
St. Louis limestone	85	1180	-499
Salem limestone			
Osage group			
Warsaw and Keokuk shale, limestone, and sandstone	188	1368	-584
Burlington limestone	96	1464	-772
Fern Glen limestone, dolomite, and shale	105	1569	-868
Kinderhook group			
Hannibal-Grassy Creek shale	208	1777	-973
Silurian system			
Limestone and dolomite	281	2058	-1181
Ordovician system			
Cincinnatian series			
Maquoketa shale and limestone	204	2262	-1462
Mohawkian series	408	2670	-1666
Galena-Platteville limestone	5	2675	-2074
Glenwood sandstone			
Chazyan series			
St. Peter sandstone	57	2732	-2079

Shelby County No. 114

Illican Oil Corp. - D. Carr No. 1.
SW. 1/4 SE. 1/4 NE. 1/4 sec. 12, T. 13 N., R. 2 E.
Drilled in 1939
Cuttings examined by F. E. Tippie; set No. 3368
Surface altitude 715.9 feet: datum sea-level.

	Thickness ft.	Depth to bottom ft.	Altitude to top ft.
No samples	180	180	+716
Pennsylvanian system	1120	1300	+536
Mississippian system			
Chester series			
Elvira group			
Tar Springs sandstone	35	1335	-584
Homberg group			
Glen Dean-Golconda formations	140	1475	-619
Cypress sandstone	35	1510	-759
New Design group			
Paint Creek formation	85	1595	-794
Bethel sandstone	40	1635	-879
Renault limestone	25	1660	-919
Aux Vases sandstone	15	1675	-944
Iowa series			
Meramec group			
Ste. Genevieve formation	25	1700	-959
St. Louis formation	225	1925	-984
Salem formation	75	2000	-1209
Osage group	600	2600	-1284
Kinderhook group			
Chouteau dolomite	20	2620	-1884
Hannibal-Grassy Creek shale	110	2730	-1904
Devonian system			
Limestone	65	2795	-2014
Silurian system			
Niagaran series			
Dolomite	105	2900	-2079

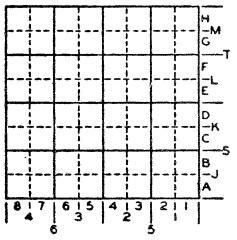
A P P E N D I X

TABULATED COAL DATA

for

CHRISTIAN AND MONTGOMERY AND ADJACENT PARTS OF FAYETTE, MACON, SANGAMON, AND SHELBY COUNTIES

EXPLANATION OF ABBREVIATIONS USED IN TABULATED DRILL RECORD DATA



Section Plat

Type of Hole:

CH —Churn drill
PT —Oil test by churn drill
DD —Diamond drill
RD —Rod drill
TD —Rotary drill
GW —Gas well
WW—Water well

} Logs available for examination at the offices of the Survey.

Combination symbols, replacing the second letter of the abbreviations above, have the following meanings:

-S —Skeleton log
-C—Thickness of coal confidential
-K—Entire log confidential
-N—No log in Survey files

SH—Shaft mine
SL—Slope mine
SD—Drift mine
ST—Strip mine
SA —Abandoned mine
OA—Abandoned strip mine
OU—Outcrop information

Location: Location in section by numbers and letters; see plat—above, left.

Surface Altitude is given in feet and tenths of feet: as "4326" means "top of hole is 432.6 feet above sea level." The *Level Method* for determining altitude of top of hole, shaft, etc., is as follows:

B —Barometer
C —Company information
F —Field estimate using topographic map
H —Hand level
P —Plane table
T —Topographic map estimate not in field
Y —Wye level or transit

Total Depth of hole is given to nearest foot.

Quad. Number: Refers to number of quadrangle as given on Index Map (p. 40) in "Publications on the Geology, Mineral Resources and Mineral Industries of Illinois, Sept. 1, 1941." An asterisk (*) after number indicates the datum point is not shown on the structural contour map drawn on the Herrin (No. 6) coal.

Year Drilled: Last two figures only; as "26" means "1926."

Doubtful Information: A notation here indicates that, although information is available, the accuracy of some part of the data is in doubt. The nature of the doubt is shown by number, as follows:

2. Correlation of coal bed
3. Exact location
4. Surface altitude
5. Both correlation and location
6. Both correlation and altitude
7. Both location and altitude
8. Depth to coal bed
9. Correlation, location, and altitude

Coal No. 6 and No. 5: *Depth* to coal is given to the top of bed, to the nearest foot. *Altitude* is given of the top of the coal bed in feet above sea level. A symbol "CR" following this figure indicates distance *below* sea level. *Thickness* is given in feet and inches. *O indicates coal bed is eroded or is absent at its usual horizon. Where no coal data are given, the information is unreliable or hole did not reach the coal bed. Where *altitude* is shown but not *depth*, the former is estimated from other data.

Coal No. 5*: Refers to coal No. 5 unless otherwise specified in the company name column.

Operators: CC signifies Coal Company; MC, Mining Company, etc. Names are slightly abbreviated when necessary.

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude		Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5			
Township	Range	Section											Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.
					CHRISTIAN MAY 1 1943															
11 N	1 E	15 E5	66	SA	SMITH L CM		6790	P		188			720	41CR	7	06				
11 N	1 E	15 G8	65	SA	PANA CC	2	6771	P		188			714	37CR	7	06				
11 N	1 E	16 A2	67	SH	PANA CC	1	6976	P		188			722	24CR	8	00				
11 N	1 E	16 E4	133	DC	PANA CC		6960	C	842	188	*39									
11 N	1 E	21 E4	90	DD	PANA CC		6927	Y	411	188										
11 N	1 E	21 G2	68	SH	PENWELL CM	1	7034	P	722	188			714	11CR	7	03				
11 N	1 E	23 A8	73	TD	INDEPENDNT		6658	P	1727	188	38		695	29CR	5	00	724	58CR	1	00
11 N	1 E	23 D2	71	TD	SWORDS MCD		6560	P	1801	188	38		695	39CR	5	00				
11 N	1 E	27 C5	46	DD	ALEXANDER		6622	P	1375	188			720	58CR	6	00	799	137CR	5	06
11 N	1 E	28 A5	31	TD	LEE R TRST		6760	C	1722	188	42		710	34CR	6	00				
11 N	1 W	2 G8	142	OU	LIMESTONE		6370	T		188										
11 N	1 W	2 H8	91	DD	BRAZIL CM		6366	P	619	188						*0				
11 N	1 W	6 H5	92	DD	CYPRESS OG	10	6312	P	280	188	38									
11 N	1 W	13 G7	93	TS	MEYER MRK		6690	G	1405	188	39									
11 N	1 W	15 D1	49	DD	ALLEN GAR		6748	P	937	188			699	24CR	8	02	805	130CR	2	06
11 N	1 W	27 D1	94	TN	GRAHAM ETL		7020	G	405	188	38									
11 N	1 W	29 A8	47	DD	STEPHEN SCL		6606	P	644	188	12		636	25	7	06				
11 N	1 W	32 A6	48	DD	PEABODY CC		6677	P	675	188			667	1	7	04				
11 N	2 W	26 D5	50	DD	PEABODY CC	6	6402	P	586	189			577	63	8	00				
11 N	2 W	31 B1	51	DD	PEABODY CC	4	6479	P	690	189	6		540	108	2	00				
11 N	2 W	35 H7	52	PT	OHLMN DOME		6640	P	1058	189			595	69	7	00	676	12CR	5	00
11 N	4 W	34 E8	152	DD	HARVEL PRS		6362	P	700	190	90		390	246	2	00				
12 N	1 E	2 C5	44	SA	ASSUMPTION	AS	6384	P	1069	175						*0				
12 N	1 E	2 D3	69	SA	ASSUMPTION	HS	6438	P	1041	175						*0				
12 N	1 E	12 E7	120	CN	HART WALTR					188	39									
12 N	1 E	27 B3	57	DD	SULLIVN MA		6630	T	1041	188	5					*0				
12 N	1 W	7 H1	80	DD	CYPRESS OG	7			175	188	38									
12 N	1 W	20 H8	81	DD	CYPRESS OG	8			217	188	38									
12 N	1 W	24 F4	99	TD	OLSON DR C		6390	G	2720	188	41									
12 N	1 W	28 E1	40	OU	LIMESTONE		6138	P		188										
12 N	1 W	29 A1	130	PN			6344	P		188										
12 N	1 W	30 A8	83	DD	CYPRESS OG	5	6264	P	201	188	38									
12 N	1 W	30 G7	82	DD	CYPRESS OG	6	6198	P	208	188	38									
12 N	1 W	31 A8	89	DD	CYPRESS OG	9	6347	P	230	188	38									
12 N	1 W	31 C1	85	DD	CYPRESS OG	1	6361	P	169	188	38									
12 N	1 W	31 D4	86	DD	CYPRESS OG	2	6322	P	159	188	38									
12 N	1 W	32 B2	88	DD	CYPRESS OG	3	6415	P	216	188	38									
12 N	1 W	32 E8	72	TD	BROWN LACY		6201	P	1457	188	38									
12 N	1 W	32 H1	87	DD	CYPRESS OG	4	6336	P	164	188	38									
12 N	1 W	34 G8	45	OU	LIMESTONE		6190	P		188										

