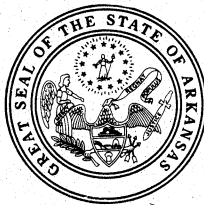


DATA FOR THE ASSESSMENT OF FEDERAL COAL RESOURCES OF ARKANSAS

by

William V. Bush and George W. Colton



INFORMATION CIRCULAR 20-M

**STATE OF ARKANSAS
ARKANSAS GEOLOGICAL COMMISSION
NORMAN F. WILLIAMS, DIRECTOR**

**PRINCIPAL INVESTIGATOR:
WILLIAM V. BUSH
INVESTIGATOR:
GEORGE W. COLTON**

**Prepared for the Bureau of Land Management
by the Arkansas Geological Commission
under BLM Contract No. AA851-CT1-62**

November 1982

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Dorsey Ryan Ft. Smith
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NOTICE OF REVISION

The original version of this report included a separate package of 29 map sheets. Most were reproduced at their original scale of 1:24,000 although one, which covered two 7½-minute quadrangles, was reproduced at 1:62,500. While these maps met the scale requirements of the Bureau of Land Management contract under which the report was prepared, they are inconveniently large for purposes of wider distribution. Consequently, they have been recompiled for the present report and are reproduced here as page-sized maps at a uniform scale of 1:62,500. Practical considerations dictated that some information shown on the original maps be deleted. The deleted items of information are the extent of known underground and surface mines, the total thickness of individual coal sequences encountered at each locality, and the code identifying the name or stratigraphic position of the coal sequences. The last two items are provided in table 1. Information on the extent of mined areas can be obtained from the Arkansas Geological Commission, where the original compilation maps are available for inspection or for reproduction at the user's expense.

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INTRODUCTION

The Arkansas Valley coal field (fig. 1) covers an irregular area of approximately 1,140 square miles in west-central Arkansas. As defined in this report, the field includes all areas in the Arkansas Valley region that are underlain by the McAlester and younger Formations. In common with earlier definitions of the coal field (Collier, 1907; Haley, 1954, 1977), scattered coal beds present in the underlying Atoka Formation are excluded from the field. Some of these beds have been mined on a small scale. If, in the future, individual coal beds in the Atoka Formation are mapped, and become of economic importance, then the boundaries of the coal field could be expanded to include all mineable coals in the Arkansas Valley region. The field is bounded on the north by the Boston Mountains of the Ozark Plateau and on the south by the Ouachita Mountains. Elongate in an east-west direction, the coal field is transected longitudinally by the navigable Arkansas River. Parts of Conway, Crawford, Franklin, Johnson, Logan, Perry, Pope, Scott, Sebastian, and Yell Counties are included in the field.

The present study (fig. 2) is restricted to 29 of the 50 7-½ minute quadrangles which cover all of the Arkansas Valley coal field, but includes one additional quadrangle, the Lee Mountain quadrangle, which lies outside of the field proper. The 30 quadrangles are those which contain lands to which the Federal government owns the mineral rights. Most of these lands are administered by the U. S. Forest Service (96,360 acres), the Department of Defense (61,975 acres), and the U. S. Army Corps of Engineers (51,000 acres), but a few (totaling 1,857 acres) are privately owned.

Acknowledgments. — We thank Boyd R. Haley, U. S. Geological Survey, Little Rock, Arkansas for a great deal of freely-offered advice and information, and for making his very extensive files of data available. We also thank Loretta Chase who, working continuously for many weeks, is solely responsible for setting up the many pages of table in this report. Finally, our thanks to Susan Young, who assisted in several stages of preparing the maps and the report.

PURPOSE OF THIS STUDY

The Federal Government owns the mineral rights to approximately 211,192 acres of land in known coal-bearing areas in the state of Arkansas. Management of the mineral resources on these lands is the responsibility of the Bureau of Land Management (BLM), U. S. Department of the Interior. The BLM let out this contract (AA851—CT1—62) to obtain the available geologic information relating to coal in order to plan for the proper management of this resource. The major objectives of the present report are to provide the BLM with tabulations of existing publicly available data, and to locate on a series of topographic maps all sites where data are available.

Items specifically requested in the contract are:

- 1) An identification number for each site.
- 2) Type of site where data were obtained.
- 3) Location by coordinates in the Universal Transverse Mercator grid system.
- 4) Location within the Public Lands subdivisions.
- 5) Elevation of the ground surface.
- 6) Elevation of the base of each coal 6 inches or more in thickness.
- 7) Thickness of each coal bed 6 inches or more in thickness.
- 8) Thickness of the interval between successive coal beds.

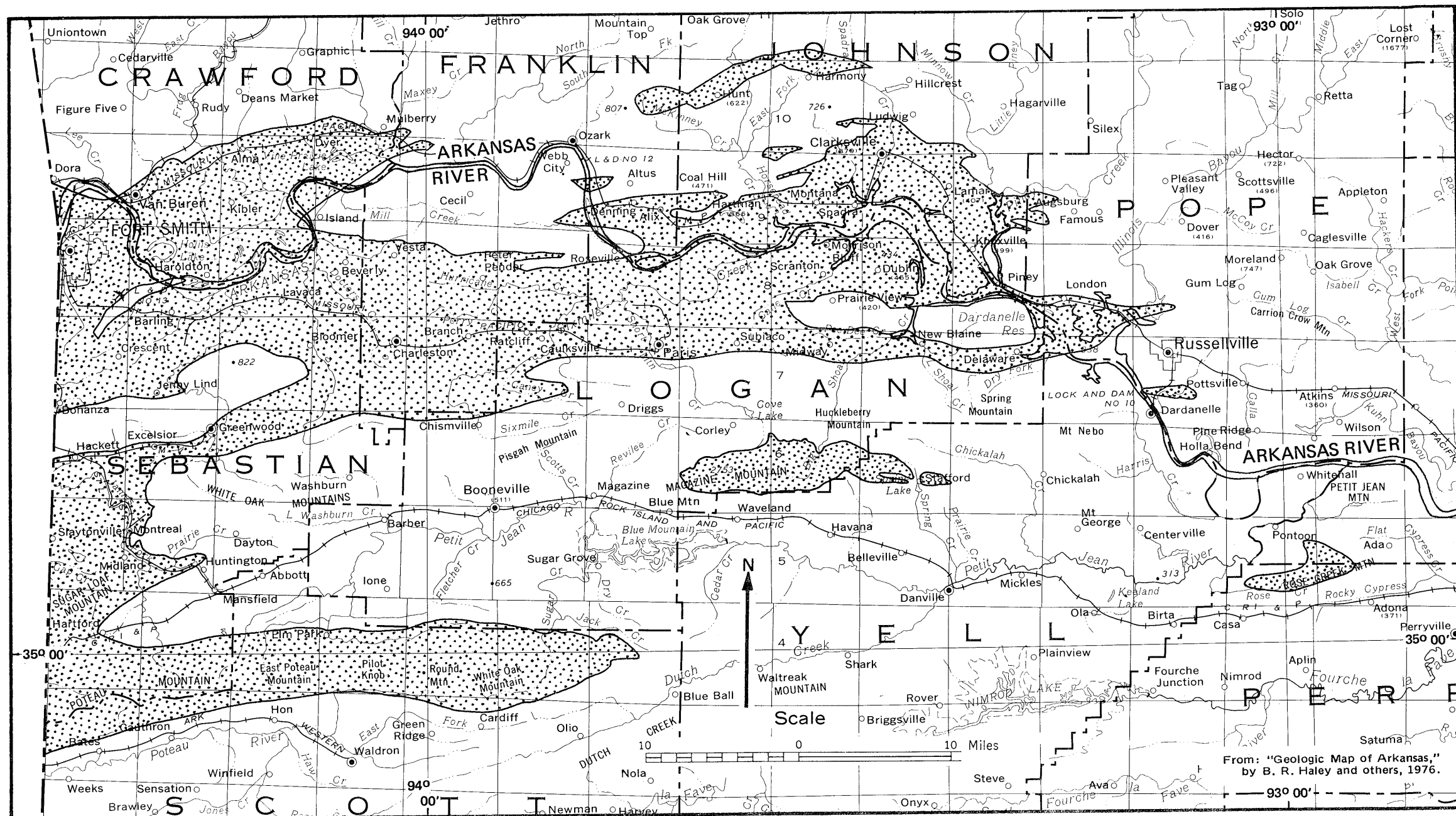


FIGURE 1. — Map showing extent (stipple pattern) of the Arkansas Valley coal field as drawn on the base of the McAlester Formation. As so defined the field includes all areas underlain by the Lower Hartshorne and younger coal beds but excludes older coal beds in the Atoka Formation. Irregular outline and isolated basins show the effects of structural deformation and erosion.

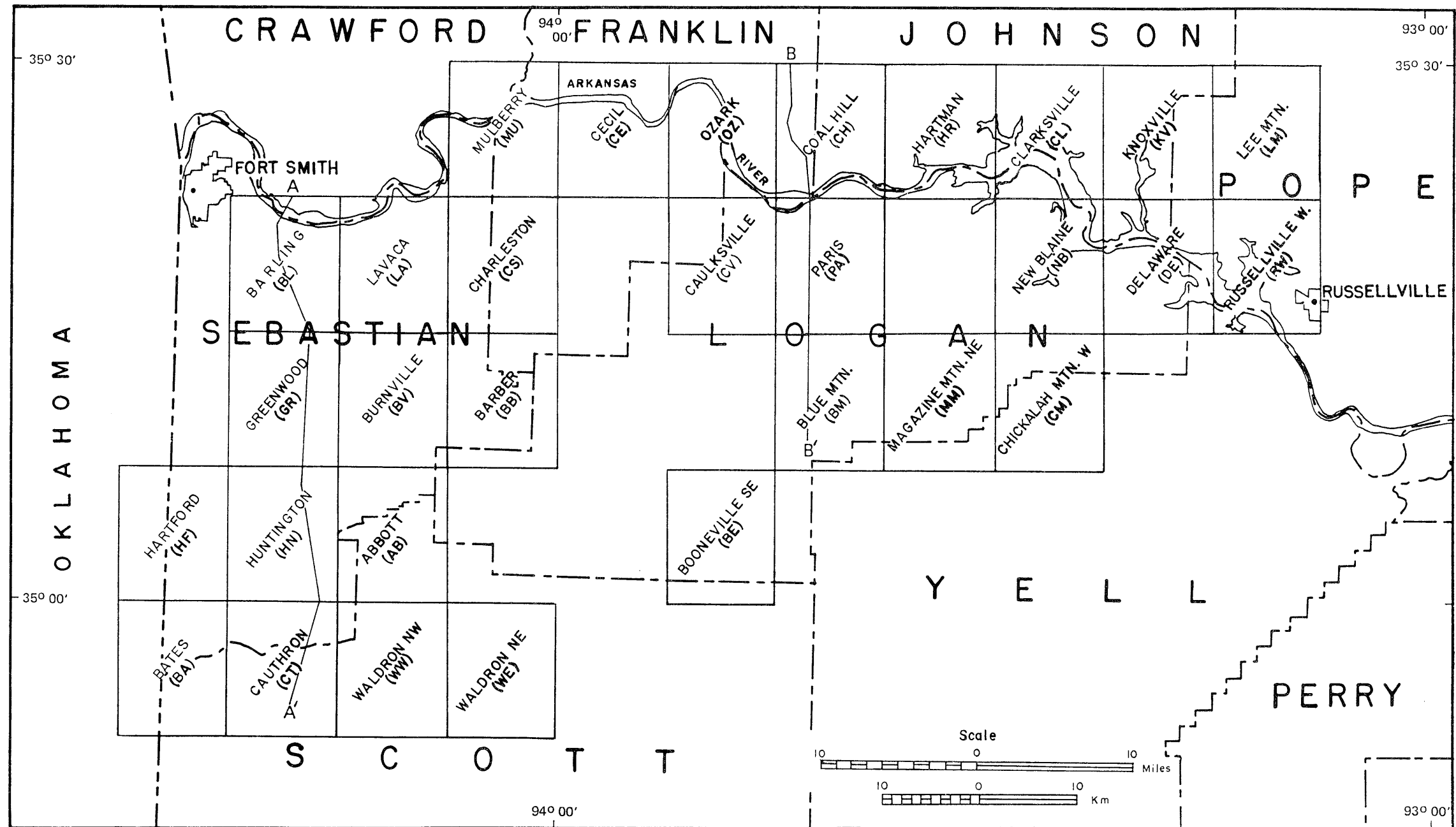


FIGURE 2. — Index map of quadrangles in this report, western Arkansas Valley, Arkansas. The quadrangle code used elsewhere in this report is shown in parentheses. Quadrangles shown as Waldron NE and Waldron NW are the north quadrants of the Waldron 15-minute quadrangle. Lines of structural sections A-A' and B-B' in Figure 4 are also shown.

- 9) Thickness of overburden (interval between top of the coal bed and the ground surface).
- 10) Analyses, where available, of the coal.
- 11) Information on deformation or weathering that may affect the condition of the coal.

In view of the structural complexity of the Arkansas Valley coal field, we thought it necessary to provide additional information. Consequently, the maps that accompany this report also show the outcrop trace of coal beds and faults wherever these have been mapped by earlier workers. In addition we have outlined and distinguished between all areas that have been mined out by either underground or surface methods.

GENERAL GEOLOGY

Stratigraphy. — Exposures of bedrock occupy a very small percentage of the area of the Arkansas Valley. Most of the area is covered by unconsolidated materials such as soil, colluvium, alluvium, and stream terrace deposits. These materials range in thickness from a few inches to as much as 260 feet (Hendricks and Parks, 1937, p. 201). As a consequence, naturally occurring exposures of coal are extremely rare.

Bedrock exposed in the coal field or in the immediate vicinity is entirely of Pennsylvanian age and belongs to the Atoka, Hartshorne Sandstone, McAlester, Savanna, and Boggy Formations. The lithology and thickness of these formations, and the coals they contain, are summarized in figure 3. With the exception of the Hartshorne, which consists largely of sandstone, the other formations consist largely of very dark gray to black shale and shaly siltstone and lesser amounts of lighter-colored sandstone, commonly shaly or silty. However, because of its greater resistance to weathering, a disproportionate share of the outcrops are sandstone, and sandstone underlies most of the ridges and more mountainous areas of the coal field.

Structure. — The Arkansas Valley coal field is complexly deformed by folding and faulting (fig. 4). Most of the folds and faults trend approximately east-west, parallel to the long axis of the field. The northern part of the field contains many relatively gentle folds and many faults, most of which are normal and whose displacement is down to the south. However, a few south-dipping reverse faults are also present. The southern part contains fewer folds and faults, but typically having larger amplitudes and displacements respectively. Some south-dipping thrust faults are present at the east and west ends of the coal field. However, these cut the Hartshorne Sandstone and Atoka Formation and are therefore outside of the coal field proper as defined in this report. Structural deformation has both facilitated and complicated mining operations.

Coal. — Mineable coal beds are present in the Atoka, McAlester, and Savanna Formations. Stratigraphic control is not adequate to determine the thickness and extent of individual beds except locally. However, several sequences consisting of two or more closely spaced coal beds are known to be extensive throughout large parts of the coal field. These include the Lower Hartshorne coal bed near the base of the McAlester Formation, and the Charleston coal bed and Paris coal bed in the lower and upper parts respectively of the Savanna Formation (fig. 3). Another, the Upper Hartshorne coal bed, typically 60-90 feet above the Lower Hartshorne coal sequence, occurs extensively in the southwestern part of the coal field. The other coal beds in the McAlester, and Savanna Formations, and in the underlying Atoka Formation are less extensive and have been mined only locally.

The Lower Hartshorne coal sequence underlies a much larger area and typically contains thicker coal beds than do the other producing coal sequences. In fact, data provided by Haley (1960, tables 1, 2) show that 93% of the original coal reserves ^{1/} in the Arkansas

^{1/} These reserve figures exclude all coal beds less than 14 inches thick, all coals other than those in the Lower and Upper Hartshorne, Charleston and Paris coal sequences, and all coal beds beneath more than 3,000 feet of overburden. Coal reserves in the Atoka Formation have not been calculated.

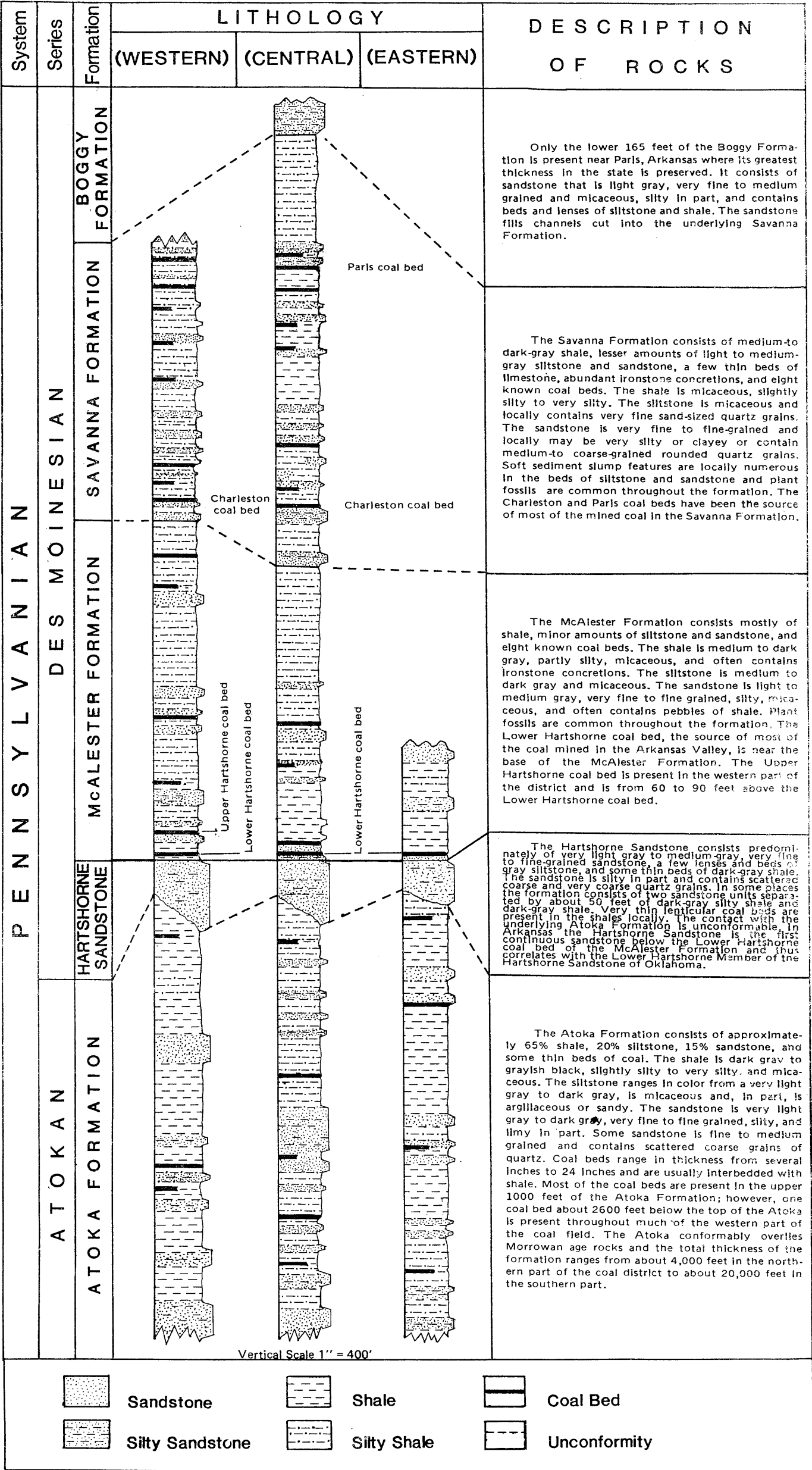


Figure 3. — Generalized stratigraphic sections in the Arkansas Valley coal field.

Valley coal field were in the Lower Hartshorne. Although figures are not available for production from individual coal sequences, the bulk of the production to date from the coal field has been from the Lower Hartshorne. Total production from all coals within the State of Arkansas up to the end of 1981 (Haley, 1960; Bush and Gilbreath, 1978; Bush, written commun.) has been about 105,000,000 short tons.

Coal increases in rank from low-volatile bituminous in the western part of the Arkansas Valley coal field to semi-anthracite in the eastern part. As drawn by Haley (1977), the boundary line between the two ranks extends northward through the eastern part of the Paris and Coal Hill quadrangles, then eastward shortly beyond the north edges of the Hartman and Clarksville quadrangles.

METHOD OF COMPILATION AND SOURCES OF DATA

The data pertinent to assessing coal resources in the designated parts of the Arkansas Valley coal field are contained primarily in a series of topographic quadrangle maps and in five tables. The thirty maps included in this report show the following:

- 1) Location and thickness of known outcrops of coal beds.
- 2) Outcrop traces of coal beds where mapped by earlier workers.
- 3) Location of known coal mine shafts and slope entries.
- 4) Outer limits of mined-out areas in underground mines.
- 5) Extent of strip mine operations, --including areas covered by spoil banks.
- 6) Location within underground and strip mines where coal sections have been measured or samples have been collected for analysis.
- 7) Location of exploratory bore holes for coal in which coal beds 6 inches or more in thickness have been encountered.
- 8) Location of wells drilled for natural gas in which coal beds 6 inches or more in thickness have been reported.
- 9) By means of a letter code, the approximate stratigraphic position of the coal beds encountered, or where known, their names.
- 10) The location of mapped faults and their relative sense of displacement where known.

The items of information listed above were obtained from many sources, both published and unpublished. Published geologic quadrangle maps and reports (Haley, 1961, 1966, 1968; Haley and Hendricks, 1968, 1971; Merewether, 1967, 1971; Merewether and Haley, 1961, 1969; Reinemund and Danilchik, 1957) were especially valuable and provided the geologic framework within which other data were added. From these reports, well locations, measured coal thicknesses, and the outcrop traces of coal beds and of faults were transferred to the maps that accompany this report. The same types of data were also transferred from compilation copies of unpublished geologic quadrangle maps of several areas that have been mapped by H. H. Arndt, E. E. Glick, B. R. Haley, and E. A. Merewether, all of the U. S. Geological Survey. Some quadrangles in the study area have not been mapped in detail. For these, fault traces were obtained from a set of reconnaissance maps (in the open files of the Arkansas Geological Commission) which were compiled in the course of preparing the "Geologic Map of Arkansas (Haley, and others, 1977). Several quadrangles that had not been mapped contained so little data on coal beds that we felt it necessary to add geologic contacts --in addition to faults--so that the user could better visualize the general outcrop trend of the more persistent coal sequences. The geologic contacts were transferred from the same set of open-filed maps. These are the Booneville SE, Blue Mountain, Chickalah Mountain West, and Magazine Mountain quadrangles.

Many additional data on the thickness of coal beds were obtained from well logs in the files of the U. S. Geological Survey and the Arkansas Geological Commission. These included resistivity, self-potential, drillers', and geologists' sample logs from both deep wells drilled for gas and from shallower exploration holes for coal. Other data were gathered from tables and maps in earlier publications. All data were compiled on a set of point source information cards and were later incorporated into the maps and tables in this report.

Table 1 primarily summarizes information on the location of control points, the identity of coal beds, thickness of individual beds and of partings between them, and the amount of overburden and elevation of the beds. The data in this table were obtained from one or more (most commonly more) of the sources listed earlier.

Data for the proximate and ultimate analyses in table 2 were obtained from four sources: 1) an early tabulation by the U. S. Geological Survey (Collier, 1907), 2) early publications of the U. S. Bureau of Mines (Fieldner and others, 1918, 1922; Lord and others, 1913), 3) a more recent publication by the Arkansas Geological Commission (Haley, 1977), and 4) a few yet more recent unpublished analyses provided by B. R. Haley from U. S. Geological Survey files.

Tables 3, 4 and 5 are slightly restructured versions of unpublished tabulations prepared by B. R. Haley. We included several additional entries from very recent analyses that had not been included in his original tabulations.

The laboratories and analysts involved are credited at the end of tables 2 through 5.

Miscellaneous comments. — The quality of data incorporated into this report may vary, owing to the wide scope of the source materials. Some of the more significant problems are listed below.

1) By previous agreement we have not tabulated data for sites where less than 6 inches of coal have been reported. Such sites are not numbered on the maps and do not appear in table 1. However, to furnish some information on the location of outcropping coal beds we have shown coal outcrops on the locality maps regardless of the coal bed thickness.

2) We have arbitrarily defined coal beds (6 inches or more in thickness) separated from other coal beds by 10 feet or more of intervening rock as belonging to separate sequences. Each coal sequence at a site, for example a drill hole or the headwall of a strip mine, will appear as a separate line entry in table 1 but with the same identification number. Conversely all coal beds separated by less than 10 feet of rock are defined as belonging to the same sequence and the thickness of individual beds will be noted in table 1.

3) In some underground and surface mines only the coal bed that was being worked was measured. Other beds may be present above or below, but because they were not measured or reported we could not determine their contribution to the total thickness of coal present at such sites.

4) Many mine shafts, slope entries, and some other control points were transferred from a variety of old maps based on very early surveys, commonly having much smaller scales and invariably without a Universal Transverse Mercator grid. These sites were transferred by visual inspection to the present maps.

5) For reasons of consistency, coordinates for all localities in table 1 are reported to the nearest 10 meters (UTM grid) and to 1/64th of a section (Public Lands subdivision), in spite of location problems as mentioned above. Where some doubt exists for the location shown in table 1, we have noted it as "approximate" in the "Remarks" column.

6) Some coal bed thicknesses reported in deep wells drilled for natural gas are not reliable, whether reported by drillers, on-site geologists, or by geologists after laboratory study of the samples. Experience suggests that moderately thick coal beds are slightly exaggerated and that thin beds may be slightly underestimated.

TABLE 1. — BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS

Quadrangle	ID Number	Location									Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks
		County 1/	Public Lands Subdivisions						UTM Grid System				Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Base of coal	Ground surface				
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15	Meters north of Equator			C	P	C	P	C	P	C	P	C								
																						10 Ac.							
Abbott quadrangle (AB)																													
AB	01	SCT	NW	NW	SW	08	04	30	389 330	3 875 730	AT	ME	1.2	-	-	-	-	-	-	-	-	-	0	780	780	-	-	17	-
AB	02	SCT	SW	NW	SW	08	04	30	389 370	3 875 660	MA LH	ME	1.4*	-	-	-	-	-	-	-	-	-	0	820	820	-	-	17	* Probably lower bench only.
AB	03	SCT	SW	NW	SE	08	04	30	390 100	3 875 580	MA LH	ME	2.0*	-	-	-	-	-	-	-	-	-	0	710	710	-	-	17	* Probably lower bench only.
AB	04	SCT	SW	NW	SW	09	04	30	390 970	3 875 600	MA LH	ST	1.6	3.0	0.9	0.8	0.8	-	-	-	-	10e	663e	680	-	A+	35	-	
AB	05	SCT	SE	SW	NW	09	04	30	391 130	3 875 870	AT	OT	1.1	-	-	-	-	-	-	-	-	0	640	640	-	-	17	-	
Barber quadrangle (BB)																													
AB	06	SCT	SW	NE	SW	09	04	30	331 380	3 875 580	MA LH	OT	1.2*	-	-	-	-	-	-	-	-	0	685	685	-	-	17	* Probably lower bench only.	
AB	07	SCT	SE	SE	NW	10	04	30	393 170	3 875 850	MA LH	OT	1.3*	-	-	-	-	-	-	-	-	0	705	705	-	-	17	* Probably lower bench only.	
AB	08	SCT	-	CNE	SW	13	04	30	396 210	3 873 890	MA L	SH	0.5	-	-	-	-	-	-	-	-	320	285	605	-	-	7	Loc. approx.	
AB	09	SCT	NE	SW	NE	15	04	30	393 630	3 874 420	MA UH	SH	0.7	-	-	-	-	-	-	-	-	571	118	690	127	-	35	-	
AB	09	SCT	NE	SW	NE	15	04	30	393 630	3 874 420	MA LH	SH	1.5	6.4	0.6	-	-	-	-	-	-	691	- 9	690	14	-	35	-	
AB	09	SCT	NE	SW	NE	15	04	30	393 630	3 874 420	MA L	SH	0.5	-	-	-	-	-	-	-	-	713	-23	690	-	-	35	-	
AB	10	SCT	SW	NW	SE	17	04	30	390 100	3 873 960	MA UH	SH	0.7	-	-	-	-	-	-	-	-	1022	-238	785	125	-	35	-	
AB	10	SCT	SW	NW	SE	17	04	30	390 100	3 873 960	MA LH	SH	1.7	4.5	1.1	0.6	0.6	-	-	-	-	1140	-363	785	-	-	35	-	
AB	11	SEB	SW	SW	SW	08	05	30	387 930	3 886 360	AT	OT	0.5	-	-	-	-	-	-	-	-	0	630	630	-	-	17	-	
Barber quadrangle (BB)																													
BB	01	LOG	SW	NE	SW	30	07	28	407 070	3 900 970	SA U	OT	1.4	-	-	-	-	-	-	-	-	0	610	610	-	-	17	-	
BB	02	LOG	NE	SW	NW	32	07	28	408 560	3 900 070	SA PA	OT	1.5	-	-	-	-	-	-	-	-	0	610	610	-	-	17	-	
BB	03	LOG	NW	SE	NW	32	07	28	408 620	3 899 940	SA PA	ME	2.2	-	-	-	-	-	-	-	-	10e	580	590	-	A	35	-	
BB	04	LOG	NE	SE	NW	32	07	28	408 850	3 900 080	SA U	OT	0.8	-	-	-	-	-	-	-	-	0	680	680	-	-	17	-	
BB	05	FRK	SW	SW	NE	01	06	29	405 690	3 898 110	MA LH	OT	0.9	-	-	-	-	-	-	-	-	0	640	640	-	-	17	-	
BB	06	FRK	NW	NW	NE	01	06	29	405 740	3 898 910	SA CH	OT	0.6	-	-	-	-	-	-	-	-	0	580	580	-	-	17	-	
BB	07	SEB	SW	SW	NE	05	06	29	399 330	3 898 340	MA LH	SH	1.7	-	-	-	-	-	-	-	-	28	480	510	-	-	7,17	-	
BB	08	SEB	SE	SW	SE	06	06	29	397 780	3 897 500	MA LH	ST	1.5	-	-	-	-	-	-	-	-	10	543	555	-	-	7,17	-	
BB	09	SEB	SW	SE	NW	35	06	29	403 430	3 889 970	AT -	OT	0.7	-	-	-	-	-	-	-	-	0	515	515	-	-	17	-	
BB	10	FRK	SE	SE	SE	25	07	29	406 470	3 900 650	SA PA	OT	1.3	-	-	-	-	-	-	-	-	0	575	575	-	-	17	-	

Barling quadrangle (BL)																											
BL	01	SEB	SW	SE	NW	01	07	31	385 970	3 908 790	SA CH	OT	1.7	—	—	—	—	—	—	—	0	430	430	—	—	22	—
BL	02	SEB	NW	NE	SW	02	07	31	384 200	3 908 500	SA CH	OT	1.5	—	—	—	—	—	—	—	0	408	408	—	—	22	—
BL	03	SEB	NW	NW	SE	03	07	31	382 960	3 908 700	SA CH	OT	1.7	—	—	—	—	—	—	—	0	410	410	—	—	22	—
BL	04	SEB	SW	SW	SE	14	07	31	384 530	3 904 710	MA LH	OT	3.2	—	—	—	—	—	—	—	0	425	425	—	—	22	—
BL	05	SEB	NW	NE	NW	17	07	31	379 320	3 906 230	MA LH	SH	1.6	0.4	2.2	—	—	—	—	—	792	—336	460	—	—	7,22	—
BL	06	SEB	—	CSW	NW	19	07	31	377 140	3 904 260	MA LH	SH	1.5	0.1	2.2	—	—	—	—	—	650	—129	525	—	—	7,35	—
BL	07	SEB	SE	NW	NE	19	07	31	378 290	3 904 420	MA LH	SH	3.1	—	—	—	—	—	—	—	—	—	520	—	—	22	—
BL	08	SEB	NW	SE	NW	21	07	31	380 750	3 904 200	MA LH	SH	4.0	—	—	—	—	—	—	—	—	—	470	—	—	22	—
BL	09	SEB	—	CNE	NW	21	07	31	380 950	3 904 520	MA LH	SH	3.7*	—	—	—	—	—	—	—	689	—233	460	—	—	7	* Excludes 0.2' parting. Loc. approx.
BL	10	SEB	SE	SW	SW	22	07	31	382 130	3 903 180	MA LH	SH	3.7*	—	—	—	—	—	—	—	86	335	425	—	—	7,35	* Excludes 0.1' parting.
BL	11	SEB	SE	SW	SW	22	07	31	382 290	3 903 190	MA LH	SH	1.5	3.0	2.2	—	—	—	—	—	58	366	430	—	—	35	—
BL	11A	SEB	SW	SE	SW	22	07	31	382 410	3 903 140	MA LH	MW	—	—	—	—	—	—	—	—	—	—	430	A	19, 35	Loc. of slope. Composite of samples BL-19, 20, 29.	
BL	11B	SEB	SW	SE	SW	22	07	31	382 410	3 903 140	MA LH	TP	—	—	—	—	—	—	—	—	—	—	430	—	11, 19, 35	Loc. of slope.	
BL	12	SEB	NE	SE	SW	22	07	31	382 650	3 903 350	MA LH	SH	3.7	—	—	—	—	—	—	—	—	—	410	—	—	22	—
BL	13	SEB	NE	SE	NE	22	07	31	383 480	3 904 110	MA LH	SH	3.6*	—	—	—	—	—	—	—	21	389	410	—	—	7,35	* Excludes 0.3' parting.
BL	14	SEB	NW	NE	SW	23	07	31	384 010	3 903 720	AT	SH	3.8	—	—	—	—	—	—	—	369	227	600	—	—	35	Loc. approx.
BL	15	SEB	SW	SW	SE	23	07	31	384 340	3 902 990	AT	SH	3.3*	—	—	—	—	—	—	—	328	297	630	—	—	35	*Includes 0.6' "coal, some dirt". Loc. approx.
BL	16	SEB	SE	NW	NW	27	07	31	382 200	3 902 750	MA LH	SH	4.2	—	—	—	—	—	—	—	34	397	435	—	—	35	—
BL	17	SEB	NE	NW	NW	27	07	31	382 170	3 902 970	MA LH	SH	3.0*	—	—	—	—	—	—	—	25	407	435	—	—	35	* 0.5" parting present.
BL	18	SEB	—	CNW	NW	27	07	31	382 080	3 902 810	MA LH	SH	3.7*	—	—	—	—	—	—	—	19	407	430	—	—	35	*Excludes 0.2. parting.
BL	19	SEB	NW	NW	NW	27	07	31	382 020	3 902 930	MA LH	MW	1.9	0.4	0.1	0.5	0.2	0.6	0.2	0.2	1.7	—	—	—	A	19,35	—
BL	20	SEB	NW	NW	NW	27	07	31	381 980	3 902 960	MA LH	MW	1.7	0.8	0.1	0.3	0.2	0.3	0.1	0.6	2.2	—	—	—	A	19,35	—
BL	21	SEB	NW	NW	NW	27	07	31	381 950	3 902 930	MA LH	SH	3.3*	—	—	—	—	—	—	—	83	340	427	—	—	35	*Excludes 0.1' parting.
BL	22	SEB	SW	NW	NW	27	07	31	382 920	3 902 700	MA LH	SH	3.0	—	—	—	—	—	—	—	52	370	425	—	—	35	—
BL	23	SEB	NW	SW	NW	27	07	31	382 910	3 902 560	MA LH	SH	3.8*	—	—	—	—	—	—	—	35	383	422	—	—	35	*Excludes 0.3' parting.
BL	24	SEB	NW	SW	NW	27	07	31	381 960	3 902 500	MA LH	SH	3.8	—	—	—	—	—	—	—	19	397	420	—	—	35	—
BL	25	SEB	SW	SW	NW	27	07	31	381 900	3 902 360	MA LH	SH	4.1	—	—	—	—	—	—	—	21	405	430	—	—	35	—
BL	26	SEB	NW	NE	NE	28	07	31	381 680	3 902 970	MA LH	SH	3.1	—	—	—	—	—	—	—	139	278	420	—	—	35	—
BL	27	SEB	SW	NE	NE	28	07	31	381 660	3 902 830	MA LH	SH	1.6	0.2	1.8	—	—	—	—	—	142	270	415	—	—	35	—
BL	28	SEB	SE	NE	NE	28	07	31	381 780	3 902 770	MA LH	SH	2.2	0.3	1.3	—	—	—	—	—	14	402	420	—	—	35	—
BL	29	SEB	SE	NE	NE	28	07	31	381 880	3 902 700	MA LH	MW	1.7	0.4	0.1	0.4	0.2	0.6	0.2	0.3	1.8	—	—	445	A	17,35	—
BL	30	SEB	SE	NE	NE	28	07	31	381 750	3 902 660	MA LH	SH	0.5	0.9	1.9	0.3	0.3	—	—	—	61	362	425	—	—	35	—
BL	31	SEB	NE	NW	NE	28	07	81	381 400	3 902 960	MA LH	SH	3.9*	—	—	—	—	—	—	—	231	190	425	—	—	35	*Excludes 0.2' parting.
BL	32	SEB	NW	SE	NE	28	07	31	381 560	3 902 610	MA LH	SH	3.6*	—	—	—	—	—	—	—	93	328	425	—	—	35	*Excludes 0.1' parting: Basal 0.3" is "bony coal".
BL	33	SEB	NE	SW	NE	28	07	31	381 330	3 902 600	MA LH	SH	3.8	—	—	—	—	—	—	—	127	289	420	—	—	35	—

TABLE 1. — BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

Quadrangle	ID Number	Location									Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks	
		County 1/	Public Lands Subdivisions					UTM Grid System					Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Datum mean sea level						
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15	Meters north of Equator														Base of coal	Ground surface					
			10 Ac.	40 Ac.	160 Ac.								C	P	C	P	C	P	C	P	C									
BL 34	34	SEB	SW	SE	NE	28	07	31	381 480	3 902 320	MA LH SH	3.3*	-	-	-	-	-	-	-	-	70	347	420	-	-	35	* Excludes 0.2' parting.			
BL 35	35	SEB	NE	NE	SE	28	07	31	381 680	3 902 100	MA LH SH	4.0	-	-	-	-	-	-	-	-	-	-	-	440	-	-	22	-		
BL 36	36	SEB	NE	NE	SW	28	07	31	380 990	3 902 200	MA LH SH	4.4	-	-	-	-	-	-	-	-	194	252	450	-	-	7, 35	-			
BL 37	37	SEB	NW	SW	SE	30	07	31	377 860	3 901 850	MA LH SH	6.0	-	-	-	-	-	-	-	-	299	175	480	-	-	35	Loc. approx.			
BL 38	38	SEB	SW	SW	SW	30	07	31	376 860	3 901 800	MA LH SH	5.5	-	-	-	-	-	-	-	-	341	143	490	-	-	35	-			
BL 39	39	SEB	NW	NE	NW	32	07	31	379 090	3 901 400	MA LH SH	6.0	-	-	-	-	-	-	-	-	-	-	460	-	-	22	-			
BL 40	40	SEB	NE	NE	NE	32	07	31	380 200	3 901 430	MA LH SH	4.0	-	-	-	-	-	-	-	-	204	257	465	-	-	7, 35	-			
BL 41	41	SEB	NW	NW	SE	28	08	31	381 440	3 911 910	MA LH SH	2.3	-	-	-	-	-	-	-	-	-	-	420	-	-	22	-			
BL 42	42	SEB	NW	NE	SW	30	08	31	377 740	3 912 170	MA LH SH	0.4	0.5	1.8	-	-	-	-	-	-	32	388	423	-	-	35	-			
BL 43	43	SEB	NE	NW	SW	30	08	31	377 480	3 912 140	MA LH SH	2.5	-	-	-	-	-	-	-	-	56	366	425	-	-	35	-			
BL 44	44	SEB	NW	NW	SW	30	08	31	377 400	3 912 140	MA LH SH	0.4	0.1	1.3	-	-	-	-	-	-	32	386	420	-	-	35	-			
BL 44A	44A	SEB	SW	NW	SW	30	08	31	377 290	3 912 030	MA LH MS	2.3	-	-	-	-	-	-	-	-	-	-	425	-	A	11,19,27, 28	Loc. approx.			
BL 45	45	SEB	SE	SW	SW	30	08	31	377 550	3 911 540	AT - DW	3.0	-	-	-	-	-	-	-	-	68	404	475	-	-	35	Loc. approx.			
BL 46	46	SEB	NW	NW	SW	31	08	31	377 260	3 910 610	AT - DW	3.0	-	-	-	-	-	-	-	-	85	335	423	-	-	35	Loc. approx. Near a fault.			
BL 47	47	SEB	NE	NE	NE	01	07	32	376 990	3 909 870	MA LH SH	0.8	-	-	-	-	-	-	-	-	19	422	442	21	-	35	-			
BL 47	47	SEB	NE	NE	NE	01	07	32	376 990	3 909 870	MA LH SH	0.7	-	-	-	-	-	-	-	-	40	401	442	-	-	35	-			
BL 48	48	SEB	NW	NE	NE	01	07	32	376 770	3 909 700	MA LH SH	0.6	-	-	-	-	-	-	-	-	13	431	445	-	-	35	-			
BL 49	49	SEB	NW	NE	NE	02	07	32	375 240	3 909 880	MA LH SH	1.7	-	-	-	-	-	-	-	-	-	-	450	-	-	22	-			
BL 50	50	SEB	SE	SE	NE	14	07	32	375 230	3 905 940	MA LH SH	0.9	0.1	0.4	0.2	1.3	-	-	-	-	192	275	470	21	-	17, 35	-			
BL 50	50	SEB	SE	SE	NE	14	07	32	375 230	3 905 940	MA L SH	4.2*	-	-	-	-	-	-	-	-	212	254	470	-	-	7,35	*Described as "soft shaly coal".			
BL 51	51	SEB	NE	NE	SW	25	07	32	376 000	3 902 450	MA LH SH	4.0	-	-	-	-	-	-	-	-	-	-	485	-	-	22	-			
BL 52	52	SEB	NE	SW	SW	25	07	32	375 620	3 901 860	MA LH SH	5.0	-	-	-	-	-	-	-	-	-	-	495	-	-	22	-			
BL 53	53	SEB	NW	NW	NE	36	07	32	376 070	3 901 430	MA LH SH	4.0	-	-	-	-	-	-	-	-	-	-	482	-	-	22	-			
BL 54	54	SEB	SW	NE	SE	25	08	32	377 000	3 911 960	MA LH SH	1.7	-	-	-	-	-	-	-	-	41	382	425	-	-	35	-			
BL 55	55	SEB	NE	NW	SE	25	08	32	376 790	3 912 290	MA LH DW	3.0	-	-	-	-	-	-	-	-	50	382	435	-	-	35	-			
BL 56	56	SEB	NW	NW	SE	25	08	32	376 570	3 912 180	MA LH DW	-*	-	-	-	-	-	-	-	-	50	383	442	-	-	35	* Not reported.			
BL 57	57	SEB	NE	SW	SE	25	08	32	376 800	3 911 640	MA LH SH	0.7	0.2	1.3	-	-	-	-	-	-	39	389	430	-	-	35	-			
BL 58	58	SEB	NE	SW	SE	25	08	32	376 780	3 911 770	MA LH SH	0.4	0.3	0.7	-	-	-	-	-	-	18	411	430	-	-	35	-			
BL 59	59	SEB	SE	SW	SE	25	08	32	376 650	3 911 640	MA LH SH	0.6	0.2	1.2	-	-	-	-	-	-	18	435	455	-	-	35	-			
BL 60	60	SEB	SW	SW	SE	25	08	32	376 410	3 911 540	MA LH DW	1.5	-	-	-	-	-	-	-	-	30	410	442	-	-	35	-			