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5			
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.
12 N	1 W	35 B 7	154	OU	COAL		6250 T		188										
12 N	1 W	35 D 7	56	PT	CHRI C OG		6287 P	1430	188	25		579	50	6	00				
12 N	2 W	1 A 5	100	DD	PEABODY CC	1	5795 P	520	174	41					*0				
12 N	2 W	1 E 5	101	DD	PEABODY CC	2	5773 P	438	174	41		430	147	7	04				
12 N	2 W	2 A 6	108	DD	PEABODY CC	3	6195 P	448	174	41		441	179	7	00				
12 N	2 W	3 A 7	107	DD	PEABODY CC	4	6151 P	443	174	41		439	176	1	06				
12 N	2 W	6 A 2	42	DD	CONSOL STL	2	5680 P	387	174	17		380	188	4	04				
12 N	2 W	6 A 5	131	DD	PEABODY CC	10	6001 P	433	174	42		414	186	4	06				
12 N	2 W	6 B 5	132	DD	PEABODY CC	11	5695 P	382	174	42		368	202	7	06				
12 N	2 W	6 D 4	129	DD	PEABODY CC	12	5626 P	360	174	42		350	213	7	08				
12 N	2 W	6 E 8	124	DD	PEABODY CC	13	6147 P	438	174	42		428	187	9	06				
12 N	2 W	8 C 3	43	DD	CONSOL STL	1	5687 P	406	174	17		401	168	4	03				
12 N	2 W	27 B 1	77	PT	ROGERS BRO		6567 P	3116	189	37	8	475	182	5	00				
12 N	2 W	29 C 7	78	PT	MEYERS WM		6303 P	485	189	34					*0				
12 N	2 W	29 D 5	70	PT	NOKOMIS OC		6297 P	1122	189	35					*0				
12 N	2 W	29 D 8	79	PT	NOKOMIS OC		6249 P	1035	189	37					*0				
12 N	2 W	31 E 8	116	TN	TRELEAVER		6250 G		189	39									
12 N	3 W	13 C 4	55	DD	SULLIVN MA		6219 P	965	189	4					*0				
12 N	3 W	15 C 1	54	PT	PALMER OGM		6236 P	1230	189						*0				
12 N	3 W	34 D 5	76	PT	PALMER OGM		6066 P	1037	189						*0				
13 N	1 E	7 A 3	75	TD	DUNBR WNGT		6180 C	1329	175	40		535	83	7	00				
13 N	1 E	9 F 7	112	TD	MARSCH L		6110 G	1225	175	41		508	103	4	00	544	67	3	00
13 N	1 E	15 A 5	144	TS	BRIANS R		6160 G	1275	175	42									
13 N	1 W	6 A 2	16	DD	BYRD WILEY	1	6259 P	506	175	12		496	130	7	01				
13 N	1 W	10 A 4	95	TN	KLER BOLKER		5890 P	1185	175	39									
13 N	1 W	12 F 1	17	DD	BYRD WILEY	10	5865 P	495	175	12		471	116	7	09	490	97	4	06
13 N	1 W	15 B 8	18	DD	BYRD WILEY	3	5879 P	520	175	12		450	138	7	00	476	112		4
13 N	1 W	30 G 5	19	DD	CONSOL STL	2	5861 P	457	175	18		449	137	8	01				
13 N	1 W	32 F 8	20	DD	TAYLR BYRD	5	5967 P	588	175	12		469	128	7	05				
13 N	1 W	34 D 4	21	DD	CONSOL STL	1	6200 P	519	175	18		505	115	8	05				
13 N	1 W	35 F 1	22	DD	TAYLR BYRD	8	6084 P	964	175	12		534	74	6	00	557	51		3
13 N	2 W	8 A 6	135	DD	PEABODY CC	19	6077 C	444	174	42					*0				
13 N	2 W	8 A 6	136	DD	PEABODY CC	20	6100 C	450	174	42					*0	440	170		10
13 N	2 W	8 B 6	137	DD	PEABODY CC	21	6110 C	434	174	42		425	186	7	06				
13 N	2 W	10 D 1	122	DN	PEABODY CC	31	6080 T		174										
13 N	2 W	10 D 3	23	DD	BYRD WILEY	12	6082 P	548	174	12		466	142	7	08	544	64	2	08
13 N	2 W	10 D 3	98	DS	PEABODY CC		6080 T		174			465	143	7	07				
13 N	2 W	13 D 4	24	DD	BYRD WILEY	13	6186 P	950	174			473	146	7	01	563	56	2	04
13 N	2 W	17 E 6	128	DD	PEABODY CC	17	6093 P	435	174	42		425	184	8	00				
13 N	2 W	17 H 6	134	DD	PEABODY CC	18	6094 P	431	174	42		424	185	6	06				

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5			
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.
13 N	2 W	18 B8	138	DN	PEABODY CC		6055 P		174										
13 N	2 W	18 C8	113	DD	PEABODY CC	5	6051 P	400	189	41		392	213	7	06				
13 N	2 W	18 D6	114	DD	PEABODY CC	6	6033 C	440	174	41					*0				
13 N	2 W	18 E8	109	DD	PEABODY CC	7	5913 P	435	174	41		366	225	8	00	433	158		6
13 N	2 W	19 E4	118	SH	PEABODY CC	9 AS	6105 P		174			409	202	8	05				
13 N	2 W	19 F5	60	SH	PEABODY CC	9HS	6091 P		174	18		407	202	7	06				
13 N	2 W	19 G8	25	DD	PEABODY CC	10	5954 Y	383	174			376	219	7	02				
13 N	2 W	26 D2	26	DD	TAYLORV CC		5919 P	500	174	87		442	150	7	09				
13 N	2 W	26 G7	61	SA	SPRINGF CM	6	6219 P		174			479	143	8	00				
13 N	2 W	30 B7	27	DD	PEABODY CC	15	5786 P	375	174			357	222	8	03				
13 N	2 W	31 E3	121	DS	PEABODY CC		5750 T		174			353	222	8	06				
13 N	2 W	33 G4	62	SH	PEABODY CC	58	6156 P		174			446	170	7	02				
13 N	3 W	3 H4	53	OU	LIMESTONE		5410 P		174										
13 N	3 W	5 G3	28	DD	PEABODY CC	12	5640 P	313	174			306	258	6	00				
13 N	3 W	8 A7	30	DD	PEABODY CC	20	5989 P	372	174			360	239	6	00				
13 N	3 W	8 E5	63	SH	PEABODY CC	8	5999 P		174			370	230	6	06				
13 N	3 W	8 L3	29	SH	PEABODY CC	8	5921 P	367	174	*	3	363	229						
13 N	3 W	9 E3	149	TD	PEABODY CC	22	6005 C	351	174	43		342	259	7	00				
13 N	3 W	10 B2	33	DD	PEABODY CC	9	5442 Y	323	174			312	232	7	04				
13 N	3 W	10 H3	34	DD	PEABODY CC	1	5696 P	341	174	11		320	250	7	00				
13 N	3 W	13 C3	111	DD	PEABODY CC	9	6107 P	397	174	41		387	224	8	00				
13 N	3 W	13 C3	110	DD	PEABODY CC	8	6089 P	420	174						*0	412	197		7
13 N	3 W	14 G8	103	DS	PEABODY CC		5880 T		174			340	248	7	06				
13 N	3 W	14 G8	123	SH	PEABODY CC	7 AS	5813 P		174		8	338	243	8	00				
13 N	3 W	14 H8	32	DD	PEABODY CC	2	5750 T	346	174	11		338	237	7	06				
13 N	3 W	15 G1	64	SH	PEABODY CC	7	5891 P		174			338	251	7	06				
13 N	3 W	16 A5	35	DD	PEABODY CC	13	5830 P	333	174			321	262	7	06				
13 N	3 W	19 B7	104	DS	PEABODY CC		6039 P		174			369	235	7	01				
13 N	3 W	23 H8	36	DD	PEABODY CC	21	5664 P	373	174			360	206	7	01				
13 N	3 W	26 H7	37	DD	PEABODY CC	17	5847 P	387	174			372	213	7	09				
13 N	3 W	32 F1	38	DD	PEABODY CC	11	5989 P	375	174	5		359	240	7	03				
13 N	3 W	34 F6	125	DD	PEABODY CC	14	6091 P	413	174	42		402	207	8	04				
13 N	3 W	34 G5	127	DD	PEABODY CC	16	6086 P	418	174	42		409	200	6	08				
13 N	3 W	34 G5	126	DD	PEABODY CC	15	6081 P	414	174	42		404	204	8	00				
13 N	4 W	1 C8	39	DD	PEABODY CC	8	5693 P	310	174			299	270	7	00				
13 N	4 W	10 F7	105	DS	PEABODY CC		5972 P		173			329	268	8	00				
13 N	4 W	23 D2	150	DN			5946 P		173										
13 N	4 W	23 H2	41	DD	PEABODY CC	19	5945 P	360	173	5		346	249	8	00				
14 N	1 W	1 E7	74	TD	OIL DEV CO		6150 P	2259	175	39		442	173	3	00	465	150	5	00
14 N	1 W	24 E5	14	DD	BYRD WILEY	14	6066 Y	539	175	12		514	93	9	09				

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude		Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5			
Township	Range	Section											Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.
14N	1W	28 D2	59	SA	PEABODY CC	21	6156	P		175			472	144	7	00				
14N	1W	28 E1	15	DD			6092	P	636	175	4		473	136	7	05	498	111	4	02
14N	2W	10 H8	5	DD	BYRD SONS	4	5778	P	408	174	12		395	183	7	08				
14N	2W	13 B8	6	DD	BYRD WILEY	11	6005	P	431	174	12		395	206	3	07	423	178	5	02
14N	2W	16 A7	7	DD	BYRD WILEY	9	6054	P	494	174			407	198	4	00	438	167	5	04
14N	2W	16 H8	8	DD	BYRD WILEY	15	5997	P	480	174	12		384	216	4	01	417	183	5	08
14N	2W	20 E8	9	DD	BYRD WILEY	16	5858	Y	435	174	*12	7	402	184	4	02	429	157	5	00
14N	2W	20 E8	106	DS	PEABODY CC	35	6020	T		174		7	401	201	4	02				
14N	2W	22 A1	10	DD	BYRD WILEY	17	6086	P	476	174	12		439	170	6	09	470	139	2	09
14N	2W	24 E2	11	DD	BYRD WILEY	18	5903	P	452	174	12		416	174	6	04	444	146	5	06
14N	2W	31 B1	12	DD	BYRD SONS	7	5812	P	466	174	12		362	219	3	00	391	190	7	07
14N	2W	34 H4	13	DD	BYRD SONS	2	5993	P	456	174	12		429	170	6	02	449	150	4	08
14N	3W	1 E8	115	CS			5893	P		174			333	256						
14N	3W	1 F8	4	DD	TAYLR BYRD	6	5813	P	876	174	12		333	248	2	00	364	217	5	02
14N	3W	14 E5	1	SH	EDNBURGH CC		5977	P	386	174	87		366	232	7	08				
14N	3W	16 E2	117	OU	LIMESTONE		5420	P		174										
14N	3W	16 E2	102	OU	LIMESTONE		5422	P		174	*									
14N	3W	19 B4	156	OU	LIMESTONE		5455	P		174										
14N	3W	19 D5	143	OU	LIMESTONE		5401	P		174										
14N	3W	27 B8	84	OU	LIMESTONE		5454	P		174										
14N	3W	27 B8	96	OU	LIMESTONE		5501	P		174	*									
14N	3W	30 H2	155	OU	LIMESTONE		5533	P		174										
14N	3W	34 B3	58	OU	LIMESTONE		5438	P		174										
14N	3W	35 H5	2	DD	PEABODY CC	14	5548	P	349	174			337	218	5	06				
14N	4W	25 E1	3	DD	PEABODY CC	18	5540	P	288	174			279	275	7	00				
14N	4W	25 E1	145	OU	LIMESTONE		5578	P		174										