BL	61	SEB	NE	NW	SW	25	08	32	375 970	3 912 340	MA LH	DW	—*	—	—	—	—	—	—	—	50	397	450	—	—	35	* Not reported. Near a fault.
BL	62	SEB	SW	SE	SE	35	08	32	375 220	3 910 100	MA LH	SH	1.7	—	—	—	—	—	—	—	—	—	445	—	—	22	—
BL	63	SEB	SW	NW	SW	36	08	32	375 550	3 910 360	MA LH	SH	1.0	—	—	—	—	—	—	—	18	424	443	—	—	35	—
BL	64	SEB	NW	NW	SW	36	08	32	375 590	3 910 670	MA LH	SH	1.8	—	—	—	—	—	—	—	50	393	445	—	—	35	—
BL	65	SEB	—	CSW	NW	36	08	32	375 760	3 910 930	MA LH	SH	0.2	0.2	1.6	—	—	—	—	—	46	397	445	—	—	35	—
BL	66	SEB	SE	NW	SW	36	08	32	375 770	3 910 530	MA LH	SH	1.9	—	—	—	—	—	—	—	22	415	439	—	—	35	—
BL	67	SEB	NE	SW	SW	36	08	32	375 910	3 910 260	MA LH	SH	1.0	—	—	—	—	—	—	—	—	—	440	—	—	35	—
BL	68	SEB	SE	NE	SW	36	08	32	376 220	3 910 460	MA LH	SH	1.9	—	—	—	—	—	—	—	—	—	415	—	—	22	—
BL	69	SEB	NW	NE	SW	36	08	32	376 040	3 910 590	MA LH	SH	1.7	—	—	—	—	—	—	—	24	414	440	—	—	35	—
BL	70	SEB	NW	SE	NW	36	08	32	376 090	3 910 990	MA LH	SH	1.4	—	—	—	—	—	—	—	25	415	442	—	—	35	—
BL	71	SEB	NE	SE	NW	36	08	32	376 250	3 911 130	MA LH	SH	1.8	—	—	—	—	—	—	—	21	412	435	—	—	35	—
BL	72	SEB	—	CNE	NW	36	08	32	376 180	3 911 330	MA LH	SH	0.2	0.1	1.2	—	—	—	—	—	32	409	443	—	—	35	—
BL	73	SEB	NE	NE	NW	36	08	32	376 240	3 911 480	MA LH	SH	0.3	0.1	1.8	—	—	—	—	—	25	411	438	—	—	35	—
BL	74	SEB	—	CNW	NE	36	08	32	376 590	3 911 340	MA LH	ST	0.3	0.3	2.0	—	—	—	—	—	10 _e	412 _e	425	—	—	7	—
Bates quadrangle (BA)																											
BA	01	SCT	SE	SW	SW	19	03	32	368 420	3 863 220	MA LH	ME	2.5	0.6	5.0	—	—	—	—	—	10 _e	662 _e	680	—	—	7	Loc. approx.
BA	02	SCT	—	CNW	NE	21	03	32	372 130	3 864 520	MA LH	ST	1.4*	—	—	—	—	—	—	—	5 _e	629 _e	635	—	A +	19, 35	Loc. approx. *Partial thk.
BA	03	SCT	SW	NE	NW	21	03	32	371 830	3 864 180	MA LH	ME	4.0	2.5	2.0	2.0	2.0	0.2	2.0	—	10 _e	636 _e	660	—	A	7, 19	—
BA	04	SCT	—	CNW	NE	21	03	32	372 340	3 864 310	MA LH	ME	1.8	0.7	1.7	0.3	1.2	0.1	0.6	—	10 _e	624 _e	640	—	—	7	Loc. approx.
BA	05	SCT	NE	NE	NE	21	03	32	372 760	3 864 460	MA LH	ME	3.3	0.7	4.0	—	—	—	—	—	10 _e	662 _e	680	—	—	7	Loc. approx. Elev. approx.
BA	06	SEB	NW	NW	SW	19	04	32	368 570	3 873 450	MA L	SH	0.5	—	—	—	—	—	—	—	409	220	630	39	—	35	—
BA	06	SEB	NW	NW	SW	19	04	32	368 570	3 873 450	MA LH	SH	3.4	—	—	—	—	—	—	—	445	181	630	—	—	33	—
BA	07	SEB	—	CSE	SE	21	04	32	373 110	3 872 720	MA L	DW	*	—	—	—	—	—	—	—	770	— 72	700	127	—	35	* Thk. (5.0') not reliable. Loc. approx.
BA	07	SEB	—	CSE	SE	21	04	32	373 110	3 872 720	MA LH	DW	*	—	—	—	—	—	—	—	892	—194	700	—	—	35	* Thk. (10.0') not reliable. Loc. approx.
BA	08	SEB	—	CNW	SE	22	04	32	374 340	3 873 070	MA L	SH	0.7	—	—	—	—	—	—	—	671	58	730	113	—	35	—
BA	08	SEB	—	CNW	SE	22	04	32	374 340	3 873 070	MA LH	SH	0.5	1.2	3.1	—	—	—	—	—	780	— 55	730	—	—	35	—
BA	09	SEB	SW	NE	NW	27	04	32	373 870	3 872 130	MA L	SH	0.7	—	—	—	—	—	—	—	882	—103	780	122	—	35	—
BA	09	SEB	SW	NE	NW	27	04	32	373 870	3 872 130	MA LH	SH	0.5	1.5	3.4	—	—	—	—	—	990	—215	780	—	—	35	—
BA	10	SEB	NW	SW	NW	27	04	32	373 340	3 872 100	MA M	SH	4.0	—	—	—	—	—	—	—	114	627	745	884	—	35	—
BA	10	SEB	NW	SW	NW	27	04	32	373 340	3 872 100	MA L	SH	0.7*	—	—	—	—	—	—	—	1001	—257	745	45	—	35	* Overlain by 4.3' "shaly coal".
BA	10	SEB	NW	SW	NW	27	04	32	373 340	3 872 100	MA L	SH	0.5	—	—	—	—	—	—	—	1046	—302	745	64	—	35	—
BA	10	SEB	NW	SW	NW	27	04	32	373 340	3 872 100	MA LH	SH	0.6	1.2	3.7*	—	—	—	—	—	1106	—366	745	—	—	35	* Underlain by 0.7' "Shaly coal".
BA	11	SEB	—	CSW	NE	29	04	32	371 070	3 872 080	MA L	SH	4.0*	—	—	—	—	—	—	—	370	276	650	40	—	35	***Coal and shale - mostly coal."
BA	11	SEB	—	CSW	NE	29	04	32	371 070	3 872 080	MA L	SH	1.7*	—	—	—	—	—	—	—	412	236	650	62	—	35	* "Shale and coal".
BA	11	SEB	—	CSW	NE	29	04	32	371 070	3 872 080	MA LH	SH	3.7*	—	—	—	—	—	—	—	472	174	650	—	—	35	* Underlain by 5.4' "shale mixed with coal".
BA	12	SEB	NW	SW	NW	31	04	32	368 450	3 870 760	MA M	SH	—*	—	—	—	—	—	—	—	39	650	690	885	—	35	* Not reported.
BA	12	SEB	NW	SW	NW	31	04	32	368 450	3 870 760	MA L	SH	3.5*	—	—	—	—	—	—	—	922	—235	690	31	—	35	* "Shale and coal".
BA	12	SEB	NW	SW	NW	31	04	32	368 450	3 870 760	MA L	SH	1.5*	—	—	—	—	—	—	—	955	—266	690	60	—	35	* "Coal with shale".
BA	12	SEB	NW	SW	NW	31	04	32	368 450	3 870 760	MA LH	SH	1.0	0.5	2.7*	—	—	—	—	—	1012	—326	690	—	—	35	* Underlain by 2.3' "shale with coal".
BA	13	SEB	—	—	CNW	32	04	32	370 400	3 870 690	MA M	SH	2.0*	—	—	—	—	—	—	—	160	589	750	440	—	35	* "Shale with coal".
BA	13	SEB	—	—	CNW	32	04	32	370 400	3 870 690	MA L	SH	2.0*	—	—	—	—	—	—	—	549	149	750	433	—	35	* Coal described as "shaly".
BA	13	SEB	—	—	CNW	32	04	32	370 400	3 870 690	MA L	SH	5.0*	—	—	—	—	—	—	—	1029	—284	750	101	—	35	* "Coal and shale".
BA	13	SEB	—	—	CNW	32	04	32	370 400	3 870 690	MA LH	SH	3.3*	—	—	—	—	—	—	—	1132	—385	750	—	—	35	* Underlain by "shale with coal & coal with shale".

See footnotes at end of table.

TABLE 1. – BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

Quadrangle	ID Number	Location								Formation and coal bed ² /	Type of site ³ /	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses ⁴ /	Sources of data ⁵ /	Remarks	
		County ¹ /	Public Lands Subdivisions					UTM Grid System				Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Datum mean sea level						
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15														Meters north of Equator	Base of coal					Ground surface
			10 Ac.	40 Ac.	160 Ac.							C	P	C	P	C	P	C	P	C									
BM	01	LOG	SE	NW	NE	28	07	25	440 180	3 900 600	AT	OT	—*	—	—	—	—	—	—	—	—	0	1040	1040	—	—	35	Loc. approx. *Not reported.	
BM	02	LOG	NW	NE	NE	32	07	25	438 700	3 899 080	AT	OT	0.8	—	—	—	—	—	—	—	—	0	760 _e	760 _e	—	—	19	Loc. approx. Elev. of ground surf. est.	
BM	03	LOG	NW	SE	NE	34	07	25	442 070	3 898 610	AT	OT	0.2	—	—	—	—	—	—	—	—	0	1100	1100	—	—	19	Loc. approx.	
Booneville SE quadrangle (BE)																													
No coal data available.																													
Burnville quadrangle (BV)																													
BV	01	SEB	NE	NW	NE	05	06	30	389 530	3 899 330	MA LH	SH	2.3	—	—	—	—	—	—	—	—	50	438	490	—	—	7	Loc. approx.	
BV	02	SEB	NE	SW	NE	05	06	30	389 610	3 898 960	MA LH	SH	2.6	0.3	0.2	0.2	1.4	—	—	—	—	167	333	505	—	—	35	—	
BV	03	SEB	NE	SE	NW	05	06	30	389 020	3 330 990	MA LH	SH	1.2	0.5	0.7	0.8	2.0	—	—	—	—	93	385	483	—	—	35	—	
BV	04	SEB	NE	NW	SW	05	06	30	388 660	3 898 370	MA LH	SH	3.2	0.5	1.7	—	—	—	—	—	—	202	277	484	—	—	35	—	
BV	05	SEB	NW	SW	SW	05	06	30	388 520	3 892 120	MA LH	SH	1.6	0.2	1.5	0.2	1.9	—	—	—	—	303	167	475	—	—	35	—	
BV	06	SEB	NW	NE	SE	06	06	30	388 130	3 898 540	MA LH	SH	4.1	0.1	1.2	—	—	—	—	—	—	65	405	475	—	—	35	—	
BV	07	SEB	NW	NW	SE	06	06	30	387 730	3 898 540	MA LH	SH	4.7	—	—	—	—	—	—	—	—	38	432	475	—	—	35	—	
BV	08	SEB	SW	NE	SE	06	06	30	387 940	3 898 250	MA LH	SH	4.0	0.1	0.8	—	—	—	—	—	—	170	300	475	—	—	35	—	
BV	09	SEB	SW	SW	SE	06	06	30	387 740	3 897 980	MA LH	SH	5.8	—	—	—	—	—	—	—	—	268	201	475	—	—	35	—	
BV	09A	SEB	NW	SW	SW	06	06	30	386 640	3 330 030	MA LH	MW	6.0	—	—	—	—	—	—	—	—	—	—	490	—	A	25, 27, 28	Loc. of slope; could not loc. samp. site.	
BV	10	SEB	SE	NW	NW	07	06	30	386 770	3 897 430	MA LH	SH	4.3	—	—	—	—	—	—	—	—	—	—	470	—	—	17	—	
BV	11	SEB	SE	SW	NW	07	06	30	386 820	3 897 110	MA LH	SH	2.6	1.2	3.0	—	—	—	—	—	—	340	135	482	—	—	35	—	
BV	12	SEB	SE	NE	NW	07	06	30	387 220	3 897 440	MA LH	SH	5.2	—	—	—	—	—	—	—	—	—	—	478	—	—	17	—	
BV	13	SEB	NE	SE	NW	07	06	30	387 520	3 897 200	MA LH	SH	4.2	—	—	—	—	—	—	—	—	—	—	510	—	—	17	—	
BV	14	SEB	—	—	CNE	07	06	30	388 010	3 897 330	MA LH	SH	3.6	—	—	—	—	—	—	—	—	—	—	500	—	—	17	—	
BV	15	SEB	NW	SE	NE	07	06	30	388 080	3 897 140	MA L	SH	9.5*	—	—	—	—	—	—	—	—	300	191	309	—	—	35	* Described as 9.5' "shale & coal".	
BV	16	SEB	SE	NE	NW	09	06	30	390 660	3 897 440	SA CH	OT	0.5	—	—	—	—	—	—	—	—	0	590	590	—	—	17	—	
BV	16A	SEB	SW	SW	NW	16	06	30	390 030	3 895 400	MA LH	MW	5.2*	—	—	—	—	—	—	—	—	—	—	545	—	A	27, 28	Loc. (approx.) of slope, could not loc. samp. site. *Overlain by 2.5' of "shaly coal & shale".	
BV	17	SEB	SE	SE	SE	32	07	30	390 000	3 899 620	MA LH	ME	2.4	0.1	0.3	—	—	—	—	—	—	10 _e	490 _e	500	—	—	7	Loc. approx.	
BV	18	SEB	NW	SE	NE	12	06	31	386 320	3 897 230	MA LH	SH	1.0	2.6	2.8	—	—	—	—	—	—	221	258	485	—	—	35	—	
BV	19	SEB	NW	NE	NE	12	06	31	386 310	3 897 670	MA LH	SH	2.0	2.2	3.2	—	—	—	—	—	—	234	259	500	—	—	35	—	

Caulksville quadrangle (CV)																											
CV	01	LOG	SE	SW	SW	04	07	26	429 900	3 906 130	SA PA	MW	—*	—	—	—	—	—	—	—	—	—	460	—	A	19, 26	* Not reported.
CV	02	LOG	SE	SE	SW	06	07	26	427 010	3 906 220	SA PA	TP	—	—	—	—	—	—	—	—	—	—	410	—	A	19, 22	Loc. of shaft shown on map.
CV	03	LOG	NW	SW	SW	06	07	26	426 390	3 906 520	SA PA	MW	—*	—	—	—	—	—	—	—	—	—	430 _e	—	A	19, 26	* Not reported. Loc. of entry; could not loc. sample site.
CV	03A	LOG	NW	SW	SW	06	07	26	426 390	3 906 520	SA PA	MW	—*	—	—	—	—	—	—	—	—	—	430 _e	—	A	19, 26	* Not reported. Loc. of entry; could not loc. sample site.
CV	03B	LOG	NW	SW	SW	06	07	26	426 390	3 906 520	SA PA	MW	—*	—	—	—	—	—	—	—	—	—	430 _e	—	A	19, 26	* Not reported. Loc. of entry; could not loc. sample site.
CV	03C	LOG	NW	SW	SW	06	07	26	426 390	3 906 520	SA PA	MW	—	—	—	—	—	—	—	—	—	—	430 _e	—	A	19, 26	Loc. of entry. Composite of CV-3, 3A, 3B.
CV	03D	LOG	NW	SW	SW	06	07	26	426 390	3 906 520	SA PA	TP	—	—	—	—	—	—	—	—	—	—	410	—	A	19, 22	—
CV	04	LOG	SW	SW	NE	07	07	26	427 310	3 905 480	AT	DW	—*	—	—	—	—	—	—	—	3615	—3208	410	—	—	35	Loc. approx. *Not reported.
CV	05	LOG	SW	SW	NE	08	07	26	428 930	3 905 400	SA PA	TP	—	—	—	—	—	—	—	—	—	—	435	—	A	19, 35	Loc. of shaft shown on map.
CV	06	LOG	SE	SE	NE	08	07	26	429 410	3 906 020	SA PA	MW	—*	—	—	—	—	—	—	—	—	—	420	—	A	19, 26	* Not reported.
CV	07	LOG	SE	SE	NE	08	07	26	429 600	3 905 350	SA PA	MW	—*	—	—	—	—	—	—	—	—	—	430	—	A	19, 26	* Not reported. Loc. of entry. Composite of CV-1, 6, & 8.
CV	08	LOG	NE	NW	NW	09	07	26	429 870	3 906 000	SA PA	MW	—*	—	—	—	—	—	—	—	—	—	450	—	A	19, 26	* Not reported.
CV	09	LOG	SW	SE	NE	09	07	26	430 870	3 905 220	SA PA	TP	—	—	—	—	—	—	—	—	—	—	455	—	A	19, 35	Loc. of shaft shown on map.
CV	09A	LOG	NW	NE	NW	10	07	26	431 710	3 905 820	SA PA	MW	2.2	—	—	—	—	—	—	—	—	—	435	—	A	19, 27, 28	Loc. approx.
CV	10	LOG	SE	SE	SE	08	08	26	429 830	3 914 190	SA L	SH	0.5*	—	—	—	—	—	—	—	30	367	398	15	—	35	* Est. from E-log. Fault penetrated.
CV	10	LOG	SE	SE	SE	08	08	26	429 830	3 914 190	SA CH	SH	0.7*	—	—	—	—	—	—	—	45	352	398	—	—	35	* Est. from E-log. Fault penetrated.
CV	11	LOG	SW	NW	NW	16	08	26	429 880	3 913 900	SA L	SH	1.2*	—	—	—	—	—	—	—	32	387	420	14	—	35	* Est. from E-log.
CV	11	LOG	SW	NW	NW	16	08	26	429 880	3 913 900	SA CH	SH	0.8*	—	—	—	—	—	—	—	47	372	420	—	—	35	* Est. from E-log.
CV	12	LOG	SW	NW	NW	16	08	26	429 880	3 913 870	SA L	SH	1.2*	—	—	—	—	—	—	—	32	387	420	12	—	35	* Est. from E-log.
CV	12	LOG	SW	NW	NW	16	08	26	429 880	3 913 870	SA CH	SH	1.1*	—	—	—	—	—	—	—	44	375	420	—	—	35	* Est. from E-log.
CV	13	LOG	NE	NE	NE	17	08	26	429 850	3 914 140	SA L	SH	0.7	5.0	0.5*	—	—	—	—	—	31	366	400	12	—	35	* Est. from E-log. Fault penetrated.
CV	13	LOG	NE	NE	NE	17	08	26	429 850	3 914 140	SA CH	SH	0.8*	—	—	—	—	—	—	—	47	352	400	—	—	35	* Est. from E-log.
CV	14	LOG	NE	NW	SW	16	08	26	430 030	3 913 310	SA L	OT	1.2	—	—	—	—	—	—	—	0	420	420	—	—	34	—
CV	15	LOG	NE	SW	SE	28	08	26	430 830	3 909 640	SA PA	TP	—	—	—	—	—	—	—	—	—	—	375	—	A	19, 35	Loc. of entry shown on map.
CV	15A	LOG	NW	SE	SW	29	08	26	428 530	3 909 600	SA PA	ME	2.3	—	—	—	—	—	—	—	10 _e	380 _e	390	—	A	7, 16, 35	—
CV	16	LOG	NW	SE	SW	30	08	26	426 970	3 909 740	SA PA	TP	—	—	—	—	—	—	—	—	—	—	370	—	A	19, 35	Loc. of entry shown on map.
CV	17	LOG	NE	SE	NE	14	07	27	424 470	3 904 150	MA LH	OT	1.3	—	—	—	—	—	—	—	0	440	440	—	—	34	—
CV	18	LOG	SE	NE	NW	22	07	27	421 940	3 902 850	AT	DW	1.0	—	—	—	—	—	—	—	2713	—2234	490	—	—	16	—
Cauthron quadrangle (CT)																											
CT	01	SCT	NE	SE	SE	07	03	31	379 470	3 866 050	MA LH	ME	3.3	—	—	—	—	—	—	—	0	730	730	—	—	35	—
CT	02	SEB	SW	NW	SE	08	03	31	380 350	3 866 340	MA L	SH	1.0	—	—	—	—	—	—	—	88	706	795	22	—	35	Overlain by 0.9' "bony coal".
CT	02	SEB	SW	NW	SE	08	03	31	380 350	3 866 340	MA LH	SH	0.9	4.9	1.3	—	—	—	—	—	103	683	795	—	—	35	—
CT	03	SCT	NW	NE	SE	08	03	31	380 920	3 866 470	MA LH	PP	2.3	—	—	—	—	—	—	—	5 _e	693 _e	700	—	A	19, 35	Weathered.
CT	04	SCT	NE	SW	NE	09	03	31	382 150	3 866 730	MA LH	SH	1.0	1.8	0.4	7.6	1.0	—	—	—	96	692	800	—	—	35	A 2.2' "Bony coal", 9.1' below datum coal.
CT	04A	SEB	NW	SE	NW	19	04	31	378 710	3 873 310	MA LH	DW	—*	—	—	—	—	—	—	—	608	226	834	778	—	35	* Not reported.
CT	04A	SEB	NW	SE	NW	19	04	31	378 710	3 873 310	AT	DW	—*	—	—	—	—	—	—	—	1286	—552	834	—	—	35	* Not reported.
CT	05	SEB	SE	NE	SE	22	04	32	374 840	3 872 930	MA L	SH	0.7	—	—	—	—	—	—	—	724	25	750	115	—	35	—
CT	05	SEB	SE	NE	SE	22	04	32	374 840	3 872 930	MA LH	SH	0.7	1.5	3.8	—	—	—	—	—	835	—90	750	—	—	35	—

See footnotes at end of table.

TABLE 1. — BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

Quadrangle	ID Number	Location								Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks							
		County 1/	Public Lands Subdivisions					UTM Grid System				Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Datum mean sea level												
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15																				Meters north of Equator						
			10 Ac.	40 Ac.	160 Ac.							C	P	C	P	C	P	C	P	C	P		C	Base of coal						Ground surface					
CT	06	SEB	SW	SW	NW	23	04	32	374 970	3 873 280	MA L	SH	2.7*	-	-	-	-	-	-	-	-	476	241	720	35	-	35	*Described as 2.7' of "coal & shale".							
CT	06	SEB	SW	SW	NW	23	04	32	374 970	3 873 280	MA L	SH	0.5*	-	-	-	-	-	-	-	-	514	205	720	72	-	35	*Underlain by 8.5' of "shale & coal".							
CT	06	SEB	SW	SW	NW	23	04	32	374 970	3 873 280	MA LH	SH	1.6	0.1	1.1*	-	-	-	-	-	-	584	133	720	-	-	35	*2.7' "shale & coal" shortly below.							
CT	07	SEB	SW	SW	SW	23	04	32	375 060	3 872 470	MA L	SH	0.7*	-	-	-	-	-	-	-	-	742	27	770	60	-	35	*Underlain by 2' "shale & coal".							
CT	07	SEB	SW	SW	SW	23	04	32	375 060	3 872 470	MA L	SH	0.8	-	-	-	-	-	-	-	-	808	-39	770	42	-	35	-							
CT	07	SEB	SW	SW	SW	23	04	32	375 060	3 872 470	MA LH	SH	3.8*	-	-	-	-	-	-	-	-	847	-81	770	-	-	35	*Excludes a 0.4' coal 1.7' below.							
CT	08	SEB	SE	NE	SW	23	04	32	375 690	3 872 870	MA L	SH	0.7	-	-	-	-	-	-	-	-	726	23	750	12	-	35	-							
CT	08	SEB	SE	NE	SW	23	04	32	375 690	3 872 870	MA L	SH	1.0*	-	-	-	-	-	-	-	-	738	11	750	53	-	35	*Shaly coal.							
CT	08	SEB	SE	NE	SW	23	04	32	375 690	3 872 870	MA L	SH	0.6*	-	-	-	-	-	-	-	-	791	-42	750	17	-	35	*Overlain by 0.5' "shaly coal".							
CT	08	SEB	SE	NE	SW	23	04	32	375 690	3 872 870	MA L	SH	1.2	-	-	-	-	-	-	-	-	808	-59	750	21	-	35	-							
CT	08	SEB	SE	NE	SW	23	04	32	375 690	3 872 870	MA LH	SH	0.7	2.0	2.8	0.2	1.5	-	-	-	-	823	-80	750	-	-	35	-							
CT	09	SEB	SW	SW	NW	24	04	32	376 610	3 873 220	MA L	SH	0.7	-	-	-	-	-	-	-	-	530	204	735	66	-	35	-							
CT	09	SEB	SW	SW	NW	24	04	32	376 610	3 873 220	MA L	SH	0.5	-	-	-	-	-	-	-	-	596	138	735	50	-	35	-							
CT	09	SEB	SW	SW	NW	24	04	32	376 610	3 873 220	MA LH	SH	0.6	1.5	3.1	-	-	-	-	-	-	638	88	735	-	-	35	-							
CT	10	SEB	NE	SW	SW	24	04	32	376 730	3 872 590	MA L	SH	0.7	-	-	-	-	-	-	-	-	832	-38	795	108	-	35	-							
CT	10	SEB	NE	SW	SW	24	04	32	376 730	3 872 570	MA LH	SH	0.7	1.8	2.4	0.2	0.9	8.3	0.8	-	-	920	-146	795	-	-	35	-							
Cecil quadrangle (CE)																																			
CE	01	FRK	SE	SE	SE	08	08	22	410 170	3 915 300	MA LH	SH	0.7	0.9	0.9*	-	-	-	-	-	-	118	339	460	-	-	35	*Est. from E-log.							
CE	02	FRK	NE	NW	SW	09	08	28	410 710	3 915 890	MA LH	SH	1.8*	-	-	-	-	-	-	-	-	75	376	453	-	-	35	*Est. from E-log.							
CE	03	FRK	SW	SE	SE	09	08	28	411 670	3 915 230	MA LH	SH	1.2*	-	-	-	-	-	-	-	-	93	314	408	-	-	35	*Est. from E-log.							
CE	04	FRK	SW	NE	NE	16	08	28	411 700	3 914 960	MA LH	SH	0.9*	-	-	-	-	-	-	-	-	150	289	440	-	-	35	*Est. from E-log.							
Charleston quadrangle (CS)																																			
CS	01	FRK	NW	NE	NW	17	07	28	408 880	3 905 170	SA CH	OT	1.7	-	-	-	-	-	-	-	-	0	550	550	-	-	22	-							
CS	02	FRK	NE	NE	NE	18	07	28	408 430	3 905 370	SA CH	ME	1.5	-	-	-	-	-	-	-	-	0	530	530	-	-	22	-							
CS	03	FRK	NE	NW	SE	30	07	28	407 700	3 901 210	SA PA	OT	1.4	-	-	-	-	-	-	-	-	0	550	550	-	-	22	-							
CS	04	FRK	NW	NE	SE	30	07	28	407 920	3 901 190	SA PA	OT	1.5	-	-	-	-	-	-	-	-	0	570	570	-	-	22	-							
CS	05	FRK	NW	NW	NE	19	08	28	398 030	3 913 820	MA LH	SH	0.7	1.3	0.7*	-	-	-	-	-	-	54	409	466	-	-	35	*Est. from E-log.							

CS	06	FRK	NE	SW	NW	31	08	28	407 240	3 909 900	SA CH	SH	1.4	—	—	—	—	—	—	—	24	475	500	—	—	35	—
CS	07	FRK	NW	SE	NW	31	08	28	407 430	3 909 890	SA CH	SH	1.3	—	—	—	—	—	—	—	26	473	500	—	—	35	—
CS	08	FRK	SE	NE	NW	31	08	28	407 660	3 910 150	SA CH	SH	1.2	—	—	—	—	—	—	—	20	479	500	—	—	35	—
CS	09	FRK	NE	SE	NW	31	08	28	407 660	3 909 880	SA CH	SH	1.2	—	—	—	—	—	—	—	34	460	495	—	—	35	—
CS	10	FRK	—	—	C	31	08	28	407 650	3 909 660	SA CH	SH	1.2	—	—	—	—	—	—	—	29	470	500	—	—	35	—
CS	11	FRK	NE	NE	SW	31	08	28	407 630	3 909 480	SA CH	SH	1.2	—	—	—	—	—	—	—	21	478	500	—	—	35	—
CS	12	FRK	—	—	CS½	31	08	28	407 620	3 909 270	SA CH	SH	1.2	—	—	—	—	—	—	—	20	489	510	—	—	35	—
CS	13*																										
CS	14	FRK	NW	NW	NE	31	08	28	407 860	3 910 290	SA CH	SH	1.2	—	—	—	—	—	—	—	23	481	505	—	—	35	—
CS	15	FRK	SW	NW	NE	31	08	28	407 850	3 910 090	SA CH	SH	1.5	—	—	—	—	—	—	—	25	474	500	—	—	35	—
CS	16	FRK	SW	SW	NE	31	08	28	407 840	3 909 870	SA CH	SH	1.3	—	—	—	—	—	—	—	32	467	500	—	—	35	—
CS	17	FRK	SW	NW	SE	31	08	28	407 820	3 909 280	SA CH	SH	1.3	—	—	—	—	—	—	—	26	483	510	—	—	35	—
CS	18	FRK	NW	NE	NE	31	08	28	408 070	3 910 280	SA CH	SH	1.3	—	—	—	—	—	—	—	25	474	500	—	—	35	—
CS	19*																										
CS	20	FRK	SE	NW	NE	31	08	28	408 050	3 910 080	SA CH	SH	1.3	—	—	—	—	—	—	—	29	470	500	—	—	35	—
CS	21	FRK	NE	SW	NE	31	08	28	408 030	3 909 870	SA CH	SH	1.2	—	—	—	—	—	—	—	35	474	510	—	—	35	—
CS	22	FRK	SE	NW	SE	31	08	28	408 020	3 909 280	SA CH	SH	1.6	—	—	—	—	—	—	—	29	474	505	—	—	35	—
CS	23	FRK	SW	NE	NE	31	08	28	408 200	3 910 150	SA CH	ST	1.3	—	—	—	—	—	—	—	15 _e	474 _e	490	—	—	22	—
CS	24	FRK	NE	NE	NE	31	08	28	408 280	3 910 260	SA CH	SH	1.3	—	—	—	—	—	—	—	19	480	500	—	—	35	—
CS	25	FRK	NW	SE	SE	31	08	28	408 210	3 909 230	SA CH	SH	1.5	—	—	—	—	—	—	—	16	487	505	—	—	35	—
CS	26	FRK	SW	SW	NW	32	08	28	408 440	3 909 850	SA CH	SH	1.3	—	—	—	—	—	—	—	31	478	510	—	—	35	—
CS	27	FRK	SW	SW	NW	32	08	28	408 440	3 909 690	SA CH	SH	1.2	—	—	—	—	—	—	—	27	482	510	—	—	35	—
CS	28	FRK	NW	NW	SW	32	08	28	408 440	3 909 500	SA CH	SH	1.3	—	—	—	—	—	—	—	30	479	510	—	—	35	—
CS	29	FRK	SW	NW	SW	32	08	28	408 470	3 909 380	SA CH	ST	1.3	—	—	—	—	—	—	—	10 _e	489 _e	500	—	—	22	—
CS	30	FRK	SW	NW	NW	32	08	28	408 610	3 910 080	SA CH	ST	1.2	—	—	—	—	—	—	—	10 _e	489 _e	500	—	—	22	—
CS	31	FRK	NW	SW	NW	32	08	28	408 540	3 909 950	SA CH	SH	1.3	—	—	—	—	—	—	—	30	479	510	—	—	35	—
CS	32	FRK	NW	SW	NW	32	08	28	408 520	3 909 850	SA CH	SH	0.3	—	—	—	—	—	—	—	32	478	510	—	—	35	—
CS	33	FRK	SE	SW	NW	32	08	28	408 720	3 909 840	SA CH	SH	1.3	—	—	—	—	—	—	—	25	479	505	—	—	35	—
CS	34	FRK	SE	SW	NW	32	08	28	408 820	3 909 670	SA CH	SH	1.3	—	—	—	—	—	—	—	18	481	500	—	—	35	—
CS	35	FRK	NW	SE	NW	32	08	28	408 960	3 909 940	SA CH	SH	1.2	—	—	—	—	—	—	—	21	483	505	—	—	35	—
CS	36	FRK	SE	SE	NW	32	08	28	409 100	3 909 790	SA CH	ST	1.3	—	—	—	—	—	—	—	10 _e	489 _e	500	—	—	22	—
CS	37	FRK	NE	NE	SW	11	07	29	404 260	3 906 190	SA L	OT	0.8	—	—	—	—	—	—	—	0	470	470	—	—	22	—
CS	38	FRK	SE	SE	SE	11	07	29	404 690	3 905 500	SA CH	ST	0.9	—	—	—	—	—	—	—	10 _e	459 _e	470	—	—	22	—
CS	39	FRK	NW	SE	SW	12	07	29	405 570	3 905 860	SA CH	OT	1.0	—	—	—	—	—	—	—	0	535	535	—	—	22	—
CS	40	FRK	NE	SW	SE	12	07	29	406 270	3 905 680	SA CH	OT	1.7	—	—	—	—	—	—	—	0	525	525	—	—	22	—
CS	41	FRK	NE	SE	SE	12	07	29	406 640	3 905 700	SA CH	ME	1.5	—	—	—	—	—	—	—	0	535	535	—	—	22	—
CS	42	FRK	NE	NE	NE	15	07	29	403 400	3 905 480	SA CH	OT	1.5	—	—	—	—	—	—	—	0	460	460	—	—	22	—
CS	43	SEB	NE	NW	NW	20	07	29	398 750	3 904 000	SA CH	ME	1.5	—	—	—	—	—	—	—	0	460	460	—	A	22, 27, 28	Loc. approx.
CS	44	SEB	SE	NW	NW	20	07	29	398 750	3 903 670	SA CH	OT	1.5	—	—	—	—	—	—	—	0	430	430	—	—	22	—
CS	45	SEB	SE	NE	SW	20	07	29	399 140	3 902 890	SA CH	OT	1.7	—	—	—	—	—	—	—	0	425	425	—	—	22	—

See footnotes at end of table.

CL	04	JON	SE	NW	SW	07	09	23	455 560	3 922 660	MA LH SH	1.3*	—	—	—	—	—	—	—	—	377	10	388	—	—	35	* Est. from E-log. Near a fault.
CL	05	JON	NE	NE	SW	08	09	23	457 650	3 922 810	MA L SH	1.0*	—	—	—	—	—	—	—	—	349	-6	344	19	—	35	*E-logs available.
CL	05	JON	NE	NE	SW	08	09	23	457 650	3 922 810	MA LH SH	1.3*	—	—	—	—	—	—	—	—	368	-25	344	—	—	35	*E-logs available.
CL	06	JON	SE	NW	SE	09	09	23	459 750	3 922 550	SA L OT	0.8	—	—	—	—	—	—	—	—	0	505	505	—	—	32	Near Oakland fault.
CL	07	JON	NW	SE	SE	09	09	23	459 920	3 922 290	MA LH SH	0.8	1.7	1.5*	—	—	—	—	—	—	580	-70	520	—	—	35	*Est. from E-log.
CL	08	JON	SW	SW	SW	15	09	23	460 230	3 920 520	MA LH SH	0.8	0.8	1.5*	—	—	—	—	—	—	134	181	320	—	—	35	*Est. from E-log.
CL	09	JON	NE	SW	SE	16	09	23	459 710	3 920 760	MA LH SH	3.3*	—	—	—	—	—	—	—	—	125	192	320	—	—	35	*Est. from E-log.
CL	10A	JON	SE	NW	SW	16	09	23	458 880	3 920 880	MA LH MW	—*	—	—	—	—	—	—	—	—	—	—	365	—	A	19, 25	Loc. of shaft. Could not loc. samp. site. *Not reported.
CL	10B	JON	SE	NW	SW	16	09	23	458 880	3 920 880	MA LH MW	—*	—	—	—	—	—	—	—	—	—	—	365	—	A	19, 25	Loc. of shaft. Could not loc. samp. site. *Not reported.
CL	10C	JON	SE	NW	SW	16	09	23	458 880	3 920 880	MA LH MW	—*	—	—	—	—	—	—	—	—	—	—	365	—	A	19, 25	Loc. of shaft. Could not loc. samp. site. *Not reported.
CL	10D	JON	SE	NW	SW	16	09	23	458 880	3 920 880	MA LH MW	—	—	—	—	—	—	—	—	—	—	—	365	—	A	19, 25	Loc. of shaft. Composite of CL-10A, 10B, 10C.
CL	11	JON	SW	NW	SW	16	09	23	458 670	3 920 905	MA LH SH	3.0	—	—	—	—	—	—	—	—	—	—	360	—	—	35	—
CL	12	JON	SE	SW	SE	17	09	23	458 070	3 920 620	MA LH SH	2.3*	—	—	—	—	—	—	—	—	51	296	349	—	—	35	*Est. from E-log.
CL	13	JON	SE	SW	SE	17	09	23	457 920	3 920 820	MA LH SH	3.5	—	—	—	—	—	—	—	—	112	248	364	—	—	35	—
CL	14	JON	NE	NW	SE	17	09	23	458 040	3 921 135	MA LH SH	2.2*	—	—	—	—	—	—	—	—	181	202	385	—	—	35	*Est. from E-log.
CL	15	JON	SE	NW	NE	17	09	23	457 950	3 921 700	MA LH MS	1.1	0.2	1.6	—	—	—	—	—	—	243	144	390	—	—	32, 35	—
CL	16	JON	NW	NE	SW	17	09	23	457 390	3 921 240	MA LH SH	2.8	—	—	—	—	—	—	—	—	240	152	395	—	—	35	—
CL	17	JON	—	N½	SW	17	09	23	457 290	3 921 000	MA LH TP	—	—	—	—	—	—	—	—	—	—	—	—	—	A	19, 35	Loc. of shaft shown on map.
CL	18	JON	NE	NW	SW	18	09	23	455 550	3 921 230	MA LH SH	1.2*	—	—	—	—	—	—	—	—	78	281	360	—	—	35	*Est. from E-log.
CL	19	JON	NW	SW	NW	18	09	23	455 420	3 921 680	MA LH SH	1.5	2.5	1.3	—	—	—	—	—	—	299	61	365	—	—	35	—
CL	20	JON	SW	SW	SW	18	09	23	455 260	3 920 680	MA LH SH	1.3*	—	—	—	—	—	—	—	—	117	222	340	—	—	35	*Est. from E-log. Full thk. not penetrated.
CL	21	JON	NW	NW	NW	19	09	23	455 250	3 920 430	MA LH SH	2.5	—	—	—	—	—	—	—	—	—	—	337	—	—	35	—
CL	22	JON	NW	NE	SW	19	09	23	455 640	3 919 590	MA LH SH	1.9*	—	—	—	—	—	—	—	—	231	102	335	—	—	35	*Est. from E-log. Near a fault.
CL	23	JON	SW	NE	SW	19	09	23	455 630	3 919 320	SA L SH	2.2*	—	—	—	—	—	—	—	—	50	283	335	160	—	35	*Est. from E-log. Penetrates a fault.
CL	23	JON	SW	NE	SW	19	09	23	455 630	3 919 320	MA LH SH	2.0*	—	—	—	—	—	—	—	—	210	123	335	—	—	35	*Est. from E-log. Penetrates a fault.
CL	24	JON	NW	SE	SW	19	09	23	455 630	3 919 250	SA L SH	*	—	—	—	—	—	—	—	—	39	296	335	—	—	35	*Indeterminate: Probably thin, near a fault.
CL	25	JON	NW	SW	NE	19	09	23	456 140	3 919 920	MA LH SH	2.8	—	—	—	—	—	—	—	—	—	—	325	—	—	35	—
CL	26	JON	NW	NE	SE	19	09	23	456 470	3 919 540	MA LH SH	2.8*	—	—	—	—	—	—	—	—	265	62	330	—	—	35	*Est. from E-log.
CL	27	JON	SW	NE	NE	19	09	23	456 660	3 920 230	MA LH OT	2.9	—	—	—	—	—	—	—	—	0	350	350	—	—	32	—
CL	28	JON	NE	NE	NW	22	09	23	460 940	3 920 240	MA L SH	*	—	—	—	—	—	—	—	—	46	273	320	167	—	35	*Indeterminate.
CL	28	JON	NE	NE	NW	22	09	23	460 940	3 920 240	MA LH SH	1.2	3.0	1.2*	—	—	—	—	—	—	209	106	320	—	—	35	*Est. from E-log.
CL	29	JON	NE	SE	NW	22	09	23	460 920	3 919 820	MA LH SH	*	—	—	—	—	—	—	—	—	195	122	318	—	—	35	*Indeterminate.
CL	30	JON	NW	NW	SW	23	09	23	461 770	3 919 470	MA LH SH	1.5*	—	—	—	—	—	—	—	—	262	71	335	—	—	35	Near a major fault. *Est. from E-log.
CL	31	JON	SE	SW	SW	23	09	23	462 040	3 918 740	AT SH	*	—	—	—	—	—	—	—	—	318	21	330	—	—	35	*Indeterminate: probably thin.
CL	32	JON	NW	NE	SW	25	09	23	463 730	3 917 850	SA L OT	0.8	—	—	—	—	—	—	—	—	0	420	420	—	—	32	—
CL	33	LOG	NW	NE	SE	28	09	23	459 770	3 917 890	MA LH SH	1.8*	—	—	—	—	—	—	—	—	416	-88	330	—	—	35	Est. from E-log.
CL	34	LOG	NW	SE	NW	28	09	23	453 060	3 918 210	MA LH SH	3.8	—	—	—	—	—	—	—	—	437	-116	325	—	—	35	—
CL	35	LOG	SW	NW	NW	29	09	23	457 320	3 919 290	MA LH SH	3.2*	—	—	—	—	—	—	—	—	270	37	310	—	—	7	Loc. suspect. Near or on a fault. *Excludes a 2" parting.
CL	36	JON	NW	NE	SE	30	09	23	456 860	3 918 830	MA LH SH	3.3	—	—	—	—	—	—	—	—	270	37	310	—	—	35	Near a fault.
CL	37	JON	SW	SW	NW	30	09	23	455 610	3 918 960	MA LH SH	1.8	1.0	1.0*	—	—	—	—	—	—	732	-398	338	—	—	35	*Est. from E-log.

See footnotes at end of table.