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude		Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6			Coal No. 5		
Township	Range	Section											Depth (Feet)	Altitude (Feet)	Thickness Ft. / In.	Depth (Feet)	Altitude (Feet)	Thickness Ft. / In.
					FAYETTE MAY 1 1943													
8 N	1 E	3 H1	61-0	TD	PHILLIPS P		5888	P	1822	203	38		670	81CR	6 00			
8 N	1 E	9 E5	612	TD	ROCKWOOD		6123	P	1703	203	38		625	13CR	5 00			
8 N	1 E	14 A3	613	TD	HAYES ETAL		5690	B	835	203	38							
8 N	1 E	14 B3	617	TS	HAYES W		5760	G	800	203	39							
8 N	1 E	16 D6	13	DD	PEABODY CC	3	5941	P	706	203	12		670	76CR	6 07	697	103CR	4 00
8 N	1 E	17 G2	12	DD	WARNER SAM		6056	P	680	203	90		661	55CR	6 10			
8 N	1 E	17 G4	623	DN	CLEAR OC					203								
8 N	1 E	19 E1	400	OU	LIMESTONE		5270	B		203								
8 N	1 E	29 D1	410	OU	LIMESTONE					203								
8 N	1 E	29 H1	115	TD	PRODUCR OC		5170	G	1695	203	38							
8 N	1 E	33 E3	615	TD	DORAN P		5640	B	1665	203	38							
8 N	2 E	24 F4	160	TD	BINNEY TRS		5230	G	1500	204	38							
8 N	2 E	27 E1	618	TS	CRUMP ETAL		4980	P	1574	204	38							
8 N	2 E	29 A1	619	TD	BROWN W H		5400	G	1759	203	41		744	204CR	4 00			
8 N	1 W	1 A7	38	TD	ILL EXPLOR		6300	C	1786	203	42							
8 N	1 W	5 A8	6	DD	DERING CC	21	6253	Y	634	203	7		626	1CR	8 00			
8 N	1 W	5 B5	609	TD	CHERRY KD		6560	G	1616	203	40		650	6				
8 N	1 W	11 D4	7	DD			5476	Y	614	203			604	56CR	6 00			
8 N	1 W	19 D8	82	N			6361	P		203								
8 N	1 W	20 G6	8	DD	DERING CC	20	5775	Y	597	203			590	12CR	7 00			
8 N	1 W	23 H3	24	DD	ROXANA PET	2	6116	C	407	203								
8 N	1 W	24 F1	26	DD	ROXANA PET	3	5480	C	375	203								
8 N	1 W	24 H7	25	DD	ROXANA PET	1	6185	C	418	203								
8 N	1 W	27 A6	9	DD	PEABODY CC	4	5611	P	651	203	12		595	34CR	6 04			
8 N	1 W	30 A1	10	DD	DERING CC	9	6289	C	648	203	6		642	13CR	6 02			
8 N	1 W	30 H8	33	DN			6361	P	500	203	12							
8 N	1 W	31 D8	11	DD	SETTY A	9A	5546	Y	572	203	12		565	10CR	6 10			
8 N	1 W	33 D6	620	PT	PUMMILL		5510	G	1507	203	41		582	31CR	5 00	612	61CR	3 00
9 N	1 E	24 F3	171	TD	RYAN REDGR		5327	P	1850	203	38	2	690	157CR	2 00			
9 N	1 E	28 H3	152	TD	NORTHRN ORD		6290	C	3140	203	43		757	128CR	7 00			
9 N	1 E	29 A3	2	DS	PEABODY CC		6275	P		203								
9 N	1 E	29 B5	3	DD	HARGRAVE H		6142	Y		203	9		699	85CR				
9 N	1 E	30 H3	175	TD	CONTINENTAL		6300	G	1775	203	38		692	62CR	8 00			
9 N	2 E	29 F1	605	TD	KINGWOOD		6020	C	2008	203	40		838	236CR				
9 N	2 E	32 H5	1	DD	HOFFMAN BR		5223	P	803	203			702	180CR	7 01	728	206CR	2 06
9 N	2 E	33 F6	625	DS						204								
9 N	2 E	34 A5	172	TD	GARLAND RF		5455	P	1856	204	38		730	184CR	5 00	751	205CR	5 00
9 N	1 W	22 H6	4	PT	PRODUCR OC		6508	Y	2825	203	10		665	14CR	6 00			
9 N	1 W	22 H6	5	DS	PEABODY CC					203		7						
9 N	1 W	36 H8	624	TD	RATCLIFF DR		6520	C	2933	203	41							

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5			
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness		Depth (Feet)	Altitude (Feet)	Thickness	
														Ft.	In.			Ft.	In.
					MACON MAY 1 1943														
14N	2E	3 H4	1	PT	MACON CGOC		7270 T	1276	176			652	75	4	00				
14N	2E	14 H8	2	TD	GULF REF 2		6600 G	1636	176	40									

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude		Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5			
													Depth (Feet)	Altitude (Feet)	Thickness		Depth (Feet)	Altitude (Feet)	Thickness	
Township	Range	Section													Ft.	In.			Ft.	In.
					MONTGOMERY MAY 1 1943															
8 N	2 W	3 A2	65	DD	PEABODY CC	11	6276	C	578	202	6		571	57	7	05				
8 N	2 W	4 A8	246	TD	NAT PET CO		6650	G	1254	202	40									
8 N	2 W	5 B6	66	DD			6150	T	568	202		7	560	55	7	07				
8 N	2 W	7 B3	67	DD	HARGRAVE A	A3	5804	Y	478	202			471	109	7	07				
8 N	2 W	9 A8	68	DD	HARGRAVE H	A14	6497	Y	582	202	12		574	76	7	08				
8 N	2 W	12 H4	69	DD	SETTY A	A8	6151	Y	615	202	12		607	8	7	08				
8 N	2 W	13 E4	70	DD	PEABODY CC	18	5973	Y	637	202	7		597		6	00				
8 N	2 W	15 B6	71	DD	DERING CC	16	6156	C	566	202			558	58	7	08				
8 N	2 W	23 F7	72	DD	HARGRAVE H	12A	6105	Y	604	202	12		596	15	7	04				
8 N	2 W	27 D4	74	DD	DERING CC	14	5743	Y	555	202			548	26	7	01				
8 N	2 W	27 H2	73	DD	DERING CC	8	6273	Y	755	202	6		602	25	2	04	670	43CR	1	06
8 N	2 W	27 H4	75	DD	HARGRAVE H	A	6308	Y	609	202	12		601	30	7	01				
8 N	3 W	1 E8	295	PT	HOWETT W E		6344	Y	1200	202	12		480	154	9	00				
8 N	3 W	4 C8	290	PN			6500	T		202										
8 N	3 W	5 G6	199	SA	IND ILL CC	11AS	6596	P		202										
8 N	3 W	5 H6	78	SA	IND ILL CC	11	6595	P		202			490	170	8	00				
8 N	3 W	9 A7	77	PT	GRIFFITH		6569	P	3803	202			482	175	6	00				
8 N	3 W	15 F1	308	DD	DONK E C		6672	P	551	201	6		537	130	7	00				
8 N	3 W	29 A8	162	DD	SULLIVN MA		6128	P	502	202	6		483	130	7	01				
8 N	3 W	30 H6	248	TS	BURROUGHS		6220	G	910	202	39									
8 N	3 W	35 A5	198	SA	CLOVERLEAF	1AS	6300	P		202										
8 N	3 W	35 A6	164	SA	CLOVERLEAF	1HS	6346	C	537	202			529	106	8	00				
8 N	4 W	1 D6	154	DN	SULLIVN MA		5614	P		202										
8 N	4 W	1 G8	76	CN			5668	P		202										
8 N	4 W	1 H8	83	WW	HILLSB CW		5696	P	570	202	14									
8 N	4 W	12 G4	152	SA	HILLSB CC	AS	6221	P		202										
8 N	4 W	12 H4	79	SA	HILLSB CC		6195	P	438	202			433	187	5	00				
8 N	4 W	15 F1	249	TS	SOUTHERN		5474	P	613	201	40									
8 N	4 W	15 F1	241	DD	DIAMOND		5474	P	757	201			418	129	5	00				
8 N	4 W	17 A4	84	DD	PEABODY CC	76	6348	P	558	201	7		464	171	8	00	501	134	1	00
8 N	4 W	21 E8	190	PN	OHIO OIL		6227	P		201	18									
8 N	4 W	22 C2	85	DD	LUMAGHI CC	3	5388	Y	387	201			378	161	7	08				
8 N	4 W	22 K2	86	CN			5350	T		201*										
8 N	4 W	23 F2	158	SA	IND ILL CC	15	6223	Y		202			460	162	7	00				
8 N	4 W	23 G1	87	DD	LUMAGHI CC		6223	Y	488	202			478	144	8	02				
8 N	4 W	24 B1	247	TD	SWORDS		6250	G	950	202	40		506	119						
8 N	4 W	24 E3	90	DD	MONTGOM CC	3	6230	Y	480	202	12		470	153	7	08				
8 N	4 W	24 E5	89	DD	MONTGOM CC	2	6127	Y	500	202	12					*0				
8 N	4 W	24 E6	88	DD	MONTGOM CC	1	6110	Y	548	202	12					*0				
8 N	4 W	24 G8	238	CN			6454	Y		202										

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5			
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness		Depth (Feet)	Altitude (Feet)	Thickness	
														Ft.	In.			Ft.	In.
8 N	4 W	25 D 3	91	DD	MONTGOM CC	4	6214 Y	500	202	12					*0				
8 N	4 W	27 D 4	92	DD	AM ZNC LD		5307 Y	404	201			397	134	7	05				
8 N	4 W	28 J 3	93	DD	PEOPLES CC	P	6040 T	478	201						*0				
8 N	4 W	32 C 5	94	DD	HARGRAVE H		5367 Y	375	201			369	168	6	00				
8 N	4 W	34 G 7	95	DD	ALLEN GAR		5487 P	473	201			399	150	7	00	452	97	2	06
8 N	4 W	34 H 3	96	DD	PEOPLES CC	Q	5502 P	420	201			414	136	6	07				
8 N	5 W	2 H 2	51	CN			5658 P		201										
8 N	5 W	3 A 4	250	TS	BAKR MARTN		6630 G	758	201	*38									
8 N	5 W	3 A 6	176	PT			6710 C	299	201	*									
8 N	5 W	3 B 5	284	TS	KEITH		6654 P	674	201	*41									
8 N	5 W	3 B 6	97	PT	GRIFFITH		6654 P	3000	201	*22					*0				
8 N	5 W	3 C 1	179	PT	BAKR MARTN		6680 C	830	201	*38					*0				
8 N	5 W	3 C 7	174	PT			6674 P	680	201	*					*0				
8 N	5 W	3 D 6	243	TD	ROBB L L		6704 P	680	201	*39					*0				
8 N	5 W	3 D 7	173	GS			6780 T	726	201	*									
8 N	5 W	3 D 7	172	PT	BLAKE V		6681 P	721	201	*82					*0				
8 N	5 W	3 D 8	252	TS	YOUNG ETAL		6630 G	667	201	*40									
8 N	5 W	3 F 3	251	PS	SOLOMAN E		6671 P	774	201	*40									
8 N	5 W	3 H 6	171	SA	LITCHF MC	2HS	6572 P		201	*									
8 N	5 W	3 H 8	170	SA	LITCHF MC	AS	6676 P		201	*72					*0				
8 N	5 W	5 F 5	98	DD	OLD BEN	2	6917 P	601	201			407	285		1				
8 N	5 W	8 B 4	253	PS	ERIE DR CO		6740 G	823	201	39									
8 N	5 W	19 A 6	99	DS	PEOPLES CC	2	6775 P	402	201			395	283	6	00				
8 N	5 W	20 A 1	245	DS			6680 T	451	201										
8 N	5 W	20 A 6	102	DD	SULLIVN MA	1	6740 P	387	201	5		376	298	8	05				
8 N	5 W	20 A 8	103	PS	FLIEGLER		6746 P	782	201	16									
8 N	5 W	20 B 7	294	CS			6750 T		201			375	300						
8 N	5 W	20 C 1	100	DS	PEOPLES CC		6670 P	471	201			390	277	7	06				
8 N	5 W	20 D 4	244	TD	SEABORD OC		6730 C	2577	201	40		370	303	5	00				
8 N	5 W	20 F 1	101	PS	CORNELL D		6717 P	700	201			407	265	6	00				
8 N	5 W	22 B 5	105	PT	PRODUCR OC	113	6214 P	731	201	11					*0				
8 N	5 W	24 G 6	106	PT	PRODUCR OC		5714 Y	2770	201						*0				
8 N	5 W	29 A 3	180	PT	MYERS W		6314 P	905	201	38		367	264	7	06				
8 N	5 W	29 A 8	107	DD	SULLIVN MA	2	6681 P	402	201	5		391	277	7	06				
8 N	5 W	29 B 2	155	PT	HOLMES RW		6400 T	578	201	41		407	233	7	00				
8 N	5 W	29 B 6	157	PT	HOLMES RW		6450 T	602	201	42		385	260	7	00				
8 N	5 W	29 B 6	191	PT	SIGEL SCHL		6476 P	849	201	38		377	271	7	00				
8 N	5 W	29 B 6	192	PN	SIGEL SCHL		6694 P		201										
8 N	5 W	30 C 1	205	PT	TOPF ETAL		6640 C	865	201	40		395	269	10	00				
8 N	5 W	32 A 1	109	DD	SULLIVN MA	4	6623 P	411	201	5		401	261	8	08				

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6			Coal No. 5		
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness Ft. / In.	Depth (Feet)	Altitude (Feet)	Thickness Ft. / In.
8 N	5 W	32 E 5	108	DD	SULLIVN MA	3	6651 P	420	201	5		408	257	8 09			
8 N	5 W	32 H 1	193	PS	MYERS GRA		6584 P	700	201	38		372	286	5 00			
8 N	5 W	33 M 1	104	DD	MADISON CC	1	6451 C	400	201	21		363	282				
9 N	1 W	2 A 2	63	DD	MERSHN ETL	A6	6504 Y	683	188	12		675	25CR	7 05			
9 N	1 W	8 H 6	64	DD	BROWN HH		6564 Y	666	203	12		659	3CR	7 06			
									203								
9 N	1 W	15 A 4	207	CN					202								
9 N	2 W	6 D 3	156	SA	IND ILL CC	12	6655 Y		202			541	125	8 00			
9 N	2 W	10 G 6	301	PT	HOOVER		7040 G	2598	202	41							
9 N	2 W	13 E 8	58	DD	DERING CC	12	6641 C	631	202	6		623	41	7 04			
9 N	2 W	20 D 5	59	DD	PEABODY CC	13	6352 C	524	202	6		506	129	7 08			
9 N	2 W	27 A 3	240	WW	BAKER EC		7026 P	158	202	38							
9 N	2 W	29 A 5	60	DD	HARGRAVE H	A15	6350 Y	523	202	12		515	120	7 08			
9 N	2 W	31 D 7	61	DD	SETTY A	A1	6216 Y	498	202	12		490	132	7 05			
9 N	2 W	35 A 2	62	DD	DERING CC	17	6487 C	615	202	6		608	41	7 01			
9 N	3 W	2 A 6	52	DD	DERING CC	7	6524 Y	617	189	6				*0			
9 N	3 W	4 A 2	254	TD	BROWN J L		6402 P	2106	202	39							
9 N	3 W	9 A 6	236	PT	MILLER ETL		6280 H	975	202								
9 N	3 W	14 A 5	53	DD	DERING CC	10	6479 C	489	202	6		460	188	8 00			
9 N	3 W	16 G 7	165	PT	MILLER ETL		6640 H	1145	202	31							
9 N	3 W	17 G 1	166	PT	MILLER ETL		6700 H	766	202	31		475	195	6 00			
9 N	3 W	19 D 5	239	TD	TOPF ETAL		5820 C	1021	202	40							
9 N	3 W	23 A 8	208	PN	GULF REF		6586 P		202								
9 N	3 W	25 G 8	55	DD	DERING CC	15	6366 Y	479	202			471	166	7 08			
9 N	3 W	27 H 5	54	DD	IRVING COC		6559 P	683	202	83		479	177	3 06			
9 N	3 W	28 C 5	56	DD	LUMAGHI CC	1	5919 Y	427	202			416	176	8 07			
9 N	3 W	28 C 6	57	DD	COLP GENT		5952 P	700	202	5		414	181	1 06			
9 N	3 W	28 C 7	206	PT	MURPHY OC		6110 P	1203	202	22							
9 N	4 W	4 A 3	195	PT	KESL JOS		6199 P	944	201	38				*0			
9 N	4 W	4 H 2	45	PT	CENTRL OIL		6350 Y	600	190					*0			
9 N	4 W	5 A 3	183	PT	DOYLE NOEL		6497 P	885	201	31				*0			
9 N	4 W	9 A 2	46	PS			6636 P	915	201					*0			
9 N	4 W	13 A 2	234	TD	TOPF BLACK		6190 G	2160	202	40	2	435	184	10 00			
9 N	4 W	15 A 8	309	TS	LACEY A M		6200 T	644	202	42							
9 N	4 W	20 D 8	47	PT	OHIO OIL		6295 P	1280	201					*0			
9 N	4 W	21 D 2	40	PN			6020 T		201								
9 N	4 W	21 G 2	48	PT			6275 P	632	201	7				*-0			
9 N	4 W	28 G 7	277	TD	BROWN HGR		6260 G	2011	201	41				*0			
9 N	4 W	31 A 6	194	PT	PORT ETAL		6673 P	871	201	39		410	257	10 00			
9 N	4 W	31 A 6	187	PN	FARTHING		6684 P		201								
9 N	4 W	36 C 5	50	PT			5717 P	649	202					*0			