TABLE 1. — BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

Quadrangle	ID Number	Location								Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks	
		County 1/	Public Lands Subdivisions					UTM Grid System				Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Base of coal	Ground surface					
			1/4			Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15																				Meters north of Equator
			10 Ac.	40 Ac.	160 Ac.																								
CL	38	LOG	—	CNE	SW	31	09	23	456 170	3 917 130	MA LH	SH	2.0	0.4	1.7	—	—	—	—	—	—	—	518	—112	410	—	—	7	Loc. suspect.
CL	39	LOG	SE	NE	NW	32	09	23	457 780	3 917 790	MA LH	DW	*	—	—	—	—	—	—	—	—	669	—133	670	—	—	32	*Not reported.	
CL	40	LOG	SE	SE	NE	32	09	23	458 690	3 917 400	MA LH	SH	3.3*	—	—	—	—	—	—	—	—	451	86	540	—	—	7	Loc. suspect. *Excludes a 7" parting.	
CL	41	JON	NE	NW	SE	35	09	23	462 740	3 916 220	MA LH	SH	1.7*	—	—	—	—	—	—	—	—	456	—123	335	—	—	35	*Est. from E-log.	
CL	42	JON	NE	NE	SE	28	10	23	460 240	3 927 500	MA LH	ST	1.2	—	—	—	—	—	—	—	—	15 _e	404 _e	420	—	—	32	—	
CL	43	JON	NE	NW	SE	28	10	23	459 760	3 927 630	MA LH	ST	1.4	—	—	—	—	—	—	—	—	15 _e	414 _e	430	—	—	32	—	
CL	44	JON	NE	SW	NW	29	10	23	457 470	3 927 100	MA L	OT	1.3	—	—	—	—	—	—	—	—	0	457	457	—	—	32	—	
CL	45	JON	NE	SW	NW	29	10	23	457 470	3 927 050	MA L	OT	1.6	—	—	—	—	—	—	—	—	0	461	461	—	—	32	—	
CL	46	JON	NE	SW	NW	29	10	23	457 470	3 927 000	MA L	OT	1.1	—	—	—	—	—	—	—	—	0	457	457	—	—	32	—	
CL	47	JON	NW	NE	SE	30	10	23	456 820	3 927 620	MA LH	ST	1.3	—	—	—	—	—	—	—	—	10 _e	399 _e	410	—	—	32	—	
CL	48	JON	NW	NE	NW	30	10	23	455 990	3 928 410	MA LH	ST	1.5	—	—	—	—	—	—	—	—	15 _e	443	460	—	—	32	—	
CL	49	JON	SW	NE	NW	30	10	23	455 880	3 928 290	MA LH	ST	1.1	—	—	—	—	—	—	—	—	15 _e	434 _e	450	—	—	32	—	
CL	50	JON	NE	NW	SE	12	09	24	454 850	3 921 460	MA LH	SH	1.7	1.0	1.5	—	—	—	—	—	—	339	5	348	—	—	35	—	
CL	51	JON	SE	SE	NE	13	09	24	454 850	3 921 460	MA LH	SH	1.3	1.2	1.3*	—	—	—	—	—	—	299	35	338	—	—	35	*Est. from E-log.	
CL	52	JON	NE	NE	NE	24	09	24	455 100	3 920 380	MA LH	MW	1.2	0.3	1.5	—	—	—	—	—	—	—	—	—	—	A	9, 27, 28	—	
CL	53	LOG	SE	SE	SE	36	10	24	455 530	3 916 570	MA LH	ST	3.3*	—	—	—	—	—	—	—	—	572	—227	348	—	—	35	Near a fault. *Est. from E-log.	
CL	54	JON	NE	SW	NE	36	10	24	454 940	3 926 600	MA LH	ST	1.5	—	—	—	—	—	—	—	—	15 _e	408 _e	425	—	—	32	—	
Coal Hill quadrangle (CH)																													
CH	01	JON	SW	SE	NW	06	08	25	436 020	3 915 810	MA M	SH	0.5*	—	—	—	—	—	—	—	—	156	209	365	363	—	35	*Est. from E-log and samp. log.	
CH	01	JON	SW	SE	NW	06	08	25	436 020	3 915 810	MA L	SH	0.5*	—	—	—	—	—	—	—	—	520	—154	365	33	—	35	*Est. from E-log and samp. log.	
CH	01	JON	SW	SE	NW	06	08	25	436 020	3 915 810	MA LH	SH	1.3*	—	—	—	—	—	—	—	—	551	—187	365	—	—	35	*Est. from E-log and samp. log.	
CH	02	JON	SE	SE	SW	03	09	25	441 420	3 924 400	AT —	DW	—*	—	—	—	—	—	—	—	—	380	309	381	—	—	32	*Thk. not reported.	
CH	03	JON	SW	SW	SE	04	09	25	439 980	3 924 550	AT —	OT	0.5	—	—	—	—	—	—	—	—	0	450	450	—	—	32	Near a fault.	
CH	04	JON	NE	SW	NW	19	09	25	436 060	3 920 730	MA LH	SH	1.8	—	—	—	—	—	—	—	—	143	280	425	—	—	35	—	
CH	05	JON	NW	SW	SW	19	09	25	435 890	3 919 995	MA LH	SH	3.7	—	—	—	—	—	—	—	—	—	—	440	—	—	35	—	
CH	06	JON	SE	NW	SE	19	09	25	436 740	3 920 120	MA LH	MS	3.1	—	—	—	—	—	—	—	—	160	267	430	—	—	35	Excludes a 0.3" parting.	
CH	06A	JON	SE	NW	SE	19	09	25	436 740	3 920 120	MA LH	MW	2.0	0.5	1.4	—	—	—	—	—	—	—	—	430	—	A	27, 28	Loc. of shaft; could not loc. samp. site.	
CH	06B	JON	SE	NW	SE	19	09	25	436 740	3 920 120	MA LH	MW	1.7	0.6	1.4	—	—	—	—	—	—	—	—	430	—	A	27, 28	Loc. of shaft; could not loc. samp. site.	

27, 28	Loc. of shaft shown on map.
7, 35	—
35	—
35	—
7, 35	—
35	—
35	—
35	—
35	*Excludes a 0.3-1.0' parting.
35	—
35	*Excludes a 0.3-1.0' parting.
35	*Excludes a 0.3' parting.
35	—
35	*Est. by driller.
7, 35	—
35	—
7, 35	—
35	*Est. from E-log and samp. log.
35	*Est. from E-log and samp. log. Near a fault.
35	*Est. from E-log and samp. log.
35	*Est. from E-log and samp. log.
35	*Est. from E-log and samp. log.
35	*Est. from E-log and samp. log. Near a fault.
35	—
35	—
35	—
7, 35	—
32	—
35	—
35	—
35	—
35	—
35	—
35	—
35	*Only one bench measured.
19, 25, 35	Loc. of shaft. Could not loc. samp. site.
19, 25, 35	Loc. of shaft. Could not loc. samp. site.
19, 25, 35	Loc. of shaft. Could not loc. samp. site.
19, 25, 35	Loc. of shaft. Composite of 41A, B, C.
35	*Excludes 0.3' parting.

TABLE 1. — BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

Quadrangle	ID Number	County <u>1/</u>	Location								Formation and coal bed <u>2/</u>	Type of site <u>3/</u>	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses <u>4/</u>	Sources of data <u>5/</u>	Remarks
			Public Lands Subdivisions						UTM Grid System				Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Base of coal	Ground surface				
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15	Meters north of Equator																			
													C	P	C	P	C	P	C	P	C								
CH	43	JON	SW	NE	NW	31	09	25	436 200	3 917 810	MA LH SH	3.3	-	-	-	-	-	-	-	-	-	-	-	355	-	-	35	-	
CH	44	JON	NE	NE	NE	31	09	25	437 040	3 917 810	MA LH SH	1.7	6.3	1.6	-	-	-	-	-	-	-	-	267	76	352	-	-	35	Almost on Spadra fault.
CH	45	JON	NE	NE	SW	31	09	25	436 390	3 917 120	MA L SH	1.0*	-	-	-	-	-	-	-	-	-	-	120	229	350	24	-	35	*Est. from E-log and samp. log.
CH	45	JON	NE	NE	SW	31	09	25	436 390	3 917 120	MA LH SH	1.5*	-	-	-	-	-	-	-	-	-	-	144	205	350	-	-	35	*Est. from E-log and samp. log.
CH	46	JON	SW	SW	SW	31	09	25	435 610	3 916 540	MA LH SH	1.8*	-	-	-	-	-	-	-	-	-	-	148	203	353	-	-	35	*Est. from E-log and samp. log.
CH	47	JON	SE	SE	SE	31	09	25	437 150	3 916 490	MA LH SH	1.3*	-	-	-	-	-	-	-	-	-	-	146	213	360	-	-	35	*Est. from E-log and samp. log.
CH	48	JON	SE	SW	SW	32	09	25	437 420	3 917 190	MA LH SH	0.8*	-	-	-	-	-	-	-	-	-	-	135	218	354	-	-	35	*Est. from E-log and samp. log. Full thk. penetrated?
CH	49	JON	NE	NW	NW	32	09	25	437 480	3 917 980	MA LH SH	1.8*	-	-	-	-	-	-	-	-	-	-	42	311	355	-	-	35	*Est. from E-log and samp. log.
CH	50	JON	SE	SW	NE	32	09	25	438 260	3 917 280	MA LH SH	1.0*	-	-	-	-	-	-	-	-	-	-	162	189	352	-	-	35	*Est. from E-log and samp. log. Full thk. penetrated?
CH	51	JON	NW	NW	NE	34	09	25	441 250	3 917 820	MA LH SH	1.3*	-	-	-	-	-	-	-	-	-	-	218	131	350	-	-	35	*Est. from E-log and samp. log.
CH	52	JON	NE	NE	NE	34	09	25	442 020	3 917 800	MA LH SH	1.3*	-	-	-	-	-	-	-	-	-	-	274	78	353	-	-	35	*Est. from E-log and samp. log.
CH	53	JON	SE	SE	NE	34	09	25	441 990	3 917 010	MA LH SH	1.5*	-	-	-	-	-	-	-	-	-	-	658	-306	354	-	-	35	*Est. from E-log and samp. log.
CH	54	JON	SW	SW	SE	26	10	25	443 250	3 927 610	MA LH OT	1.7	-	-	-	-	-	-	-	-	-	-	0	475	475	-	-	35	Near a fault.
CH	55	JON	SE	SE	SW	34	10	25	441 410	3 926 130	AT - OT	0.8	-	-	-	-	-	-	-	-	-	-	0	420	420	-	-	32	-
CH	56	JON	SW	SE	SW	34	10	25	441 260	3 925 960	AT - OT	0.7	-	-	-	-	-	-	-	-	-	-	0	420	420	-	-	32	-
CH	57	FRK	NW	SW	NW	01	08	26	433 950	3 916 020	MA LH SH	1.0*	-	-	-	-	-	-	-	-	-	-	233	121	355	-	-	35	*Est. from E-log and samp. log. Fault penetrated.
CH	58	FRK	NW	SW	NW	01	08	26	433 940	3 915 970	MA L SH	0.7*	-	-	-	-	-	-	-	-	-	-	174	180	355	-	-	35	*Est. from E-log and samp. log. Fault penetrated.
CH	59	FRK	NW	SW	NW	01	08	26	433 950	3 915 930	MA L SH	0.5*	-	-	-	-	-	-	-	-	-	-	184	175	360	69	-	35	*Est. from E-log and samp. log.
CH	59	FRK	NW	SW	NW	01	08	26	433 950	3 915 930	MA LH SH	1.8	-	-	-	-	-	-	-	-	-	-	252	106	360	-	-	35	Near a fault.
CH	60	FRK	NW	NW	SW	01	08	26	433 940	3 915 620	MA L SH	-*	-	-	-	-	-	-	-	-	-	-	166	179	345	-	-	35	*Indeterminate: probably thin.
CH	61	FRK	SE	SE	NE	03	08	26	432 280	3 915 900	MA L SH	0.5*	-	-	-	-	-	-	-	-	-	-	92	268	360	-	-	35	*Est. from E-log and samp. log. MA LH absent.
CH	62	FRK	SE	NE	SE	03	08	26	432 270	3 915 570	MA L SH	-*	-	-	-	-	-	-	-	-	-	-	90	270	360	-	-	35	*Indeterminate: probably thin.
CH	63	FRK	SW	SE	NW	14	09	26	433 040	3 922 300	AT - DW	-*	-	-	-	-	-	-	-	-	-	-	565	-7	559	-	-	32	*Thk. not reported.
CH	64	FRK	NE	NW	SE	22	09	26	431 960	3 920 490	MA LH SH	4.0	-	-	-	-	-	-	-	-	-	-	-	-	390	-	-	35	-
CH	65	FRK	SW	SW	SE	22	09	26	432 200	3 919 995	MA LH SH	3.4	-	-	-	-	-	-	-	-	-	-	146	231	380	-	-	35	-
CH	66	FRK	-	CNE	SE	22	09	26	432 270	3 920 450	MA LH SH	1.3*	-	-	-	-	-	-	-	-	-	-	188	218	440	-	-	35	*Partial thk.: low. bench not penetrated.
CH	67	FRK	NE	SW	SW	23	09	26	432 800	3 920 060	MA LH SH	4.1	-	-	-	-	-	-	-	-	-	-	131	245	380	-	-	35	-
CH	68	FRK	SE	NE	SW	23	09	24	433 190	3 920 240	MA LH SH	3.9	-	-	-	-	-	-	-	-	-	-	139	238	380	-	-	35	-
CH	69	FRK	-	CNW	SE	23	09	26	433 500	3 920 410	MA LH SH	2.0	1.0	2.4	-	-	-	-	-	-	-	-	207	117	329	-	-	7, 35	Loc. uncertain.
CH	70	FRK	NE	SE	NE	23	09	26	434 060	3 920 920	MA LH SH	1.9*	-	-	-	-	-	-	-	-	-	-	230	193	425	-	-	35	*Partial thk.: low. bench not penetrated.

CH	71	FRK	NE	NE	SE	23	09	26	434 050	3 920 400	MA LH SH	3.8	—	—	—	—	—	—	—	—	112	279	395	—	—	35	—
CH	72	FRK	SE	NE	SE	23	09	26	433 940	3 920 270	MA LH SH	3.3	—	—	—	—	—	—	—	—	—	—	400	—	—	35	—
CH	73	FRK	NW	SE	SE	23	09	26	433 850	3 920 160	MA LH SH	3.8	—	—	—	—	—	—	—	—	147	249	400	—	—	35	—
CH	74	FRK	SE	SW	SE	23	09	26	433 640	3 919 990	MA LH SH	3.8*	—	—	—	—	—	—	—	—	152	244	400	—	—	35	*Excludes 0.8' parting.
CH	75	FRK	—	CSE	SE	23	09	26	433 880	3 919 980	MA LH MS	2.6	1.2	2.7	—	—	—	—	—	—	160	221	388	—	—	7	Loc. approx.
CH	76	FRK	NE	SE	SE	23	09	26	433 980	3 920 000	MA LH SH	4.6	—	—	—	—	—	—	—	—	—	—	380	—	—	35	—
CH	77	FRK	SW	NW	SW	24	09	26	434 200	3 920 280	MA LH SH	3.8*	—	—	—	—	—	—	—	—	113	258	375	—	—	35	*Excludes 0.8' parting.
CH	78	FRK	NE	NW	SW	24	09	26	434 310	3 920 420	MA LH SH	1.9	3.0	1.6	—	—	—	—	—	—	116	268	390	—	—	7, 35	—
CH	79	FRK	SW	NE	SW	24	09	26	434 680	3 920 190	MA LH SH	3.0*	—	—	—	—	—	—	—	—	66	326	395	—	—	35	*Excludes 5.0' parting.
CH	80	FRK	NW	SW	SE	24	09	26	434 930	3 920 000	MA LH SH	4.1	—	—	—	—	—	—	—	—	50	346	400	—	—	35	—
CH	81	FRK	SW	SW	SE	24	09	26	435 060	3 919 900	MA LH SH	4.5	—	—	—	—	—	—	—	—	27	349	380	—	—	7, 35	—
CH	82	FRK	SW	NW	SE	24	09	26	435 040	3 920 180	MA LH MS	4.2	—	—	—	—	—	—	—	—	80	306	390	—	—	35	—
CH	83	FRK	NE	NW	SE	24	09	26	435 220	3 920 420	MA LH SH	3.8	—	—	—	—	—	—	—	—	111	285	400	—	—	35	—
CH	84	FRK	SW	NE	NE	24	09	26	435 370	3 921 050	MA LH ME	1.0*	—	—	—	—	—	—	—	—	—	—	410	—	—	7, 35	*Partial thk.
CH	85	FRK	SW	SW	NE	25	09	26	434 940	3 918 940	AT — DW	—*	—	—	—	—	—	—	—	—	1170	—812	359	—	—	32	*Not reported.
CH	86	FRK	NW	SE	SE	25	09	26	435 320	3 918 410	MA LH MS	3.8	—	—	—	—	—	—	—	—	—	—	355	—	—	35	—
CH	87	FRK	NE	NE	SW	25	09	26	434 800	3 915 800	MA LH SH	2.9*	—	—	—	—	—	—	—	—	28	324	355	—	—	35	*Excludes 0.6' parting.
CH	88	FRK	NW	NE	SW	25	09	26	434 630	3 918 780	MA LH SH	3.6*	—	—	—	—	—	—	—	—	34	334	370	—	—	35	*Excludes 3.0' parting.
CH	89	FRK	SW	NE	NW	25	09	26	434 500	3 919 480	MA LH SH	2.0	—	—	—	—	—	—	—	—	16	347	365	—	—	35	—
CH	90A	FRK	SW	NW	NW	25	09	26	434 120	3 919 520	MA LH MW	—*	—	—	—	—	—	—	—	—	—	—	—	—	A	19, 25, 35	Loc. of shaft. Could not loc. samp. site. *Not reported.
CH	90B	FRK	SW	NW	NW	25	09	26	434 120	3 919 520	MA LH MW	—*	—	—	—	—	—	—	—	—	—	—	—	—	A	19, 25, 35	Loc. of shaft. Could not loc. samp. site. *Not reported.
CH	90C	FRK	SW	NW	NW	25	09	26	434 120	3 919 520	MA LH MW	—*	—	—	—	—	—	—	—	—	—	—	—	—	A	19, 25, 35	Loc. of shaft. Could not loc. samp. site. *Not reported.
CH	90D	FRK	SW	NW	NW	25	09	26	434 120	3 919 520	MA LH MW	—	—	—	—	—	—	—	—	—	—	—	—	—	A	19, 25, 35	Composite of 90A, B, C. Loc. of shaft.
CH	91	FRK	NW	NW	SW	25	09	26	434 250	3 918 840	MA LH SH	3.6	—	—	—	—	—	—	—	—	—	—	357	—	A	35	—
CH	92	FRK	SW	SW	SW	25	09	26	434 140	3 918 150	MA LH SH	3.2*	—	—	—	—	—	—	—	—	209	83	355	—	—	35	*Excludes a 0.4' parting.
CH	93	FRK	SE	NE	SE	26	09	26	433 950	3 918 630	MA LH SH	4.0*	—	—	—	—	—	—	—	—	106	245	355	—	—	35	*Drilled into a 4.0' mined-out area.
CH	94	FRK	NE	NE	SE	26	09	26	433 930	3 918 930	MA LH SH	5.0*	—	—	—	—	—	—	—	—	49	305	357	—	—	35	*Drilled into a 5.0' mined-out area.
CH	95	FRK	SE	NE	NE	26	09	26	434 050	3 919 380	MA LH SH	3.8*	—	—	—	—	—	—	—	—	58	308	370	—	—	35	*Excludes a 0.4' parting.
CH	96	FRK	NW	SW	NE	26	09	26	433 430	3 919 220	MA LH SH	4.2	—	—	—	—	—	—	—	—	36	328	368	—	—	7	—
CH	97	FRK	NE	NE	NE	26	09	26	433 160	3 919 710	MA LH SH	4.5	—	—	—	—	—	—	—	—	100	265	370	—	—	35	—
CH	98	FRK	NE	NE	SW	26	09	26	433 120	3 919 910	MA LH MS	3.5*	—	—	—	—	—	—	—	—	56	300	360	—	—	35	*Excludes a 0.2' parting.
CH	99	FRK	—	CNW	SW	26	09	26	432 600	3 918 820	MA LH SH	4.2	—	—	—	—	—	—	—	—	59	292	355	—	—	35	—
CH	100	FRK	NE	SW	SW	26	09	26	432 660	3 918 460	MA LH SH	3.7	—	—	—	—	—	—	—	—	—	—	370	—	—	35	—
CH	101	FRK	SW	SW	SW	26	09	26	432 580	3 918 310	MA L SH	1.0*	—	—	—	—	—	—	—	—	172	212	385	13	—	35	*Est. from E-log and samp. log.
CH	101	FRK	SW	SW	SW	26	09	26	432 580	3 918 310	MA LH SH	2.0*	—	—	—	—	—	—	—	—	184	199	385	—	—	35	*Est. from E-log and samp. log.
CH	102	FRK	SW	SE	SE	27	09	26	432 100	3 918 240	MA LH SH	3.5	—	—	—	—	—	—	—	—	134	232	370	—	—	35	—
CH	103	FRK	SE	SW	SE	27	09	26	431 995	3 918 340	MA LH SH	2.8	—	—	—	—	—	—	—	—	123	249	375	—	—	35	—
CH	104	FRK	NE	SW	SE	27	09	26	431 980	3 918 630	MA LH SH	4.2	—	—	—	—	—	—	—	—	106	270	380	—	—	35	—
CH	105	FRK	—	CNE	NE	27	09	26	432 260	3 919 700	MA LH SH	2.6	0.2	2.0	—	—	—	—	—	—	121	249	375	—	—	7	Loc. approx.
CH	106	FRK	NW	NE	NE	27	09	26	432 200	3 919 700	MA LH SH	3.6	—	—	—	—	—	—	—	—	—	—	375	—	—	35	—

See footnotes at end of table.

TABLE 1. – BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

22

Quadrangle	ID Number	Location								Formation and coal bed ^{2/}	Type of site ^{3/}	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses ^{4/}	Sources of data ^{5/}	Remarks	
		County ^{1/}	Public Lands Subdivisions					UTM Grid System				Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Base of coal	Ground surface					
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15																				Meters north of Equator
			10 Ac.	40 Ac.	160 Ac.							C	P	C	P	C	P	C	P	C									
CH	107	FRK	SW	NW	SW	35	09	26	432 400	3 917 190	MA LH	SH	0.8	—	—	—	—	—	—	—	—	259	.110	370	—	—	35	—	
CH	108	FRK	SE	NE	SW	35	09	26	433 110	3 917 080	MA LH	SH	1.2	—	—	—	—	—	—	—	—	315	39	355	—	—	35	—	
CH	109	FRK	NE	NE	SW	35	09	26	433 070	3 917 280	MA LH	SH	2.4*	—	—	—	—	—	—	—	—	210	148	360	—	—	35	*Partly shaly.	
CH	110	FRK	SE	SE	NW	35	09	26	433 180	3 917 440	MA LH	SH	0.5*	—	—	—	—	—	—	—	—	256	104	360	—	—	35	*Est. from E-log.	
CH	111	FRK	NW	NW	SE	35	09	26	433 380	3 917 210	MA LH	SH	0.8	0.3	0.9	—	—	—	—	—	—	212	143	355	—	—	35	—	
CH	112	FRK	NW	NE	NE	35	09	26	433 790	3 918 120	MA LH	SH	1.4	1.6	1.3	—	—	—	—	—	—	212	137	353	—	—	35	—	
CH	113	FRK	NW	NE	NE	35	09	26	433 780	3 918 050	MA LH	SH	1.5	2.3	1.5	—	—	—	—	—	—	216	134	355	—	—	35	—	
CH	114	FRK	NE	NE	NE	35	09	26	434 020	3 918 090	MA LH	SH	1.2	2.3	1.0*	—	—	—	—	—	—	210	138	353	—	—	35	*Est. from E-log and samp. log.	
CH	115	FRK	SW	NE	SE	35	09	26	433 740	3 917 005	MA LH	SH	1.8	4.0	1.1*	—	—	—	—	—	—	286	75	363	—	—	35	*Upp. bench is "coal & slate".	
CH	116	FRK	SW	SW	NW	35	09	26	434 020	3 917 460	MA LH	SH	0.7*	—	—	—	—	—	—	—	—	222	132	355	—	—	35	*Est. from E-log.	
CH	117	FRK	SE	SE	NW	36	09	26	434 790	3 917 500	MA LH	SH	3.8*	—	—	—	—	—	—	—	—	155	196	355	—	—	35	*Excludes a 0.6' parting.	
CH	118	FRK	NW	NW	SE	36	09	26	434 830	3 917 290	MA LH	SH	1.5	3.0	1.2*	—	—	—	—	—	—	191	157	353	—	—	35	*Est. from E-log.	
CH	119	FRK	NW	NE	NE	36	09	26	435 240	3 918 060	MA LH	SH	1.8	0.7	0.8*	—	—	—	—	—	—	126	223	352	—	—	35	*Est. from E-log.	
Delaware quadrangle (DE)																													
DE	01	POP	SW	NW	SE	29	08	21	477 050	3 907 630	MA U	OT	0.8	—	—	—	—	—	—	—	—	0	390	390	—	—	30	—	
Greenwood quadrangle (GR)																													
GR	01	SEB	SW	NE	NE	07	05	31	377 620	3 888 040	MA UH	SH	1.0	—	—	—	—	—	—	—	—	12	497	510	82	—	35	Described as "shaly coal".	
GR	01	SEB	SW	NE	NE	07	05	31	377 620	3 888 040	MA LH	SH	1.6	0.1	1.1	0.1	0.3	—	—	—	—	92	415	510	—	—	35	—	
GR	02	SEB	SE	SE	NE	07	05	31	377 890	3 888 620	MA LH	SH	0.6	—	—	—	—	—	—	—	—	61	477	538	—	—	35	Coal partly removed by channeling.	
GR	03	SEB	NE	SW	NW	08	05	31	378 320	3 887 950	MA LH	SH	1.6	—	—	—	—	—	—	—	—	64	474	540	—	—	35	—	
GR	04	SEB	NW	NE	NE	08	05	31	379 410	3 888 230	MA LH	SH	2.9	—	—	—	—	—	—	—	—	—	—	580	—	—	21	—	
GR	05	SEB	SW	NE	NE	08	05	31	379 330	3 888 090	MA LH	ME	3.3	—	—	—	—	—	—	—	—	10	570	580	—	—	7	Loc. approx.	
GR	06	*																										*Inadvertently, this number was dropped.	
GR	07	SEB	NW	SE	SW	12	06	31	385 410	3 896 540	MA LH	SH	2.8	—	—	—	—	—	—	—	—	9	488	500	—	—	35	—	
GR	08	SEB	NE	SE	SW	12	06	31	385 590	3 896 560	MA LH	SH	4.3	—	—	—	—	—	—	—	—	—	—	490	—	—	21	—	
GR	09	SEB	SE	NE	SW	12	06	31	385 590	3 896 700	MA LH	SH	5.0	—	—	—	—	—	—	—	—	—	—	490	—	—	21	—	

TABLE 1. – BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

Quadrangle	ID Number	Location										Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks
		County 1/	Public Lands Subdivisions					UTM Grid System						Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Datum mean sea level					
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15	Meters north of Equator	Base of coal															Ground surface				
			10 Ac.	40 Ac.	160 Ac.									C	P	C	P	C	P	C	P	C								
GR 50	SEB	SEB	SW	NE	SW	32	07	31	379 120	3 900 520		MA LH	ME	4.7	-	-	-	-	-	-	-	-	10 _e	465 _e	480		-	-	21	-
GR 51	SEB	SEB	SW	NE	NW	32	07	31	379 120	3 901 340	MA LH	SH	6.0	-	-	-	-	-	-	-	-	-	-	470	-	-	21	-		
GR 52	SEB	SEB	SE	SE	NW	32	07	31	379 330	3 900 830	MA LH	SH	4.7*	-	-	-	-	-	-	-	-	158	207	370	-	-	35	*Excludes a 0.3' parting.		
GR 53	SEB	SEB	NW	NW	SE	32	07	31	379 420	3 900 760	MA LH	SH	5.3*	-	-	-	-	-	-	-	-	78	372	455	-	-	35	*Excludes a 0.1' parting.		
GR 54	SEB	SEB	SE	SE	NE	32	07	31	380 140	3 900 770	MA LH	SH	5.0*	-	-	-	-	-	-	-	-	60	420	485	-	-	21	*Excludes a 0.1' parting.		
GR 55	SEB	SEB	NW	SW	NW	34	07	31	382 000	3 900 940	MA LH	ME	3.0	-	-	-	-	-	-	-	-	10 _e	467	480	-	-	21	-		
GR 56	SEB	SEB	NW	SE	SE	13	06	32	376 350	3 895 170	MA LH	ME	2.7	-	-	-	-	-	-	-	-	10 _e	537 _e	555	-	-	21	-		
GR 57	SEB	SEB	SE	SW	SE	13	06	32	376 100	3 895 050	MA LH	ME	2.8	-	-	-	-	-	-	-	-	-	-	545	-	A	21	Loc. of slope. Composite of GR-63, 64, 65.		
GR 58	SEB	SEB	SE	NW	NW	24	06	32	375 210	3 894 600	MA LH	MW	-*	-	-	-	-	-	-	-	-	-	-	528	-	A	19, 25	Loc. approx. Very close to GR-59, 60. *Not reported.		
GR 59	SEB	SEB	SE	NW	NW	24	06	32	375 210	3 894 600	MA LH	MW	-*	-	-	-	-	-	-	-	-	-	-	528	-	A	19, 25	Loc. approx. Very close to GR-58, 60. *Not reported.		
GR 60	SEB	SEB	SE	NW	NW	24	06	32	375 210	3 894 600	MA LH	MW	-*	-	-	-	-	-	-	-	-	-	-	528	-	A	19, 25	Loc. approx. Very close to GR-58, 59. *Not reported.		
GR 61	SEB	SEB	NE	NW	NW	24	06	32	375 210	3 894 600	MA LH	MN	-	-	-	-	-	-	-	-	-	-	-	528	-	A	19, 25	Loc. approx. Composite of Gr-58, 59 & 60.		
GR 62	SEB	SEB	NE	NW	NW	24	06	32	375 180	3 894 920	MA LH	TP	-	-	-	-	-	-	-	-	-	-	-	535	-	A	19	Loc. of slope.		
GR 63	SEB	SEB	NE	SE	NE	24	06	32	376 360	3 894 430	MA LH	MW	2.3	-	-	-	-	-	-	-	-	-	-	538	-	A	19, 35	-		
GR 64	SEB	SEB	SE	SW	NE	24	06	32	376 040	3 894 250	MA LH	MW	2.5	-	-	-	-	-	-	-	-	-	-	530	-	A	19, 35	-		
GR 65	SEB	SEB	SW	SE	NE	24	06	32	376 290	3 894 250	MA LH	MW	2.5	-	-	-	-	-	-	-	-	-	-	530	-	A	19, 35	-		
GR 66	SEB	SEB	NE	SE	NE	35	07	32	375 200	3 901 270	MA LH	SH	5.3	-	-	-	-	-	-	-	-	229	256	490	-	-	35	-		
GR 67	SEB	SEB	SE	SE	NE	35	07	32	375 180	3 900 970	MA LH	SH	4.5*	-	-	-	-	-	-	-	-	110	375	490	-	-	35	*Excludes 0.1' parting.		
GR 68	SEB	SEB	-	-	CW½	36	07	32	375 590	3 900 860	MA LH	SH	5.0	-	-	-	-	-	-	-	-	217	273	495	-	-	35	-		
GR 69	SEB	SEB	SW	SE	NW	36	07	32	375 700	3 901 060	MA LH	MW	-	-	-	-	-	-	-	-	-	-	-	490	-	A	25	Loc. of shaft. Could not loc. samp. site.		
GR 70	SEB	SEB	SW	SE	NW	36	07	32	375 700	3 901 060	MA LH	MW	-	-	-	-	-	-	-	-	-	-	-	490	-	A	25	Loc. of shaft. Could not loc. samp. site.		
GR 71	SEB	SEB	SW	SE	NW	36	07	32	375 700	3 901 060	MA LH	MW	-	-	-	-	-	-	-	-	-	-	-	490	-	A	25	Loc. of shaft. Could not loc. samp. site.		
GR 72	SEB	SEB	SW	SE	NW	36	07	32	375 700	3 901 060	MA LH	MW	-	-	-	-	-	-	-	-	-	-	-	490	-	A	25	Loc. of shaft. Composite of GR-69, 70, 71.		
GR 73	SEB	SEB	SE	NE	NW	36	07	32	375 990	3 901 340	MA LH	SH	4.0	-	-	-	-	-	-	-	-	261	210	475	-	-	35	-		
GR 74	SEB	SEB	NE	NE	SW	36	07	32	375 930	3 900 760	MA LH	DW	-*	-	-	-	-	-	-	-	-	210	290	505	-	-	21	*Indeterminate.		
GR 75	SEB	SEB	NW	NW	SE	36	07	32	375 970	3 900 450	MA LH	SH	5.0	-	-	-	-	-	-	-	-	75	420	500	-	-	35	-		
GR 76	SEB	SEB	-	CSW	NE	36	07	32	376 220	3 901 020	MA LH	SH	2.1	0.2	1.9	-	-	-	-	-	-	322	154	480	-	-	35	-		
GR 77	SEB	SEB	NW	SE	SE	36	07	32	376 380	3 900 440	MA LH	SH	3.8	0.5	3.3	-	-	-	-	-	-	148	350	505	-	-	35	-		
GR 78	SEB	SEB	-	CSE	NE	36	07	32	376 600	3 901 010	MA LH	SH	2.2	0.3	2.1	-	-	-	-	-	-	291	185	480	-	-	35	-		
GR 79	SEB	SEB	NE	SE	SE	36	07	32	376 690	3 900 330	MA LH	SH	0.3	0.2	1.3*	-	-	-	-	-	-	19	494	515	23	-	35	*Upp. coal includes a 0.4' parting.		
GR 79	SEB	SEB	NE	SE	SE	36	07	32	376 690	3 900 330	MA L	SH	5.5	2.0	2.7*	-	-	-	-	-	-	34	471	515	-	-	35	*Described as "shale & coal".		

Hartford quadrangle (HF)																												
HF	01	SEB	NW	SE	SW	03	04	32	374 020	3 877 830	MA L	SH	1.0*	1.1	0.3	0.7	0.3	0.3	1.0	—	—	59	720	780	—	—	35	*Full thk. of lowest beds not penetrated, or not reported.
HF	02	SEB	SW	SW	SE	04	04	32	372 690	3 877 410	MA L	SH	—*	—*	0.7	1.0	1.0	—	—	—	100	627	730	—	—	35	*Full thk. of lowest beds not penetrated, or not reported.	
HF	03	SEB	NW	SW	SW	05	04	32	370 320	3 878 070	MA M	SH	3.0	—	—	—	—	—	—	—	398	399	800	385	—	35	Described as "shale & coal".	
HF	03	SEB	NW	SW	SW	05	04	32	370 320	3 878 070	MA L	SH	3.0	—	—	—	—	—	—	—	783	14	800	395	—	35	Described as "shale & coal".	
HF	03	SEB	NW	SW	SW	05	04	32	370 320	3 878 070	MA UH	SH	0.3	0.4	0.4	—	—	—	—	—	1180	−381	800	72	—	35	—	
HF	03	SEB	NW	SW	SW	05	04	32	370 320	3 878 070	MA LH	SH	3.9	—	—	—	—	—	—	—	1249	−453	800	—	—	35	—	
HF	04	SEB	NW	NW	SE	07	04	32	369 550	3 876 710	MA L	SH	0.8	—	—	—	—	—	—	—	1074	−280	795	12	—	35	—	
HF	04	SEB	NW	NW	SE	07	04	32	369 550	3 876 710	MA UH	SH	0.7	—	—	—	—	—	—	—	1086	−292	795	67	—	35	—	
HF	04	SEB	NW	NW	SE	07	04	32	369 550	3 876 710	MA LH	SH	1.2	0.2	3.7	—	—	—	—	—	1150	−359	795	—	—	35	—	
HF	05	SEB	SE	SE	NW	08	04	32	371 020	3 876 790	MA UH	SH	0.7	—	—	—	—	—	—	—	716	22	740	75	—	35	A 0.3' coal present, 0.5' below.	
HF	05	SEB	SE	SE	NW	08	04	32	371 020	3 876 790	MA LH	SH	1.3	3.1	0.8	0.5	3.7	—	—	—	784	− 53	740	—	—	35	—	
HF	06	SEB	SE	SE	SE	08	04	32	371 630	3 875 920	MA LH	SH	1.0	1.2	3.7	—	—	—	—	—	265	399	670	—	—	35	—	
HF	07	SEB	NW	NW	SE	09	04	32	372 730	3 876 460	MA LH	SH	1.5	—	—	—	—	—	—	—	54	630	685	—	—	35	—	
HF	08	SEB	NE	SE	NE	09	04	32	373 395	3 876 910	AT —	SH	*	—	—	—	—	—	—	—	548	143	695	—	—	35	*Thk. not reported.	
HF	09	SEB	NW	SE	SE	09	04	32	373 090	3 876 050	MA LH	SH	0.7	0.2	0.8	0.8	3.5	—	—	—	111	553	670	—	—	35	—	
HF	10	SEB	SW	SE	SE	09	04	32	373 160	3 875 830	MA UH	SH	0.7	—	—	—	—	—	—	—	35	624	660	66	—	35	—	
HF	10	SEB	SW	SE	SE	09	04	32	373 160	3 875 830	MA LH	SH	0.5	0.8	3.8	—	—	—	—	—	97	558	660	—	—	35	—	
HF	11	SEB	SE	SE	SE	09	04	32	373 260	3 875 720	MA LH	SH	1.3	3.2	0.8	0.7	4.0	—	—	—	34	606	650	—	—	35	—	
HF	12	SEB	SW	NE	SW	10	04	32	373 570	3 876 250	MA LH	SH	1.5	0.4	0.8	0.8	0.3	—	—	—	41	626	670	—	—	35	—	
HF	12A	SEB	NW	SW	SW	10	04	32	373 590	3 876 070	MA LH	TP	—	—	—	—	—	—	—	—	—	—	660	—	A	10, 25	Loc. of slope shown on map.	
HF	12B	SEB	NW	SW	SW	10	04	32	373 590	3 876 070	MA LH	MW	0.6*	0.7	3.7	—	—	—	—	—	—	—	660	—	A	10	Loc. of slope. Could not loc. samp. site.*Described as "poor".	
HF	12C	SEB	NW	SW	SW	10	04	32	373 590	3 876 070	MA LH	MW	0.7	0.6	4.1	—	—	—	—	—	—	—	660	—	A	10	Loc. of slope. Could not loc. samp. site.	
HF	12D	SEB	NW	SW	SW	10	04	32	373 590	3 876 070	MA LH	MW	1.0*	0.6	3.9	—	—	—	—	—	—	—	660	—	A	10	Loc. of slope. Could not loc. samp. site. *Described as "poor".	
HF	12E	SEB	NW	SW	SW	10	04	32	373 590	3 876 070	MA LH	MW	—	—	—	—	—	—	—	—	—	—	660	—	A	10	Loc. of slope. Composite of HF-12B, C, D.	
HF	12F	SEB	NW	SW	SW	10	04	32	373 590	3 876 070	MA LH	MW	1.7	0.2	1.6	—	—	—	—	—	—	—	660	—	A	11	Loc. of slope. Could not loc. samp. site.	
HF	12G	SEB	NW	SW	SW	10	04	32	373 590	3 876 070	MA LH	MW	0.8	0.4	0.3	0.2	3.2	—	—	—	—	—	660	—	A	11	Loc. of slope. Could not loc. samp. site.	
HF	12H	SEB	NW	SW	SW	10	04	32	373 090	3 876 070	MA LH	MW	3.0	—	—	—	—	—	—	—	—	—	660	—	A	11	Loc. of slope. Could not loc. samp. site.	
HF	12I	SEB	NW	SW	SW	10	04	32	373 590	3 876 070	MA LH	MN	—	—	—	—	—	—	—	—	—	—	660	—	A	11	Loc. of slope. Composite of HF-12 F, G, H.	
HF	13	SEB	SE	SW	NW	10	04	32	373 770	3 876 590	MA LH	SH	0.6	0.9	3.8	—	—	—	—	—	53	622	680	—	—	35	—	
HF	14	SEB	NW	NW	SE	10	04	32	374 340	3 876 410	AT —	SH	1.5	0.4	0.8	4.7	1.0	—	—	—	13	624	665	—	—	35	—	
HF	15	SEB	SE	NE	SW	15	04	32	374 020	3 874 570	MA LH	SH	2.0	0.7	3.5	—	—	—	—	—	135	539	680	—	—	35	—	
HF	16	SEB	NW	NE	NW	15	04	32	373 870	3 875 420	MA LH	ME	4.0	—	—	—	—	—	—	—	10 _e	666 _e	680	—	—	7	—	
HF	17	SEB	NW	SW	NW	15	04	32	373 470	3 875 340	MA UH	SH	5.0*	—	—	—	—	—	—	—	22	618	645	36	—	35	*Described as "shale & coal".	
HF	17	SEB	NW	SW	NW	15	04	32	373 470	3 875 340	MA L	SH	5.0*	—	—	—	—	—	—	—	58	582	645	52	—	35	*Described as "shale & coal".	
HF	17	SEB	NW	SW	NW	15	04	32	373 470	3 875 340	MA LH	SH	0.7	0.7	3.7	—	—	—	—	—	110	530	645	—	—	35	—	
HF	18	SEB	SE	SE	SE	16	04	32	373 200	3 874 180	MA UH	SH	0.5	1.9	4.0	6.0	0.7	—	—	—	68	588	660	—	—	35	—	
HF	19	SEB	SE	NW	SE	16	04	32	372 880	3 874 600	MA LH	SH	0.8	1.0	4.5	—	—	—	—	—	173	491	670	—	—	35	—	
HF	20	SEB	SW	SW	NE	16	04	32	372 720	3 875 090	MA UH	SH	5.0*	—	—	—	—	—	—	—	85	570	660	38	—	35	*Described as "clay & coal".	
HF	20	SEB	SW	SW	NE	16	04	32	372 720	3 875 090	MA L	SH	5.0*	—	—	—	—	—	—	—	123	532	660	50	—	35	*Described as "shale & coal".	
HF	20	SEB	SW	SW	NE	16	04	32	372 720	3 875 090	MA LH	SH	0.6	0.7	3.8	—	—	—	—	—	173	482	660	—	—	35	Roof rock is sandstone.	

TABLE 1. — BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

Quadrangle	ID Number	Location										Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks
		County 1/	Public Lands Subdivisions					UTM Grid System		Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.										Datum mean sea level										
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15	Meters north of Equator	C			P	C	P	C	P	C	P	C	P	C		Base of coal	Ground surface				
HF	21	SEB	SW	NW	NE	16	04	32	372 620	3 875 500	MA LH	SH	5.4*	—	—	—	—	—	—	—	—	—	30	600	635	—	—	35	*Described as "shale & coal".	
HF	22	SEB	SE	NE	NW	16	04	32	372 470	3 875 500	MA LH	SH	4.7*	—	—	—	—	—	—	—	—	—	80	550	635	—	—	35	*Described as "shale & coal".	
HF	23	SEB	NW	NE	SW	16	04	32	372 300	3 874 870	MA UH	SH	1.5*	—	—	—	—	—	—	—	—	—	231	442	675	123	—	35	*Underlain by 2.5' of "shale & coal".	
HF	23	SEB	NW	NE	SW	16	04	32	372 300	3 874 870	MA LH	SH	1.0	0.5	1.0	0.1	2.7*	—	—	—	—	—	351	319	675	—	—	35	*Underlain by 5.0' of "bony coal, coal & shale".	
HF	24	SEB	SW	NE	SW	16	04	32	372 230	3 874 700	MA UH	SH	2.2*	—	—	—	—	—	—	—	—	—	255	413	670	43	—	35	*Underlain by 3.3' "coal & shale".	
HF	24	SEB	SW	NE	SW	16	04	32	372 230	3 874 700	MA L	SH	8.5*	—	—	—	—	—	—	—	—	—	292	370	670	61	—	35	*Described as "coal & shale".	
HF	24	SEB	SW	NE	SW	16	04	32	372 230	3 874 700	MA LH	SH	1.0	0.6	3.2	—	—	—	—	—	—	—	356	309	670	—	—	35	—	
HF	25	SEB	NE	SW	SW	16	04	32	372 050	3 874 490	MA UH	SH	2.7	—	—	—	—	—	—	—	—	—	300	377	680	40	—	35	—	
HF	25	SEB	NE	SW	SW	16	04	32	372 050	3 874 490	MA L	SH	1.0	1.6	0.6	—	—	—	—	—	—	—	340	337	680	50	—	35	—	
HF	25	SEB	NE	SW	SW	16	04	32	372 050	3 874 490	MA LH	SH	0.6	0.6	3.2	—	—	—	—	—	—	—	389	287	680	—	—	35	Roof rock is sandstone.	
HF	26	SEB	NW	SW	SW	16	04	32	371 790	3 874 450	MA UH	SH	1.0	0.3	0.7	—	—	—	—	—	—	—	307	386	695	94	—	35	—	
HF	26	SEB	NW	SW	SW	16	04	32	371 790	3 874 450	MA LH	SH	0.7*	0.5	3.8	—	—	—	—	—	—	—	398	292	695	—	—	35	*Lower bed includes 0.3' of bony coal.	
HF	27	SEB	NW	SW	SW	16	04	32	371 750	3 874 590	MA UH	SH	2.5	—	—	—	—	—	—	—	—	—	255	433	690	97	—	35	—	
HF	27	SEB	NW	SW	SW	16	04	32	371 750	3 874 590	MA LH	SH	1.4	0.1	2.0	—	—	—	—	—	—	—	350	336	690	—	—	35	—	
HF	28	SEB	SW	SW	NW	17	04	32	370 270	3 875 150	MA UH	SH	5.0*	—	—	—	—	—	—	—	—	—	—	—	655	114	—	7, 21	*Described as "coal & bone".	
HF	28	SEB	SW	SW	NW	17	04	32	370 270	3 875 150	MA LH	SH	4.2	—	—	—	—	—	—	—	—	—	—	—	655	—	—	7, 21	Roof rock is sandstone.	
HF	29	SEB	—	CNW	NW	22	04	32	374 040	3 874 570	MA UH	SH	5.0*	—	—	—	—	—	—	—	—	—	—	—	670	48	—	7	*Described as "shale & coal". Loc. approx.	
HF	29	SEB	—	CNW	NW	22	04	32	374 040	3 874 570	MA L	SH	5.7*	—	—	—	—	—	—	—	—	—	—	—	670	59	—	7	*Described as "bone & coal". Loc. approx.	
HF	29	SEB	—	CNW	NW	22	04	32	374 040	3 874 570	MA LH	SH	0.9	1.0	3.5	—	—	—	—	—	—	—	—	—	670	—	—	7	Loc. approx.	
HF	30	SEB	NW	SW	SE	11	05	32	373 910	3 887 360	MA UH	SH	2.6	—	—	—	—	—	—	—	—	—	186	496	685	52	—	35	—	
HF	30	SEB	NW	SW	SE	11	05	32	373 910	3 887 360	MA LH	SH	2.7	—	—	—	—	—	—	—	—	—	238	444	685	—	—	35	—	
HF	31	SEB	SW	SE	SE	14	05	32	374 470	3 887 250	MA UH	SH	4.5*	—	—	—	—	—	—	—	—	—	148	418	570	51	—	7, 35	*Described as "dirty coal".	
HF	31	SEB	SW	SE	SE	14	05	32	374 470	3 887 250	MA LH	SH	2.6	—	—	—	—	—	—	—	—	—	200	367	570	—	—	7, 35	—	
HF	32	SEB	SW	SE	SE	11	05	32	374 310	3 886 960	MA LH	SH	3.0	—	—	—	—	—	—	—	—	—	182	385	570	—	—	35	—	
HF	33	SEB	SE	NE	NE	14	05	32	374 460	3 887 350	MA UH	SH	4.5*	—	—	—	—	—	—	—	—	—	111	444	560	46	—	7, 35	*Described as "bone, coal, & shale".	
HF	33	SEB	SE	NE	NE	14	05	32	374 460	3 887 350	MA LH	SH	2.8	—	—	—	—	—	—	—	—	—	160	398	560	—	—	7, 35	Underlain by 0.7' "bony coal".	
HF	34	SEB	SW	NW	NE	14	05	32	374 010	3 886 740	MA UH	SH	6.8*	—	—	—	—	—	—	—	—	—	132	441	580	44	—	7, 35	*5.8' of "dirty coal" above & 1.0' "bony coal" below.	
HF	34	SEB	SW	NW	NE	14	05	32	374 010	3 886 740	MA LH	SH	2.7	—	—	—	—	—	—	—	—	—	180	397	580	—	—	7, 35	—	
HF	35	SEB	SW	SW	NE	14	05	32	373 960	3 886 330	MA UH	SH	3.3	—	—	—	—	—	—	—	—	—	126	436	565	48	—	35	Described as "coal, bone, & shale," in part "faulty coal".	
HF	35	SEB	SW	SW	NE	14	05	32	373 960	3 886 330	MA LH	SH	3.3	—	—	—	—	—	—	—	—	—	174	388	565	—	—	7, 35	—	

HF	36	SEB	NW	NW	SE	14	05	32	373 980	3 886 010	MA LH	DW	—*	—	—	—	—	—	—	209	353	563	—	—	21, 35	*Thk. not reported.
HF	37	SEB	SE	SW	NW	14	05	32	373 280	3 886 360	MA UH	SH	3.3*	—	—	—	—	—	—	193	404	600	43	—	7, 35	*Described as "dirty coal".
HF	37	SEB	SE	SW	NW	14	05	32	373 280	3 886 360	MA LH	SH	2.9	—	—	—	—	—	—	236	361	600	—	—	35	—
HF	38	SEB	SE	NW	NW	14	05	32	373 270	3 886 750	MA LH*	SH	2.9	—	—	—	—	—	—	—	—	715	—	—	21	*Data inadequate to correlate w/certainty.
HF	39	SEB	SE	NE	NE	21	05	32	371 330	3 385 110	MA UH	SH	1.5	—	—	—	—	—	—	706	—28	680	52	—	35	—
HF	39	SEB	SE	NE	NE	21	05	32	371 330	3 385 110	MA LH	SH	2.8	—	—	—	—	—	—	758	—81	680	—	—	35	—
HF	40	SEB	NE	NW	NW	22	05	32	371 630	3 885 280	MA LH*	SH	3.3	—	—	—	—	—	—	—	—	618	—	—	21	*Data inadequate to correlate w/certainty.
HF	41	SEB	—	CNE	NE	22	05	32	372 790	3 885 200	MA LH	SH	4.2*	—	—	—	—	—	—	409	167	580	43	—	7	*Described as "coal & bone". Loc. approx.
HF	41	SEB	—	CNE	NE	22	05	32	372 790	3 885 200	MA LH	SH	3.3	—	—	—	—	—	—	453	124	580	—	—	7	Loc. approx.
HF	42	SEB	SW	SE	NE	28	05	32	370 920	3 883 120	MA U	SH	0.5	—	—	—	—	—	—	79	685	765	126	—	35	—
HF	42	SEB	SW	SE	NE	28	05	32	370 920	3 883 120	MA U	SH	0.7	5.0	1.0	—	—	—	—	200	559	765	1294	—	35	—
HF	42	SEB	SW	SE	NE	28	05	32	370 920	3 883 120	MA UH	SH	0.9	—	—	—	—	—	—	1496	—735	765	48	—	35	—
HF	42	SEB	SW	SE	NE	28	05	32	370 920	3 883 120	MA LH	SH	3.8	—	—	—	—	—	—	1544	—783	765	—	—	35	Includes 1.5' bony coal.
HF	43	LEF	NW	NW	NW	10	06	27	367 580	3 875 370	MA M	OT	—*	—	—	—	—	—	—	0	730	730	—	—	21	*Reported as "thin, coaly zone". (Okla.)
HF	44	LEF	SW	SW	SW	05	07	27	364 460	3 885 230	MA U	OT	1.3	—	—	—	—	—	—	0	560	560	—	—	21	— (Okla.)
HF	45	LEF	SE	NW	NW	28	07	27	366 230	3 879 900	SA L	DW	—*	—	—	—	—	—	—	270	882	1152	1230	—	21	*Thk. not reported. (Okla.)
HF	45	LEF	SE	NW	NW	28	07	27	366 230	3 879 900	MA M	DW	—*	—	—	—	—	—	—	1500	—348	1152	—	—	21	*Thk. not reported. (Okla.)
HF	46	LEF	SE	NE	SW	29	07	27	365 040	3 879 930	MA U	OT	1.3	—	—	—	—	—	—	0	800	800	—	—	21	— (Okla.)
HF	47	LEF	SE	NE	SW	29	07	27	365 070	3 879 120	MA U	OT	1.3	—	—	—	—	—	—	0	810	810	—	—	21	— (Okla.)
Hartman quadrangle (HR)																										
HR	01	LOG	SW	SE	NW	02	08	24	452 400	3 915 995	MA LH	SH	3.2	—	—	—	—	—	—	848	—471	380	—	—	35	—
HR	02	LOG	NE	SW	SE	05	08	24	448 470	3 915 310	MA LH	SH	4.4	—	—	—	—	—	—	715	—364	355	—	—	35	—
HR	03	LOG	SW	SE	SW	06	08	24	446 370	3 915 310	MA LH	DW	—*	—	—	—	—	—	—	803	—308	496	1074	—	32	*Thk. not reported.
HR	03	LOG	SW	SE	SW	06	08	24	446 370	3 915 310	AT —	DW	—*	—	—	—	—	—	—	1877	—1382	496	420	—	32	*Thk. not reported.
HR	03	LOG	SW	SE	SW	06	08	24	446 370	3 915 310	AT —	DW	—*	—	—	—	—	—	—	2297	—1802	496	—	—	32	*Thk. not reported.
HR	04	LOG	NE	NW	NW	12	08	24	454 120	3 914 700	MA LH	SH	1.7	0.3	1.2	—	—	—	—	1137	—810	330	—	—	7, 35	—
HR	05	JON	SE	NW	SE	03	09	24	451 470	3 924 340	MA LH	MS	1.9	—	—	—	—	—	—	83	280	365	—	—	35	—
HR	06	JON	NE	NE	NE	03	09	24	451 940	3 925 340	MA LH	MS	3.0	—	—	—	—	—	—	68	339	410	—	—	35	—
HR	07	JON	SW	NW	NE	05	09	24	448 140	3 925 450	MA LH	SH	1.5	—	—	—	—	—	—	—	—	450	—	—	35	—
HR	08	JON	NW	NE	NW	06	09	24	445 990	3 925 670	MA LH	ST	0.9	—	—	—	—	—	—	10 _e	490 _e	500	—	—	32	—
HR	09	JON	NW	NE	NW	06	09	24	445 990	3 925 760	MA LH	ST	1.8	—	—	—	—	—	—	10 _e	503 _e	515	—	—	32	—
HR	10	JON	SE	NW	SE	07	09	24	446 710	3 922 960	MA LH	ME	1.8	—	—	—	—	—	—	10 _e	378 _e	390	—	—	7, 35	—
HR	11	JON	NE	SE	SE	07	09	24	446 910	3 922 970	MA LH	SH	2.2	—	—	—	—	—	—	10 _e	378 _e	390	—	—	35	—
HR	12	JON	NE	SE	SE	07	09	24	447 070	3 922 860	MA LH	ST	1.7	—	—	—	—	—	—	15 _e	353 _e	370	—	A+	35	—
HR	13	JON	SE	SW	NW	08	09	24	447 450	3 323 260	MA LH	ST	1.8	—	—	—	—	—	—	10 _e	383 _e	395	—	—	32	—
HR	14	JON	SW	SE	NW	08	09	24	447 440	3 923 250	MA LH	ME	1.7	—	—	—	—	—	—	10 _e	398 _e	410	—	—	7, 32	—
HR	15	JON	NE	SE	NE	08	09	24	448 760	3 923 490	MA LH	ST	1.1	—	—	—	—	—	—	10 _e	409 _e	420	—	—	32	—
HR	16	JON	NW	SW	NW	09	09	24	448 920	3 923 550	MA LH	ST	1.0	—	—	—	—	—	—	10 _e	409 _e	420	—	—	32	—
HR	17	JON	SW	SE	SW	09	09	24	449 260	3 922 400	MA LH	SH	2.0	—	—	—	—	—	—	—	—	405	—	—	35	—
HR	18	JON	SE	SE	SW	09	09	24	449 490	3 922 420	MA LH	ST	1.5	—	—	—	—	—	—	10 _e	399 _e	410	—	—	32	—

See footnotes at end of table.

TABLE 1. — BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

Quadrangle	ID Number	County 1/	Location							Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks	
			Public Lands Subdivisions					UTM Grid System				Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Base of coal	Ground surface					
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15			Meters north of Equator	C	P	C	P	C	P	C	P	C								
			10 Ac.	40 Ac.	160 Ac.																								
HR	19	JON	SW	NW	NE	10	09	24	451 250	3 923 540	MA LH	SH	3.2	—	—	—	—	—	—	—	—	—	226	161	390	—	—	7, 35	—
HR	20	JON	SW	SW	NE	11	09	24	452 970	3 923 170	MA LH	TP	—	—	—	—	—	—	—	—	—	—	—	—	380	—	A	35	Loc. of shaft shown on map.
HR	21	JON	NE	NE	NE	11	09	24	453 670	3 923 790	MA M	OT	0.7	—	—	—	—	—	—	—	—	0	355	355	—	—	—	32	—
HR	22	JON	NE	SW	NW	12	09	24	454 920	3 923 220	MA LH	SH	3.0	—	—	—	—	—	—	—	—	—	—	—	385	—	—	35	—
HR	23	JON	NW	NE	NE	14	09	24	453 410	3 922 060	MA LH	SH	3.5	—	—	—	—	—	—	—	—	320	11	335	—	—	—	35	—
HR	24	JON	SW	NE	SW	14	09	24	452 410	3 921 080	MA LH	MW	1.8	0.5	1.3	—	—	—	—	—	—	136	215	355	—	A	7, 11, 24	Loc. of shaft. Could not loc. samp. site.	
HR	24A	JON	SE	SE	SW	14	09	24	452 580	3 920 770	MA LH	MS	2.0	0.1	1.5	—	—	—	—	—	—	136	220	360	—	—	—	35	—
HR	25	JON	SW	SW	NE	15	09	24	451 210	3 921 660	MA LH	SH	3.3	—	—	—	—	—	—	—	—	—	—	—	360	—	—	35	—
HR	26	JON	SW	SW	SE	15	09	24	451 140	3 920 740	MA LH	SH	3.3	—	—	—	—	—	—	—	—	—	—	—	365	—	—	35	—
HR	27	JON	SE	SW	SW	15	09	24	450 720	3 920 720	MA LH	SH	3.3	—	—	—	—	—	—	—	—	—	—	—	380	—	—	35	—
HR	28	JON	SE	SE	NE	16	09	24	450 340	3 921 520	MA LH	SH	3.1	—	—	—	—	—	—	—	—	—	—	—	385	—	—	35	—
HR	29	JON	NE	NE	SE	16	09	24	450 220	3 921 390	MA LH	MW	1.7	2.0	1.5	—	—	—	—	—	—	—	—	—	390	—	—	35	—
HR	30	JON	SE	NE	NE	16	09	24	450 280	3 921 980	MA LH	SH	1.7	2.0	1.5	—	—	—	—	—	—	131	254	390	—	—	—	35	—
HR	31	JON	NW	SE	NE	16	09	24	450 030	3 921 820	MA LH	SH	3.1	—	—	—	—	—	—	—	—	—	—	—	385	—	—	35	—
HR	32	JON	NW	NE	SE	16	09	24	450 000	3 921 510	MA LH	SH	2.9	—	—	—	—	—	—	—	—	—	—	—	399	—	—	35	—
HR	33	JON	SE	NW	NE	16	09	24	450 860	3 921 980	MA LH	SH	1.7	1.5	1.2	—	—	—	—	—	—	88	298	390	—	—	—	35	—
HR	34	JON	NW	SE	NW	16	09	24	449 320	3 921 960	MA LH	SH	1.8	0.3	1.6	—	—	—	—	—	—	45	341	390	—	—	—	35	—
HR	35	JON	NE	NW	SW	16	09	24	449 140	3 921 520	MA LH	MW	1.5	0.1	1.6	—	—	—	—	—	—	—	—	—	390	—	—	35	—
HR	36	JON	SE	SE	SE	16	09	24	450 320	3 920 760	MA LH	SH	2.8	—	—	—	—	—	—	—	—	—	—	—	385	—	—	35	—
HR	37	JON	NW	NW	SE	17	09	24	448 080	3 921 520	MA LH	ST	2.7	—	—	—	—	—	—	—	—	10 _e	362 _e	375	—	—	—	35	—
HR	38	JON	NE	NW	SW	17	09	24	447 370	3 921 600	MA LH	ME	3.0	—	—	—	—	—	—	—	—	5 _e	377 _e	385	—	—	—	7	Loc. approx.
HR	39	JON	NW	SW	SE	18	09	24	446 250	3 921 190	MA LH	SH	2.8	—	—	—	—	—	—	—	—	—	—	—	390	—	—	35	—
HR	40	JON	NE	SE	SW	18	09	24	446 110	3 921 120	MA LH	TP	—	—	—	—	—	—	—	—	—	—	—	—	350	—	A	35	Loc. of shaft shown on map.
HR	41	JON	SE	SW	SW	18	09	24	445 600	3 920 010	MA LH	SH	3.4	—	—	—	—	—	—	—	—	265	97	365	—	—	—	35	—
HR	42	JON	NW	SW	SW	19	09	24	445 510	3 919 520	MA LH	SH	4.0	—	—	—	—	—	—	—	—	443	-109	338	—	—	—	35	—
HR	43	JON	—	CSE	NE	19	09	24	446 860	3 920 230	MA LH	SH	4.0	—	—	—	—	—	—	—	—	420	- 54	370	—	—	—	35	—
HR	44	JON	SW	NW	NE	20	09	24	448 060	3 920 560	MA LH	MS	2.0	0.2	1.4	—	—	—	—	—	—	320	47	370	—	—	—	35	—
HR	45	JON	NE	SW	SE	20	09	24	448 180	3 919 500	MA LH	MW	1.8	0.3	1.6	—	—	—	—	—	—	—	—	—	380	—	—	35	—
HR	46	JON	SE	SE	SE	20	09	24	448 580	3 919 300	SA —*	OT	0.7	—	—	—	—	—	—	—	—	0	430	430	—	—	—	32	Near Big Danger fault.*Position in Savanna Fm. unknown.
HR	47	JON	SE	SE	SE	20	09	24	448 630	3 919 290	SA L	SH	—*	—	—	—	—	—	—	—	—	4	435	420	—	—	—	35	Cuts Big Danger fault. *Thk. probably greater than 1'.

HR	48	JON	NE	SW	SE	20	09	24	448 480	3 919 700	MA LH	MW	1.8	0.3	1.5	—	—	—	—	—	—	—	380	—	—	35	—
HR	49	JON	SE	SE	NE	20	09	24	448 590	3 919 980	MA LH	MW	1.8	0.2	1.6	—	—	—	—	—	—	—	375	—	—	35	—
HR	50A	JON	NW	NW	SW	21	09	24	448 820	3 919 820	MA LH	MW	—	—	—	—	—	—	—	—	—	—	400	—	A	26	Loc. of shaft. Could not loc. samp. site.
HR	50B	JON	NW	NW	SW	21	09	24	448 820	3 919 820	MA LH	MW	—	—	—	—	—	—	—	—	—	—	400	—	A	26	Loc. of shaft. Could not loc. samp. site.
HR	50C	JON	NW	NW	SW	21	09	24	448 820	3 919 820	MA LH	MW	—	—	—	—	—	—	—	—	—	—	400	—	A	26	Loc. of shaft. Could not loc. samp. site.
HR	50D	JON	NW	NW	SW	21	09	24	448 820	3 919 820	MA LH	MW	—	—	—	—	—	—	—	—	—	—	400	—	A	26	Loc. of shaft. Composite of HR-50A, B, & C.
HR	51	JON	NE	SW	SW	21	09	24	448 960	3 919 400	MA LH	MW	1.7	0.1	1.4	—	—	—	—	—	—	—	460	—	—	35	—
HR	52	JON	SE	NE	SW	21	09	24	449 440	3 919 900	MA LH	MW	1.8	0.2	1.6	—	—	—	—	—	—	—	420	—	—	35	—
HR	53	JON	NE	NE	SW	21	09	24	449 430	3 919 700	MA LH	MW	1.8	0.2	1.4	—	—	—	—	—	—	—	405	—	—	35	—
HR	54	JON	SE	SW	NW	22	09	24	450 670	3 919 960	MA LH	SH	4.7	—	—	—	—	—	—	—	—	—	420	—	—	35	—
HR	54A	JON	SW	NW	NW	22	09	24	450 460	3 920 340	MA LH	MS	1.7	0.2	1.7	—	—	—	—	—	197	190	390	—	—	35	—
HR	55	JON	SE	NE	NW	22	09	24	451 110	3 920 340	MA LH	MW	3.0	—	—	—	—	—	—	—	—	—	390	—	—	35	—
HR	56	JON	NW	NW	NE	22	09	24	451 320	3 920 600	MA LH	MW	3.5	—	—	—	—	—	—	—	—	—	380	—	—	35	—
HR	57	JON	SE	NW	NE	22	09	24	451 500	3 920 340	MA LH	MS	1.7	2.0	1.7	—	—	—	—	—	200	190	395	—	—	7, 35	—
HR	58	JON	SE	SW	NE	22	09	24	451 510	3 919 960	MA LH	SH	4.5	—	—	—	—	—	—	—	—	—	405	—	—	35	—
HR	59	JON	SE	NW	NW	23	09	24	452 190	3 920 400	MA LH	SH	1.8	0.2	1.4	—	—	—	—	—	100	272	375	—	—	7, 35	—
HR	60	JON	SE	NW	SE	23	09	24	452 970	3 919 480	MA LH	OT	2.7	—	—	—	—	—	—	—	0	370	370	—	—	32	Near Big Danger fault.
HR	61	JON	NE	NW	SE	23	09	24	453 070	3 919 640	MA LH	MW	1.8	0.2	1.4	—	—	—	—	—	—	—	385	—	A	11, 27	Loc. of shaft. Could not loc. samp. site.
HR	62	JON	SE	NE	NE	23	09	24	453 390	3 920 360	MA LH	ME	1.7	0.3	1.3	—	—	—	—	—	5 _e	367 _e	375	—	—	7	—
HR	63	JON	NE	NE	NE	23	09	24	453 540	3 920 540	MA LH	SH	2.7*	—	—	—	—	—	—	—	124	233	360	—	—	35	*Est. from E-log.
HR	63A	JON	NW	NW	NW	24	09	24	453 610	3 920 570	MA LH	MW	1.7	0.3	1.6	—	—	—	—	—	—	—	365	—	—	35	—
HR	64A	JON	NE	NW	NW	24	09	24	453 870	3 920 450	MA LH	MS	3.2	—	—	—	—	—	—	—	100	267	370	—	—	7, 35	—
HR	64B	JON	NE	NW	NW	24	09	24	453 870	3 920 450	MA LH	MW	—	—	—	—	—	—	—	—	—	—	370	—	A	19, 26	Loc. of shaft. Could not loc. samp. site.
HR	64C	JON	NE	NW	NW	24	09	24	453 870	3 920 450	MA LH	MW	—	—	—	—	—	—	—	—	—	—	370	—	A	19, 26	Loc. of shaft. Could not loc. samp. site.
HR	64D	JON	NE	NW	NW	24	09	24	453 870	3 920 450	MA LH	MW	—	—	—	—	—	—	—	—	—	—	370	—	A	19, 26	Loc. of shaft. Could not loc. samp. site.
HR	64E	JON	NE	NW	NW	24	09	24	453 870	3 920 450	MA LH	MW	—	—	—	—	—	—	—	—	—	—	370	—	A	19, 26	Loc. of shaft. Composite of HR-64B, C, D, E.
HR	65	JON	SE	NW	SW	24	09	24	453 790	3 919 500	AT —	SH	—*	—	—	—	—	—	—	—	165	204	370	149	—	35	*Indeterminate.
HR	65	JON	SE	NW	SW	24	09	24	453 790	3 919 500	AT —	SH	—*	—	—	—	—	—	—	—	313	55	370	—	—	35	*Indeterminate.
HR	66	JON	—	CNE	NW	24	09	24	454 180	3 920 380	MA LH	MS	1.7	0.3	1.3	—	—	—	—	—	91	265	360	—	—	7	Loc. approx.
HR	67	JON	NW	NW	NE	24	09	24	454 490	3 920 460	MA LH	MW	1.3	0.2	1.4	—	—	—	—	—	—	—	350	—	A	11, 27	Loc. approx.
HR	68	JON	—	CNW	NE	24	09	24	454 600	3 920 360	MA LH	SH	1.7	0.3	1.3	—	—	—	—	—	87	292	382	—	—	35	—
HR	69	JON	NW	SW	NE	24	09	24	454 500	3 919 960	MA LH	MW	3.0	0.3	1.8	—	—	—	—	—	—	—	355	—	—	35	—
HR	70	LOG	NW	SE	SE	27	09	24	451 550	3 917 710	MA —*	SH	—**	—	—	—	—	—	—	—	112	227	340	—	—	35	Loc.approx.*Position in McAlester Fm.unk.**Indeterminate.
HR	71	JON	NE	SE	SW	28	09	24	449 380	3 917 750	SA L	SH	2.2*	—	—	—	—	—	—	—	56	280	338	—	—	35	*Est. from E-log and samp. log.
HR	72	JON	NE	SW	NW	28	09	24	449 020	3 918 660	SA L	SH	0.6*	—	—	—	—	—	—	—	94	385	480	—	—	35	*Est. from E-log and samp. log.
HR	73	JON	NW	NE	NW	28	09	24	449 150	3 919 110	SA L	SH	0.5*	—	—	—	—	—	—	—	259	385	645	41	—	35	*Est. from E-log.
HR	73	JON	NW	NE	NW	28	09	24	449 150	3 919 110	SA L	SH	1.3*	—	—	—	—	—	—	—	300	344	645	—	—	35	*Est. from E-log.
HR	74	JON	NW	SW	SW	28	09	24	448 620	3 917 940	MA LH	SH	2.8*	—	—	—	—	—	—	—	692	—360	335	—	—	35	*Est. from E-log.
HR	75	JON	NW	SW	SW	28	09	24	448 620	3 917 890	SA L	SH	2.1*	—	—	—	—	—	—	—	52	281	335	—	—	35	*Est. from E-log.
HR	76	JON	SW	SW	SW	28	09	24	448 640	3 917 580	SA L	SH	1.0	5.2	1.0*	—	—	—	—	—	67	266	340	275	—	35	*Est. from E-log and samp. log.

See footnotes at end of table.

TABLE 1. — BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

Quadrangle	ID Number	County 1/	Location							Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks		
			Public Lands Subdivisions						UTM Grid System			Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Datum mean sea level							
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15			Meters north of Equator	C	P	C	P	C	P	C	P	C		P	C					Base of coal	Ground surface

HR	76	JON	SW	SW	SW	28	09	24	448 640	3 917 580	MA M	SH	1.1*	-	-	-	-	-	-	-	-	-	-	348	- 9	340	-	-	35	*Est. from E-log and samp. log.
HR	77	JON	NE	NE	NE	29	09	24	448 520	3 918 900	SA L	SH	0.8*	-	-	-	-	-	-	-	-	-	100	424	525	-	-	35	*Est. from E-log and samp. log.	
HR	78	JON	NW	NW	SW	29	09	24	447 130	3 918 290	SA L	SH	1.1*	-	-	-	-	-	-	-	-	-	61	288	350	332	-	35	*Est. from E-log and samp. log.	
HR	78	JON	NW	NW	SW	29	09	24	447 130	3 918 290	MA M	SH	0.5*	-	-	-	-	-	-	-	-	-	393	-44	350	-	-	35	*Est. from E-log and samp. log.	
HR	79	JON	NW	NW	NE	30	09	24	446 180	3 917 650	SA L	SH	0.5*	-	-	-	-	-	-	-	-	-	134	203	338	-	-	35	*Est. from E-log. Near a fault.	
HR	80	JON	SW	SW	SE	30	09	24	446 110	3 917 710	SA L	SH	0.7*	-	-	-	-	-	-	-	-	-	101	240	342	12	-	35	*Est. from E-log and samp. log.	
HR	80	JON	SW	SW	SE	30	09	24	446 110	3 917 710	SA L	SH	0.7*	-	-	-	-	-	-	-	-	-	113	228	342	43	-	35	*Est. from E-log and samp. log.	
HR	80	JON	SW	SW	SE	30	09	24	446 110	3 917 710	SA L	SH	0.9*	-	-	-	-	-	-	-	-	-	156	185	342	14	-	35	*Est. from E-log and samp. log.	
HR	80	JON	SW	SW	SE	30	09	24	446 110	3 917 710	SA L	SH	0.8*	-	-	-	-	-	-	-	-	-	170	171	342	-	-	35	*Est. from E-log and samp. log.	
HR	81	JON	SW	SE	SW	30	09	24	445 800	3 917 760	SA L	SH	2.3*	-	-	-	-	-	-	-	-	-	105	233	340	105	-	35	*Est. from E-log and samp. log.	
HR	81	JON	SW	SE	SW	30	09	24	445 800	3 917 760	MA U	SH	0.7*	-	-	-	-	-	-	-	-	-	211	128	340	229	-	35	*Est. from E-log and samp. log.	
HR	81	JON	SW	SE	SW	30	09	24	445 800	3 917 760	MA M	SH	0.5*	-	-	-	-	-	-	-	-	-	441	-101	340	283	-	35	*Est. from E-log and samp. log.	
HR	81	JON	SW	SE	SW	30	09	24	445 800	3 917 760	MA LH	SH	0.5	1.3	2.0	6.5	2.2	4.7	0.5*	-	-	-	706	-384	340	-	-	35	*Est. from E-log and samp. log.	
HR	82	JON	SW	SE	SW	30	09	24	445 810	3 917 830	SA L	SH	0.6*	-	-	-	-	-	-	-	-	-	110	227	338	91	-	35	*Est. from E-log and samp. log.	
HR	82	JON	SW	SE	SW	30	09	24	445 810	3 917 830	MA U	SH	1.3*	-	-	-	-	-	-	-	-	-	201	136	338	-	-	35	*Est. from E-log and samp. log.	
HR	83	JON	NW	SE	SW	30	09	24	445 820	3 917 910	SA L	SH	0.9*	-	-	-	-	-	-	-	-	-	108	226	335	223	-	35	*Est. from E-log and samp. log.	
HR	83	JON	NW	SE	SW	30	09	24	445 820	3 917 910	MA M	SH	2.4*	-	-	-	-	-	-	-	-	-	329	3	335	-	-	35	*Est. from E-log and samp. log. Fault penetrated.	
HR	84	JON	NW	SW	NE	31	09	24	446 190	3 917 210	MA L	SH	0.5	-	-	-	-	-	-	-	-	-	810	-469	342	16	-	35	-	
HR	84	JON	NW	SW	NE	31	09	24	446 190	3 917 210	MA LH	SH	1.0	-	-	-	-	-	-	-	-	-	826	-485	342	-	-	35	-	
HR	85	JON	SE	SE	NW	31	09	24	445 920	3 916 870	SA L	SH	1.3*	-	-	-	-	-	-	-	-	-	58	285	344	-	-	35	*Est. from E-log and samp. log.	
HR	86	JON	SE	SE	SE	31	09	24	446 920	3 916 840	SA L	SH	1.3*	-	-	-	-	-	-	-	-	-	61	278	340	12	-	35	*Est. from E-log.	
HR	86	JON	SE	SE	SE	31	09	24	416 920	3 916 840	SA L	SH	1.0*	-	-	-	-	-	-	-	-	-	73	266	340	-	-	35	*Est. from E-log.	
HR	87	JON	NW	SE	NE	31	09	24	446 680	3 917 030	MA LH	SH	2.4	0.2	2.2	-	-	-	-	-	-	-	821	-486	340	-	-	35	-	
HR	88	JON	SE	NW	SE	31	09	24	446 390	3 916 500	MA L	SH	1.8*	-	-	-	-	-	-	-	-	-	681	-338	345	26	-	35	*Est. from E-log and samp. log.	
HR	88	JON	SE	NW	SE	31	09	24	446 390	3 916 500	MA LH	SH	1.1*	-	-	-	-	-	-	-	-	-	708	-364	345	-	-	35	*Est. from E-log and samp. log.	
HR	89	JON	SE	SW	SE	31	09	24	446 380	3 916 170	MA M	SH	1.2*	-	-	-	-	-	-	-	-	-	209	-135	345	-	-	35	*Est. from E-log and samp. log.	
HR	90	JON	NW	NW	NW	32	09	24	446 970	3 917 520	MA U	SH	1.2*	-	-	-	-	-	-	-	-	-	106	233	340	15	-	35	*Est. from E-log and samp. log.	
HR	90	JON	NW	NW	NW	32	09	24	446 970	3 917 520	MA U	SH	0.8*	-	-	-	-	-	-	-	-	-	121	218	340	-	-	35	*Est. from E-log and samp. log.	
HR	91	JON	SW	SW	NE	32	09	24	447 820	3 916 850	SA L	SH	0.7*	-	-	-	-	-	-	-	-	-	87	247	335	-	-	35	*Est. from E-log and samp. log.	
HR	92	JON	SE	NW	SE	32	09	24	448 640	3 917 270	SA L	SH	0.7*	-	-	-	-	-	-	-	-	-	56	286	343	-	-	35	*Est. from E-log and samp. log.	

HR	93	JON	SW	NE	NW	25	10	24	454 420	3 928 250	MA LH	ST	1.0	—	—	—	—	—	—	—	10 _e	469 _e	480	—	—	19, 35	—	
HR	94	JON	SE	NW	NW	25	10	24	454 070	3 928 420	MA LH	ST	1.2	—	—	—	—	—	—	—	10 _e	514 _e	525	—	—	32	—	
HR	95	JON	NW	NE	SW	27	10	24	451 160	3 927 740	AT —	DW	—*	—	—	—	—	—	—	—	970	—144	727	—	—	32	*Thk. not reported.	
HR	96	JON	SW	SW	SE	31	10	24	446 540	3 925 720	MA LH	ST	1.6	—	—	—	—	—	—	—	10 _e	478 _e	490	—	A	19, 35	—	
HR	97	JON	SE	SW	SE	31	10	24	446 690	3 925 710	MA LH	ST	1.5	—	—	—	—	—	—	—	10 _e	468 _e	480	—	A	19, 35	—	
HR	98	JON	SW	SW	SE	31	10	24	446 890	3 925 760	MA LH	ST	1.5	—	—	—	—	—	—	—	10 _e	468 _e	480	—	A	19, 35	—	
HR	99	JON	SE	SE	SE	31	10	24	447 260	3 925 770	MA LH	ST	1.6	—	—	—	—	—	—	—	10 _e	468 _e	480	—	A	19, 35	—	
HR	100	JON	NW	SW	SW	32	10	24	447 300	3 925 900	MA LH	ST	1.6	—	—	—	—	—	—	—	10 _e	483 _e	495	—	—	32	—	
HR	101	JON	SE	NW	SE	35	10	24	453 190	3 926 000	MA LH	ST	0.5	—	—	—	—	—	—	—	10 _e	369 _e	380	—	—	32	—	
HR	102	JON	NW	NW	SW	36	10	24	453 770	3 923 230	MA LH	ST	1.3	—	—	—	—	—	—	—	10 _e	389 _e	400	—	—	32	—	
HR	103	JON	SW	SE	NW	36	10	24	454 200	3 926 280	MA LH	ME	1.7	—	—	—	—	—	—	—	5 _e	388 _e	395	—	—	32	—	
HR	104	LOG	NW	SW	NE	01	08	25	444 410	3 915 570	MA LH	SH	0.7*	—	—	—	—	—	—	—	569	—232	338	—	—	35	*Est. from E-log. Carbonaceous shale in samp.	
HR	105	JON	SW	NE	NE	01	09	25	445 220	3 925 470	MA LH	SH	1.7	—	—	—	—	—	—	—	—	—	490	—	—	35	—	
HR	106	JON	NE	SE	NE	13	09	25	445 420	3 922 100	MA LH	OT	1.9	—	—	—	—	—	—	—	0	363	363	—	—	32	Near a fault.	
HR	107	JON	NE	NE	NE	24	09	25	445 320	3 920 750	MA LH	MS	3.2	—	—	—	—	—	—	—	296	46	345	—	—	35	—	
HR	108	JON	NE	NE	SW	24	09	25	444 380	3 919 940	MA L	SH	0.7	—	—	—	—	—	—	—	356	6	363	18	—	35	Coal cored.	
HR	108	JON	NE	NE	SW	24	09	25	444 380	3 919 940	MA LH	SH	1.0	—	—	—	—	—	—	—	374	— 12	363	—	—	35	Coal cored.	
HR	109	JON	SW	SW	SW	24	09	25	443 750	3 919 360	MA LH	SH	1.2	2.2	0.5*	—	—	—	—	—	325	15	345	—	—	35	*Est. from E-log and samp. log.	
HR	110	JON	NE	NE	NE	25	09	25	445 290	3 919 280	MA M	SH	1.5	1.2	1.0*	—	—	—	—	—	81	263	348	346	—	35	*Est. from E-log and samp. log.	
HR	110	JON	NE	NE	NE	25	09	25	445 290	3 919 280	MA LH	SH	0.4	0.8	1.8*	—	—	—	—	—	428	— 83	348	—	—	35	*Est. from E-log and samp. log.	
HR	111	JON	SE	SE	SE	25	09	25	445 230	3 917 700	SA L	SH	0.9	4.2	0.5*	—	—	—	—	—	78	262	345	30	—	35	*Est. from E-log and samp. log.	
HR	111	JON	SE	SE	SE	25	09	25	445 230	3 917 700	SA L	SH	0.6*	—	—	—	—	—	—	—	112	232	345	47	—	35	*Est. from E-log and samp. log.	
HR	111	JON	SE	SE	SE	25	09	25	445 230	3 917 700	MA U	SH	0.8*	—	—	—	—	—	—	—	159	185	345	24	—	35	*Est. from E-log and samp. log.	
HR	111	JON	SE	SE	SE	25	09	25	445 230	3 917 700	MA U	SH	1.7*	—	—	—	—	—	—	—	182	161	345	239	—	35	*Est. from E-log and samp. log.	
HR	111	JON	SE	SE	SE	25	09	25	445 230	3 917 700	MA M	SH	0.5	1.0	0.5	1.2	1.3*	—	—	—	419	— 78	345	—	—	35	*Est. from E-log and samp. log.	
HR	112	JON	SW	NW	SE	25	09	25	444 580	3 918 240	MA LH	SH	0.5	—	—	—	—	—	—	—	530	—185	346	—	—	35	Loc. approx.	
HR	113	JON	SE	SE	NW	36	09	25	444 420	3 916 980	MA LH	SH	0.8*	—	—	—	—	—	—	—	732	—385	347	—	—	35	*Est. from E-log.	
HR	114	JON	SE	SW	NE	36	09	25	444 770	3 916 940	MA U	SH	2.5*	—	—	—	—	—	—	—	51	292	345	—	—	35	*Est. from samp. log as 2'-3' "coal, bony coal & coal."	
HR	115	JON	SE	SE	SE	36	09	25	445 170	3 916 110	MA M	SH	0.7*	—	—	—	—	—	—	—	204	147	352	—	—	35	*Est. from E-log and samp. log.	
HR	116	JON	NW	SE	SE	26	10	25	443 740	3 927 710	MA LH	OT	1.8	—	—	—	—	—	—	—	0	420	420	—	—	7, 32	Near a fault.	
Huntington quadrangle (HN)																												
HN	01	SEB	NE	NE	NW	06	04	31	379 010	3 880 140	MA UH	SH	5.0	—	—	—	—	—	—	—	—	—	635	—	—	21	—	
HN	02	SEB	NE	NE	NW	14	04	31	385 420	3 875 240	MA LH	ME	3.2	—	—	—	—	—	—	—	10 _e	760	770	—	—	21	—	
HN	03	SEB	SE	SE	NE	16	04	31	382 950	3 874 640	MA LH	OT	3.7	—	—	—	—	—	—	—	0	770	770	—	—	21	—	
HN	04	SEB	SE	NE	SW	17	04	31	380 530	3 874 360	MA LH	OT	3.9	—	—	—	—	—	—	—	0	715	715	—	—	21	—	
HN	05	SEB	SW	NE	SW	17	04	31	380 320	3 874 320	MA LH	PP	0.7	2.0	2.3	2.5	2.2	0.3	0.8	—	6 _e	705 _e	720	—	—	7	Loc. approx.	
HN	06	SEB	NE	SE	SE	18	04	31	379 670	3 874 280	MA LH	OT	4.7	—	—	—	—	—	—	—	0	740	740	—	—	21	—	
HN	07	SEB	SW	NE	SE	18	04	31	379 490	3 874 300	MA LH	PP	2.0	0.3	0.7	1.9	2.5	0.4	0.5	0.3	1.0	6 _e	724 _e	740	—	—	7	Loc. approx.
HN	08	SEB	NW	SW	SW	18	04	31	378 320	3 874 260	MA LH	ST	3.1	—	—	—	—	—	—	—	10 _e	827 _e	840	—	A+	19, 35	—	
HN	09	SEB	NE	NE	NW	21	04	31	382 080	3 873 700	MA LH	SH	1.6	1.3	0.5	2.2	2.0	6.6	0.3	—	666	119	800	—	—	Prop.	—	
HN	10	SEB	SE	SE	SW	07	05	31	377 070	3 886 830	MA LH	SH	2.2	—	—	—	—	—	—	—	—	—	530	—	—	21	—	

TABLE 1. — BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

Quadrangle	ID Number	Location									Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks	
		County 1/	Public Lands Subdivisions					UTM Grid System		Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.										Datum mean sea level										
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15											Meters north of Equator	Base of coal	Ground surface								
																								10 Ac.	40 Ac.					160 Ac.
													C	P	C	P	C	P	C	P	C									
HN	11	SEB	SW	SE	SE	07	05	31	377 590	3 886 850	MA LH	ME	3.0	—	—	—	—	—	—	—	—	10 _e	562 _e	575	—	—	7	—		
HN	12	SEB	NE	NE	SW	08	05	31	378 610	3 887 400	MA LH	TP	—	—	—	—	—	—	—	—	—	—	—	590	—	A	19, 35	—		
HN	13	SEB	SE	NE	SW	15	05	31	381 900	3 885 530	AT —	DW	1.0	—	—	—	—	—	—	—	—	469	95	565	—	—	35	—		
HN	14	SEB	SE	NE	NE	18	05	31	377 810	3 886 510	MA LH	OT	4.0	—	—	—	—	—	—	—	—	0	605	605	—	—	21	—		
HN	15	SEB	NW	SW	NW	19	05	31	376 250	3 884 720	MA LH	SH	1.2*	0.5	0.7	—	—	—	—	—	—	75	443	520	—	—	35	—	*Lower part described as "shaly coal".	
HN	16	SEB	—	—	CNW	19	05	31	376 620	3 884 790	MA LH	SH	2.9	—	—	—	—	—	—	—	—	57	462	522	—	—	35	—		
HN	17	SEB	NE	NW	SW	19	05	31	376 590	3 884 400	MA UH	SH	3.2*	—	—	—	—	—	—	—	—	26	506	535	—	—	35	—	*Full thk. not penetrated.	
HN	18	SEB	SW	NE	SW	19	05	31	376 650	3 884 010	MA UH	SH	3.4	—	—	—	—	—	—	—	—	—	—	550	—	—	21	—		
HN	19	SEB	SW	SE	NW	19	05	31	376 820	3 884 550	MA LH	SH	3.0*	—	—	—	—	—	—	—	—	21	501	525	—	—	35	—	*Full thk. not penetrated.	
HN	20	SEB	SE	NE	NE	19	05	31	377 690	3 884 780	MA LH	ST	3.0	—	—	—	—	—	—	—	—	10 _e	587 _e	600	—	—	7	—		
HN	21	SEB	NW	NW	SW	20	05	31	378 040	3 884 190	MA LH	SH	3.0	—	—	—	—	—	—	—	—	60	532	595	—	—	7, 21	—		
HN	21A	SEB	SW	NW	SW	20	05	31	377 880	3 884 060	MA L	MS	—	—	—	—	—	—	—	—	—	—	—	560	—	A	27, 28	—	Loc. of shaft.	
HN	22	SEB	NW	NE	SW	20	05	31	378 390	3 884 180	MA LH	SH	3.0	—	—	—	—	—	—	—	—	—	—	600	—	—	21	—		
HN	23	SEB	NW	SE	NW	20	05	31	378 340	3 884 600	MA LH	OT	3.0	—	—	—	—	—	—	—	—	0	638	638	—	—	21	—		
HN	24	SEB	SW	NE	SW	22	05	31	381 570	3 883 870	MA LH	OT	6.3	—	—	—	—	—	—	—	—	0	640	640	—	—	21	—		
HN	25	SEB	SE	NW	NE	26	05	31	383 860	3 883 110	MA LH	SH	6.5	—	—	—	—	—	—	—	—	—	—	560	—	—	21	—		
HN	26	SEB	SW	NW	NE	26	05	31	383 460	3 883 300	MA LH	ST	1.6	1.5	3.3	—	—	—	—	—	—	10 _e	560	585	—	A*	19, 35	—	*Analyses available on both coal beds.	
HN	27	SEB	SW	NW	NE	27	05	31	381 960	3 883 020	MA LH	SH	1.5	0.5	0.6	10.0	4.0	—	—	—	—	47	477	540	—	—	35	—		
HN	28	SEB	NW	SE	NW	27	05	31	381 610	3 882 960	MA LH	SH	2.0	0.2	0.5	0.8	4.0	—	—	—	—	51	487	545	—	—	35	—		
HN	29	SEB	NW	NW	SE	27	05	31	382 020	3 882 490	MA UH	SH	0.5	0.4	0.7	—	—	—	—	—	—	174	379	555	19	—	35	—		
HN	29	SEB	NW	NW	SE	27	05	31	382 020	3 882 490	MA L	SH	1.0*	—	—	—	—	—	—	—	—	194	360	555	79	—	35	—	*Described as "shaly".	
HN	29	SEB	NW	NW	SE	27	05	31	382 020	3 882 490	MA LH	SH	2.0	0.5	0.6	0.3	0.6	1.1	2.4	—	—	267	281	555	—	—	35	—		
HN	30	SEB	NE	SE	SW	27	05	31	381 720	3 882 080	MA LH	SH	2.3	0.3	0.5	0.5	4.0	—	—	—	—	85	462	555	—	—	35	—		
HN	30A	SEB	NE	NW	SW	27	05	31	381 390	3 882 420	MA LH	MW	1.8	0.4	0.5	0.8	4.0	—	—	—	—	—	—	550	—	A	27, 28	—	Loc. of shaft. Could not loc. samp. site.	
HN	30B	SEB	NE	NW	SW	27	05	31	381 390	3 882 420	MA LH	MW	2.7	0.4	0.5	1.0	3.0	—	—	—	—	—	—	550	—	A	27, 28	—	Loc. of shaft. Could not loc. samp. site.	
HN	30C	SEB	NE	NW	SW	27	05	31	381 390	3 882 420	MA LH	MW	1.7	2.6	3.0	—	—	—	—	—	—	—	—	550	—	A	27, 28	—	Loc. of shaft. Could not loc. samp. site.	
HN	30D	SEB	NE	NW	SW	27	05	31	381 390	3 882 420	MA LH	MW	2.0	0.3	0.5	0.8	2.6	0.1	1.4	—	—	—	—	550	—	A	27, 28	—	Loc. of shaft. Could not loc. samp. site.	
HN	30E	SEB	NE	NW	SW	27	05	31	381 390	3 882 420	MA LH	TP	—	—	—	—	—	—	—	—	—	—	—	550	—	A	27, 28	—	Loc. of shaft shown on map.	
HN	31	SEB	SW	SW	SW	27	05	31	381 110	3 881 840	MA LH	SH	2.3	0.4	0.5	0.7	4.0	—	—	—	—	84	458	550	—	—	35	—		
HN	32	SEB	NE	SE	SE	28	05	31	380 920	3 882 210	MA UH	SH	1.8*	—	—	—	—	—	—	—	—	23	515	540	—	—	35	—	*Coal described as "slaty".	