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5			
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness		Depth (Feet)	Altitude (Feet)	Thickness	
														Ft.	In.			Ft.	In.
9 N	4 W	36 D4	49	PT	CENTRL OIL		5892 Y	940	202	6		395	194	5	00				
9 N	5 W	7	311	PN	AYLWARD		6380 C		201*										
9 N	5 W	9 D3	255	TD	BROWN		6355 P	665	201	40					*0				
9 N	5 W	22 H4	256	TS	BROWN F		6650 G	338	201	39									
9 N	5 W	24 H2	39	PT	OHIO OIL		6554 P	1844	201	15					*0				
9 N	5 W	25 E8	41	PT	SCHAFFER	1	5732 P	710	201	15					*0				
9 N	5 W	25 H6	196	OU	LIMESTONE		5924 P		201										
9 N	5 W	25 L4	230	PS	NELSON ETL		5750 T	840	201	11					*0				
9 N	5 W	29 C3	42	DD	LITCHF CC	3	6700 Y	811	201	95					*0				
9 N	5 W	32	231	DD	POST WW			636	201*	94		419			3				
9 N	5 W	32 F1	163	SA	LITCHF CC	AS	6839 P		201						*0				
9 N	5 W	32 G1	43	SA	LITCHF CC	HS	6889 P	700	201	95		414	275		3				
9 N	5 W	33 C8	44	DD	OLD BEN	1	6874 P	604	201			414	273		6				
9 N	5 W	33 G8	203	CN			6821 P		201										
10 N	1 W	3 A4	285	PN			6818 P		189										
10 N	1 W	5 E4	13	DD	PEABODY CC	23	6724 Y	674	188	7		666	6	7	06				
10 N	1 W	8 C3	14	DD	PEABODY CC	22	6655 Y	728	188	7		718	52CR	7	00				
10 N	1 W	10 G8	178	TD	SWORDS MCD		7380 C	1610	188	38		738		5	00				
10 N	1 W	14 A5	15	DD	PEABODY CC	2	6597 Y	671	188			662	2CR	8	02				
10 N	1 W	16 D5	222	TD	SWORDS MCD		7410 G	1650	188	39									
10 N	1 W	17 F5	16	DD	HARGRAVE H			644	188*	10	7	637		6	00				
10 N	1 W	22 G8	17	DD			6496 Y	651	188	8		643	7	7	09				
10 N	1 W	32 G3	18	DD	HARGRAVE H	5A	6464 Y	658	188	12		650	4CR	6	01				
10 N	1 W	34 A4	19	DD	HARGRAVE H	34	6514 P	675	188	10		667	16CR	7	00				
10 N	1 W	36 H6	20	DD	HARGRAVE H	10A	6341 Y	688	188	12		680	46CR	7	08				
10 N	2 W	2 H5	22	DD	PEABODY CC		6564 Y	623	189	5		604	52	8	06				
10 N	2 W	3 A4	300	TD	BNDM TREES		6810 C	3227	189	41		609	72	8	00	690	9CR	6	00
10 N	2 W	3 G1	21	PT	LESCHN OIL		6500 T	1300	189	14	4	598	52	10	00	680	30CR	5	00
10 N	2 W	3 H1	24	DD	PEABODY CC	7	6532 Y	586	189			577	76	7	06				
10 N	2 W	6 H1	25	DD	CONSOL IND	1	6447 C	710	189	6					*0				
10 N	2 W	10 G3	26	SA	IND ILL CC	10	6666 Y	826	189			626	41	8	04				
10 N	2 W	14 H1	27	DD	BOLN KEIST	1	6577 Y	667	189	4	3	658		8	02				
10 N	2 W	15 E3	214	DN	PEABODY CC		6710 P		189										
10 N	2 W	20 D2	297	TD	DETRICK HC		6700 C	2528	189	41		618	52	12	00				
10 N	2 W	22 C2	28	DD	NOKOMIS CC		6636 Y	670	189			656	8	8	02				
10 N	2 W	23 H5	288	WN	HARGRAVE		6667 P		189	12									
10 N	2 W	24 G8	289	N					189										
10 N	2 W	27 F7	153	SH	NOKOMIS CC		6633 Y		189			638	25	8	01				
10 N	2 W	30 D4	29	DD	PEABODY CC	6	6678 Y	594	189	6		587	81	6	00				
10 N	2 W	32 F8	23	SA	IND ILL CC	14	6654 Y		189			577	88	8	00				