HN	33	SEB	SW	NE	SE	28	05	31	380 700	3 882 270	MA UH SH	1.5	—	—	—	—	—	—	—	37	491	530	115	—	35
HN	33	SEB	SW	NE	SE	28	05	31	380 700	3 882 270	MA LH SH	1.8	1.6	1.2	0.1	2.7*	—	—	—	146	376	530	—	—	35
HN	34	SEB	SW	SW	SE	28	05	31	380 430	3 881 850	MA UH SH	0.7	1.3	0.5	0.6	0.6	0.2	0.8	—	77	460	542	—	—	35
HN	35	SEB	NW	SW	SE	28	05	31	380 430	3 882 220	MA LH SH	1.7	1.8	3.3	—	—	—	—	—	72	451	530	—	—	35
HN	36	SEB	SW	NW	NE	28	05	31	380 300	3 883 130	MA LH MS	7.4	—	—	—	—	—	—	—	—	—	543	—	—	21
HN	37	SEB	SE	NE	NW	28	05	31	380 260	3 883 160	MA LH SH	0.6	2.7	2.7	3.1	3.7	—	—	—	58	472	543	—	—	35
HN	38	SEB	SE	NE	NW	28	05	31	380 180	3 883 090	MA LH MS	4.0	—	—	—	—	—	—	—	—	—	535	—	—	21
HN	39	SEB	NE	NE	SW	28	05	31	380 100	3 882 620	MA UH SH	1.3	—	—	—	—	—	—	—	78	451	530	89	—	35
HN	39	SEB	NE	NE	SW	28	05	31	380 100	3 882 620	MA L SH	1.4	—	—	—	—	—	—	—	167	362	520	24	—	35
HN	39	SEB	NE	NE	SW	28	05	31	380 100	3 882 620	MA LH SH	0.8	0.7	2.2	3.3	2.1	3.0	1.0	—	179	338	530	—	—	35
HN	40	SEB	NE	SE	SW	28	05	31	380 120	3 882 230	MA UH SH	1.2	—	—	—	—	—	—	—	102	432	535	113	—	35
HN	40	SEB	NE	SE	SW	28	05	31	380 120	3 882 230	MA LH SH	2.0	1.8	2.8	0.1	0.6	0.2	0.6	—	208	319	535	—	—	35
HN	41	SEB	SW	SE	SW	28	05	31	379 940	3 881 870	MA UH SH	1.7	—	—	—	—	—	—	—	156	382	540	94	—	35
HN	41	SEB	SW	SE	SW	28	05	31	379 940	3 881 870	MA LH SH	2.0	1.9	2.5	0.5	1.0*	—	—	—	244	288	540	—	—	35
HN	42	SEB	SW	SE	SW	28	05	31	379 980	3 882 020	MA UH SH	2.0	—	—	—	—	—	—	—	138	398	538	95	—	35
HN	42	SEB	SW	SE	SW	28	05	31	379 980	3 882 020	MA LH SH	2.0	2.0	3.7	—	—	—	—	—	227	303	538	—	—	35
HN	43	SEB	SW	NE	SW	28	05	31	379 840	3 882 280	MA UH SH	2.0	—	—	—	—	—	—	—	140	398	540	96	—	35
HN	43	SEB	SW	NE	SW	28	05	31	379 840	3 882 280	MA LH SH	2.5	3.2	3.1	—	—	—	—	—	229	302	540	—	—	35
HN	44	SEB	NW	NE	SW	28	05	31	379 850	3 882 570	MA UH SH	2.1*	—	—	—	—	—	—	—	108	420	530	83	—	35
HN	44	SEB	NW	NE	SW	28	05	31	379 850	3 882 570	MA LH SH	3.5*	—	—	—	—	—	—	—	189	337	530	—	—	35
HN	45	SEB	SW	NE	NW	28	05	31	379 880	3 883 190	MA LH SH	1.2*	—	—	—	—	—	—	—	63	464	540	—	—	35
HN	46	SEB	SW	SW	NW	28	05	31	379 500	3 882 840	MA UH SH	1.3	—	—	—	—	—	—	—	64	460	525	73	—	35
HN	46	SEB	SW	SW	NW	28	05	31	379 500	3 882 840	MA LH SH	4.0*	—	—	—	—	—	—	—	134	387	525	—	—	35
HN	47	SEB	SW	SW	SW	28	05	31	379 440	3 881 900	MA UH SH	4.7*	—	—	—	—	—	—	—	169	361	535	73	—	35
HN	47	SEB	SW	SW	SW	28	05	31	379 440	3 881 900	MA LH SH	2.7	2.0	3.6	—	—	—	—	—	239	288	535	—	—	35
HN	48	SEB	NW	NE	NE	32	05	31	379 140	3 881 860	MA UH SH	2.0	—	—	—	—	—	—	—	238	305	545	16	—	35
HN	48	SEB	NW	NE	NE	32	05	31	379 140	3 881 860	MA L SH	1.0*	—	—	—	—	—	—	—	255	289	545	—	—	35
HN	49	SEB	SE	NE	NE	32	05	31	378 270	3 881 510	MA UH SH	1.5	—	—	—	—	—	—	—	256	292	550	17	—	35
HN	49	SEB	SE	NE	NE	32	05	31	378 270	3 881 510	MA L SH	1.0*	—	—	—	—	—	—	—	273	276	550	75	—	35
HN	49	SEB	SE	NE	NE	32	05	31	378 270	3 881 510	MA LH SH	7.8*	—	—	—	—	—	—	—	341	201	550	—	—	35
HN	50	SEB	SE	NW	SE	32	05	31	378 890	3 880 770	MA UH SH	0.6	3.7	0.8	—	—	—	—	—	80	485	570	—	—	35
HN	51	SEB	NW	NE	SE	32	05	31	379 100	3 880 930	MA UH SH	2.0*	—	—	—	—	—	—	—	191	367	560	13	—	35
HN	51	SEB	NW	NE	SE	32	05	31	379 100	3 880 930	MA L SH	1.0*	—	—	—	—	—	—	—	205	354	560	90	—	35
HN	51	SEB	NW	NE	SE	32	05	31	379 100	3 880 930	MA LH SH	2.5	0.3	0.5	1.4	0.8	0.6	2.8	—	287	264	560	—	—	35
HN	52	SEB	SW	SW	NW	33	05	31	379 410	3 881 200	MA UH SH	1.3	—	—	—	—	—	—	—	174	378	550	15	—	35
HN	52	SEB	SW	SW	NW	33	05	31	379 410	3 881 200	MA L SH	1.0*	—	—	—	—	—	—	—	190	364	555	81	—	35
HN	52	SEB	SW	SW	NW	33	05	31	379 410	3 881 200	MA LH SH	2.0	0.5	0.6	0.3	0.6	1.1	2.4	—	264	283	555	—	—	35
HN	53	SEB	SW	NE	SW	33	05	31	379 780	3 880 760	MA LH SH	1.3	0.1	2.6	—	—	—	—	—	92	494	580	—	—	35
HN	54	SEB	NW	NE	NW	33	05	31	379 940	3 881 700	MA UH SH	1.5	—	—	—	—	—	—	—	128	415	545	115	—	35
HN	54	SEB	NW	NE	NW	33	05	31	379 940	3 881 700	MA LH SH	2.2	0.1	2.0	0.3	3.6	—	—	—	237	300	545	—	—	35

*A 0.4' coal 1.2' below.

Described as "bony coal".

*Excludes 1.9' of "shaly coal."

*Partly "shaly coal". Underlain by 13.9' "shale w/coal".

*Lower bench probably not penetrated.

*Underlain by 11.5' "very poor coal".

*Coal described as "shaly".

*Described as "shale & shaly coal".

*Described as "shaly coal".

*Described as "shaly".

*Middle 2.9' described as "shaly coal".

*Described as "shaly coal".

*Described as "shaly coal".

*Described as "shaly coal".

TABLE 1. — BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

Quadrangle	ID Number	Location										Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks
		County 1/	Public Lands Subdivisions					UTM Grid System			Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.										Datum mean sea level									
			1/4			Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15	Meters north of Equator																				
			10 Ac.	40 Ac.	160 Ac.						C			P	C	P	C	P	C	P	C	P	C		Base of coal	Ground surface				
HN	54A	SEB	SE	NW	NW	33	05	31	378 740	3 881 630	MA LH	MW	1.3	0.2	1.1	1.1	1.4	0.2	2.1	-	-	-	-	555	-	A	10	Loc. of shaft. Could not loc. samp. site.		
HN	54B	SEB	SE	NW	NW	33	05	31	378 740	3 881 630	MA LH	MW	2.4	0.2	0.5	1.0	3.9	-	-	-	-	-	-	555	-	A	10	Loc. of shaft. Could not loc. samp. site.		
HN	54C	SEB	SE	NW	NW	33	05	31	378 740	3 881 630	MA LH	MW	2.3	0.3	0.5	1.3	3.3	-	-	-	-	-	-	555	-	A	10	Loc. of shaft. Could not loc. samp. site.		
HN	54D	SEB	SE	NW	NW	33	05	31	378 740	3 881 630	MA LH	MW	1.9	0.5	0.6	0.8	3.3	-	-	-	-	-	-	555	-	A	10	Loc. of shaft. Could not loc. samp. site.		
HN	54E	SEB	SE	NW	NW	33	05	31	378 740	3 881 630	MA LH	MW	2.0	3.1	3.2	-	-	-	-	-	-	-	-	555	-	A	10	Loc. of shaft. Could not loc. samp. site.		
HN	54F	SEB	SE	NW	NW	33	05	31	378 740	3 881 630	MA LH	MW	-	-	-	-	-	-	-	-	-	-	-	555	-	A	10	Loc. of shaft. Composite of HN-54A, B, C, D, E.		
HN	55	SEB	NW	SE	NW	33	05	31	379 960	3 881 340	MA UH	SH	2.0	-	-	-	-	-	-	-	-	88	460	550	132	-	35	-		
HN	55	SEB	NW	SE	NW	33	05	31	379 960	3 881 340	MA LH	SH	2.2	1.3	3.6	-	-	-	-	-	-	215	328	550	-	-	35	-		
HN	56	SEB	NE	NW	NE	33	05	31	380 640	3 881 780	MA UH	SH	2.5	-	-	-	-	-	-	-	-	50	497	550	114	-	35	-		
HN	56	SEB	NE	NW	NE	33	05	31	380 640	3 881 780	MA LH	SH	0.5	1.4	1.8	1.6	4.1	-	-	-	-	159	383	550	-	-	35	-		
HN	57	SEB	NE	SW	NE	33	05	31	380 550	3 881 380	MA UH	SH	2.0	-	-	-	-	-	-	-	-	12	551	565	120	-	35	-		
HN	57	SEB	NE	SW	NE	33	05	31	380 550	3 881 380	MA LH	SH	1.9	1.9	3.7	-	-	-	-	-	-	126	431	565	-	-	35	-		
HN	58	SEB	SW	SW	NE	33	05	31	840 640	3 881 420	MA LH	SH	1.8	0.2	0.5	1.0	1.1	0.3	2.8	-	-	117	442	566	-	-	35	-		
HN	59	SEB	NW	NE	NW	34	05	31	381 610	3 881 630	MA LH	SH	1.4	0.5	0.7	0.8	4.2	-	-	-	-	25	537	570	-	-	35	-		
HN	60	SEB	NE	NE	NE	01	04	32	378 320	3 879 960	MA LH	SH	0.8	0.2	1.6	-	-	-	-	-	-	57	491	550	-	-	35	-		
HN	61	SEB	NE	SE	NE	01	04	32	378 210	3 879 480	MA LH	TP	6.2	-	-	-	-	-	-	-	-	-	-	680	-	A	35	Loc. of shaft.		
HN	62	SEB	SE	NE	NW	01	04	32	377 520	3 879 840	MA LH	MS	3.5	0.7	4.2	-	-	-	-	-	-	162	405	575	-	-	7	Loc. approx.		
HN	62A	SEB	SE	NE	NW	01	04	32	377 520	3 879 840	MA LH	MW	2.8	0.7	4.3*	-	-	-	-	-	-	-	-	575	-	A	10	Loc. of shaft. Could not loc. samp. site. *Partings present.		
HN	62B	SEB	SE	NE	NW	01	04	32	377 520	3 879 840	MA LH	MW	2.2	0.1	6.0*	-	-	-	-	-	-	-	-	575	-	A	10	Loc. of shaft. Could not loc. samp. site. *Partings present.		
HN	62C	SEB	SE	NE	NW	01	04	32	377 520	3 879 840	MA LH	MW	7.3*	-	-	-	-	-	-	-	-	-	-	575	-	A	10	Loc. of shaft. Could not loc. samp. site. *Minor partings.		
HN	62D	SEB	SE	NE	NW	01	04	32	377 520	3 879 840	MA LH	MW	2.3	0.2	3.5*	0.2	1.7	-	-	-	-	-	-	575	-	A	10	Loc. of shaft. Could not loc. samp. site. *Some "bony coal".		
HN	62E	SEB	SE	NE	NW	01	04	32	377 520	3 879 840	MA LH	TP	-	-	-	-	-	-	-	-	-	-	-	575	-	A	10	Loc. of shaft shown on map.		
HN	63	SEB	SW	SW	NE	01	04	32	377 580	3 878 780	AT	SH	0.8*	-	-	-	-	-	-	-	-	66	508	575	-	-	35	*Thin coals present above and below.		
HN	64	SEB	SW	SE	NW	01	04	32	377 210	3 879 020	MA LH	ME	3.8	-	-	-	-	-	-	-	-	10e	582e	605	-	-	21	-		
HN	64A	SEB	NE	SE	NW	01	04	32	377 410	3 879 210	MA LH	MW	0.5	0.7	4.7	-	-	-	-	-	-	-	-	605	-	A	33, 34	Loc. approx.		
HN	64B	SEB	NE	SW	NW	01	04	32	377 010	3 879 240	MA LH	MW	3.1	0.8	4.2	-	-	-	-	-	-	-	-	600	-	A	33	-		
HN	65	SEB	SW	SE	NE	02	04	32	376 490	3 878 960	MA UH	SH	0.8*	-	-	-	-	-	-	-	-	88	536	625	-	-	35	*Other thin coals shortly below.		
HN	66	SEB	SE	NW	SE	02	04	32	376 210	3 878 350	MA LH	ME	7.0	-	-	-	-	-	-	-	-	10e	643e	660	-	-	21	-		
HN	67	SEB	NE	NE	SW	02	04	32	375 770	3 878 530	MA UH	SH	0.7*	-	-	-	-	-	-	-	-	23	631	655	-	-	35	*Thin coals shortly below.		
HN	68	SEB	NW	SE	SE	02	04	32	374 800	3 877 410	MA L	SH	0.5	2.0	0.5	-	-	-	-	-	-	20	672	695	53	-	35	-		

HN	68	SEB	NW	SE	SE	03	04	32	374 800	3 877 410	MA LH	SH	0.5	3.3	0.8	0.8	0.7	—	—	—	—	70	619	695	—	—	35	—
HN	69	SEB	SE	SW	SE	03	04	32	374 640	3 877 280	MA LH	OT	4.0	—	—	—	—	—	—	—	0	695	695	—	—	21	—	
HN	70	SEB	SW	NE	NE	10	04	32	374 840	3 876 930	AT —	SH	0.8*	—	—	—	—	—	—	—	13	664	680	—	—	35	*Underlain by 4.1' shale & coal.	
HN	71	SEB	SE	NW	SE	13	04	32	377 640	3 874 380	MA LH	ME	3.9	—	—	—	—	—	—	—	10 _e	746 _e	760	—	—	21	—	
HN	72	SEB	NW	NE	SE	14	04	32	376 310	3 874 720	MA LH	ME	4.0	—	—	—	—	—	—	—	10 _e	756 _e	770	—	—	21	—	
HN	73	SEB	NE	NE	SW	14	04	32	375 710	3 874 830	MA LH	OT	3.7	—	—	—	—	—	—	—	0	760	760	—	—	21	—	
HN	74	SEB	NE	SE	NE	15	04	32	374 930	3 875 080	MA LH	TP	1.6	—	—	—	—	—	—	—	—	720	720	—	A	19, 21, 25, 35	Loc. of slope	
HN	75	SEB	NW	SE	NE	15	04	32	374 760	3 875 180	MA LH	SH	0.6	1.7	2.2*	—	—	—	—	—	59	665	730	—	—	35	*Parting includes 0.4' sulfur.	
HN	76	SEB	SW	SE	NE	15	04	32	374 770	3 874 950	MA LH	SH	0.6	0.7	1.7	5.0	1.7*	—	—	—	47	655	710	—	—	35	*5.0' parting mostly sandstone.	
HN	77	SEB	NW	NE	NE	15	04	32	374 740	3 874 700	MA LH	SH	1.2	1.3	2.7	—	—	—	—	—	71	604	680	—	—	35	Coal overlain by sandstone.	
HN	78	SEB	SE	NW	NE	23	04	32	376 080	3 873 740	MA UH	SH	5.0	0.9	0.4*	—	—	—	—	—	234	520	760	115	—	35	*Lower 5'-unit described as "coal & shale".	
HN	78	SEB	SE	NW	NE	23	04	32	376 080	3 873 740	MA LH	SH	4.4*	—	—	—	—	—	—	—	351	405	760	—	—	35	*Includes 2-0.5' shale partings.	
HN	79	SEB	NW	NE	SW	12	05	32	375 140	3 887 250	MA UH	SH	4.7*	—	—	—	—	—	—	—	159	401	565	51	—	35	*Described as "dirty coal".	
HN	79	SEB	NW	NE	SW	12	05	32	375 140	3 887 250	MA LH	SH	2.4	—	—	—	—	—	—	—	213	350	565	—	—	35	—	
HN	80	SEB	SE	SE	SW	12	05	32	375 330	3 887 010	MA UH	SH	5.4*	—	—	—	—	—	—	—	134	426	565	48	—	35	*Includes 1.7' of "bony coal".	
HN	80	SEB	SE	SE	SW	12	05	32	375 330	3 887 010	MA LH	SH	3.1	—	—	—	—	—	—	—	184	379	565	—	—	35	—	
HN	81	SEB	SE	SW	SW	12	05	32	374 920	3 887 090	MA UH	SH	5.5	—	—	—	—	—	—	—	144	416	565	37	—	7, 35	—	
HN	81	SEB	SE	SW	SW	12	05	32	374 920	3 887 090	MA LH	SH	2.6*	—	—	—	—	—	—	—	184	379	565	—	—	7, 35	*Full thk. probably not penetrated.	
HN	82	SEB	SW	NW	NE	13	05	32	375 660	3 886 550	MA LH	MW	—*	—	—	—	—	—	—	—	—	—	540	—	A	19, 25	Loc. of shaft. Could not loc. samp. site. *Not reported.	
HN	83	SEB	SW	NW	NE	13	05	32	375 660	3 886 550	MA LH	MW	—*	—	—	—	—	—	—	—	—	—	540	—	A	19, 25	Loc. of shaft. Could not loc. samp. site. *Not reported.	
HN	84	SEB	SW	NW	NE	13	05	32	375 660	3 886 550	MA LH	MW	—*	—	—	—	—	—	—	—	—	—	540	—	A	19, 25	Loc. of shaft. Could not loc. samp. site. *Not reported.	
HN	85	SEB	SW	NW	NE	13	05	32	375 660	3 886 550	MA LH	MW	—*	—	—	—	—	—	—	—	—	—	540	—	A	19, 25	Loc. of shaft. Composite of 82, 83, and 84. *Not reported.	
HN	86	SEB	NE	SW	NW	13	05	32	374 910	3 886 340	MA LH	SH	3.0	—	—	—	—	—	—	—	143	399	545	—	—	35	—	
HN	87	SEB	SE	SE	SE	13	05	32	376 050	3 885 300	MA LH	SH	1.8*	—	—	—	—	—	—	—	27	493	522	—	—	35	*Underlain by 0.5' "coal & slate".	
HN	88	SEB	NE	SE	NE	24	05	32	376 110	3 884 740	MA UH	SH	2.8	—	—	—	—	—	—	—	7	510	520	—	—	35	—	
HN	89	SEB	SE	SE	NE	24	05	32	376 080	3 884 490	MA UH	SH	2.4	—	—	—	—	—	—	—	56	471	530	—	—	35	—	
Knoxville quadrangle (KV)																												
KV	01	POP	NE	SE	NE	06	08	21	476 120	3 914 840	AT —	SH	0.5*	—	—	—	—	—	—	—	369	270	640	—	—	35	*Est. from E-log and samp. log.	
KV	02	POP	NE	SE	SE	07	09	21	476 430	3 921 910	AT —	OT	0.6	—	—	—	—	—	—	—	0	650	650	—	—	30	Near a fault.	
KV	03	POP	SW	NW	NW	30	09	21	474 660	3 918 170	AT —	SH	1.8*	—	—	—	—	—	—	—	593	—70	525	—	—	35	*Est. from E-log and samp. log.	
KV	04	JON	—	CSW	NE	02	08	22	472 360	3 914 730	AT —	DW	3.0	7.0	2.5*	—	—	—	—	—	1320	—642	690	—	—	29	*Est. from samp. log.	
KV	04A	POP	SE	SE	NW	01	08	22	473 680	3 914 700	AT —	DW	—*	—	—	—	—	—	—	—	1244	—480	795	—	—	35	*Thk. not reported.	
KV	05	POP	SW	NE	NW	01	09	22	473 740	3 924 720	AT —	OT	1.0	—	—	—	—	—	—	—	0	460	460	—	—	7, 30	Penetrates a fault.	
KV	06	JON	SE	NE	SW	05	09	22	467 320	3 924 040	AT —	DW	3.0*	—	—	—	—	—	—	—	1639	—1186	456	—	—	29	*Est. from samp. log.	
KV	07	JON	NE	SW	NE	06	09	22	466 220	3 924 490	MA LH	ME	2.1	—	—	—	—	—	—	—	10 _e	448 _e	460	—	—	30	—	
KV	08	JON	NE	SE	NE	06	09	22	466 710	3 924 630	MA LH	OT	1.6	—	—	—	—	—	—	—	0	415	415	—	—	30	—	
KV	09	JON	SE	NW	NE	07	09	22	466 110	3 923 170	MA LH	ME	1.5	—	—	—	—	—	—	—	5 _e	428 _e	435	—	—	30	—	

See footnotes at end of table.

TABLE 1. — BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

Quadrangle	ID Number	Location										Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks	
		County 1/	Public Lands Subdivisions					UTM Grid System						Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Datum mean sea level						
			10 Ac.	1/4 Ac.	160 Ac.	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15	Meters north of Equator	Base of coal														Ground surface						
C	P	C	P	C	P	C	P	C	P	C																					
KV	10	JON	NE	NW	SW	08	09	22	467 080	3 922 610	MA LH	OT	1.7	—	—	—	—	—	—	—	—	0	410	410	—	—	30	—			
KV	11	JON	SE	NE	SE	08	09	22	468 130	3 922 300	MA LH	OT	0.8	—	—	—	—	—	—	—	—	0	395	395	—	—	30	—			
KV	12	POP	SW	NW	SW	12	09	22	473 300	3 922 310	AT —	OT	0.5	—	—	—	—	—	—	—	—	0	530	530	—	—	30	—			
KV	13	POP	—	CNE	SW	13	09	22	473 670	3 920 750	AT —	DW	1.0	—	—	—	—	—	—	—	—	584	31	616	353	—	29	—			
KV	13	POP	—	CNE	SW	13	09	22	473 670	3 920 750	AT —	DW	1.0	—	—	—	—	—	—	—	—	937	—322	616	—	—	29	—			
KV	14	JON	NW	NE	NW	16	09	22	468 760	3 921 800	MA LH	ME	1.0	—	—	—	—	—	—	—	—	5e	364e	370	—	—	30	—			
KV	15	JON	NE	NE	NW	16	09	22	468 830	3 921 700	MA LH	ME	1.3	—	—	—	—	—	—	—	—	5e	344e	350	—	—	30	—			
KV	16	JON	NE	SE	NW	20	09	22	467 220	3 919 780	SA L	OT	1.0	—	—	—	—	—	—	—	—	0	490	490	—	—	30	—			
KV	17	JON	NW	SW	NW	29	09	22	466 590	3 918 150	SA L	OT	0.8	—	—	—	—	—	—	—	—	0	420	420	—	—	30	—			
KV	18	JON	—	CNW	SE	35	09	22	472 370	3 915 940	AT —	DW	1.0	—	—	—	—	—	—	—	—	1312	—576	737	—	—	29	—			
KV	19	JON	SE	SE	SW	20	10	22	467 530	3 928 360	AT —	ST	1.2	—	—	—	—	—	—	—	—	10e	454e	465	—	A +	19, 35	—			
KV	20	JON	SW	NE	NW	29	10	22	467 360	3 928 060	AT —	ST	—*	—	—	—	—	—	—	—	—	10e	469e	480	—	A	19, 35	*Thk. not reported.			
KV	21	JON	SW	NE	SE	30	10	22	466 450	3 927 300	AT —	OT	0.7	—	—	—	—	—	—	—	—	0	520	520	—	—	30	—			
KV	22	JON	SE	SW	SE	30	10	22	466 320	3 926 870	AT —	OT	0.6	—	—	—	—	—	—	—	—	0	550	550	—	—	30	—			
Lavaca quadrangle (LA)																															
LA	01	SEB	NW	NE	SW	01	07	30	395 940	3 908 310	MA LH	DW	—*	—	—	—	—	—	—	—	—	159	260	420	1158	—	22, 35	*Thk. not reported.			
LA	01	SEB	NW	NE	SW	01	07	30	395 940	3 908 310	AT —	DW	—*	—	—	—	—	—	—	—	—	1318	—898	420	—	—	22, 35	*Thk. not reported.			
LA	02	SEB	SW	SE	NW	06	07	30	387 470	3 908 840	SA CH	OT	1.0	—	—	—	—	—	—	—	—	0	470	470	—	—	22	—			
LA	03	SEB	SE	NE	SW	07	07	30	330 840	3 906 610	MA L	SH	1.3	—	—	—	—	—	—	—	—	214	205	420	483	—	35	—			
LA	03	SEB	SE	NE	SW	07	07	30	330 840	3 906 610	MA LH	SH	4.0	—	—	—	—	—	—	—	—	694	—278	420	—	—	35	—			
LA	04	SEB	SE	NW	SE	14	07	30	394 760	3 904 580	MA LH	SH	2.0	—	—	—	—	—	—	—	—	—	—	480	—	—	22	—			
LA	05	SEB	SE	NE	SW	14	07	30	394 360	3 904 650	MA LH	SH	2.2	—	—	—	—	—	—	—	—	—	—	480	—	—	22	—			
LA	06	SEB	SW	NE	SW	14	07	30	394 000	3 904 640	MA LH	SH	2.0	—	—	—	—	—	—	—	—	—	—	490	—	—	22	—			
LA	07	SEB	NW	SE	NE	24	07	30	396 530	3 903 620	MA LH	ME	1.5	—	—	—	—	—	—	—	—	—	—	465	—	—	7, 22	—			
LA	08	SEB	NE	SE	NW	25	07	30	375 830	3 901 920	MA LH	ME	1.3	—	—	—	—	—	—	—	—	0	478	478	—	—	7, 22	—			

LA	08	SEB	NE	SE	NW	25	07	30	395 830	3 901 920	MA LH	ME	1.3	—	—	—	—	—	—	—	0	478	478	—	—	7, 22	—	
LA	09	SEB	NE	NE	NE	23	08	30	395 530	3 913 810	MA LH	SH	1.3*	—	—	—	—	—	—	—	177	285	393	—	—	35	*Est. from E-log.	
LA	10	SEB	NE	SE	SE	23	08	30	395 490	3 912 750	MA LH	SH	1.1*	—	—	—	—	—	—	—	196	189	386	—	—	35	*Est. from E-log.	
LA	11	SEB	SE	NE	NE	23	08	30	395 530	3 913 660	MA LH	SH	1.0*	—	—	—	—	—	—	—	172	207	380	—	—	35	*Est. from E-log.	
LA	12	SEB	SW	NW	SW	24	08	30	395 520	3 912 950	MA LH	SH	1.0	0.5	0.9	1.8	0.8*	—	—	—	595	−210	390	—	—	35	*Est. from E-log.	
LA	13	SEB	NW	NW	NW	29	08	30	389 190	3 914 470	MA L	DW	2.0	—	—	—	—	—	—	—	218	220	440	243	—	35	—	
LA	13	SEB	NW	NW	NW	29	08	30	389 190	3 914 470	MA LH	DW	—*	—	—	—	—	—	—	—	460	−23	440	—	—	35	*Thk. not reported.	
LA	14	SEB	SE	SW	SW	29	08	30	389 290	3 911 100	MA LH	DW	—*	—	—	—	—	—	—	—	680	−290	393	—	—	35	*Thk. not reported.	
Lee Mountain quadrangle (LM)																												
LM	01	POP	SW	NW	NE	05	08	20	486 890	3 914 630	AT —	OT	—*	—	—	—	—	—	—	—	0	495	495	—	—	34	*Thk. not reported.	
LM	02	POP	NW	NW	NE	05	08	20	486 900	3 914 950	AT —	OT	0.7	—	—	—	—	—	—	—	0	490	490	—	—	34	—	
LM	03	POP	SE	NE	NE	17	09	20	487 770	3 921 150	AT —	OT	—*	—	—	—	—	—	—	—	0	505	505	—	—	34	*Thk. not reported.	
LM	04	POP	SE	SE	NE	19	09	20	486 110	3 919 080	AT —	OT	0.5	—	—	—	—	—	—	—	0	435	435	—	—	34	—	
LM	05	POP	—	—	CSW	29	09	20	486 520	3 917 000	AT —	OT	0.7	—	—	—	—	—	—	—	0	505	505	—	—	34	—	
LM	06	POP	NW	SW	SE	30	09	20	485 390	3 916 995	AT —	OT	—*	—	—	—	—	—	—	—	0	470	470	—	—	34	*Thk. not reported.	
LM	07	POP	NW	NW	NE	30	09	20	485 360	3 918 080	AT —	OT	0.7	—	—	—	—	—	—	—	0	500	500	—	—	34	—	
LM	08	POP	SW	SW	SE	31	10	20	485 550	3 924 810	AT —	DW	—*	—	—	—	—	—	—	—	1115	−458	657	1530	—	35	*Thk. not reported.	
LM	08	POP	SW	SW	SE	31	10	20	485 550	3 924 810	AT —	DW	—*	—	—	—	—	—	—	—	2645	−1988	657	—	—	35	*Thk. not reported.	
LM	09	POP	SE	SE	NW	32	10	20	486 850	3 925 500	AT —	DW	—*	—	—	—	—	—	—	—	1530	−791	739	—	—	35	*Thk. not reported.	
LM	10	POP	—	CNE	SW	33	10	20	488 420	3 925 230	AT —	DW	—*	—	—	—	—	—	—	—	1220	−430	790	—	—	35	*Thk. not reported.	
LM	11	POP	NE	SE	NW	04	08	21	478 530	3 914 480	AT —	DW	—*	—	—	—	—	—	—	—	1294	−504	790	—	—	35	*Thk. not reported.	
LM	12	POP	NW	SW	SW	22	09	21	479 720	3 918 790	AT —	OT	0.6	—	—	—	—	—	—	—	0	480	480	—	—	34	—	
LM	13	POP	NW	SE	SW	22	09	21	479 980	3 918 680	AT —	OT	0.7	—	—	—	—	—	—	—	0	440	440	—	—	34	—	
LM	14	POP	SW	NE	SW	22	09	21	480 140	3 918 820	AT —	OT	—*	—	—	—	—	—	—	—	0	490	490	—	—	34	*Thk. not reported.	
LM	15	POP	SE	SE	NW	22	09	21	480 250	3 919 240	AT —	OT	0.5	—	—	—	—	—	—	—	0	520	520	—	—	34	—	
Magazine Mountain NE quadrangle (MM)																												
MM	01	LOG	SE	SW	SW	28	06	24	448 790	3 889 280	AT —	OT	0.6	—	—	—	—	—	—	—	0	927	927	—	—	19	Loc. approx.	
Mulberry quadrangle (MU)																												
MU	01	FRK	SE	NE	SE	07	08	28	408 660	3 915 900	MA LH	SH	1.8*	—	—	—	—	—	—	—	177	296	475	—	—	35	*Est. from E-log and samp. log.	
MU	02	FRK	NW	SW	NW	08	08	28	408 720	3 916 400	MA LH	SH	1.8*	—	—	—	—	—	—	—	235	253	490	—	—	35	*Est. from E-log. Near a fault.	
MU	03	FRK	NW	NW	NW	17	08	28	408 680	3 915 140	MA LH	SH	1.3*	—	—	—	—	—	—	—	123	341	465	—	—	35	*Est. from E-log.	
MU	04	FRK	NW	NW	NW	05	09	28	408 950	3 927 220	MA LH	OT	0.7	—	—	—	—	—	—	—	0	500	500	—	—	22	—	
MU	05	FRK	NW	SE	NE	10	08	29	403 550	3 916 570	MA LH	OT	1.4	—	—	—	—	—	—	—	0	485	485	—	—	22	—	
MU	06	FRK	NW	SE	SE	10	08	29	403 420	3 916 580	AT —	SH	—*	—	—	—	—	—	—	—	346	149	495	—	—	22, 35	*Indeterminate: probably thin.	
MU	07	FRK	NE	NW	SE	10	08	29	403 370	3 916 250	—*	—	SH	1.3**	—	—	—	—	—	—	290	151	442	—	—	35	*Indeterminate. **Est. from E-log. Fault penetrated.	
MU	08	FRK	SW	NW	SE	11	08	29	404 750	3 915 920	MA LH	ST	1.3	—	—	—	—	—	—	—	12	430	442	—	A+	35	—	
MU	09	FRK	NE	NE	NE	11	08	29	405 490	3 916 850	AT —	SH	1.3*	—	—	—	—	—	—	—	151	318	470	—	—	35	*Est. from E-log. Near a fault.	
MU	10	FRK	SE	NE	NE	11	08	29	405 480	3 916 790	MA LH	SH	1.4*	—	—	—	—	—	—	—	146	343	490	—	—	35	*Est. from E-log. Near a fault.	

TABLE 1. — BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

Quadrangle	ID Number	Location								Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks		
		County 1/	Public Lands Subdivisions				UTM Grid System					Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Base of coal	Ground surface						
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15																				Meters north of Equator	
			10 Ac.	40 Ac.	160 Ac.							C	P	C	P	C	P	C	P	C										
MU	11	FRK	SE	NE	NE	11	08	29	405 470	3 916 740	MA LH	SH	1.3*	—	—	—	—	—	—	—	—	128	343	472	—	—	35	*Est. from E-log. Near a fault.		
MU	12	FRK	NW	SW	NW	12	08	29	405 510	3 916 500	MA LH	SH	1.8*	—	—	—	—	—	—	—	—	78	376	456	—	—	35	*Est. from E-log.		
MU	13	FRK	NW	NE	SW	12	08	29	406 040	3 916 030	MA LH	SH	1.4*	—	—	—	—	—	—	—	—	42	412	455	—	—	35	*Est. from E-log. Described as coal w/sulfur.		
MU	14	FRK	SW	SE	SW	12	08	29	405 860	3 915 410	MA LH	SH	1.3	—	—	—	—	—	—	—	—	46	398	445	—	—	35	—		
MU	15	FRK	NW	NW	NW	13	08	29	405 440	3 915 220	MA LH	SH	1.4*	—	—	—	—	—	—	—	—	35	394	430	—	—	35	*Est. from E-log.		
MU	16	FRK	SE	NW	NW	14	08	29	404 070	3 915 160	MA LH	SH	1.3	—	—	—	—	—	—	—	—	40	399	440	—	—	35	Loc. uncertain. Described as "coal w/sulfur".		
MU	17	SEB	NW	NW	NE	17	08	29	399 660	3 915 400	MA LH	SH	1.4	—	—	—	—	—	—	—	—	342	137	480	—	—	22	—		
MU	18	SEB	NE	SE	NW	30	09	29	398 420	3 921 860	MA LH	DW	—*	—	—	—	—	—	—	—	—	200	179	380	1255	—	22	*Thk. not reported.		
MU	18	SEB	NE	SE	NW	30	09	29	398 420	3 921 860	AT —	DW	—*	—	—	—	—	—	—	—	—	1455	—1075	380	—	—	22	*Thk. not reported.		
MU	19	FRK	NE	SE	NW	36	10	29	406 040	3 928 530	MA LH	OT	2.3	—	—	—	—	—	—	—	—	0	440	440	—	A	35	Near a fault.		
MU	20	FRK	NE	NE	SE	36	10	29	406 970	3 928 070	MA LH	OT	0.8	—	—	—	—	—	—	—	—	0	425	425	—	—	22	Near a fault.		
MU	21	FRK	SE	NE	NW	36	10	29	406 050	3 928 510	AT —	OT	0.7	—	—	—	—	—	—	—	—	0	445	445	—	—	22	—		
New Blaine quadrangle (NB)																														
NB	01	LOG	SE	SW	NW	04	07	23	458 960	3 905 740	MA LH	SH	1.0	—	—	—	—	—	—	—	—	71	268	340	452	—	7	—	—	
NB	01	LOG	SE	SW	NW	04	07	23	458 960	3 905 740	AT —	SH	1.5	0.6	1.0	—	—	—	—	—	—	522	—185	340	—	—	7	—	—	
NB	02	LOG	—	—	CW½	06	07	23	455 690	3 905 810	MA L	SH	1.0*	—	—	—	—	—	—	—	—	35	339	375	437	—	7	Loc. approx. *Described as "shaly".		
NB	02	LOG	—	—	CW½	06	07	23	455 690	3 905 810	MA LH	SH	3.0*	—	—	—	—	—	—	—	—	470	— 98	375	—	—	7	Loc. approx. *Described as "shaly".		
NB	03	LOG	SE	NE	NE	19	08	23	457 140	3 911 270	MA LH	SH	—*	—	—	—	—	—	—	—	—	533	—168	365	—	—	35	*Reported as "thin".		
NB	04	LOG	—	CNW	NW	20	08	23	457 370	3 911 240	MA LH	SH	—*	—	—	—	—	—	—	—	—	533	—174	360	—	—	7	*Reported as "thin".		
NB	05	LOG	SW	NE	SW	21	08	23	459 310	3 910 300	MA LH	SH	—*	—	—	—	—	—	—	—	—	525	—186	340	—	—	7	*Reported as "thin".		
NB	06	LOG	NW	NE	NE	21	08	23	460 040	3 911 150	MA LH*	SH	—**	—	—	—	—	—	—	—	—	525	—161	365	—	—	35	*Possibly is MA M. **Thk. not reported.		
NB	07	LOG	NE	SE	NW	28	08	23	459 370	3 909 180	MA LH	SH	—*	—	—	—	—	—	—	—	—	114	345	460	—	—	7	*Reported as "thin".		
NB	08	LOG	—	CNE	NE	24	08	24	455 220	3 911 430	MA LH	SH	—*	—	—	—	—	—	—	—	—	403	46	450	—	—	7	*Reported as "thin". Loc. approx.		
NB	09	LOG	SW	SW	NE	24	08	24	454 750	3 910 950	MA LH	SH	0.9	—	—	—	—	—	—	—	—	88	331	420	—	—	7	—		
NB	10	LOG	—	CSW	NE	25	08	24	454 740	3 909 400	AT —	DW	—*	—	—	—	—	—	—	—	—	1185	—807	380	—	—	18, 35	*Thk. not reported.		

Ozark quadrangle (OZ)																											
OZ	01	FRK	NE	SE	NW	17	09	26	428 460	3 922 640	MA LH SH	1.7	-	-	-	-	-	-	-	-	-	-	400	-	-	35	-
OZ	01A	FRK	SW	SE	SE	06	09	26	427 460	3 924 980	AT - OT	0.5	-	-	-	-	-	-	-	-	0	410	400	-	-	7	-
OZ	02	FRK	SW	NE	SW	17	09	26	428 220	3 922 280	MA LH SH	2.1	-	-	-	-	-	-	-	-	-	-	405	-	-	35	-
OZ	03	FRK	NW	NW	SW	17	09	26	427 800	3 922 250	MA LH TP	-	-	-	-	-	-	-	-	-	-	-	360	-	A	19, 35	Loc. of shaft shown on map.
OZ	04	FRK	SE	SE	SE	19	09	26	427 590	3 920 140	MA LH SH	4.0	-	-	-	-	-	-	-	-	-	-	400	-	-	35	-
OZ	05	FRK	SE	SW	SW	20	09	26	427 850	3 920 150	MA LH SH	4.2	-	-	-	-	-	-	-	-	-	-	405	-	-	35	-
OZ	06	FRK	SW	SW	SE	20	09	26	428 380	3 920 080	MA LH ST	2.3*	-	-	-	-	-	-	-	-	10 _e	368 _e	380	-	A+	19, 35	*Full thk. not exposed.
OZ	07	FRK	SW	SW	SE	20	09	26	428 480	3 920 020	MA LH SH	4.0	-	-	-	-	-	-	-	-	-	-	390	-	-	35	-
OZ	08	FRK	SE	NE	SE	20	09	26	429 060	3 920 500	MA LH SH	4.0	-	-	-	-	-	-	-	-	-	-	445	-	-	35	-
OZ	09	FRK	SW	SW	SW	21	09	26	429 340	3 920 090	MA LH TP	-	-	-	-	-	-	-	-	-	-	-	415	-	A	19, 35	Loc. of shaft shown on map.
OZ	10	FRK	NE	SW	SW	21	09	26	429 530	3 920 270	MA LH SH	2.2	0.3	2.5	-	-	-	-	-	-	66	312	414	-	-	7	-
OZ	11	FRK	SW	NE	SW	21	09	26	429 760	3 920 470	MA LH SH	3.6	-	-	-	-	-	-	-	-	48	378	430	-	-	35	-
OZ	12	FRK	NE	NW	SW	21	09	26	429 640	3 920 600	MA LH SH	2.6	-	-	-	-	-	-	-	-	-	-	425	-	-	35	-
OZ	13	FRK	SE	SE	NW	21	09	26	429 880	3 920 890	MA LH SH	2.0	1.2	0.5	-	-	-	-	-	-	20	456	480	-	-	7, 34	-
OZ	14	FRK	NE	NW	SE	21	09	26	430 330	3 920 720	MA LH SH	2.2	-	-	-	-	-	-	-	-	-	-	460	-	-	35	-
OZ	15	FRK	SW	SE	NE	21	09	26	430 540	3 920 790	MA LH SH	2.7	-	-	-	-	-	-	-	-	-	-	460	-	-	35	-
OZ	16	FRK	SE	NW	SE	21	09	26	430 400	3 920 390	MA LH SH	3.5	-	-	-	-	-	-	-	-	124	311	438	-	-	35	-
OZ	17	FRK	SW	NW	SW	22	09	26	431 920	3 920 310	MA LH TP	-	-	-	-	-	-	-	-	-	-	-	424	-	A	35	Loc. of shaft shown on map.
OZ	18	FRK	NW	SW	SW	22	09	26	431 050	3 920 020	MA LH SH	3.9	-	-	-	-	-	-	-	-	206	214	424	-	-	35	-
OZ	19	FRK	NW	NW	SW	22	09	26	430 960	3 920 520	MA LH SH	3.6	-	-	-	-	-	-	-	-	50	388	442	-	-	35	-
OZ	20	FRK	NE	NW	SW	22	09	26	431 060	3 920 520	MA LH MS	2.0	0.3	2.2	-	-	-	-	-	-	181	255	440	-	-	7	-
OZ	21A	FRK	NW	SW	NW	22	09	26	429 340	3 920 100	MA LH MW	-*	-	-	-	-	-	-	-	-	-	-	500	-	A	7, 19, 26	Loc. of shaft. Could not loc. samp. site.*Thk. not reported.
OZ	21B	FRK	NW	SW	NW	22	09	26	429 340	3 920 100	MA LH MW	-*	-	-	-	-	-	-	-	-	-	-	500	-	A	7, 19, 26	Loc. of shaft. Could not loc. samp. site.*Thk. not reported.
OZ	21C	FRK	NW	SW	NW	22	09	26	429 340	3 920 100	MA LH MW	-	-	-	-	-	-	-	-	-	-	-	500	-	A	7, 19, 26	Loc. of shaft. Composite of OZ-21A, 21B.
OZ	22	FRK	SW	NE	SW	22	09	26	431 360	3 920 400	MA LH SH	4.1	-	-	-	-	-	-	-	-	-	-	430	-	-	35	-
OZ	23	FRK	NW	NW	SE	22	09	26	431 680	3 920 620	MA LH SH	2.0	0.7	2.2	-	-	-	-	-	-	258	156	418	-	-	7, 35	-
OZ	24	FRK	NE	NW	SE	22	09	26	431 900	3 920 510	MA LH SH	3.7	-	-	-	-	-	-	-	-	-	-	400	-	-	35	-
OZ	25	FRK	SW	NW	SE	22	09	26	431 730	3 920 300	MA LH SH	3.7	-	-	-	-	-	-	-	-	201	193	398	-	-	35	-
OZ	26	FRK	SE	SE	SW	22	09	26	431 620	3 920 710	MA LH SH	2.8	-	-	-	-	-	-	-	-	206	221	430	-	-	35	-
OZ	27	FRK	NW	NW	NE	27	09	26	431 710	3 919 690	MA LH SH	3.6	-	-	-	-	-	-	-	-	125	279	408	-	-	35	-
OZ	28	FRK	SE	NW	NE	27	09	26	431 880	3 919 550	MA LH SH	3.7	-	-	-	-	-	-	-	-	-	-	400	-	-	35	-
OZ	29	FRK	NE	NW	SE	27	09	26	431 850	3 919 000	MA LH SH	3.7	-	-	-	-	-	-	-	-	109	277	390	-	-	35	-
OZ	30	FRK	NE	NE	SW	27	09	26	431 500	3 919 020	MA LH SH	3.7	-	-	-	-	-	-	-	-	91	295	390	-	-	35	-
OZ	31	FRK	NW	NE	SW	27	09	26	431 300	3 919 000	MA LH SH	4.0	-	-	-	-	-	-	-	-	-	-	398	-	-	35	-
OZ	32	FRK	SE	NW	SW	27	09	26	431 120	3 918 840	MA LH SH	4.3	-	-	-	-	-	-	-	-	104	297	405	-	-	35	-
OZ	33	FRK	SE	SW	SW	27	09	26	431 100	3 918 330	MA LH SH	1.7	-	-	-	-	-	-	-	-	-	-	400	-	-	35	-
OZ	34	FRK	SE	NE	SE	28	09	26	430 720	3 918 710	MA LH SH	3.3	-	-	-	-	-	-	-	-	129	293	425	-	-	35	-
OZ	35	FRK	-	CNE	NE	28	09	26	430 640	3 919 700	MA LH SH	2.0	0.2	2.2	-	-	-	-	-	-	138	288	430	-	-	7	Loc. approx.
OZ	36	FRK	SE	NW	SE	28	09	26	430 330	3 918 710	MA LH SH	3.6	-	-	-	-	-	-	-	-	123	308	435	-	-	35	-
OZ	37	FRK	NE	NE	SW	28	09	26	429 970	3 918 940	MA LH SH	4.2	-	-	-	-	-	-	-	-	118	308	430	-	-	35	-

See footnotes at end of table.

TABLE 1. – BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

40

Quadrangle	ID Number	Location										Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks	
		County 1/	Public Lands Subdivisions					UTM Grid System		Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Base of coal	Ground surface									
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15	Meters north of Equator	C			P	C	P	C	P	C	P			C								
OZ	38	FRK	NE	NW	NW	28	09	26	429 440	3 919 910	MA LH	SH	3.5	—	—	—	—	—	—	—	—	—	—	—	—	415	—	—	35	—	
OZ	39	FRK	NE	NW	SW	28	09	26	429 540	3 919 090	MA LH	SH	3.4	—	—	—	—	—	—	—	—	—	—	—	—	425	—	—	35	—	
OZ	40	FRK	SW	NW	SW	28	09	26	429 360	3 918 840	MA LH	SH	3.8	—	—	—	—	—	—	—	—	—	69	332	405	—	—	—	35	—	
OZ	41	FRK	SW	SW	SW	28	09	26	429 350	3 918 420	MA LH	SH	4.0	—	—	—	—	—	—	—	—	—	—	—	405	—	—	—	35	—	
OZ	42	FRK	SW	SW	SW	28	09	26	429 170	3 918 480	MA L	SH	0.8*	—	—	—	—	—	—	—	—	—	120	281	402	20	—	—	35	* Est. from E-log.	
OZ	42	FRK	SW	SW	SW	28	09	26	429 170	3 918 480	MA LH	SH	2.1*	—	—	—	—	—	—	—	—	—	139	261	402	—	—	—	35	* Est. from E-log.	
OZ	43	FRK	NE	NW	SE	29	09	26	428 780	3 919 000	MA LH	SH	4.0	—	—	—	—	—	—	—	—	—	—	—	400	—	—	—	35	—	
OZ	44	FRK	NE	SE	NE	29	09	26	429 120	3 919 440	MA LH	SH	2.2	—	—	—	—	—	—	—	—	—	100	298	400	—	—	—	35	—	
OZ	45	FRK	SW	NW	NE	34	09	26	431 580	3 917 960	MA LH	SH	1.2	—	—	—	—	—	—	—	—	—	—	—	380	—	—	—	35	—	
OZ	46	FRK	SW	SW	NE	34	09	26	431 580	3 917 560	MA L	SH	0.5*	—	—	—	—	—	—	—	—	—	158	231	390	28	—	—	35	* Est. from E-log.	
OZ	46	FRK	SW	SW	NE	34	09	26	431 580	3 917 560	MA LH	SH	1.8*	—	—	—	—	—	—	—	—	—	185	203	390	—	—	—	35	* Est. from E-log.	
OZ	47	FRK	SW	NE	NE	09	09	27	421 780	3 925 750	MA LH	SH	3.2	—	—	—	—	—	—	—	—	—	175	207	385	—	—	—	35	Loc. approx.	
OZ	48	FRK	SE	NE	SE	09	09	27	421 980	3 924 960	MA LH	SH	0.8	0.2	0.9	0.1	0.9	—	—	—	—	—	258	339	600	—	—	—	7, 35	Loc. approx.	
OZ	49	FRK	NW	NE	NE	24	09	27	425 750	3 922 320	MA LH	SH	1.7	—	—	—	—	—	—	—	—	—	—	—	385	—	—	—	35	—	
Paris quadrangle (PA)																															
PA	01	LOG	SW	NW	SE	08	07	25	438 250	3 904 570	SA L	OT	0.5	—	—	—	—	—	—	—	—	—	0	475	475	—	—	—	16	—	
PA	02	LOG	SE	SE	SE	07	08	25	437 750	3 913 840	MA M	SH	2.0*	—	—	—	—	—	—	—	—	—	96	251	349	—	—	—	35	* Est. from E-log. Loc. approx.	
PA	03	LOG	SE	SW	SE	09	08	25	440 690	3 913 800	MA L*	SH	0.5	—	—	—	—	—	—	—	—	—	502	—48	455	—	—	—	35	* Possibly is MA LH coal.	
PA	04	LOG	NW	SW	NW	15	08	25	441 240	3 913 280	SA CH	OT	0.7	—	—	—	—	—	—	—	—	—	0	515	515	—	—	—	16	—	
PA	05	LOG	SW	NW	NW	15	08	25	441 090	3 913 330	SA CH	OT	0.9	—	—	—	—	—	—	—	—	—	0	500	500	—	—	—	16	—	
PA	06	LOG	SW	SW	NE	16	08	25	440 450	3 913 120	SA CH	OT	1.0	—	—	—	—	—	—	—	—	—	0	470	470	—	—	—	16	—	
PA	07	LOG	NW	SW	NE	16	08	25	440 390	3 913 260	SA CH	OT	1.1	—	—	—	—	—	—	—	—	—	0	450	450	—	—	—	16	—	
PA	08	LOG	SW	NW	NE	16	08	25	440 370	3 913 550	SA CH	OT	0.8	—	—	—	—	—	—	—	—	—	0	450	450	—	—	—	16	—	
PA	09	LOG	NW	NW	NW	18	08	25	436 480	3 913 890	MA LH	SH	0.8	—	—	—	—	—	—	—	—	—	481	—128	354	—	—	—	35	—	
PA	10	LOG	SE	SE	SE	22	08	25	442 500	3 910 470	SA L	OT	1.2	—	—	—	—	—	—	—	—	—	0	460	460	—	—	—	16	—	
PA	11	LOG	SW	SW	SW	23	08	25	442 620	3 910 620	SA L	OT	0.6	—	—	—	—	—	—	—	—	—	0	460	460	—	—	—	16	—	
PA	12	LOG	NW	SW	NE	27	08	25	441 790	3 910 010	SA L	OT	0.9	—	—	—	—	—	—	—	—	—	0	465	465	—	—	—	16	—	

16	—
16	—
16	—
16	—
16	—
9, 19	Loc. approx.
9	Loc. approx.
9, 19	Loc. of shaft. Composite of samp. PA-18, 19, 21.
16	—
9	Loc. approx.
16	—
16	—
19, 26	*Thk. not reported. Loc. of shaft. Composite of PA-24, 36.
19, 26	*Thk. not reported. Loc. approx.
16	—
16	—
16	—
16	—
16	—
16	—
16	—
16	—
35	*Est. from E-log.
35	*Est. from E-log.
35	*Est. from E-log.
16	—
16, 19	Loc. of entry shown on map.
16	—
16	—
19, 26	Loc. approx. *Thk. not reported.
19, 35	—
16	—
16	—
16	—
19, 35	—

TABLE 1. – BASIC DATA FOR COAL LOCALITIES IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)

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Quadrangle	ID Number	Location									Formation and coal bed 2/	Type of site 3/	Thickness of coal (feet)										Total overburden (feet)	Elevation (feet)		Interval to base of next lower coal (feet)	Coal analyses 4/	Sources of data 5/	Remarks		
		County 1/	Public Lands Subdivisions					UTM Grid System					Note: Thickness of coal beds (C) and partings (P) listed sequentially from the lowest to the highest. A single value can mean that only one bed of coal was encountered or that partings between two or more coal beds were not reported. A (+) sign indicates entire coal sequence was not reported.											Base of coal	Ground surface						
			1/4	1/4	1/4	Section	Township North	Range West	Meters east of Central Meridian, Grid Zone 15	Meters north of Equator																					
			10 Ac.	40 Ac.	160 Ac.								C	P	C	P	C	P	C	P	C										
RW	01	POP	SE	NE	NW	30	08	20	484 850	3 908 420	MA LH	SH	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	-		
RW	02	POP	SE	NE	SW	30	08	20	484 840	3 907 470	MA LH	SH	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	-		
RW	03	POP	NW	SW	SE	10	08	21	480 380	3 912 220	AT -	DW	-*	-	-	-	-	-	-	-	-	-	-	372	331	704	408	-	35	*Thk. not reported.	
RW	03	POP	NW	SW	SE	10	08	21	480 380	3 912 220	AT -	DW	-*	-	-	-	-	-	-	-	-	-	-	780	-77	704	-	-	35	*Thk. not reported.	
Russellville West quadrangle (RW)																															
WE	01	SCT	SE	SW	SE	22	04	29	403 000	3 871 500	SA L	OT	1.2*	-	-	-	-	-	-	-	-	-	-	0	850	850	-	-	33	*Excludes 1.1' "clay & shale" parting.	
Waldron NE quadrangle (WE)																															
WW	01	SCT	NE	NW	NW	03	04	30	392 500	3 868 510	MA LH	OT	-*	-	-	-	-	-	-	-	-	-	-	0	710	710	-	-	33	*Thk. not reported.	
WW	02	SCT	SW	SE	NE	01	03	31	387 300	3 867 950	MA LH	OT	1.0*	-	-	-	-	-	-	-	-	-	-	0	730	730	-	-	7, 33	*May not be full thickness.	

1/ CRF — Crawford
FRK — Franklin
JON — Johnson
LOG — Logan
POP — Pope
SCT — Scott
SEB — Sebastian
YEL — Yell

2/ SA PA — Paris coal bed (near the top of Savanna Formation)
SA U — Unnamed coal bed in upper one-third of Savanna Formation
SA M — Unnamed coal bed in middle one-third of Savanna Formation
SA L — Unnamed coal bed in lower one-third of Savanna Formation
SA CH — Charleston coal bed (in lower part of Savanna Formation)
MA U — Unnamed coal bed in upper one-third of McAlester Formation
MA M — Unnamed coal bed in middle one-third of McAlester Formation
MA UH — Upper Hartshorne coal bed (in lower part of McAlester Formation)
MA LH — Lower Hartshorne coal bed (in lower part of McAlester Formation)
AT — Unnamed coal bed in Atoka Formation

3/ TP — Tipple
ME — Mine entry
MW — Mine working (underground)
ST — Strip mine
PP — Prospect pit
SH — Shallow (exploration) hole
DW — Deep well (drilled for natural gas)
OT — Outcrop (other than those above)

4/ A: Analyses included in Table 2, A+: Analyses included in Tables 2 through 5.

5/ Numbers identify titles in "List of References" at end of Tables.

TABLE 2

TABLE 2. - PROXIMATE AND ULTIMATE ANALYSES OF COALS IN THE STUDY AREA, WEST-CENTRAL ARKANSAS

(Modified from Haley (1977), with additions by present writer.)

(continued)

Quadrangle	ID number, this report	ID number, Haley, 1977 - 1/	Formation and coal bed - 2/	Type of site - 3/	U. S. BUR. Mines lab No.	Condition - 4/	Air drying lose	Proximate analyses				Ultimate analyses								But/lb.	Fusibility of ash (°F.)			Free swelling index No.	Source of analyses	Remarks	
								Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon	Nitrogen	Oxygen		Initial deformation temperature	Softening temperature	Fluid temprature				
													Sulphate	Pyritic	Organic												
Abbott quadrangle (AB)																											
AB	04	4	MA LH	ST	K-54029	1	—	1.7	21.2	66.8	10.3	2.0	0.17	1.46	0.40	4.5	78.2	1.6	3.4	13680	2090	2140	2240	8	A	Sample is from upper bed.	
						2	—	—	21.6	67.9	10.5	2.1	0.17	1.49	0.41	4.4	79.6	1.6	1.8	13920	—	—	—	—	A		
						3	—	—	24.1	75.9	—	2.3	0.17	1.66	0.45	4.9	88.9	1.8	2.1	15560	—	—	—	—	A		
AB	04	4	MA LH	ST	K-54028	1	—	2.3	20.6	68.9	8.2	1.2	0.08	0.58	0.53	4.4	80.0	1.6	4.6	13980	2070	2110	2150	9	A	Sample is from middle bed.	
						2	—	—	21.1	70.5	8.4	1.2	0.08	0.60	0.54	4.2	81.9	1.6	2.7	14300	—	—	—	—	A		
						3	—	—	23.1	76.9	—	1.3	0.08	0.65	0.59	4.6	89.4	1.8	2.9	15610	—	—	—	—	A		
AB	04	4	MA LH	ST	K-54027	1	—	2.9	21.1	70.1	5.9	0.8	0.04	0.25	0.48	4.8	82.0	1.6	5.2	14160	2140	2190	2240	9	A	Sample is from lower bed.	
						2	—	—	21.8	72.1	6.1	0.8	0.04	0.25	0.49	4.3	84.4	1.6	2.8	14580	—	—	—	—	A		
						3	—	—	23.2	76.8	—	0.8	0.04	0.27	0.53	4.6	89.9	1.7	3.0	15530	—	—	—	—	A		
Barber quadrangle (BB)																											
BB	03	82	SA PA	ME	E-40767	1	—	1.0	20.0	74.3	4.7	2.4	—	—	—	4.6	83.8	1.5	3.0	14750	2090	2190	2380	9	A		
						2	—	—	20.2	75.1	4.7	2.4	—	—	—	4.5	84.6	1.5	2.3	14900	—	—	—	—	A		
						3	—	—	21.2	78.8	—	2.4	—	—	—	4.7	88.8	1.6	2.4	15640	—	—	—	—	A		
Barling quadrangle (BL)																											
BL	11A	43	MA LH	MW	B-55054	1	1.4	2.1	15.4	72.8	9.7	2.1	—	—	—	4.2	78.7	1.3	4.0	13700	—	—	—	—	A	Composite of samples BL-20, BL-29 and BL-19	
						2	—	—	15.8	74.3	9.9	2.2	—	—	—	4.1	80.4	1.3	2.1	13990	—	—	—	—	A		
						3	—	—	17.5	82.5	—	2.4	—	—	—	4.5	89.2	1.5	2.4	15540	—	—	—	—	A		
BL	11B	43	MA LH	TP	B-54869	1	0.5	1.3	15.3	74.5	8.9	2.8	—	—	—	—	—	—	—	13930	—	2380	—	—	A	Sample of 10-inch coal.	
						2	—	—	15.5	75.5	9.0	2.9	—	—	—	—	—	—	—	14110	—	—	—	—	A		
						3	—	—	17.0	83.0	—	3.1	—	—	—	—	—	—	—	15510	—	—	—	—	A		
BL	11B	43	MA LH	TP	B-54870	1	0.5	1.4	15.7	73.8	9.1	2.6	—	—	—	—	—	—	—	13910	—	2380	—	—	A	Sample of 3- to 10-inch coal.	
						2	—	—	15.9	74.9	9.2	2.6	—	—	—	—	—	—	—	14100	—	—	—	—	A		
						3	—	—	17.6	82.4	—	2.9	—	—	—	—	—	—	—	15530	—	—	—	—	A		
BL	11B	43	MA LH	TP	B-54871	1	0.5	1.4	15.3	72.1	11.2	2.7	—	—	—	—	—	—	—	13520	—	2100	—	—	A	Sample of 1.25- to 3-inch coal.	
						2	—	—	15.5	73.2	11.3	2.8	—	—	—	—	—	—	—	13720	—	—	—	—	A		
						3	—	—	17.4	82.6	—	3.1	—	—	—	—	—	—	—	15470	—	—	—	—	A		

BL	11B	43	MA	LH	TP	B-54872	1	1.8	2.7	14.8	70.6	11.9	2.4	—	—	—	—	—	—	13230	—	2060	—	—	A	Sample of less than 1.25-inch coal.	
							2	—	—	15.2	72.6	12.2	2.4	—	—	—	—	—	—	—	13590	—	—	—	—		A
							3	—	—	17.3	82.7	—	2.8	—	—	—	—	—	—	—	15480	—	—	—	—		A
BL	19	41	MA	LH	MW	B-55053	1	1.8	2.4	15.5	74.2	7.9	1.2	—	—	—	—	—	—	13960	—	2160	—	—	A		
							2	—	—	15.9	76.0	8.1	1.2	—	—	—	—	—	—	—	14300	—	—	—	—		A
							3	—	—	17.3	82.7	—	1.3	—	—	—	—	—	—	—	15560	—	—	—	—		A
BL	20	41	MA	LH	MW	B-55051	1	1.1	1.8	15.4	75.3	7.5	1.2	—	—	—	—	—	—	14120	—	2260	—	—	A		
							2	—	—	15.7	76.6	7.7	1.3	—	—	—	—	—	—	—	14380	—	—	—	—		A
							3	—	—	17.0	83.0	—	1.4	—	—	—	—	—	—	—	15570	—	—	—	—		A
BL	29	41	MA	LH	MW	B-55052	1	1.4	2.1	15.1	68.9	13.9	3.8	—	—	—	—	—	—	12990	—	2050	—	—	A		
							2	—	—	15.4	70.4	14.2	3.8	—	—	—	—	—	—	—	13260	—	—	—	—		A
							3	—	—	17.9	82.1	—	4.5	—	—	—	—	—	—	—	15460	—	—	—	—		A
BL	44A	42	MA	LH	MS	3372	1	1.4	2.2	14.0	72.1	11.7	2.1	—	—	—	—	—	—	—	—	—	—	—	B		
							2	—	—	14.3	73.8	11.9	2.1	—	—	—	—	—	—	—	—	—	—	—	—		B
Bates quadrangle (BA)																											
BA	02	2	MA	LH	ST	K-54030	1	—	4.4	21.6	66.9	7.1	0.8	0.12	0.24	0.44	4.8	78.5	1.6	7.2	13690	2130	2180	2300	8	A	Coal is slightly weathered; only the upper was sampled.
							2	—	—	22.6	69.9	7.5	0.8	0.12	0.25	0.46	4.5	82.2	1.7	3.3	14320	—	—	—	—	A	
							3	—	—	24.5	75.5	—	0.9	0.13	0.27	0.49	4.9	88.8	1.8	3.6	15480	—	—	—	—	A	
BA	03	3	MA	LH	MW	3503	1	5.9	6.9	25.8	43.3	24.0	2.3	—	—	—	—	—	—	—	—	—	—	—	B	Sample includes the three upper beds.	
							2	—	—	27.6	46.6	25.8	2.5	—	—	—	—	—	—	—	—	—	—	—	—		B
BA	03	3	MA	LH	MW	3505	1	2.5	3.4	24.4	66.4	5.8	0.9	—	—	—	—	—	—	—	—	—	—	—	—	B	Sample is from only the lower bed.
							2	—	—	25.3	68.7	6.0	0.9	—	—	—	—	—	—	—	—	—	—	—	—	B	
Burnville quadrangle (BV)																											
BV	09A	34	MA	LH	M	3173	1	2.4	3.2	14.8	72.7	9.3	3.1	—	—	—	3.8	78.4	1.5	3.9	13590	—	—	—	—	B	
							2	—	—	15.3	75.1	9.6	3.2	—	—	—	3.5	81.0	1.5	1.1	14040	—	—	—	—	B	
							3	—	—	17.0	83.0	—	3.6	—	—	—	3.9	89.6	1.7	1.2	15530	—	—	—	—	B	
BV	16A	24	MA	LH	M	3175	1	1.6	2.3	15.8	71.9	10.0	1.2	—	—	—	—	—	—	—	—	—	—	—	B		
							2	—	—	16.2	73.5	10.5	1.2	—	—	—	—	—	—	—	—	—	—	—	—		B
Caulksville quadrangle (CV)																											
CV	01	86	SA	PA	MW	A-99408	1	1.0	1.5	17.5	72.4	8.6	2.4	—	—	—	—	—	—	—	14070	—	2340	—	—	C	
CV	02	84	SA	PA	TP	B-57593	1	1.5	1.5	19.0	71.6	7.9	2.0	—	—	—	—	—	—	—	14160	—	2320	—	—	A	Sample of 8-inch coal.
							2	—	—	19.3	72.6	8.1	2.1	—	—	—	—	—	—	—	14370	—	—	—	—	A	
							3	—	—	21.0	79.0	—	2.3	—	—	—	—	—	—	—	15630	—	—	—	—	A	
CV	02	84	SA	PA	TP	B-57594	1	1.2	1.5	19.0	71.3	8.2	2.0	—	—	—	—	—	—	14170	—	2320	—	—	A	Sample of 3- to 8-inch coal.	
							2	—	—	19.3	72.4	8.3	2.0	—	—	—	—	—	—	—	14390	—	—	—	—		A
							3	—	—	21.0	79.0	—	2.2	—	—	—	—	—	—	—	15690	—	—	—	—		A

See footnotes at end of table.

TABLE 2. - PROXIMATE AND ULTIMATE ANALYSES OF COALS IN THE STUDY AREA, WEST-CENTRAL ARKANSAS
(Modified from Haley (1977), with additions by present writer.)

(continued)

Quadrangle	ID number, this report	ID number, Haley, 1977 - 1/	Formation and coal bed - 2/	Type of site - 3/	U. S. BUR. Mines lab No.	Condition - 4/	Air drying lose	Proximate analyses				Ultimate analyses								But/lb.	Fusibility of ash (°F.)			Free swelling index No.	Source of analyses	Remarks
								Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon	Nitrogen	Oxygen		Initial deformation temperature	Softening temperature	Fluid temprature			
													Sulphate	Pyritic	Organic											
CV	02	84	SAPA	TP	B-57595	1 2 3	2.0 — —	2.5 — —	17.4 17.9 23.0	58.5 59.9 77.0	21.6 22.2 —	1.7 1.8 2.2	— — —	— — —	— — —	— — —	— — —	— — —	11670 11970 15380	— — —	2210 — —	— — —	— — —	A A A	Sample of less than 3-inch coal.	
CV	03	83	SA PA	MW	A-99828	1	1.0	1.6	18.6	71.4	8.4	2.4	—	—	—	—	—	—	14100	—	2370	—	—	C		
CV	03A	83	SA PA	MW	A-99829	1	1.3	1.8	17.7	70.9	9.6	3.1	—	—	—	—	—	—	13900	—	2370	—	—	C		
CV	03B	83	SA PA	MW	A-99384	1	1.5	2.0	18.2	71.3	8.5	2.3	—	—	—	—	—	—	14070	—	2390	—	—	C		
CV	03C	83	SA PA	MW	A-99830	1 2 3	1.3 — —	1.8 — —	18.2 18.5 20.3	71.1 72.5 79.7	8.9 9.0 —	2.4 2.5 2.7	— — —	— — —	— — —	4.4 4.2 4.7	80.6 82.0 90.1	1.6 1.6 1.8	2.1 0.7 0.7	13990 14240 15660	— — —	— — —	— — —	— — —	C C C	Composite of samples CV-3, CV-3A and CV-3B.
CV	03D	83	SA PA	TP	B-56172	1 2 3	0.8 — —	1.3 — —	18.6 18.8 20.6	71.5 72.5 79.4	8.6 8.7 —	2.1 2.1 2.3	— — —	— — —	— — —	— — —	— — —	— — —	14050 14230 15590	— — —	2420 — —	— — —	— — —	A A A	Sample of 9-inch coal.	
CV	03D	83	SA PA	TP	B-56173	1 2 3	0.8 — —	1.3 — —	18.9 19.2 21.0	71.4 72.3 79.0	8.4 8.5 —	2.1 2.1 2.3	— — —	— — —	— — —	— — —	— — —	— — —	14070 14250 15580	— — —	2430 — —	— — —	— — —	A A A		
CV	03D	83	SA PA	TP	B-56174	1 2 3	0.7 — —	1.3 — —	18.4 18.6 20.3	72.0 73.0 79.7	8.3 8.4 —	2.0 2.1 2.3	— — —	— — —	— — —	— — —	— — —	— — —	14130 14320 15640	— — —	2410 — —	— — —	— — —	A A A		Sample of 3-to 5-inch coal.
CV	03D	83	SA PA	TP	B-56175	1 2 3	0.9 — —	1.5 — —	18.5 18.8 20.7	71.2 72.3 79.3	8.8 8.9 —	2.0 2.0 2.2	— — —	— — —	— — —	— — —	— — —	— — —	13970 14180 15580	— — —	2410 — —	— — —	— — —	A A A	Sample of 1.25-to 3-inch coal.	
CV	03D	83	SA PA	TP	B-56175	1 2 3	0.9 — —	1.6 — —	17.8 18.1 21.3	66.0 67.1 78.7	14.6 14.8 —	2.0 2.0 2.4	— — —	— — —	— — —	— — —	— — —	— — —	13000 13200 15500	— — —	2070 — —	— — —	— — —	A A A		
CV	03D	83	SA PA	TP	B-56175	1 2 3	1.4 — —	2.0 — —	17.9 18.3 22.2	62.7 64.0 77.8	17.4 17.7 —	1.7 1.8 2.1	— — —	— — —	— — —	— — —	— — —	— — —	12380 12630 15360	— — —	2130 — —	— — —	— — —	A A A		Sample of less than 0.875 inch coal.

CV	05	85	SA PA	TP	B-56335	1	1.3	1.7	18.6	72.3	7.4	2.1	—	—	—	—	—	—	14160	—	2400	—	—	A	Sample of 8-inch coal.	
						2	—	—	18.9	73.6	7.5	2.2	—	—	—	—	—	—	14410	—	—	—	—	A		
						3	—	—	20.5	79.5	—	2.3	—	—	—	—	—	—	15570	—	—	—	—	A		
CV	05	85	SA PA	TP	B-56336	1	1.1	1.5	18.2	72.3	8.0	2.3	—	—	—	—	—	—	14070	—	2410	—	—	A	Sample of 3-to 8-inch coal.	
						2	—	—	18.4	73.5	8.1	2.4	—	—	—	—	—	—	14280	—	—	—	—	A		
						3	—	—	20.1	79.9	—	2.6	—	—	—	—	—	—	15540	—	—	—	—	A		
CV	05	85	SA PA	TP	B-56337	1	1.3	1.7	17.8	69.3	11.2	2.4	—	—	—	—	—	—	13510	—	2150	—	—	A	Sample of 1.25-to 3-inch coal.	
						2	—	—	18.1	70.5	11.4	2.4	—	—	—	—	—	—	13750	—	—	—	—	A		
						3	—	—	20.4	79.6	—	2.7	—	—	—	—	—	—	15520	—	—	—	—	A		
CV	05	85	SA PA	TP	B-56338	1	1.5	2.1	17.3	59.9	20.7	1.9	—	—	—	—	—	—	11730	—	2180	—	—	A	Sample of less than 1.25-inch coal.	
						2	—	—	17.7	61.1	21.2	2.0	—	—	—	—	—	—	11990	—	—	—	—	A		
						3	—	—	22.5	77.5	—	2.5	—	—	—	—	—	—	15210	—	—	—	—	A		
CV	06	86	SA PA	MW	A-99406	1	1.1	1.7	17.9	71.1	9.3	2.6	—	—	—	—	—	—	13950	—	2340	—	—	C	Composite of samples CV-6, CV-8, and CV-1.	
CV	07	86	SA PA	MW	A-99409	1	1.1	1.6	17.6	71.3	9.5	2.7	—	—	—	4.3	80.0	1.5	2.0	13930	—	—	—	—		C
						2	—	—	17.9	72.4	9.7	2.7	—	—	—	4.2	81.3	1.6	0.5	14160	—	—	—	—		C
						3	—	—	19.8	80.2	—	3.0	—	—	—	4.6	90.0	1.7	0.7	15670	—	—	—	—	C	
CV	08	86	SA PA	MW	A-99407	1	1.2	1.8	17.1	70.7	10.4	2.9	—	—	—	—	—	—	—	13730	—	2390	—	—	C	
CV	09	87	SA PA	TP	B-56359	1	1.4	1.8	18.0	71.4	8.8	2.4	—	—	—	—	—	—	—	13890	—	2410	—	—	A	Sample of 8-inch coal.
						2	—	—	18.3	72.7	9.0	2.5	—	—	—	—	—	—	—	14140	—	—	—	—	A	
						3	—	—	20.1	79.9	—	2.7	—	—	—	—	—	—	—	15530	—	—	—	—	A	
CV	09	87	SA PA	TP	B-56360	1	1.3	1.7	17.7	72.1	8.5	2.3	—	—	—	—	—	—	—	13910	—	2360	—	—	A	Sample of 4-to 8-inch coal.
						2	—	—	18.0	73.3	8.7	2.3	—	—	—	—	—	—	—	14150	—	—	—	—	A	
						3	—	—	19.7	80.3	—	2.5	—	—	—	—	—	—	—	15490	—	—	—	—	A	
CV	09	87	SA PA	TP	B-56361	1	1.3	1.8	17.4	71.1	9.7	2.5	—	—	—	—	—	—	—	13760	—	2310	—	—	A	Sample of 2-to 4-inch coal.
						2	—	—	17.7	72.4	9.9	2.6	—	—	—	—	—	—	—	14010	—	—	—	—	A	
						3	—	—	19.6	80.4	—	2.8	—	—	—	—	—	—	—	15550	—	—	—	—	A	
CV	09	87	SA PA	TP	B-56362	1	1.6	2.1	17.2	67.3	13.4	2.3	—	—	—	—	—	—	—	12970	—	2130	—	—	A	Sample of less than 2-inch coal.
						2	—	—	17.6	68.7	13.7	2.4	—	—	—	—	—	—	—	13250	—	—	—	—	A	
						3	—	—	20.4	79.6	—	2.7	—	—	—	—	—	—	—	15340	—	—	—	—	A	
CV	09A	—	SA PA	MW	3174	1	2.2	2.8	14.7	73.4	9.1	2.8	—	—	—	4.0	78.7	1.5	3.9	13770	—	—	—	—	B	
						2	—	—	15.1	75.6	9.3	2.9	—	—	—	4.0	78.7	1.5	1.5	14170	—	—	—	—	B	
						3	—	—	16.7	83.3	—	3.2	—	—	—	4.2	89.3	1.7	1.6	15620	—	—	—	—	B	
CV	15	93	SA PA	TP	B-56449	1	0.7	1.2	18.5	72.2	8.1	2.1	—	—	—	—	—	—	—	14200	—	2430	—	—	A	Sample of 8-inch coal.
						2	—	—	18.7	73.1	8.2	2.1	—	—	—	—	—	—	—	14370	—	—	—	—	A	
						3	—	—	20.4	79.6	—	2.3	—	—	—	—	—	—	—	15660	—	—	—	—	A	
CV	15	93	SA PA	TP	B-56450	1	0.7	1.1	18.3	72.2	8.4	1.9	—	—	—	—	—	—	—	14160	—	2330	—	—	A	Sample of 4-to 8-inch coal.
						2	—	—	18.5	73.0	8.5	1.9	—	—	—	—	—	—	—	14330	—	—	—	—	A	
						3	—	—	20.3	79.7	—	2.1	—	—	—	—	—	—	—	15660	—	—	—	—	A	

See footnotes at end of table.

TABLE 2. - PROXIMATE AND ULTIMATE ANALYSES OF COALS IN THE STUDY AREA, WEST-CENTRAL ARKANSAS

(Modified from Haley (1977), with additions by present writer.)

(continued)

Quadrangle	ID number, this report	ID number, Haley, 1977- ^{1/}	Formation and coal bed- ^{2/}	Type of site- ^{3/}	U. S. BUR. Mines lab No.	Condition- ^{4/}	Air drying lose	Proximate analyses				Ultimate analyses								But/lb.	Fusibility of ash (°F.)			Free swelling index No.	Source of analyses	Remarks
								Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon	Nitrogen	Oxygen		Initial deformation temperature	Softening temperature	Fluid temperature			
													Sulphate	Pyritic	Organic											
CV	15	93	SA PA	TP	B-56451	1 2 3	0.7 — —	1.2 — —	18.3 18.5 20.1	72.5 73.4 79.9	8.0 8.1 —	1.9 1.9 2.1	— — —	— — —	— — —	— — —	— — —	14200 14370 15650	— — —	2400 — —	— — —	— — —	A A A	Sample of 2-to 4-inch coal.		
CV	15	93	SA PA	TP	B-56452	1 2 3	0.8 — —	1.4 — —	17.8 18.0 20.5	68.8 69.9 79.5	12.0 12.1 —	2.0 2.0 2.3	— — —	— — —	— — —	— — —	— — —	13510 13690 15590	— — —	2170 — —	— — —	— — —	A A A	Sample of 1-to 2-inch coal.		
CV	15	93	SA PA	TP	B-56453	1 2 3	0.7 — —	1.3 — —	17.8 18.1 20.4	69.7 70.5 79.6	11.2 11.4 —	1.9 1.9 2.1	— — —	— — —	— — —	— — —	— — —	13680 13850 15630	— — —	2230 — —	— — —	— — —	A A A	Sample of 0.25-to 1-inch coal.		
CV	15	93	SA PA	TP	B-56454	1 2 3	0.8 — —	1.3 — —	18.1 18.3 21.1	67.6 68.6 78.9	13.0 13.1 —	1.6 1.6 1.9	— — —	— — —	— — —	— — —	— — —	13310 13490 15530	— — —	2150 — —	— — —	— — —	A A A	Sample of less than 0.25-inch coal.		
CV	15A	—	SA PA	ME	57792	1 2 3	— — —	2.1 — —	17.1 17.5 19.0	72.7 74.2 81.0	8.1 8.3 —	2.0 2.0 2.2	— — —	— — —	— — —	— — —	— — —	14000 14310 15600	— — —	2350 — —	— — —	— — —	A A A			
CV	16	94	SA PA	TP	B-56398	1 2 3	1.2 — —	1.6 — —	18.7 19.0 20.9	70.5 71.6 79.1	9.2 9.4 —	2.3 2.4 2.6	— — —	— — —	— — —	— — —	— — —	13850 14070 15530	— — —	2410 — —	— — —	— — —	A A A	Sample of 8-inch coal.		
CV	16	94	SA PA	TP	B-56399	1 2 3	1.1 — —	1.5 — —	18.7 19.0 20.9	70.8 71.9 79.1	9.0 9.1 —	2.1 2.2 2.4	— — —	— — —	— — —	— — —	— — —	13890 14110 15530	— — —	2380 — —	— — —	— — —	A A A	Sample of 3-to 8-inch coal.		
CV	16	94	SA PA	TP	B-56400	1 2 3	1.2 — —	1.6 — —	18.2 18.5 20.7	69.9 71.1 79.3	10.3 10.4 —	2.0 2.1 2.3	— — —	— — —	— — —	— — —	— — —	13680 13910 15530	— — —	2270 — —	— — —	— — —	A A A	Sample of less than 3-inch coal.		

Cauthron quadrangle (CT)

CT	03	1	MA LH	OT	E-40768	1	—	6.8	22.9	60.2	10.1	1.0	—	—	—	4.1	67.6	1.5	15.7	11350	2670	2750	2850	—	A	Coal may be weathered.
						2	—	—	24.7	64.7	10.8	1.1	—	—	—	3.6	72.5	1.6	10.4	12170	—	—	—	—	A	
						3	—	—	27.5	72.5	—	1.2	—	—	—	4.1	81.3	1.8	11.6	13650	—	—	—	—	A	

Charleston quadrangle (CS)

CS	43	77	SA CH	ME	3218	1	2.6	3.8	16.0	75.8	4.4	2.2	—	—	—	—	—	—	—	—	—	—	—	—	B	Coal is weathered.
						2	—	—	16.6	78.8	4.6	2.2	—	—	—	—	—	—	—	—	—	—	—	—	B	
						3	—	—	17.4	82.6	—	2.4	—	—	—	—	—	—	—	—	—	—	—	—	B	

Clarksville quadrangle (CL)

CL	01	69	MA LH	ST	K-63744	1	—	2.0	11.0	79.3	7.7	1.1	0.01	0.27	0.79	3.8	81.6	1.6	4.2	13940	2420	2470	2690	0.5	A	
						2	—	—	11.2	81.0	7.8	1.1	0.01	0.27	0.81	3.7	83.3	1.6	2.5	14230	—	—	—	—	A	
						3	—	—	12.2	87.8	—	1.2	0.01	0.30	0.88	4.0	90.4	1.7	2.7	15440	—	—	—	—	A	
CL	10A	68	MA LH	MW	A-99386	1	2.5	3.1	10.3	79.5	7.1	1.5	—	—	—	—	—	—	—	13910	—	2370	—	—	C	
CL	10B	68	MA LH	MW	A-99387	1	1.7	2.3	10.9	78.2	8.6	2.0	—	—	—	—	—	—	—	13690	—	2380	—	—	C	
CL	10C	68	MA LH	MW	A-99388	1	1.7	2.3	10.3	80.6	6.8	1.5	—	—	—	—	—	—	—	14080	—	2390	—	—	C	
CL	10D	68	MA LH	MW	A-99389	1	2.0	2.6	10.6	79.3	7.5	1.7	—	—	—	3.8	81.4	1.6	4.0	13880	—	—	—	—	C	Composite of samples CL-10A, CL-10B, and CL-10C.
						2	—	—	10.8	81.5	7.7	1.8	—	—	—	3.6	83.6	1.6	1.7	14240	—	—	—	—	C	
						3	—	—	11.7	88.3	—	1.9	—	—	—	3.9	90.6	1.8	1.8	15430	—	—	—	—	C	
CL	17	67	MA LH	TP	B-57787	1	1.5	2.1	12.4	77.2	8.3	2.4	—	—	—	—	—	—	—	13860	—	2400	—	—	A	Sample of 6-to 7.5-inch coal.
						2	—	—	12.6	79.0	8.4	2.5	—	—	—	—	—	—	—	14160	—	—	—	—	A	
						3	—	—	13.8	86.2	—	2.7	—	—	—	—	—	—	—	15470	—	—	—	—	A	
CL	17	67	MA LH	TP	B-57788	1	1.8	2.3	12.2	77.8	7.7	2.2	—	—	—	—	—	—	—	13910	—	2360	—	—	A	Sample of 3-to 6-inch coal.
						2	—	—	12.5	79.6	7.9	2.3	—	—	—	—	—	—	—	14230	—	—	—	—	A	
						3	—	—	13.5	86.5	—	2.5	—	—	—	—	—	—	—	15440	—	—	—	—	A	
CL	17	67	MA LH	TP	B-57789	1	1.7	2.3	12.1	78.0	7.6	1.8	—	—	—	—	—	—	—	13890	—	2290	—	—	A	Sample of 1.5-to 3-inch coal.
						2	—	—	12.4	79.8	7.8	1.9	—	—	—	—	—	—	—	14210	—	—	—	—	A	
						3	—	—	13.4	86.6	—	2.1	—	—	—	—	—	—	—	15420	—	—	—	—	A	
CL	17	67	MA LH	TP	B-57790	1	1.8	2.5	11.6	75.9	10.0	1.9	—	—	—	—	—	—	—	13520	—	2120	—	—	A	Sample of 0.625-to 1.5-inch coal.
						2	—	—	11.9	77.8	10.3	1.9	—	—	—	—	—	—	—	13870	—	—	—	—	A	
						3	—	—	13.3	86.7	—	2.2	—	—	—	—	—	—	—	15460	—	—	—	—	A	
CL	17	67	MA LH	TP	B-57791	1	2.5	3.3	11.7	71.9	13.1	1.6	—	—	—	—	—	—	—	12800	—	2190	—	—	A	Sample of less than 0.625-inch coal.
						2	—	—	12.1	74.3	13.6	1.7	—	—	—	—	—	—	—	13230	—	—	—	—	A	
						3	—	—	14.0	86.0	—	2.0	—	—	—	—	—	—	—	15310	—	—	—	—	A	
CL	52	—	MA LH	MW	2587	1	2.5	3.1	11.4	77.0	8.5	1.8	—	—	—	—	—	—	—	13690	—	—	—	—	B	
						2	—	—	11.8	79.5	8.7	1.9	—	—	—	—	—	—	—	14130	—	—	—	—	B	

See footnotes at end of table.