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6			Coal No. 5		
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness Ft. In.	Depth (Feet)	Altitude (Feet)	Thickness Ft. In.
10N	2W	32 F8	30	DD	PEABODY CC	2	6654 Y	583	189			574	91	8 00			
10N	2W	34 F3	223	PT	CASSENS		7280 C	2675	189	39		663	65	1 00			
10N	3W	13 G1	31	DD	DERING CC	3	6486 Y	727	189	6				*0			
10N	3W	26 G2	32	DD	DERING CC	5	6499 Y	662	189	6				*0			
10N	3W	28 A4	224	TD	BROWN JACK		6460 G	2070	189	40				*0			
10N	4W	7 B8	257	PT	GULF REF		6310 G	635	190	40							
10N	4W	8 C8	159	SA	RAYMOND CC		6426 P		190	96		434	209	3 03			
10N	4W	18 A8	278	CH	WARNER ETL		6220 G	604	190	40							
10N	4W	18 G6	33	CH	CONSOL STL		6300 T	444	190			439	191	4 02			
10N	4W	19 A6	258	PS	HENDERSON		6140 G	1005	190	40							
10N	4W	19 A8	302	PT	DORTOMEDGE		6430 G	628	190	41		405	238	3 00			
10N	4W	19 A8	225	PT	BURROUGHS		6420 G	647	190	40							
10N	4W	19 D5	279	TD	SNIDER GWN		6431 P	662	190	41							
10N	4W	19 H7	282	TD	REED O A		6400 G	850	190	41							
10N	4W	29 C5	200	PS	MARHILL		6468 P	527	190	39							
10N	4W	30 F8	227	CH	WOOLSEY WW		6420 C	575	190	40		405	237	2 00			
10N	4W	30 H8	226	PT	HENDERSON		6340 C	642	190	40		401	233	4 00			
10N	4W	32 D3	303	TN	VENTURELLI		6140 G		190	41							
10N	4W	32 D3	34	PT			6144 P	815	190			447	167	3 00			
10N	5W	1 B2	228	TD	GULF REF		6250 G	2523	190	40							
10N	5W	5 D5	283	PT	BRANSON		6310 G	658	190	41							
10N	5W	6 H7	260	TS	MILLER		6290 G	693	190	40							
10N	5W	12 B2	229	PT	GULF REF		6340 G	1000	190	40				*0			
10N	5W	13 B1	280	TD	DORTOMEDGE		6235 P	670	190	41							
10N	5W	24 A1	261	PT	DORTOMEDGE		6449 P	645	190	40		425	220	5 00			
10N	5W	24 B4	262	TD	SCHERRER		6430 G	688	190	40							
10N	5W	24 H3	281	TD	CASSON J		6438 P	648	190	41							
10N	5W	25 G1	264	TD	DORTOMEDGE		6360 G	660	190	40				*0			
10N	5W	30 D8	35	DD	CRAWFORD	13	6495 P	450	190	3				*0			
10N	5W	31 E8	36	DD	LOWRY		6542 P	413	190	3		391	263	3			
11N	4W	5 A1	11	DD	HIRSCH G	2	6507 C	382	190			370	281	8 01			
11N	4W	19 E1	12	DD	HIRSCH G	3	6514 C	391	190		3	381	270	6 01			
11N	4W	33 C2	307	DN	HARVEL PRO		6347 P		190								
11N	5W	1 A1	6	DD	HIRSCH G	1	6508 C	386	190			375	276	7 07			
11N	5W	4 G4	151	SA	FARMRSV CM	1	6307 P		190		3	371	260	8 06			
11N	5W	10 H5	7	DD	HIRSCH G	9	6529 C	385	190			375	278	8 04			
11N	5W	14 D8	8	DD	HIRSCH G	10	6543 C	362	190			350	304	8 02			
11N	5W	22 B8	9	DD	WILM STAR	7	6360 C	380	190	2		370	266	7 07			
11N	5W	29 A6	265	TD	MCFARLAND		6358 P	570	190	40		370	266	6 00	405	231	5 00
11N	5W	29 A6	267	PT	EWING ETAL		6340 P	580	190	40		380	254	5 00	420	214	9 12

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6			Coal No. 5		
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness Ft. | In.	Depth (Feet)	Altitude (Feet)	Thickness Ft. | In.
11 N	5 W	29 G 1	266	T D	CUNNINGHAM		6375 P	1155	190	40		380	258	5 00	420	218	5 00
11 N	5 W	30 A 1	217	T D	CARROLL FH		6350 G	650	190	40		352	283	4 00			
11 N	5 W	30 A 2	210	P N			6377 Y		190								
11 N	5 W	30 G 8	218	T D	DOOLEY C		6302 P	665	190	40		347	283	6 00			
11 N	5 W	31 B 1	273	T D	THORPE L C		6158 P	614	190	*40		355	261				
11 N	5 W	31 C 3	270	T S	BURROUGHS		6107 P	944	190	*40							
11 N	5 W	31 D 4	272	P S	TAYLOR AR		6236 P	625	190	*40							
11 N	5 W	31 D 4	292	T D	BABLER		6270 P	616	190	*40		355	272				
11 N	5 W	31 D 4	268	P S	BABLER		6260 Y	616	190	*40							
11 N	5 W	31 D 5	219	T D	TAYLOR OG		6108 P	625	190	*40		344	267	3 00	380	231	1 00
11 N	5 W	31 E 2	293	P T	DORSEY H		6181 Y	646	190	*41		350	268	8 00			
11 N	5 W	31 E 2	211	P S	RANDALL H		6310 Y	1893	190	*							
11 N	5 W	31 E 3	221	P T	RANDALL H		6328 Y	625	190	*40		372	261	8 00			
11 N	5 W	31 E 4	269	T D	BABLER		6220 Y	612	190	*40							
11 N	5 W	31 E 5	220	P T	LAIN OG		6295 Y	657	190	*40		356	274	7 00	385	245	1 00
11 N	5 W	31 E 5	212	P N	TAYLOR OG		6186 Y		190	*							
11 N	5 W	31 F 1	213	W S			6287 Y	140	190	*							
11 N	5 W	31 H 2	271	P T	RANDALL		6280 G	1857	190	*40		370	258	7 00			
11 N	5 W	32 D 8	275	T D	THORP ETAL		6151 Y	618	190	40		355	260	5 00			
11 N	5 W	32 G 8	274	P S	GRANT ETAL		6311 P	655	190	40							
12 N	4 W	17 H 4	1	D D	HIRSCH G	4	6400 C	370	190	12		355	285	7 00			
12 N	4 W	31 H 8	2	D D	HIRSCH G	8	6463 C	387	190			378	268	8 00			
12 N	5 W	16 C 1	209	T D	HOOD J E		6509 P	1019	189	40							
12 N	5 W	22 H 3	3	D D	HIRSCH G	6	6530 C	362	189			350	303	8 06			
12 N	5 W	23 H 4	296	T D	ALLEN W O		6450 C	2373	189	39		355	290	5 00			
12 N	5 W	24 E 1	4	D D	HIRSCH G	5	6504 C	803	189			342	308	8 06	397	253	3 00
12 N	5 W	34 H 1	5	D D	HIRSCH G	7	6406 C	349	189			338	303	8 00			