TABLE 2. - PROXIMATE AND ULTIMATE ANALYSES OF COALS IN THE STUDY AREA, WEST-CENTRAL ARKANSAS

(Modified from Haley (1977), with additions by present writer.)

(continued)

Quadrangle	ID number, this report	ID number, Haley, 1977 - 1/ 2/	Formation and coal bed - 2/ 3/	Type of site - 3/ 4/	U. S. BUREAU OF MINES LAB. NO.	Condition - 4/ 5/	Air drying loss	Proximate analyses				Ultimate analyses						But./lb.	Fusibility of ash (°F.)			Free swelling index No.	Source of analyses	Remarks
Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon	Nitrogen	Oxygen	Initial deformation temperature	Softening temperature	Fluid temperature										
					Sulphate	Pyritic	Organic																	

Coal Hill quadrangle (CH)

CH	06A	52	MA LH	MW	1130	1	0.7	1.4	14.8	76.8	7.0	1.5	-	-	-	-	-	1.4	-	14330	-	-	-	-	B	
						2	-	-	15.0	77.9	7.1	1.5	-	-	-	-	-	1.4	-	14530	-	-	-	-	B	
CH	06B	52	MA LH	MW	1131	1	1.3	1.8	15.0	75.9	7.3	1.9	-	-	-	-	-	-	-	-	-	-	-	-	B	
						2	-	-	15.3	77.3	7.4	2.0	-	-	-	-	-	-	-	-	-	-	-	-	B	
CH	06C	-	MA LH	TP	1331	1	1.1	2.4	12.7	72.9	12.1	2.0	-	-	-	3.9	76.4	1.4	4.3	13260	-	-	-	-	B	Composite of samples CH-41A, CH-41B, and CH-41C.
						2	-	-	13.0	74.6	12.4	2.0	-	-	-	3.7	78.3	1.4	2.6	13580	-	-	-	-	B	
						3	-	-	14.8	85.2	-	2.3	-	-	-	4.2	89.3	1.6	2.6	15500	-	-	-	-	B	
CH	41A	50	MA LH	MW	A-99367	1	1.9	2.4	15.7	76.3	5.6	0.7	-	-	-	-	-	-	-	14370	-	2400	-	-	C	
CH	41B	50	MA LH	MW	A-99368	1	2.8	3.3	13.6	80.3	2.8	0.7	-	-	-	-	-	-	-	14710	-	2220	-	-	C	
CH	41C	50	MA LH	MW	A-99369	1	3.0	3.4	14.3	78.6	3.7	0.7	-	-	-	-	-	-	-	14500	-	2360	-	-	C	
CH	41D	50	MA LH	MW	A-99370	1	2.6	3.1	14.6	78.2	4.1	0.7	-	-	-	4.5	84.5	1.7	4.5	14540	-	-	-	-	C	Composite of samples CH-41A, CH-41B, and CH-41C.
						2	-	-	15.0	80.7	4.3	0.8	-	-	-	4.3	87.2	1.7	1.7	15000	-	-	-	-	C	
						3	-	-	15.7	84.3	-	0.8	-	-	-	4.5	91.1	1.8	1.8	15660	-	-	-	-	C	
CH	90A	49	MA LH	MW	A-99378	1	2.1	2.5	14.2	75.4	7.9	2.0	-	-	-	-	-	-	-	13890	-	2400	-	-	C	
CH	90B	49	MA LH	MW	A-99379	1	2.3	2.8	13.9	76.1	7.2	1.9	-	-	-	-	-	-	-	13950	-	2430	-	-	C	
CH	90C	49	MA LH	MW	A-99380	1	1.9	2.4	13.8	77.7	6.1	1.7	-	-	-	-	-	-	-	14190	-	2440	-	-	C	
CH	90D	49	MA LH	MW	A-99381	1	2.1	2.6	14.3	76.0	7.1	1.9	-	-	-	4.2	81.5	1.6	3.7	14050	-	-	-	-	C	Composite of samples CH-90A, CH-90B, and CH-90C.
						2	-	-	14.7	78.0	7.3	1.9	-	-	-	4.0	83.7	1.7	1.4	14430	-	-	-	-	C	
						3	-	-	15.8	84.2	-	2.1	-	-	-	4.3	90.3	1.8	1.5	15560	-	-	-	-	C	

Greenwood quadrangle (GR)

GR	23	—	MA LH	TP	54764	1	0.6	1.5	18.8	74.8	4.9	0.9	—	—	—	—	—	—	14610	—	2370	—	—	A	Sample of 10-inch coal.	
						2	—	—	19.1	75.9	5.0	0.9	—	—	—	—	—	—	14830	—	—	—	—	A		
						3	—	—	20.1	79.9	—	1.0	—	—	—	—	—	—	15610	—	—	—	—	A		
GR	23	—	MA LH	TP	54765	1	0.7	1.5	18.9	74.5	5.1	1.0	—	—	—	—	—	—	14540	—	2350	—	—	A	Sample of 4-to 10-inch coal.	
						2	—	—	19.2	75.6	5.2	1.0	—	—	—	—	—	—	14760	—	—	—	—	A		
						3	—	—	20.3	79.7	—	1.0	—	—	—	—	—	—	15560	—	—	—	—	A		
GR	23	—	MA LH	TP	54766	1	0.5	1.4	18.7	74.9	5.0	0.9	—	—	—	—	—	—	14570	—	2400	—	—	A	Sample of 2-to 4-inch coal.	
						2	—	—	19.0	76.0	5.0	0.9	—	—	—	—	—	—	14770	—	—	—	—	A		
						3	—	—	20.0	80.0	—	1.0	—	—	—	—	—	—	15550	—	—	—	—	A		
GR	23	—	MA LH	TP	54767	1	0.7	1.6	17.5	66.2	14.7	1.2	—	—	—	—	—	—	12890	—	2320	—	—	A	Sample of 2-inch coal.	
						2	—	—	17.8	67.3	14.9	1.2	—	—	—	—	—	—	13100	—	—	—	—	A		
						3	—	—	20.9	79.1	—	1.4	—	—	—	—	—	—	15400	—	—	—	—	A		
GR	23	33	MA LH	TP	B-82723	1	0.6	1.4	18.6	75.8	4.2	0.8	—	—	—	—	—	—	14810	—	2390	—	—	A	Sample of 10-inch coal.	
						2	—	—	18.9	76.8	4.3	0.8	—	—	—	—	—	—	15010	—	—	—	—	A		
						3	—	—	19.7	80.3	—	0.9	—	—	—	—	—	—	15680	—	—	—	—	A		
GR	23	33	MA LH	TP	B-82724	1	1.1	1.7	18.7	75.4	4.2	1.0	—	—	—	4.7	84.7	1.9	3.5	14730	—	2370	—	—	A	Sample of 2.5-to 10-inch coal.
						2	—	—	19.0	76.8	4.2	1.0	—	—	—	4.5	86.2	1.9	2.2	14990	—	—	—	—	A	
						3	—	—	19.8	80.2	—	1.1	—	—	—	4.7	90.1	2.0	2.1	15650	—	—	—	—	A	
GR	23	33	MA LH	TP	B-82725	1	0.6	1.4	17.7	72.6	8.3	0.9	—	—	—	—	—	—	14080	—	2190	—	—	A	Sample of 1.25-to 2.5-inch coal.	
						2	—	—	18.0	73.6	8.4	0.9	—	—	—	—	—	—	14280	—	—	—	—	A		
						3	—	—	19.6	80.4	—	1.0	—	—	—	—	—	—	15580	—	—	—	—	A		
GR	23	33	MA LH	TP	B-82726	1	1.8	2.6	17.8	69.3	10.3	0.9	—	—	—	—	—	—	13460	—	2290	—	—	A	Sample of less than 1.25-inch coal.	
						2	—	—	18.3	71.1	10.6	1.0	—	—	—	—	—	—	13820	—	—	—	—	A		
						3	—	—	20.5	79.5	—	1.1	—	—	—	—	—	—	15450	—	—	—	—	A		
GR	24	32	MA LH	TP	B-54866	1	1.5	2.4	17.7	77.1	2.8	0.8	—	—	—	—	—	—	14920	—	2050	—	—	A	Sample of 10-inch coal.	
						2	—	—	18.2	78.9	2.9	0.8	—	—	—	—	—	—	15290	—	—	—	—	A		
						3	—	—	18.7	81.3	—	0.9	—	—	—	—	—	—	15740	—	—	—	—	A		
GR	24	32	MA LH	TP	B-54867	1	1.4	2.3	18.1	75.3	4.3	0.9	—	—	—	—	—	—	14670	—	2150	—	—	A	Sample of 2.5-to 10-inch coal.	
						2	—	—	18.5	77.1	4.4	0.9	—	—	—	—	—	—	15020	—	—	—	—	A		
						3	—	—	19.3	80.7	—	1.0	—	—	—	—	—	—	15720	—	—	—	—	A		
GR	24	32	MA LH	TP	B-54868	1	1.8	2.8	17.3	71.0	8.9	1.1	—	—	—	—	—	—	13780	—	2290	—	—	A	Sample of less than 2.5-inch	
						2	—	—	17.8	73.1	9.1	1.1	—	—	—	—	—	—	14180	—	—	—	—	A		
						3	—	—	19.6	80.4	—	1.2	—	—	—	—	—	—	15600	—	—	—	—	A		
GR	27	31	MA LH	MW	B-23748	1	4.0	4.6	17.1	74.7	3.6	0.9	—	—	—	—	—	—	14410	—	2140	—	—	A		
						2	—	—	18.0	78.2	3.8	1.0	—	—	—	—	—	—	15090	—	—	—	—	A		
						3	—	—	18.7	81.3	—	1.0	—	—	—	—	—	—	15690	—	—	—	—	A		

See footnotes at end of table.

TABLE 2. - PROXIMATE AND ULTIMATE ANALYSES OF COALS IN THE STUDY AREA, WEST-CENTRAL ARKANSAS

(Modified from Haley (1977), with additions by present writer.)

(continued)

Quadrangle	ID number, this report	ID number, Haley, 1977 - 1/	Formation and coal bed - 2/	Type of site - 3/	U. S. BUR. Mines lab No.	Condition - 4/	Air drying lose	Proximate analyses				Ultimate analyses								But/lb.	Fusibility of ash (°F.)			Free swelling index No.	Source of analyses	Remarks	
								Moisture	Volatile matter	Fixed carbon	Ash	Sulpher	Forms of Sulphur			Hydrogen	Carbon	Nitrogen	Oxygen		Initial deformation temperature	Softening temperature	Fluid temperature				
													Sulphate	Pyritic	Organic												
GR	27	31	MA LH	MW	B-23749	1 2 3	2.8 — —	3.3 — —	17.6 18.2 19.1	74.7 77.2 80.9	4.4 4.6 —	0.9 0.9 0.9	— — —	— — —	— — —	4.7 4.5 4.7	83.6 86.5 90.6	1.8 1.8 1.9	4.6 1.7 1.9	14450 14950 15660	— — —	— — —	— — —	— — —	A A A	Composite of samples GR-28 and GR-27	
GR	28	31	MA LH	MW	B-23747	1 2 3	1.6 — —	2.1 — —	18.4 18.8 19.9	74.3 75.9 80.1	5.2 5.3 —	0.8 0.8 0.8	— — —	— — —	— — —	— — —	— — —	— — —	14500 14810 15630	— — —	2480 — —	— — —	— — —	— — —	A A A		
GR	32	23	MA LH	OT	K-54023	1 2 3	— — —	4.6 — —	21.6 22.7 23.2	71.5 74.9 76.8	2.3 2.4 —	0.8 0.8 0.8	0.01 0.01 0.01	0.02 0.07 0.07	0.68 0.71 0.72	4.6 4.3 4.4	82.6 86.6 88.7	1.7 1.8 1.9	8.0 4.1 4.2	14150 14830 15200	2200 — —	2250 — —	2360 — —	0.5 — —	A A A		Coal is slightly weathered.
GR	39	22	MA LH	ST	K-63742	1 2 3	— — —	7.4 — —	18.0 19.5 20.8	69.1 74.5 79.2	5.6 6.0 —	0.6 0.7 0.7	0.01 0.01 0.01	0.02 0.02 0.02	0.59 0.64 0.68	4.4 3.9 4.1	74.7 80.7 85.9	1.6 1.8 1.9	13.1 6.9 7.4	12630 13640 14520	2300 — —	2360 — —	2560 — —	0 — —	A A A		
GR	40	21	MA LH	MW	A-99414	1	6.4	7.0	15.2	72.6	5.2	1.2	—	—	—	—	—	—	—	13720	—	2360	—	—	C		
GR	41	21	MA LH	MW	A-99415	1	3.8	4.4	16.5	73.7	5.4	1.3	—	—	—	—	—	—	—	14130	—	2180	—	—	C		
GR	42	21	MA LH	MW	A-99416	1	5.1	5.7	15.5	73.5	5.3	1.8	—	—	—	—	—	—	—	13880	—	2340	—	—	C		
GR	43	21	MA LH	MW	A-99417	1 2 3	5.1 — —	5.7 — —	15.5 16.5 17.3	73.3 77.7 82.5	5.5 5.8 —	1.5 1.5 1.6	— — —	— — —	— — —	4.7 4.3 4.6	80.1 85.0 90.2	1.7 1.8 1.9	6.5 1.6 1.7	13930 14770 15680	— — —	— — —	— — —	— — —	C C C	Composite of samples GR-40, GR-41, and GR-42.	
GR	57	29	MA LH	ME	B-60299	1 2 3	1.5 — —	1.9 — —	18.1 18.4 19.8	73.5 75.0 80.2	6.5 6.6 —	0.8 0.8 0.9	— — —	— — —	— — —	4.4 4.3 4.6	82.5 84.1 90.1	1.7 1.8 1.9	4.1 2.4 2.5	14250 14530 15560	— — —	— — —	— — —	— — —	A A A		Composite of samples GR-63, GR-64, and GR-65.
GR	58	28	MA LH	MW	A-99827	1	4.3	4.9	15.7	77.0	2.4	0.7	—	—	—	—	—	—	—	14510	—	2230	—	—	C		
GR	59	28	MA LH	MW	A-99836	1	2.4	2.9	16.6	77.3	3.2	0.7	—	—	—	—	—	—	—	14680	—	2210	—	—	C		

GR	60	28	MA LH	MW	A-99837	1	3.3	3.8	16.4	76.8	3.0	0.7	—	—	—	—	—	—	—	14590	—	2160	—	—	C	
GR	61	28	MA LH	MW	A-99838	1	3.3	3.9	16.0	77.1	3.0	0.6	—	—	—	4.7	84.3	1.8	5.6	14610	—	—	—	—	C	Composite of samples GR-58, GR-59, and GR-60.
						2	—	—	16.7	80.2	3.1	0.7	—	—	—	4.5	87.6	1.9	2.2	15190	—	—	—	—	C	
						3	—	—	17.2	82.8	—	0.7	—	—	—	4.6	90.5	2.0	2.2	15680	—	—	—	—	C	
GR	62	28	MA LH	TP	B-56719	1	1.0	1.4	17.3	76.7	4.6	0.7	—	—	—	—	—	—	—	14460	—	2400	—	—	A	Sample of 10-inch coal.
						2	—	—	17.5	77.8	4.7	0.7	—	—	—	—	—	—	—	14860	—	—	—	—	A	
						3	—	—	18.4	81.6	—	0.7	—	—	—	—	—	—	—	15590	—	—	—	—	A	
GR	62	28	MA LH	TP	B-56720	1	1.2	1.7	17.2	76.3	4.8	0.7	—	—	—	—	—	—	—	14640	—	2400	—	—	A	Sample of 4-to 10-inch coal.
						2	—	—	17.5	77.6	4.9	0.7	—	—	—	—	—	—	—	14890	—	—	—	—	A	
						3	—	—	18.4	81.6	—	0.8	—	—	—	—	—	—	—	15650	—	—	—	—	A	
GR	62	28	MA LH	TP	B-56721	1	1.0	1.6	17.0	75.7	5.7	0.7	—	—	—	—	—	—	—	14470	—	2330	—	—	A	Sample of 1.25-to 4-inch coal.
						2	—	—	17.3	76.9	5.8	0.7	—	—	—	—	—	—	—	14700	—	—	—	—	A	
						3	—	—	18.4	81.6	—	0.7	—	—	—	—	—	—	—	15600	—	—	—	—	A	
GR	62	28	MA LH	TP	B-56722	1	1.3	1.8	17.2	75.0	6.0	0.7	—	—	—	—	—	—	—	14450	—	2280	—	—	A	Sample of 0.75-to 1.25-inch coal.
						2	—	—	17.6	76.3	6.1	0.7	—	—	—	—	—	—	—	14720	—	—	—	—	A	
						3	—	—	18.7	81.3	—	0.7	—	—	—	—	—	—	—	15670	—	—	—	—	A	
GR	62	28	MA LH	TP	B-56723	1	1.8	2.3	17.4	73.5	6.8	0.6	—	—	—	—	—	—	—	14110	—	2420	—	—	A	Sample of less than 0.75-inch coal.
						2	—	—	17.9	75.1	7.0	0.7	—	—	—	—	—	—	—	14450	—	—	—	—	A	
						3	—	—	19.2	80.8	—	0.7	—	—	—	—	—	—	—	15530	—	—	—	—	A	
GR	63	29	MA LH	MW	B-60296	1	1.6	2.0	18.1	73.7	6.2	0.8	—	—	—	4.5	82.9	1.8	3.8	14310	—	2360	—	—	A	
						2	—	—	18.4	75.3	6.3	0.8	—	—	—	4.3	84.6	1.9	2.1	14610	—	—	—	—	A	
						3	—	—	19.7	80.3	—	0.9	—	—	—	4.6	90.3	2.0	2.2	15590	—	—	—	—	A	
GR	64	29	MA LH	MW	B-60297	1	1.4	1.9	18.2	73.1	6.8	0.9	—	—	—	—	—	—	—	14260	—	2300	—	—	A	
						2	—	—	18.6	74.5	6.9	0.9	—	—	—	—	—	—	—	14530	—	—	—	—	A	
						3	—	—	20.0	80.0	—	0.9	—	—	—	—	—	—	—	15610	—	—	—	—	A	
GR	65	29	MA LH	MW	B-60298	1	1.5	1.9	18.0	73.7	6.4	0.8	—	—	—	—	—	—	—	14270	—	2300	—	—	A	
						2	—	—	18.5	75.1	6.5	0.8	—	—	—	—	—	—	—	14540	—	—	—	—	A	
						3	—	—	19.7	80.3	—	0.8	—	—	—	—	—	—	—	15560	—	—	—	—	A	
GR	69	39	MA LH	MW	A-39998	1	1.2	1.7	15.4	76.7	6.2	1.0	—	—	—	—	—	—	—	14340	—	2400	—	—	C	
GR	70	39	MA LH	MW	A-99399	1	1.6	2.1	14.7	77.5	5.7	1.0	—	—	—	—	—	—	—	14350	—	2420	—	—	C	
GR	71	39	MA LH	MW	A-99400	1	1.7	2.2	14.0	76.8	7.0	1.2	—	—	—	—	—	—	—	14140	—	2300	—	—	C	
GR	72	39	MA LH	MW	A-99401	1	1.5	2.1	14.8	76.8	6.3	1.1	—	—	—	4.3	83.0	1.6	3.7	14290	—	—	—	—	C	Composite of samples GR-69, GR=70, and GR-71.
						2	—	—	15.1	78.5	6.4	1.1	—	—	—	4.1	84.8	1.7	1.9	14590	—	—	—	—	C	
						3	—	—	16.2	83.8	—	1.2	—	—	—	4.4	90.6	1.8	2.0	15590	—	—	—	—	C	

See footnotes at end of table.

TABLE 2. - PROXIMATE AND ULTIMATE ANALYSES OF COALS IN THE STUDY AREA, WEST-CENTRAL ARKANSAS
(Modified from Haley (1977), with additions by present writer.)

(continued)

Quadrangle	ID number, this report	1/ ID number, Haley, 1977-	2/ Formation and coal bed-	3/ Type of site-	U. S. BUR. Mines lab No.	4/ Condition-	Air drying lose	Proximate analyses				Ultimate analyses								But/lb.	Fusibility of ash (°F.)			Free swelling index No.	Source of analyses	Remarks		
								Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon	Nitrogen	Oxygen		Initial deformation temperature	Softening temperature	Fluid temperature					
													Sulphate	Pyritic	Organic													
Hartford quadrangle (HF)																												
HF	12A	7	MA LH	TP	W-69619	1	—	1.6	18.1	66.9	13.4	0.8	—	—	—	—	—	—	—	12990	—	—	—	—	—	B		
						2	—	—	18.4	68.0	13.7	0.8	—	—	—	—	—	—	—	—	13200	—	—	—	—	—		B
						3	—	—	21.3	78.7	—	1.0	—	—	—	—	—	—	—	—	15290	—	—	—	—	—		B
HF	12B	7	MA LH	MW	29836	1	2.0	2.4	18.9	68.9	9.8	0.8	—	—	—	—	—	—	—	13430	—	2000	—	—	—	B		
HF	12C	7	MA LH	MW	29836	1	2.8	3.4	19.4	66.3	10.9	1.1	—	—	—	—	—	—	—	13140	—	2090	—	—	—	B		
HF	12D	7	MA LH	MW	29837	1	2.4	2.9	19.6	67.0	10.5	1.4	—	—	—	—	—	—	—	13250	—	2020	—	—	—	B		
HF	12E	7	MA LH	MW	29838	1	2.4	2.9	19.3	67.3	10.5	1.1	—	—	—	4.1	77.4	1.6	5.3	13270	—	—	—	—	—	B	Composite of samples HF-12B, HF-12C, and HF 12D.	
						2	—	—	19.9	69.3	10.8	1.1	—	—	—	3.9	79.7	1.7	2.8	13670	—	—	—	—	—	B		
						3	—	—	22.3	77.7	—	1.3	—	—	—	4.4	89.3	1.9	3.1	15320	—	—	—	—	—	B		
HF	12F	7	MA LH	MW	81809	1	1.9	2.5	16.5	73.2	7.8	0.8	—	—	—	—	—	—	—	13880	—	2130	—	—	—	B		
HF	12G	7	MA LH	MW	81810	1	1.8	2.3	17.0	71.6	9.1	1.0	—	—	—	—	—	—	—	13670	—	2010	—	—	—	B		
HF	12H	7	MA LH	MW	81811	1	2.2	2.8	17.6	72.3	7.8	0.9	—	—	—	—	—	—	—	13870	—	2060	—	—	—	B		
HF	12 I	7	MA LH	MW	81812	1	2.0	2.5	16.8	72.8	7.9	0.9	—	—	—	4.4	80.2	1.6	5.0	13820	—	—	—	—	—	B	Composite of samples HF-12F, HF-12G, and HF-12H.	
						2	—	—	17.2	74.7	8.1	0.9	—	—	—	4.2	82.2	1.7	2.9	14170	—	—	—	—	—	B		
						3	—	—	18.7	81.3	—	1.0	—	—	—	4.6	89.5	1.8	3.1	15430	—	—	—	—	—	B		
Hartman quadrangle (HR)																												
HR	12	63	MA LH	ST	K-54018	1	—	3.3	13.9	79.8	3.0	0.6	0.01	0.12	0.47	4.2	86.0	1.7	4.5	14570	2140	2190	2250	0.5	A			
						2	—	—	14.4	82.5	3.1	0.6	0.01	0.12	0.48	4.0	89.0	1.8	1.5	15070	—	—	—	—	—		A	
						3	—	—	14.8	85.2	—	0.6	0.01	0.13	0.50	4.1	91.8	1.8	1.7	15550	—	—	—	—	—		A	
HR	20	66	MA LH	TP	B-56005	1	1.2	1.8	12.0	75.1	11.1	3.9	—	—	—	—	—	—	—	13370	—	2450	—	—	—	A	Sample of 5.75-to 7.5-inch coal.	
						2	—	—	12.2	76.5	11.3	3.9	—	—	—	—	—	—	—	—	13620	—	—	—	—	—		A
						3	—	—	13.8	86.2	—	4.4	—	—	—	—	—	—	—	—	15360	—	—	—	—	—		A

HR	20	66	MA LH	TP	B-56006	1	1.3	1.8	11.9	75.0	11.3	4.0	—	—	—	—	—	—	13350	—	2450	—	—	A	Sample of 2.5-to 5.75-inch coal.
						2	—	—	12.2	76.3	11.5	4.1	—	—	—	—	—	—	13600	—	—	—	—	A	
						3	—	—	13.7	86.3	—	4.6	—	—	—	—	—	—	15370	—	—	—	—	A	
HR	20	66	MA LH	TP	B-56007	1	1.1	1.8	11.8	75.9	10.5	3.4	—	—	—	—	—	—	13530	—	2450	—	—	A	Sample of 1.5-to 2.5-inch coal.
						2	—	—	12.0	77.3	10.7	3.4	—	—	—	—	—	—	13770	—	—	—	—	A	
						3	—	—	13.4	86.6	—	3.8	—	—	—	—	—	—	15410	—	—	—	—	A	
HR	20	66	MA LH	TP	B-56008	1	1.2	1.9	11.6	74.4	12.1	3.5	—	—	—	—	—	—	13240	—	2290	—	—	A	Sample of 1-to 1.5-inch coal.
						2	—	—	11.8	75.9	12.3	3.6	—	—	—	—	—	—	13490	—	—	—	—	A	
						3	—	—	13.4	86.6	—	4.1	—	—	—	—	—	—	15390	—	—	—	—	A	
HR	20	66	MA LH	TP	B-56009	1	1.6	2.4	12.4	69.4	15.8	2.6	—	—	—	—	—	—	12440	—	2210	—	—	A	Sample from less than 0.5-inch coal.
						2	—	—	12.7	71.1	16.2	2.6	—	—	—	—	—	—	12750	—	—	—	—	A	
						3	—	—	15.1	84.9	—	3.1	—	—	—	—	—	—	15210	—	—	—	—	A	
HR	24	65	MA LH	MW	3368	1	1.0	2.1	11.4	77.9	8.6	2.0	—	—	—	—	—	—	13710	—	—	—	—	B	
						2	—	—	11.7	79.5	8.8	2.0	—	—	—	—	—	—	14010	—	—	—	—	B	
HR	40	64	MA LH	TP	B-56000	1	1.4	2.1	12.4	75.3	10.2	3.2	—	—	—	—	—	—	13500	—	2330	—	—	A	Sample of 5.5-to 7.5-inch coal.
						2	—	—	12.7	76.9	10.4	3.2	—	—	—	—	—	—	13790	—	—	—	—	A	
						3	—	—	14.2	85.5	—	3.6	—	—	—	—	—	—	15390	—	—	—	—	A	
HR	40	64	MA LH	TP	B-56001	1	1.3	2.0	12.8	75.7	9.5	2.7	—	—	—	—	—	—	13620	—	2400	—	—	A	Sample of 2.5-to 5.5-inch coal.
						2	—	—	13.1	77.2	9.7	2.8	—	—	—	—	—	—	13890	—	—	—	—	A	
						3	—	—	14.5	85.5	—	3.1	—	—	—	—	—	—	15390	—	—	—	—	A	
HR	40	64	MA LH	TP	B-56002	1	1.7	2.4	12.5	75.2	9.9	2.5	—	—	—	—	—	—	13520	—	2260	—	—	A	Sample of 1.5-to 2.5-inch coal.
						2	—	—	12.8	77.0	10.2	2.5	—	—	—	—	—	—	13860	—	—	—	—	A	
						3	—	—	14.3	85.7	—	2.8	—	—	—	—	—	—	15430	—	—	—	—	A	
HR	40	64	MA LH	TP	B-56003	1	3.0	4.0	12.6	70.8	12.6	2.5	—	—	—	—	—	—	12740	—	2190	—	—	A	Sample of less than 0.5-inch coal.
						2	—	—	13.2	73.7	13.1	2.6	—	—	—	—	—	—	13270	—	—	—	—	A	
						3	—	—	15.1	84.9	—	3.0	—	—	—	—	—	—	15260	—	—	—	—	A	
HR	40	—	MA LH	TP	B-56004	1	3.0	4.0	12.6	73.2	12.6	2.6	—	—	—	—	—	—	12740	—	2190	—	—	A	Sample of 0.5-inch slack.
						2	—	—	13.2	73.7	13.1	2.6	—	—	—	—	—	—	13270	—	—	—	—	A	
						3	—	—	15.1	84.9	—	3.0	—	—	—	—	—	—	15260	—	—	—	—	A	
HR	50A	—	MA LH	MW	A-99394	1	1.6	2.4	11.0	80.9	5.7	1.0	—	—	—	—	—	—	14280	—	2390	—	—	C	Composite of samples HR-50A, HR-50B, and HR-50C.
HR	50B	—	MA LH	MW	A-99395	1	1.5	2.3	11.3	80.0	6.4	1.6	—	—	—	—	—	—	14150	—	2420	—	—	C	
HR	50C	—	MA LH	MW	A-99396	1	1.5	2.2	11.2	80.0	6.6	1.1	—	—	—	—	—	—	14110	—	2450	—	—	C	
HR	50D	—	MA LH	MW	A-99396	1	1.5	2.3	11.2	80.2	6.3	1.3	—	—	—	3.8	83.7	1.7	3.2	14180	—	—	—	—	C
						2	—	—	11.5	82.1	6.4	1.3	—	—	—	3.6	85.6	1.7	1.4	14500	—	—	—	—	C
						3	—	—	12.2	87.8	—	1.4	—	—	—	3.9	91.5	1.8	1.4	15500	—	—	—	—	C
HR	61	—	MA LH	MW	3407	1	1.4	2.2	10.8	76.8	10.2	2.3	—	—	—	—	—	—	—	—	—	—	—	B	
						2	—	—	11.1	78.5	10.4	2.4	—	—	—	—	—	—	—	—	—	—	—	B	

See footnotes at end of table.

TABLE 2. - PROXIMATE AND ULTIMATE ANALYSES OF COALS IN THE STUDY AREA, WEST-CENTRAL ARKANSAS
(Modified from Haley (1977), with additions by present writer.) (continued)

Quadrangle	ID number, this report	ID number, Haley, 1977- ^{1/}	Formation and coal bed- ^{2/}	Type of site- ^{3/}	U. S. BUR. Mines lab No.	Condition- ^{4/}	Air drying lose	Proximate analyses				Ultimate analyses								But/lb.	Fusibility of ash (°F.)			Free swelling index No.	Source of analyses	Remarks
								Moisture	Volatile matter	Fixed carbon	Ash	Sulpher	Forms of Sulphur			Hydrogen	Carbon	Nitrogen	Oxygen		Initial deformation temperature	Softening temperature	Fluid temperature			
													Sulphate	Pyritic	Organic											
HR 64B	71	MA LH	MW	A-99390	1	1.8	2.6	11.4	78.1	7.9	1.7	-	-	-	-	-	-	-	-	13780	-	2310	-	-	C	
HR 64C	71	MA LH	MW	A-99391	1	1.7	2.5	10.6	79.8	7.1	2.0	-	-	-	-	-	-	-	-	13990	-	2570	-	-	C	
HR 64D	71	MA LH	MW	A-99392	1	1.7	2.5	11.3	79.1	7.1	1.7	-	-	-	-	-	-	-	-	13980	-	2430	-	-	C	
HR 64E	71	MA LH	MW	A-99393	1	1.8	2.5	10.9	79.2	7.4	1.9	-	-	-	3.9	82.2	1.6	3.0	13930	-	-	-	-	C	Composite of samples HR-64B, HR-64C, and HR-64D.	
					2	-	-	11.2	81.2	7.6	1.9	-	-	-	3.7	84.3	1.6	0.9	14290	-	-	-	-	C		
					3	-	-	12.1	87.9	-	2.1	-	-	-	4.1	91.2	1.7	0.9	15470	-	-	-	-	C		
HR 67	67	MA LH	MW	2588	1	2.1	2.7	11.2	77.7	8.4	2.8	-	-	-	-	-	-	-	-	-	-	-	-	B		
					2	-	-	11.5	79.9	8.6	2.9	-	-	-	-	-	-	-	-	-	-	-	-	B		
HR 93	61	MA LH	ST	G-49866	1	-	2.0	11.7	81.9	4.4	0.6	-	-	-	3.9	84.8	1.6	4.7	14280	2080	2230	2620	0	A	Hardgrove grindability index 86.	
					2	-	-	11.9	83.7	4.4	0.7	-	-	-	3.8	86.6	1.7	2.8	14580	-	-	-	-	A		
					3	-	-	12.5	87.5	-	0.7	-	-	-	3.9	90.6	1.7	3.1	15260	-	-	-	-	A		
HR 96	62	MA LH	ST	B-84601	1	7.7	8.5	11.6	76.1	3.8	0.7	-	-	-	-	-	-	-	-	13620	-	2290	-	-	A	
					2	-	-	12.7	83.1	4.2	0.7	-	-	-	-	-	-	-	-	14880	-	-	-	-	A	
					3	-	-	13.2	86.8	-	0.7	-	-	-	-	-	-	-	-	15520	-	-	-	-	A	
HR 97	62	MA LH	ST	B-84600	1	5.6	6.5	11.9	77.5	4.1	0.6	-	-	-	-	-	-	-	-	13930	-	2290	-	-	A	
					2	-	-	12.7	82.9	4.4	0.7	-	-	-	-	-	-	-	-	14900	-	-	-	-	A	
					3	-	-	13.3	86.7	-	0.7	-	-	-	-	-	-	-	-	15590	-	-	-	-	A	
HR 98	62	MA LH	ST	B-84599	1	3.7	4.8	12.0	79.5	3.7	0.6	-	-	-	-	-	-	-	-	14320	-	2290	-	-	A	
					2	-	-	12.6	83.5	3.9	0.7	-	-	-	-	-	-	-	-	15040	-	-	-	-	A	
					3	-	-	13.1	86.9	-	0.7	-	-	-	-	-	-	-	-	15650	-	-	-	-	A	
HR 99	62	MA LH	ST	B-84602	1	5.9	6.8	11.4	78.3	3.5	0.7	-	-	-	-	-	-	-	-	13990	-	2290	-	-	A	
					2	-	-	12.3	83.9	3.8	0.7	-	-	-	-	-	-	-	-	15010	-	-	-	-	A	
					3	-	-	12.7	87.3	-	0.7	-	-	-	-	-	-	-	-	15590	-	-	-	-	A	

Huntington quadrangle (HN)																											
HN 08	5	MA LH	ST	K-54026	1	—	9.7	24.5	61.8	4.0	0.6	0.01	0.17	0.38	4.2	70.4	1.4	19.4	11530	2190	2250	2370	0	A			
					2	—	—	27.1	68.5	4.4	0.6	0.01	0.19	0.42	3.5	77.9	1.6	12.0	12770	—	—	—	—	—	A		
					3	—	—	28.4	71.6	—	0.6	0.01	0.19	0.44	3.6	81.5	1.7	12.6	13360	—	—	—	—	—	A		
HN 12	20	MA LH	TP	B-83115	1	1.6	2.5	16.9	73.2	7.4	1.2	—	—	—	—	—	—	—	14040	—	2270	—	—	—	A	Sample of 8-inch coal.	
					2	—	—	17.4	75.0	7.6	1.2	—	—	—	—	—	—	—	14390	—	—	—	—	—	A		
					3	—	—	18.8	81.2	—	1.3	—	—	—	—	—	—	—	15570	—	—	—	—	—	A		
HN 12	20	MA LH	TP	B-83116	1	1.2	2.0	17.8	73.0	7.2	1.2	—	—	—	4.5	81.5	1.8	3.8	14180	—	2270	—	—	—	A	Sample of 4-to 8-inch coal.	
					2	—	—	18.2	74.5	7.3	1.2	—	—	—	4.4	83.1	1.8	2.2	14470	—	—	—	—	—	A		
					3	—	—	19.6	80.4	—	1.3	—	—	—	4.7	89.7	2.0	2.3	15610	—	—	—	—	—	A		
HN 12	20	MA LH	TP	B-83117	1	1.6	2.5	17.1	69.5	10.9	1.3	—	—	—	—	—	—	—	13430	—	2530	—	—	—	A	Sample of 4-inch coal.	
					2	—	—	17.5	71.3	11.2	1.4	—	—	—	—	—	—	—	13780	—	—	—	—	—	A		
					3	—	—	19.7	80.3	—	1.5	—	—	—	—	—	—	—	15510	—	—	—	—	—	A		
HN 21A	—	MA LH	MS	3158	1	1.9	2.7	15.7	74.5	7.1	2.9	—	—	—	—	—	—	—	—	—	—	—	—	B			
					2	—	—	16.1	76.6	7.3	2.9	—	—	—	—	—	—	—	—	—	—	—	—	B			
					3	—	—	17.4	82.6	—	3.2	—	—	—	—	—	—	—	—	—	—	—	—	B			
HN 26	13	MA LH	ST	K-54024	1	—	3.1	18.7	72.3	5.9	0.6	0.01	0.09	0.48	4.6	82.2	1.7	5.0	14220	2040	2080	2180	—	A	Sample is from upper bed.		
					2	—	—	19.3	74.7	6.0	0.6	0.01	0.09	0.50	4.4	84.8	1.8	2.4	14670	—	—	—	—	—		A	
					3	—	—	20.6	79.4	—	0.7	0.01	0.10	0.52	4.7	90.2	1.9	2.6	15610	—	—	—	—	—		A	
HN 26	13	MA LH	ST	K-54025	1	—	2.8	20.4	72.0	4.8	0.8	0.02	0.34	0.48	4.7	84.0	1.7	4.0	14450	2250	2300	2380	9	A	Sample is from lower bed.		
					2	—	—	21.0	74.0	5.0	0.9	0.02	0.35	0.50	4.5	86.4	1.8	1.4	14870	—	—	—	—	—		A	
					3	—	—	22.1	77.9	—	0.9	0.02	0.37	0.52	4.7	90.9	1.9	1.6	15460	—	—	—	—	—		A	
HN 30A	12	MA LH	MW	1045	1	—	1.0	17.9	73.6	7.5	1.1	—	—	—	—	—	1.7	—	14430	—	—	—	—	—	B		
					2	—	—	18.1	74.3	7.6	1.1	—	—	—	—	—	1.7	—	14580	—	—	—	—	—	B		
HN 30B	12	MA LH	MW	1046	1	—	0.8	18.5	73.7	7.0	1.2	—	—	—	—	—	—	—	—	—	—	—	—	—	B		
					2	—	—	18.6	74.4	7.0	1.2	—	—	—	—	—	—	—	—	—	—	—	—	—	B		
HN 30C	12	MA LH	MW	2585	1	2.9	3.5	16.7	72.0	7.8	1.3	—	—	—	—	—	—	—	14020	—	—	—	—	—	B		
					2	—	—	17.3	74.6	8.1	1.3	—	—	—	—	—	—	—	14530	—	—	—	—	—	B		
HN 30D	12	MA LH	MW	2586	1	3.5	4.0	16.8	72.1	7.1	1.3	—	—	—	—	—	—	—	—	—	—	—	—	—	B		
					2	—	—	17.5	75.1	7.4	1.4	—	—	—	—	—	—	—	—	—	—	—	—	—	B		
HN 30E	—	MA LH	TP	1114	1	—	2.1	17.5	66.7	12.6	1.2	—	—	—	4.2	74.1	1.4	6.5	13130	—	—	—	—	—	B		
					2	—	—	18.0	68.9	13.0	1.3	—	—	—	3.9	76.6	1.5	3.7	13570	—	—	—	—	—	B		
					3	—	—	20.7	79.3	—	1.5	—	—	—	4.5	88.1	1.7	4.3	15600	—	—	—	—	—	B		
HN 30E	—	MA LH	TP	2689	1	—	6.7	15.2	59.4	18.0	1.1	—	—	—	4.3	65.5	1.4	9.7	11370	—	—	—	—	—	B		
					2	—	—	16.4	64.2	19.4	1.2	—	—	—	3.8	70.9	1.5	3.3	12290	—	—	—	—	—	B		
					3	—	—	20.3	79.7	—	1.4	—	—	—	4.7	87.9	1.8	4.1	15250	—	—	—	—	—	B		
HN 54A	11	MA LH	MW	27612	1	2.3	2.7	19.1	70.3	7.9	1.6	—	—	—	—	—	—	—	14040	—	2730	—	—	—	B		

See footnotes at end of table.

TABLE 2. - PROXIMATE AND ULTIMATE ANALYSES OF COALS IN THE STUDY AREA, WEST-CENTRAL ARKANSAS
(Modified from Haley (1977), with additions by present writer.)