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Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6			Coal No. 5		
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness Ft. / In.	Depth (Feet)	Altitude (Feet)	Thickness Ft. / In.
					SANGAMON MAY 1 1943												
13 N	4 W	5 A6	44	OU	BLACK SHALE		5780 P		173*								
13 N	4 W	5 A6	45	OU	LIMESTONE		5728 P		173								
13 N	4 W	5 A6	43	OU	LIMESTONE		5803 P		173								
13 N	4 W	5 A6	41	OU	LIMESTONE		5709 P		173*								
13 N	4 W	5 A8	8	DD	PEABODY CC	2	5736 P	332	173	5	7	320	254	7 06			
13 N	4 W	5 B5	46	OU	LIMESTONE		5811 P		173*								
13 N	4 W	5 D7	47	OU	LIMESTONE		5707 P		173								
13 N	4 W	5 D7	48	OU	LIMESTONE		5663 P		173								
13 N	4 W	8 G2	9	DD	PEABODY CC	1	6100 T	502	173	5							
13 N	4 W	8 H5	2	DD	PEABODY CC	5	6048 P	316	173			306	299	7 00			
13 N	4 W	8 H6	42	OU	LIMESTONE		5847 P		173								
13 N	4 W	9 D6	29	DD	PEABODY CC		6111 P	329	173	12		320	291	8 06			
13 N	4 W	9 G1	12	DD	PEABODY CC	16	6016 P	341	173			329	273	8 00			
13 N	4 W	9 H1	11	DD	PEABODY CC	3	5956 P	461	173			331	265	10			
13 N	4 W	30 G1	14	DD	PEABODY CC	2	6025 P	357	173	5		343	260	8 00			
13 N	4 W	33 C2	49	DD	PEABODY CC	6	6175 P	360	173			360	258				
13 N	4 W	33 C2	1	DD	PEABODY CC	7	6141 P	368	173			359	255	8 00			
13 N	5 W	3 D2	94	OU	LIMESTONE		5697 P		173								
13 N	5 W	3 D3	93	OU	LIMESTONE		5763 P		173								
13 N	5 W	3 D3	92	OU	LIMESTONE		5727 P		173								
13 N	5 W	6 D1	5	OU	LIMESTONE		5918 P		173								
13 N	5 W	6 E1	6	OU	LIMESTONE		5833 P		173								
13 N	5 W	6 E2	13	OU	LIMESTONE		5810 P		173*								
13 N	5 W	6 E2	18	OU	LIMESTONE		5838 P		173*								
13 N	5 W	6 E2	19	OU	LIMESTONE		5807 P		173*								
13 N	5 W	6 F2	24	OU	LIMESTONE		5794 P		173								
13 N	5 W	6 H2	70	OU	LIMESTONE		5692 P		173								
13 N	5 W	10 E1	95	OU	LIMESTONE		5700 T		173								
13 N	5 W	12 E3	23	SA	PEABODY CC	5	6103 P		173			322	288	6 00			
13 N	5 W	15 D8	84	DD	MADISON CC	4	6129 P	1000	173	23		294	319	8 00	339	274	3 02
13 N	5 W	17 D5	85	DD	MADISON CC	2	6174 C	1000	173	23		298	319	5 00	338	279	2 06
13 N	5 W	20 A4	87	DD	MADISON CC	6	6269 C	700	173	23		311	316	8 06	353	274	2 10
13 N	5 W	20 H5	71	DD	MADISON CC	5	6189 C	700	173	23		300	319	8 03	342	277	3 00
13 N	5 W	21 C1	88	DD	MADISON CC	7	6230 C	700	173	23		316	307	8 00	358	265	2 08
13 N	5 W	21 C5	4	SA	MADISON CC	6AS	6298 P		173*			312	318	7 00			
13 N	5 W	21 C5	16	SA	MADISON CC	6	6244 P	604	173			321	303	7 11	367	257	2 11
13 N	5 W	29 E8	17	DD	MADISON CC	3	6163 C	2000	173	23		290	326	8 00	331	285	2 00
13 N	5 W	33 F2	90	DS	PEABODY CC		6320 T		173		3	292	340	7 10			
14 N	4 W	3 E4	39	OU	LIMESTONE		5324 P		173								
14 N	4 W	6 F4	40	OU	LIMESTONE		5626 P		173								

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6			Coal No. 5		
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness Ft. | In.	Depth (Feet)	Altitude (Feet)	Thickness Ft. | In.
14N	4W	29 B5	7	DD	PEABODY CC	4	5840 P	306	173			291	293	8 00			
14N	5W	2 C7	31	OU	LIMESTONE		5691 P		173								
14N	5W	3 B2	32	OU	LIMESTONE		5623 P		173								
14N	5W	9 C7	34	OU	LIMESTONE		5622 P		173								
14N	5W	9 G2	33	OU	LIMESTONE		5601 P		173								
14N	5W	16 A7	35	OU	LIMESTONE		5659 P		173								
14N	5W	27 D1	3	WW	PANHANDLE	1	5991 P	760	173	31		305	294				
14N	5W	31 A7	37	OU	LIMESTONE		5792 P		173								
14N	5W	32 A4	27	OU	LIMESTONE		5784 P		173								
14N	5W	32 A8	26	OU	LIMESTONE		5792 P		173								
14N	5W	32 B4	30	OU	LIMESTONE		5758 P		173								

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Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5			
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.
					SHELBY MAY 1 1943														
9 N	1 E	5 E 6	28	DD	DUNHAM RH	A7	6491 P	699	188	12		692	43CR	7	00				
9 N	1 E	10 F 4	29	DD	HARGRV AW		6608 C	756	203	9		749	88CR	7	00				
9 N	1 E	11 G 1	117	TD	STEPH LAIN		6350 C	1908	203	42									
9 N	1 E	16 G 4	34	DD	HARGRV AW		6678 P	778	203	9		772	104CR	6	00				
9 N	1 E	17 B 1	35	DD	NEWTON		6445 P	683	203	10		683	38CR						
9 N	1 E	18 H 4	2	DD	HARGRV AW	31	6582 P	725	203	9		717	59CR	7	01				
9 N	2 E	2 A 1	45	TD	NAT PET CO		5930 G	2043	204	41									
9 N	2 E	9 C 8	44	PT	PALMRTN		5874 P	1395	204			758	171CR	6	00	838	251CR	7	00
10 N	1 E	3 H 6	56	DD	LOOMIS J A	L1	6802 P	818	188	21		706	26CR	7	02	792	112CR		3
10 N	1 E	5 F 1	100	DD	LOOMIS J A	3	6745 P	700	188	21		685	10CR	7	07				
10 N	1 E	6 B 1	99	DD	LOOMIS J A	2	6545 P	765	188	21		678	23CR	7	03				
10 N	1 E	8 F 1	101	DD	HARGRV H L	33	6656 P	699	188	10		692	26CR	6	06				
10 N	1 E	17 B 1	102	DD	HARGRV H L	32	6396 P	706	188	10		683	43CR	7	02				
10 N	1 E	29 D 5	103	DD	HARGRV H L	28	6718 P	707	188	9		698	26CR	7	00				
10 N	1 E	29 H 8	104	TD	HARRIS ETL		6790 G	1710	188	39		715	36CR						
10 N	2 E	1 A 1	105	PT	LAKEWOOD OC		6050 G	1874	187	41									
10 N	2 E	12 E 1	106	PT	SLOAN W H		6190 G	1735	187	41									
10 N	2 E	13 H 1	107	PT	LAKEWOOD OC		5860 C	1700	187	41		750	164CR	5	00				
11 N	2 E	17 H 8	39	TS	SWORDS MCD		6820 G	1789	188	39									
11 N	2 E	22 H 5	52	DD	CENTURY CC		6355 P	755	187	92		740	104CR	7	04				
11 N	2 E	23 F 7	108	SA	CENTURY CC		6585 P		187	92		798	139CR	7	00				
11 N	2 E	25 H 5	109	PT	BORAH OC		6354 P	1886	187	38		780	145CR	4	00				
11 N	2 E	26 E 5	110	TD	NAT PET CO		6380 G	1843	187	41		800	162CR						
11 N	2 E	32 A 4	111	TD	SEABORD OC		6460 C	3080	188	40		780	134CR						
12 N	2 E	6 A 1	59	TS	MCFARLAND		6330 G	1476	188	41									
12 N	2 E	8 C 4	112	TD	TATUM W S		6260 G	2094	188	39									
12 N	2 E	20 A 7	41	TS	IND REF PD		6680 G	1715	188	39									
12 N	2 E	26 C 5	113	TD	STEWART OC		6400 C	1630	187	41									
12 N	2 E	26 D 5	48	TS	STEWART OC		6370 G	1637	187	41									
13 N	2 E	12 E 2	114	TD	ILLICAN OC		7159 P	2901	176	39		780	64CR						
13 N	2 E	36 A 1	43	TN	TRULOCK L			1035	176	40									
14 N	2 E	20 E 5	115	PT	REX DEV CO		6240 C	2253	175	40	2	530	94	2	00				
14 N	2 E	31 F 7	116	SA	MOWEQUA CM	HS	6281 P		175			580	48	5	06	620	8	5	03
14 N	2 E	31 F 7	49	SA	MOWEQUA CM	AS	6264 P		175										