(continued)

Quadrangle	ID number, this report	ID number, Haley, 1977 - 1/	Formation and coal bed - 2/	Type of site - 3/	U. S. BUR. Mines lab No.	Condition - 4/	Air drying lose	Proximate analyses				Ultimate analyses								But/lb.	Fusibility of ash (°F.)			Free swelling index No.	Source of analyses	Remarks
								Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon	Nitrogen	Oxygen		Initial deformation temperature	Softening temperature	Fluid temperature			
													Sulphate	Pyritic	Organic											
HN 54B	11	MA LH MW	27613	1	3.1	3.7	18.2	67.9	10.2	1.8	-	-	-	-	-	-	-	-	13470	-	2110	-	-	B		
HN 54C	11	MA LH MW	27614	1	3.3	3.8	17.3	69.5	9.4	1.7	-	-	-	-	-	-	-	-	13560	-	2060	-	-	B		
HN 54D	11	MA LH MW	27615	1	2.8	3.3	18.2	69.7	8.8	1.8	-	-	-	-	-	-	-	-	13760	-	2120	-	-	B		
HN 54E	11	MA LH MW	27616	1	2.4	2.9	18.8	69.7	8.6	2.5	-	-	-	-	-	-	-	-	13860	-	2070	-	-	B		
HN 54F	11	MA LH MW	27617	1	2.8	3.2	18.1	69.7	9.0	1.9	-	-	-	4.4	78.7	1.6	4.4	13700	-	-	-	-	B	Composite of samples HN 54A to HN-54E.		
				2	-	-	18.7	72.0	9.3	1.9	-	-	-	4.2	81.3	1.6	1.7	14160	-	-	-	-	B			
				3	-	-	20.6	79.4	-	2.1	-	-	-	4.6	89.7	1.8	-	15610	-	-	-	-	B			
HN 61	10	MA LH TP	B- 57205	1	2.8	3.2	18.4	70.3	8.1	2.2	-	-	-	-	-	-	-	-	13830	-	2220	-	-	A	Sample of 2.5-inch coal.	
				2	-	-	19.0	72.7	8.3	2.3	-	-	-	-	-	-	-	-	14290	-	-	-	-	A		
				3	-	-	20.8	79.2	-	2.5	-	-	-	-	-	-	-	-	15590	-	-	-	-	A		
HN 61	10	MA LH TP	B- 57206	1	3.5	4.1	16.5	63.8	15.6	2.3	-	-	-	-	-	-	-	-	12500	-	2250	-	-	A	Sample of less than 2.5-inch coal.	
				2	-	-	17.2	66.5	16.3	2.4	-	-	-	-	-	-	-	-	13030	-	-	-	-	A		
				3	-	-	20.5	79.5	-	2.9	-	-	-	-	-	-	-	-	14200	-	-	-	-	A		
HN 62A	10	MA LH MW	W-69615	1	-	3.8	18.1	70.6	7.5	1.2	-	-	-	-	-	-	-	-	13660	-	-	-	-	B		
				2	-	-	18.8	73.4	7.8	1.2	-	-	-	-	-	-	-	-	14200	-	-	-	-	B		
HN 62B	10	MA LH MW	W-69620	1	-	2.7	17.4	70.1	9.8	1.7	-	-	-	-	-	-	-	-	13490	-	-	-	-	B		
				2	-	-	17.9	72.0	10.1	1.8	-	-	-	-	-	-	-	-	13870	-	-	-	-	B		
HN 62C	10	MA LH MW	W-69632	1	-	3.5	17.2	69.7	9.6	2.0	-	-	-	-	-	-	-	-	13410	-	-	-	-	B		
				2	-	-	17.8	72.3	9.9	2.1	-	-	-	-	-	-	-	-	13900	-	-	-	-	B		
HN 62D	10	MA LH MW	W-69633	1	-	3.1	17.2	72.4	7.3	1.3	-	-	-	-	-	-	-	-	13890	-	-	-	-	B		
				2	-	-	17.7	74.8	7.5	1.9	-	-	-	-	-	-	-	-	14340	-	-	-	-	B		
HN 62E	-	MA LH TP	W-69617	1	-	1.7	17.5	65.8	15.0	2.1	-	-	-	-	-	-	-	-	12780	-	-	-	-	B		
				2	-	-	17.8	66.9	15.2	2.2	-	-	-	-	-	-	-	-	13000	-	-	-	-	B		
				3	-	-	21.0	79.0	-	2.6	-	-	-	-	-	-	-	-	15340	-	-	-	-	B		

HN	64A	8	MA	LH	MW	2594	1 2	4.9 —	5.4 —	16.0 16.9	69.8 73.8	8.8 9.3	3.2 3.4	— —	— —	— —	— —	— —	— —	— —	— —	— —	B B	Sample of 2.5-inch coal.	
HN	64B	8	MA	LH	MW	2593	1 2	3.5 —	4.0 —	16.9 17.6	73.2 76.2	5.9 6.2	1.5 1.6	— —	— —	— —	— —	— —	14240 14820	— —	— —	— —	B B		
HN	74	6	MA	LH	TP	B-55082	1 2 3	1.0 — —	1.7 — —	19.2 19.6 21.2	71.5 72.7 78.8	7.6 7.7 —	1.0 1.0 1.0	— — —	— — —	— — —	— — —	— — —	14220 14460 15670	— — —	2060 — —	— — —	A A A		
HN	74	6	MA	LH	TP	B-55083	1 2 3	1.3 — —	2.1 — —	18.5 18.9 21.8	66.6 68.0 78.2	12.8 13.1 —	1.1 1.1 1.3	— — —	— — —	— — —	— — —	— — —	13190 13480 15520	— — —	2180 — —	— — —	A A A	Sample of less than 2.5-inch coal.	
HN	82	19	MA	LH	MW	A-99402	1	2.8	3.5	16.2	72.1	8.2	0.9	—	—	—	—	—	13740	—	2090	—	C		
HN	83	19	MA	LH	MW	A-99403	1	2.5	3.3	16.6	70.7	9.4	1.0	—	—	—	—	—	13610	—	2090	—	C		
HN	84	19	MA	LH	MW	A-99404	1	2.8	3.4	16.5	71.9	8.2	0.8	—	—	—	—	—	13750	—	2140	—	C		
HN	85	19	MA	LH	MW	A-99405	1 2 3	2.7 — —	3.4 — —	16.2 16.7 18.4	71.8 74.4 81.6	8.6 8.9 —	1.0 1.0 1.1	— — —	— — —	4.3 4.1 4.5	79.6 82.4 90.5	1.7 1.8 2.0	4.8 1.8 1.9	13700 14180 15580	— — —	— — —	— — —	C C C	Composite of samples HN-82, HN-83, and HN-84.

Knoxville quadrangle (KV)

KV 19	97	AT	ST	K-63748	1	—	1.7	12.4	76.7	9.2	4.3	0.01	3.41	0.92	3.7	79.7	1.5	1.6	13760	2430	2480	2530	0.5	A	Removed two 0.25-inch thick layers of pyrite from sample.
					2	—	—	12.6	78.0	9.4	3.5	0.01	3.47	0.94	3.5	81.1	1.5	0.1	13990	—	—	—	—	A	
					3	—	—	14.0	86.0	—	4.9	0.01	3.83	1.04	3.9	89.4	1.7	0.1	15440	—	—	—	—	A	
KV 20	96	AT	ST	E-40763	1	—	1.3	16.2	79.0	3.5	0.7	—	—	—	4.3	86.3	1.8	3.4	14840	2070	2210	2520	7.5	A	Coal is slightly weathered.
					2	—	—	16.4	80.1	3.5	0.7	—	—	—	4.2	87.5	1.8	2.3	15040	—	—	—	—	A	
					3	—	—	17.0	83.0	—	0.7	—	—	—	4.3	90.7	1.9	2.4	15590	—	—	—	—	A	

Mulberry quadrangle (MU)

MU 19	43	MA LH	OT	E-40766	1	—	30.9	23.7	33.7	11.7	0.4	—	—	—	5.0	39.8	0.8	42.3	5910	2480	2720	2910	—	A	Coal is weathered.
					2	—	—	34.2	48.9	16.9	0.6	—	—	—	2.2	57.6	1.2	21.5	8550	—	—	—	—	A	
					3	—	—	41.2	58.8	—	0.7	—	—	—	2.6	69.2	1.5	25.8	10290	—	—	—	—	A	
MU 08	—	MA LH	ST	K-75321	1	0.0	.9	19.1	74.0	6.0	1.7	.01	.87	.82	4.5	83.5	1.7	2.6	14570	2130	2180	2400	9.0	A	
					2	—	—	19.3	74.6	6.1	1.7	.01	.88	.82	4.4	84.3	1.7	1.8	14710	—	—	—	—	A	
					3	—	—	20.6	79.4	—	1.8	.01	.94	.84	4.7	89.7	1.8	1.9	15660	—	—	—	—	A	

See footnotes at end of table.

TABLE 2. - PROXIMATE AND ULTIMATE ANALYSES OF COALS IN THE STUDY AREA, WEST-CENTRAL ARKANSAS

(Modified from Haley (1977), with additions by present writer.)

(continued)

Quadragle	ID number, this report	ID number, Haley, 1977 - 1/	Formation and coal bed - 2/	Type of site - 3/	U. S. BUR. Mines lab No.	Condition - 4/	Air drying lose	Proximate analyses				Ultimate analyses								But/lb.	Fusibility of ash (°F.)			Free swelling index No.	Source of analyses	Remarks	
								Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon	Nitrogen	Oxygen		Initial deformation temperature	Softening temperature	Fluid temperature				
													Sulphate	Pyritic	Organic												
Ozark quadrangle (OZ)																											
OZ	03	44	MA LH	TP	B-55747	1	3.1	3.9	16.2	74.4	5.5	0.7	—	—	—	—	—	—	—	14090	—	2410	—	—	A	Sample of 8-inch coal.	
						2	—	—	16.8	77.5	5.7	0.7	—	—	—	—	—	—	—	14660	—	—	—	—	A		
						3	—	—	17.9	82.1	—	0.7	—	—	—	—	—	—	—	15550	—	—	—	—	A		
OZ	03	44	MA LH	TP	B-55748	1	1.2	1.9	16.7	75.7	5.7	0.6	—	—	—	—	—	—	—	14350	—	2450	—	—	A	Sample of 2.5-to 8-inch coal.	
						2	—	—	17.0	77.2	5.8	0.6	—	—	—	—	—	—	—	14630	—	—	—	—	A		
						3	—	—	18.1	81.9	—	0.7	—	—	—	—	—	—	—	15530	—	—	—	—	A		
OZ	03	44	MA LH	TP	B-55749	1	1.5	2.2	16.4	73.7	7.7	0.7	—	—	—	—	—	—	—	14010	—	2180	—	—	A	Sample of 1.25-to 2.5-inch coal.	
						2	—	—	16.8	75.4	7.8	0.7	—	—	—	—	—	—	—	14330	—	—	—	—	A		
						3	—	—	18.2	81.8	—	0.8	—	—	—	—	—	—	—	15550	—	—	—	—	A		
OZ	03	44	MA LH	TP	B-55750	1	5.5	6.3	16.1	70.0	7.6	0.7	—	—	—	—	—	—	—	13350	—	2330	—	—	A	Sample of less than 1.25-inch coal.	
						2	—	—	17.2	74.7	8.1	0.7	—	—	—	—	—	—	—	14250	—	—	—	—	A		
						3	—	—	18.7	81.3	—	0.8	—	—	—	—	—	—	—	15510	—	—	—	—	A		
OZ	03	44	MA LH	TP	B-55751	1	1.7	2.6	15.9	76.1	5.4	0.6	—	—	—	—	—	—	—	14300	—	2500	—	—	A	Sample of 2.5-inch coal.	
						2	—	—	16.4	78.1	5.5	0.6	—	—	—	—	—	—	—	14680	—	—	—	—	A		
						3	—	—	17.3	82.7	—	0.6	—	—	—	—	—	—	—	15540	—	—	—	—	A		
OZ	03	14	MA LH	TP	B-55752	1	5.8	6.5	15.3	70.1	8.1	0.7	—	—	—	—	—	—	—	13250	—	2230	—	—	A	Sample of less than 2.5-inch coal.	
						2	—	—	16.4	74.9	8.7	0.7	—	—	—	—	—	—	—	14170	—	—	—	—	A		
						3	—	—	17.9	82.1	—	0.8	—	—	—	—	—	—	—	15520	—	—	—	—	A		
OZ	06	45	MA LH	ST	K-54019	1	—	3.5	15.4	74.1	7.0	1.3	0.14	0.75	0.44	4.3	79.9	1.6	5.9	13850	2300	2420	2610	7	A		
						2	—	—	15.9	76.8	7.3	1.4	0.14	0.78	0.45	4.0	82.8	1.7	2.8	14360	—	—	—	—	A		
						3	—	—	17.2	82.8	—	1.5	0.15	0.84	0.49	4.3	89.3	1.8	3.1	15480	—	—	—	—	A		
OZ	09	46	MA LH	TP	B-55789	1	1.9	2.6	14.5	77.6	5.3	1.8	—	—	—	—	—	—	—	14400	—	2230	—	—	A	Sample of 8-inch coal.	
						2	—	—	14.9	79.7	5.4	1.8	—	—	—	—	—	—	—	14790	—	—	—	—	A		
						3	—	—	15.8	84.2	—	1.9	—	—	—	—	—	—	—	15630	—	—	—	—	A		
OZ	09	46	MA LH	TP	B-55790	1	1.9	2.7	14.3	77.3	5.7	1.9	—	—	—	—	—	—	—	14350	—	2230	—	—	A	Sample of 3-to 8-inch coal.	
						2	—	—	14.7	79.5	5.8	1.9	—	—	—	—	—	—	—	14740	—	—	—	—	A		
						3	—	—	15.6	84.4	—	2.1	—	—	—	—	—	—	—	15650	—	—	—	—	A		

OZ	09	46	MA LH	TP	B-55791	1	1.7	2.6	14.4	76.3	6.7	1.9	—	—	—	—	—	—	14160	—	2230	—	—	A	Sample of 1.25-to 3-inch coal.	
						2	—	—	14.8	78.3	6.9	1.9	—	—	—	—	—	—	14530	—	—	—	—	A		
						3	—	—	15.9	84.1	—	2.1	—	—	—	—	—	—	15600	—	—	—	—	A		
OZ	09	46	MA LH	TP	B-55792	1	2.9	3.9	13.9	71.5	10.7	2.0	—	—	—	—	—	—	13290	—	2450	—	—	A	Sample of less than 1.25-inch coal.	
						2	—	—	14.5	74.4	11.1	2.1	—	—	—	—	—	—	13830	—	—	—	—	A		
						3	—	—	16.3	83.7	—	2.4	—	—	—	—	—	—	15560	—	—	—	—	A		
OZ	17	48	MA LH	TP	B-55786	1	1.6	2.5	15.1	76.5	5.9	1.0	—	—	—	—	—	—	14260	—	2460	—	—	A	Sample of 6-inch coal.	
						2	—	—	15.4	78.5	6.1	1.0	—	—	—	—	—	—	14620	—	—	—	—	A		
						3	—	—	16.4	83.6	—	1.1	—	—	—	—	—	—	15570	—	—	—	—	A		
OZ	21A	47	MA LH	MW	A-99375	1	1.8	2.6	14.0	71.7	11.7	3.9	—	—	—	—	—	—	13260	—	2310	—	—	C	Composite of samples OZ-21A and OZ-21B	
OZ	21B	47	MA LH	MW	A-99376	1	2.1	2.8	13.9	75.3	8.0	2.6	—	—	—	—	—	—	13850	—	2570	—	—	C		
OZ	21C	47	MA LH	MW	A-99377	1	2.0	2.6	14.0	73.7	9.7	3.2	—	—	—	4.0	78.2	1.5	3.4	13560	—	—	—	C		
						2	—	—	14.4	75.6	10.0	3.3	—	—	—	3.8	80.3	1.5	1.1	13920	—	—	—	C		
						3	—	—	16.0	84.0	—	3.6	—	—	—	4.2	89.3	1.7	1.2	15470	—	—	—	C		
Paris quadrangle (PA)																										
PA	18	88	SA PA	MW	18751	1	1.8	2.4	17.3	70.4	9.9	3.1	—	—	—	—	—	—	13570	—	2140	—	—	B	Composite of samples PA-18, PA-19, and PA-21.	
PA	19	88	SA PA	MW	18750	1	1.8	2.5	17.1	70.6	9.8	3.3	—	—	—	—	—	—	13500	—	2130	—	—	B		
PA	19A	88	SA PA	MW	18753	1	1.8	2.4	17.2	70.4	10.0	3.2	—	—	—	—	—	—	13520	—	—	—	—	B		
						2	—	—	17.7	72.0	10.3	3.3	—	—	—	4.0	79.9	1.6	0.9	13860	—	—	—	—		B
						3	—	—	19.7	80.3	—	3.7	—	—	—	4.5	89.0	1.7	1.1	15440	—	—	—	—		B
PA	21	88	SA PA	MW	18752	1	1.9	2.5	17.1	70.5	9.9	3.2	—	—	—	—	—	—	13570	—	2160	—	—	B	Composite of samples PA-24A and PA-36.	
PA	24	89	SA PA	MS	A-99826	1	1.7	2.2	16.6	72.0	9.2	2.1	—	—	—	4.5	79.9	1.6	2.7	13930	—	—	—	—		C
						2	—	—	16.9	73.7	9.4	2.2	—	—	—	4.3	81.7	1.6	0.8	14240	—	—	—	—		C
						3	—	—	18.7	81.3	—	2.4	—	—	—	4.7	90.2	1.8	0.9	15710	—	—	—	—		C
PA	24A	89	SA PA	MW	A-99824	1	2.0	2.5	16.7	70.9	9.9	2.5	—	—	—	—	—	—	—	13730	—	2280	—	—		C
PA	33	92	SA PA	TP	B-56395	1	1.1	1.5	18.0	73.5	7.0	1.4	—	—	—	—	—	—	—	14180	—	2500	—	—	A	Sample of 9-to 12-inch coal.
						2	—	—	18.3	74.6	7.1	1.4	—	—	—	—	—	—	—	14390	—	—	—	—	A	
						3	—	—	19.7	80.3	—	1.5	—	—	—	—	—	—	—	15500	—	—	—	—	A	
PA	33	92	SA PA	TP	B-56396	1	1.0	1.4	17.8	73.5	7.3	1.6	—	—	—	—	—	—	—	14150	—	2500	—	—	A	Sample of 3-to 9-inch coal.
						2	—	—	18.1	74.5	7.4	1.6	—	—	—	—	—	—	—	14350	—	—	—	—	A	
						3	—	—	19.5	80.5	—	1.7	—	—	—	—	—	—	—	15500	—	—	—	—	A	
PA	33	92	SA PA	TP	B-56397	1	1.0	1.4	17.7	71.0	9.9	1.7	—	—	—	—	—	—	—	13750	—	2380	—	—	A	Sample of 0.188-to 3-inch coal.
						2	—	—	17.9	72.0	10.1	1.7	—	—	—	—	—	—	—	13940	—	—	—	—	A	
						3	—	—	19.9	80.1	—	1.9	—	—	—	—	—	—	—	15510	—	—	—	—	A	

See footnotes at end of table.

TABLE 2. – PROXIMATE AND ULTIMATE ANALYSES OF COALS IN THE STUDY AREA, WEST-CENTRAL ARKANSAS (continued)
(Modified from Haley (1977), with additions by present writers.)

Quadrangle	ID number, this report	ID number, Haley, 1977 ^{1/}	Formation and coal bed ^{2/}	Type of site ^{3/}	U. S. Bur. Mines lab No.	Condition ^{4/}	Air-drying loss	Proximate analyses				Ultimate analyses								Btu/lb.	Fusibility of ash (°F.)			Free swelling index No.	Source of analyses ^{5/}	Remarks
								Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon	Nitrogen	Oxygen		Initial deformation temperature	Softening temperature	Fluid temperature			
													Sulphate	Pyritic	Organic											
PA	36	89	SA PA	MW	A-99833	1	1.4	1.9	16.5	73.5	8.1	2.0	—	—	—	—	—	—	—	14130	—	2360	—	—	C	
PA	37	91	SA PA	ST	K-63747	1	—	3.5	16.2	76.0	4.3	1.6	0.06	0.52	0.98	4.5	82.5	1.5	5.6	14340	2190	2250	2350	9	A	
						2	—	—	16.8	78.7	4.5	1.6	0.06	0.54	1.02	4.3	85.5	1.6	2.5	14860	—	—	—	—	A	
						3	—	—	17.6	82.4	—	1.7	0.06	0.57	1.07	4.5	89.5	1.7	2.6	15570	—	—	—	—	A	
PA	41	90	SA PA	ST	K-54021	1	—	4.3	17.5	75.4	2.8	0.6	0.02	0.07	0.46	4.6	83.4	1.7	6.9	14310	2090	2140	2190	0.5	A	Coal is weathered.
						2	—	—	18.3	78.8	2.9	0.6	0.02	0.07	0.48	4.3	87.1	1.7	3.4	14960	—	—	—	—	A	
						3	—	—	18.9	81.1	—	0.6	0.02	0.07	0.50	4.4	89.7	1.8	3.5	15400	—	—	—	—	A	

^{1/} Locality numbers used in Arkansas Geological Commission IC 20—K

^{2/} SA PA — Paris coal bed (near the top of Savanna Formation)
SA U — Unnamed coal bed in upper one-third of Savanna Formation
SA M — Unnamed coal bed in middle one-third of Savanna Formation
SA L — Unnamed coal bed in lower one-third of Savanna Formation
SA CH — Charleston coal bed (in lower part of Savanna Formation)
MA U — Unnamed coal bed in upper one-third of McAlester Formation
MA M — Unnamed coal bed in middle one-third of McAlester Formation
MA UH — Upper Hartshorne coal bed (in lower part of McAlester Formation)
MA LH — Lower Hartshorne coal bed (in lower part of McAlester Formation)
AT — — Unnamed coal bed in Atoka Formation

^{3/} TP — Tipple
ME — Mine entry
MW — Mine working (underground)
ST — Strip mine
PP — Prospect pit
SH — Shallow (exploration) hole
DW — Deep well (drilled for natural gas)
OT — Outcrop (other than those above)

^{4/} 1, as received; 2, moisture free; 3, moisture and ash free
^{5/} A, Laboratory report from U. S. Bureau of Mines;
B, U. S. Bureau of Mines Technical Paper 416;
C, U. S. Geological Survey Bulletin 847—E.

TABLES 3, 4, & 5

TABLE 3. -- MAJOR, MINOR, AND TRACE-ELEMENT COMPOSITION OF COAL SAMPLES FROM ARKANSAS, REPORTED ON WHOLE-COAL BASIS

[Values are in either percent or parts per million. Si, Al, Ca, Mg, Na, K, Fe, Mn, Ti, P, Cl, Cd, Cu, Li, Pb, and Zn values were calculated from analysis of ash. As, F, Hg, Sb, Se, Th, and U values are from direct determination on air dried (32° C) coal. The remaining analyses were calculated from spectrographic determination on ash. An L after a value means less than the value shown, N means not detected, B means not determined, G means less than 10% or less than value shown, and — means not looked for. Sample KV 19 is from an Atoka coal bed, samples PA 37 and PA 41 are from the Paris coal bed in the Savanna Formation, and the remaining samples are from the Lower Hartshorne coal bed in the McAlester Formation.]

Sample numbers: The top number is the Quadrangle code and locality identification number used in this report. The number in parentheses is the U. S. Geological Survey laboratory number.

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Elements	AB 04 D175926)	AB 04 (D175927)	AB 04 (D176062)	BA 02 (D175925)	CL 01 (D179991)	GR 32 (D176061)	GR 39 (D179988)	HR 12 (D175920)	HN 08 (D175924)	HN 26 (D175922)	HN 26 (D175923)	KV 19 (D179992)	MU 08 (D194469)	OZ 06 (D175921)	PA 37 (D179995)	PA 41 (D175928)
Si %	0.43	1.4	1.7	1.3	1.3	0.14	0.99	0.27	0.59	0.94	0.24	0.60	—	1.2	0.46	0.18
Al %	0.33	0.90	1.1	0.87	1.3	0.21	0.97	0.36	0.48	0.51	0.25	0.59	G	0.96	0.36	0.19
Ca %	0.22	0.19	0.23	0.097	0.16	0.22	0.098	0.21	0.14	0.47	0.57	0.33	3.	0.19	0.23	0.19
Mg %	0.194	0.157	0.167	0.085	0.128	0.141	0.052	0.130	0.069	0.195	0.288	0.147	1.5	0.093	0.165	0.139
Na %	0.027	0.080	0.028	0.169	0.108	0.018	0.144	0.310	0.033	0.104	0.032	0.039	—	0.043	0.29	0.027
K %	0.044	0.19	0.21	0.20	0.092	0.017	0.088	0.022	0.087	0.098	0.017	0.060	2.	0.11	0.044	0.022
Fe %	2.4	.70	1.7	0.43	0.47	0.32	0.48	0.35	0.36	1.1	1.7	3.0	G	1.3	1.0	0.40
Mn ppm	130.	15.	14.	10.	11.	76.0	20.	5.4	150.	98.	90.	25.	150.	26.	20. L	32.
Ti %	0.016	0.048	0.056	0.050	0.041	0.009	0.035	0.019	0.024	0.025	0.010	0.29	0.3	0.039	0.020	0.011
P ppm	48.0	110.	46.0 L	52.	340. L	19.	270. L	130.	35.	120.	120.	460. L	N	46.	230. L	39.
Cl %	0.007 L	0.008 L	0.011 L	0.007 L	0.016 L	0.003 L	0.012	0.004 L	0.004 L	0.007 L	0.007 L	0.021 L	—	0.008 L	0.10 L	0.003 L
As ppm	20.	15.	5.	5.	11.	3.	10.	4.	4.	15.	8.0	46.0	25.80	30.	24.0	15.
Cd ppm	0.1	.2	0.1 L	0.1 L	0.08 L	0.1	0.06 L	0.1	0.2	0.1 L	0.1	0.11	N	0.1 L	0.05 L	0.0
Cu ppm	20.2	11.6	14.	6.1	15.8	7.7	8.1	10.6	5.3	9.3	21.5	15.8	700.	13.1	11.8	3.7
F ppm	30.	100.	60.	80.	40.	60.	120.	65.	55.	45.	25.	20.0 L	0.0055	90.	20. L	40.
Hg ppm	0.02	0.13	0.51	0.14	0.13	0.01	0.12	0.02	0.03	0.02	0.04	0.86	0.12	0.20	0.12	0.13
Li ppm	4.9	6.3	13.0	6.6	12.1	0.4	3.2	1.9	2.2	2.7	3.2	1.8	L	7.5	2.0	0.5
Pb ppm	6.8	2.5	7.4	2.2	4.7	0.8	2.8	1.4	1.3	2.2	2.7	2.6 L	50.	3.2	1.3	0.7 L
Sb ppm	0.2	0.2	0.5	0.2	0.5	0.1	0.2	0.1 L	0.1	0.1	0.1	0.2	0.29	0.3	0.2	0.1 L
Se ppm	2.4	0.3	1.8	0.9	1.6	0.7	0.8	1.3	0.8	0.6	0.7	1.9	1.34	1.5	1.7	3.2
Th ppm	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	1.22	3.0 L	3.0 L	3.06
U ppm	0.2 L	0.4	0.8	0.8	2.2	0.2 L	1.4	0.3	0.2 L	0.3	0.2 L	0.9	1.86	1.1	0.2 L	0.2 L
Zn ppm	101.	89.6	42.	9.5	20.5	5.0	13.6	6.3	33.6	33.2	61.2	8.9	700.	10.9	7.8	4.9
Ag ppm	N	N	0.1	N	N	N	N	0.05	N	N	N	N	N	N	0.05	N
B ppm - 5	5.	15.	7.	15.	20.	5.	20.	7.	7.	10.	5.	5.	100.	10.	2.	5.
Ba ppm - 5	20.	150.	70.	70.	50.	50.	100.	100.	50.	30.	15.	70.	500.	50.	50.	50.
Be ppm - 5	0.2	0.7	0.7	0.5	1.	0.15	1.	0.2	0.3	0.2	0.5	1.5	10.	0.5	0.3	0.1
Ce ppm - 5	N	50. L	50. L	30. L	20.	N	20.	15. L	N	30. L	30. L	N	L	50. L	N	N
Co ppm - 5	7.	5.	7.	1.	5.	2.	2.	5.	5.	2.	3.	3.	150.	5.	3.	2.
Cr ppm - 5	5.	7.	15.	10.	50.	5.	20.	5.	7.	5.	5.	15.	150.	10.	7.	2.
Ga ppm - 5	B	2.	3.	2.	5.	0.7	5.	1.5	1.5	1.5	1.	5.	50.	5.	1.50	0.5
La ppm - 5	N	5.	10.	7.	15.	2.06	10.	5.	5. L	N	7. L	7.	150.	7.	N	3. L
Mo ppm - 5	3.	0.7	5.	1.	7.	0.7	5.	1.	0.7	1.	2.	2.	70.	2.	2.	2.0
Nb ppm - 5	1.5 L	1.5	2. L	1.5 L	1.5	0.5	1.5	0.7 L	0.7 L	1.5 L	1.5 L	N	N	1.5 L	1.	0.7 L
Nd ppm - 5	B	1.5	1.5	10.	20.	N	10.	5.	N	B	10. L	N	L	10. L	B	N

Ni	ppm - 5	15.	15.	30.	5.	20.	7.	20	5.0	15.	5.	10.	7.	300.	10.	7.	1.
Se	ppm - 5	1.	2.	3.	2.	2.	0.5	2.	1.	1.5	1.	1.	2.	30.	2.	0.7	0.5
Sr	ppm - 5	5.	50.	10.	20.	50.	15.0	50.	150.	15.	10.	5.	70.	1000.	50.	50.	50.
V	ppm - 5	10.	15.	30.	10.	50.	5.	20.	7.	7.	7.	10.	15.	200.	20.	7.	5.
Y	ppm - 5	5.	7.	10.	5.	10.	1.5	5.	3.	3.	2.	7.	10.	100.	5.	5.	2.
Yb	ppm - 5	B	0.7	B	0.5	1.	B	0.5	0.3	0.3	0.2	0.7	1.	10.0	0.5	0.5	0.2
Zr	ppm - 5	5.	15.	15.	10.	10.	5.	10.	5.	7	7.	5.	7.	100.	10.	3.	3.

Analysts: Claude Huffman, Jr., Chemist-in-Charge, U. S. Geological Survey, Denver, Colorado.

J. W. Baker, A. J. Bartel, E. Brandt, G. T. Burrow, N. M. Conklin, J. G. Crock, C. M. Ellis, J. Gardner, M. L. Goff, P. Guest, J. P. Hemming, R. J. Knight, R. E. McGregor, V. Merritt, C. McFee, H. T. Millard, G. O. Riddle, G. D. Shipley, J. A. Thomas, R. J. Vinnola, J. S. Wahlberg, R. J. White, and R. J. Young.

Data compiled by Boyd R. Haley, U. S. Geological Survey in cooperation with the Arkansas Geological Commission.

TABLE 4. -- MAJOR AND MINOR OXIDE AND TRACE-ELEMENT COMPOSITION OF THE LABORATORY ASH OF COAL SAMPLES FROM ARKANSAS

[Values are in either percent or parts per million. The coals were ashed at 525° C. An L after a value means less than the value shown, N means not detected, B means not determined, and -- means not looked for. S after the element title means that the values listed were determined by semiquantitative spectrographic analysis. The spectrographic results are to be identified with geometric brackets whose boundaries are 1.2, 0.83, 0.56, 0.38, 0.26, 0.18, 0.12, etc., but are reported arbitrarily as mid-points of these brackets, or two brackets at 95-percent confidence. Sample KV 19 is from an Atoka coal bed, samples PA 37 and PA 41 are from the Paris coal bed in the Savanna Formation, and the remaining samples are from the Lower Hartshorne coal bed in the McAlester Formation.]

Sample numbers: The top number is the quadrangle code and locality identification number used in this report. The number in parentheses is the U. S. Geological Survey laboratory number.

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Elements	AB 04 (D175926)	AB 04 (D175927)	AB 04 (D176062)	BA 02 (D175925)	CL 01 (D179991)	GR 32 (D176061)	GR 39 (D179988)	HR 12 (D175920)	HN 08 (D175924)	HN 26 (D175922)	HN 26 (D175923)	KV 19 (D179992)	MU 08 (D194469)	OZ 06 (D175921)	PA 37 (D179995)	PA 41 (D175928)
ASH %	7.2	8.3	10.5	7.4	7.9	2.6	6.2	3.5	4.2	7.4	6.8	10.5	4.9	8.0	5.2	2.9
SiO ₂ %	13.	37.	35.	39.	36.	11.	34.	16.	30.	27.	7.4	12.	29.	33.	19.	13.
Al ₂ O ₃ %	8.8	20.	20.	22.	30.	15.	30.	19.	22.	13.	7.0	11.	20.	23.	13.	12.
CaO %	4.3	3.2	3.0	1.8	2.8	12.	2.2	8.5	4.7	9.0	12.	4.4	4.5	3.2	6.1	9.1
MgO %	4.48	3.14	2.64	1.91	2.69	9.03	1.39	6.14	2.74	4.37	7.02	2.32	3.03	1.93	5.26	7.93
Na ₂ O %	0.50	1.30	0.36	3.08	1.85	0.92	3.13	1.19	1.05	1.90	0.63	0.50	1.22	0.73	0.76	1.27
K ₂ O %	0.73	2.7	2.4	3.2	1.4	0.77	1.7	0.75	2.5	1.6	0.30	0.68	1.1	1.7	1.0	0.89
Fe ₂ O ₃ %	48.	12.	23.	8.3	8.5	17.	11.	14.	12.	22.	36.	41.	23.	23.	29.	20.
MnO %	0.23	0.024	0.017	0.18	0.017	0.38	0.041	0.20	0.47	0.17	0.17	0.030	0.050	0.42	0.50 L	0.14
TiO ₂ %	0.37	0.97	0.89	1.1	0.86	0.61	0.94	0.93	0.96	0.57	0.25	0.47	0.83	0.82	0.64	0.65
P ₂ O ₅ %	0.15	0.30	0.10 L	0.16	1.0 L	0.17	1.0 L	0.83	0.19	0.37	0.40	1.0 L	1.0	0.13	1.0 L	.31
SO ₃ %	10.	4.4	7.1	2.7	5.3	29.	4.9	19.	9.7	14.	19.	8.9	11.	5.1	17.	18.
Cl %	0.10 L	0.10 L	0.10 L	0.10 L	0.20 L	0.10 L	0.20 L	0.10 L	0.10 L	0.10 L	0.10 L	0.20 L	0.37	0.10 L	0.20 L	0.10 L
Cd ppm	2.	2.5	1.0 L	1.0 L	1.0 L	2.5	1.0 L	2.0	4.0	1.0 L	1.0	1.0 L	1.0 L	1.0 L	1.0 L	1.0
Cu ppm	280.	140.	133.	82.	200.	296.	130.	304.	126.	126.	316.	150.	392.	164.	227.	126.
Li ppm	68.	76.	124.	89.	153.	17.	52.	55.	53.	36.	47.	17.	173.0	94.	39.	16.
Pb ppm	95.	30.	70.	30.	60.	30.	45.	40.	30.	30.	40.	25. L	35.0	40.	25.	25. L
Zn ppm	1400.	1080.	400.	128.	260.	191.	220.	180.	800.	448.	900.	85.	532.0	136.	150.	170.
Ag ppm - s	N	N	1.	N	N	N	N	1.5	N	N	N	N	—	N	1.	N
B ppm - s	70.	150.	70.	200.	300.	200.	300.	200.	150.	150.	70.	50.	—	150.	50.	150.
Ba ppm - s	300.	1500.	700.	1000.	700.	2000.	1500.	3000.	1000.	500.	200.	700.	—	700.	1000.	1500.
Be ppm - s	3.	7.	7.	7.	15.	5.	15.	7.	7.	3.	7.	15.	—	7.	7.	3.
Ce ppm - s	N	500. L	500. L	500. L	300.	N	300.	500. L	N	500. L	500. L	N	—	500. L	N	N
Co ppm - s	100.	50.	70.	15.	70.	100.	30.	150.	100.	30.	50.	30.	8.71	50.	70.	70.
Cr ppm - s	70.	100.	150.	150.	500.	150.	300.	150.	150.	70.	70.	150.	9.64	150.	150.	70.
Ga ppm - s	B	30.	30.	30	70.	30.	70.	50.	30.	20.	15.	50.	—	50.	30.	15.
La ppm - s	N	50.	100.	100.	200.	100. L	150.	150.	100. L	N	100. L	70.	—	100.	N	100. L
Mo ppm - s	50.	10.	50.	15.	100.	30.	70.	30.	15.	15.	30.	20.	—	30.	50.	70.
Nb ppm - s	20. L	20. L	20. L	20. L	20.	20.	20.	20. L	20. L	20. L	20. L	N	—	20. L	20.	20.
Nd ppm - s	B	150.	150.	150.	300.	N	150.	150.	N	B	150. L	N	—	150. L	B	N
Ni ppm - s	200.	150.	300.	70.	300.	300.	300.	150.	300.	70.	150.	70.	—	150.	150.	30.
Sc ppm - s	15.	30.	30.	30.	30.	15.	30.	30.	30.	15.	15.	20.	—	30.	15.	15.
Sr ppm - s	70.	500.	100.	300.	700.	500.	700.	5000.	300.	150.	70.	700.	—	700.	1000.	1500.
V ppm - s	150.	150.	300.	150.	700.	150.	300.	200.	150.	100.	150.	150.	—	300.	150.	150.
Y ppm - s	70.	70.	100.	70.	150.	50.	70.	100.	70.	30.	100.	100.	—	70.	100.	70.
Yb ppm - s	B	7.	B	7.	15.	B	7.	10.	7.	3.	10.	10.	—	7.	10.	7.
Zr ppm - s	70.	150.	150	150.	150.	150.	150.	150.	150.	100.	70.	70.	—	150.	70.	100.

TABLE 5. — CONTENT OF SEVEN TRACE ELEMENTS IN COAL SAMPLES FROM ARKANSAS

[Analysis on air-dried (32° C) coal. All values are in parts per million. An L after the value means less than the value shown.]

Elements		AB 04 (D175926)	AB 04 (D175927)	AB 04 (D176062)	BA 02 (D175925)	CL 01 (D179991)	GR 32 (D176061)	GR 39 (D179988)	HR 12 (D175920)	HN 08 (D175924)	HN 26 (D175922)	HN 26 (D175923)	KV 19 (D179992)	MU 08 (D194469)	OZ 06 (D175921)	PA 37 (D179995)	PA 41 (D175928)
As	ppm	20.	15.	5.	5.	11.	3.	10.	4.	4.	15.	8.	46.	25.80	30.	24.	15.
F	ppm	30.	100.	60.	80.	40.	60.	120.	65.	55.	45.	25.	20. L	0.0055	90.	20. L	40.
Hg	ppm	0.02	0.13	0.51	0.14	0.13	0.01	0.12	0.02	0.03	0.02	0.04	0.86	0.12	0.20	0.12	0.13
Sb	ppm	0.2	0.2	0.5	0.2	0.5	0.1	0.2	0.1 L	0.1	0.1	0.1	0.2	0.29	0.3	0.2	0.1 L
Se	ppm	2.4	0.3	1.8	0.9	1.6	0.7	0.8	1.3	0.8	0.6	0.7	1.9	1.34	1.5	1.7	3.2
Th	ppm	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	1.22	3.0 L	3.0 L	3.0 L
U	ppm	0.2 L	0.4	0.8	0.8	2.2	0.2 L	1.4	0.3	0.2 L	0.3	0.2 L	0.9	1.86	1.1	0.2 L	0.2 L

Analysts: Claude Huffman, Jr., Chemist-in-Charge, U. S. Geological Survey, Denver, Colorado.
J. W. Baker, A. J. Bartel, E. Brandt, G. T. Burrow, N. M. Conklin, J. G. Crock, C. M. Ellis, J. Gardner, M. L. Goff, P. Guest, J. P. Hemming, R. J. Knight, R. E. McGregor, V. Merritt, C. McFee, H. T. Millard, G. O. Riddle, G. D. Shipley, J. A. Thomas, R. J. Vinnola, J. S. Wahlberg, R. J. White, and R. J. Young.

Data compiled by Boyd R. Haley, U. S. Geological Survey in cooperation with the Arkansas Geological Commission.

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APPENDIX

Major, minor, and trace-element analyses of coal and ash are available on twelve additional samples outside the study area and are provided in Tables 3A, 4A, and 5A.

TABLE 6. – LOCATION OF SAMPLES IN TABLES 3A, 4A, AND 5A

		UTM Grid System		Public Lands Subdivisions							
U.S.G.S		Meters east of central	Meters north of					Township	Range		
Laboratory Number	Quadrangle	Meridian, Grid Zone 15	equator	¼	¼	¼	Section	North	West	Coal bed 1- /	
D175919	Hunt	433 210	3 829 720	NE	SW	SE	23	10	26	MA LH	
D179989	Watalula	431 050	3 930 900	SW	NE	NE	21	10	26	MA LH	
D179990	Hunt	438 500	3 931 540	NE	NE	SW	17	10	25	MA LH	
D176059	Hunt	442 490	3 934 920	SW	SE	NE	03	10	25	MA LH	
D175918	Ludwig	455 950	3 934 470	NE	SW	NW	06	10	23	MA LH	
D176060	Scranton	452 340	3 910 550	SW	NW	SW	23	08	24	MA LH	
D179994	Branch	409 830	3 904 690	—	CSE	NE	17	07	28	SA CH	
D175929	Branch	415 150	3 910 880	NW	NW	SW	25	08	28	SA CH	
D179993	Branch	415 520	3 911 040	NW	NE	SW	25	08	28	SA CH	
D189164	Holla Bend	490 540	3 899 240	NE	SE	SE	22	07	20	MA LH	
D189165	Holla Bend	490 540	3 899 240	NE	SE	SE	22	07	20	MA LH	
D189166	Watalula	422 490	3 933 830	NE	NE	SW	10	10	27	AT	

^{1./} MA LH – Lower Hartshorne coal bed in the McAlester Formation
SA CH –Charleston coal bed in the Savanna Formation
AT – Coal bed in the Atoka Formation

TABLE 3A. — MAJOR, MINOR, AND TRACE-ELEMENT COMPOSITION OF COAL SAMPLES FROM ARKANSAS, REPORTED ON WHOLE-COAL BASIS

[Values are in either percent or parts per million. Si, Al, Ca, Mg, Na, K, Fe, Mn, Ti, P, Cl, Cd, Cu, Li, Pb, and Zn values were calculated from analysis of ash. As, F, Hg, Sb, Se, Th, and U values are from direct determination on air dried (32° C) coal. The remaining analyses were calculated from spectrographic determination on ash. An L after a value means less than the value shown, N means not detected, B means not determined, G means less than 10% or less than value shown, and — means not looked for. Sample D179994, D175929, and D179993 are from the Charleston coal bed in the Savanna Formation; sample D189166 is from an Atoka coal bed; and the remaining samples are from the Lower Hartshorne coal bed in the McAlester Formation. These samples are from localities outside the study area. UTM coordinates are given in Table 6.]

Sample numbers: U. S. Geological Survey laboratory number.

70	Elements		(D175919)	(D179989)	(D179990)	(D176059)	(D175918)	(D176060)	(D179994)	(D175929)	(D179993)	(D189164)	(D189165)	(D189166)
	Si	%	0.21	3.0	0.40	0.37	0.64	1.3	0.17	0.16	0.26	—	—	—
	Al	%	0.38	2.6	0.56	0.46	0.57	1.3	0.12	0.15	0.17	G	G	G
	Ca	%	0.15	0.14	0.32	0.19	0.22	0.61	0.090	0.78	0.74	3.0	0.7	7.0
	Mg	%	0.094	0.147	0.186	0.091	0.099	0.437	0.070	0.172	0.214	2.0	0.7	2.0
	Na	%	0.029	0.157	0.100	0.090	0.16	0.151	0.003	0.005	0.006	—	—	—
	K	%	0.011	0.21	0.026	0.038	0.045	0.13	0.011	0.012	0.014	N	2.	N
	Fe	%	0.52	0.85	0.52	0.38	0.98	1.7	0.44	2.5	1.9	10.0	G	G
	Mn	ppm	29.	11.	21. L	5.4	21.	85.	8.5 L	78.	110.	300.	150.	100.
	Ti	%	.018	0.098	0.031	0.023	0.23	0.066	0.006	0.010	0.008	0.5	0.3	0.3
	P	ppm	49.	680. L	260.	98.	71.	210.	96. L	120.	360. L	N	N	N
	Cl	%	0.003 L	0.031 L	0.011 L	0.004 L	0.006 L	0.012 L	0.004 L	0.008 L	0.016 L	0.20	0.20	0.20
	As	ppm	5.	30.	4.	3.	8.	5.	15.	120.	63.	N	N	N
	Cd	ppm	0.1	0.15 L	0.05	0.0 L	0.1	0.1 L	0.02 L	0.1	0.08 L	N	N	N
	Cu	ppm	5.4	31.0	6.7	6.8	18.1	15.7	4.2	11.1	5.6	200.	150.	300.
	F	ppm	20. L	100.	35.	50.	35.	120.	25.	25.	20. L	170.	275.	95.
	Hg	ppm	0.08	0.27	0.06	0.02	0.06	0.23	0.09	0.59	0.48	0.20	1.4	0.10
	Li	ppm	1.8	22.5	3.0	3.5	6.7	13.7	0.6	1.3	1.4	200. L	200.	N
	Pb	ppm	1.0	10.8	1.6	1.3	3.1	4.2	0.5 L	1.9 L	2.1 L	50.	150.	50.
	Sb	ppm	0.1	0.7	0.1	0.2	0.3	0.5	0.2	0.4	0.2	N	N	N
	Se	ppm	2.4	3.5	1.2	1.0	1.6	3.3	1.1	2.2	1.6	—	—	—
	Th	ppm	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	N	N	N
	U	ppm	0.4	3.2	0.5	0.2 L	0.3	1.3	0.2 L	0.2 L	0.2 L	2.73	5.38	0.90
	Zn	ppm	1.2	17.8	9.7	2.0	35.8	8.1	5.3	28.7	17.2	N	N	N
	Ag	ppm	N	0.15	0.05	N	0.7	N	0.02	N	N	N	N	N
	B	ppm -s	5.	20.0	7.	7.	3.	30.	1.	5. L	N	150.	100.	150.
	Ba	ppm -s	50.	100.	150.	15.	70.	150.	15.	20.	20.	700.	200.	1500.
	Be	ppm -s	0.15	2.	0.7	0.5	0.7	0.7	0.2	0.5	N	7.	5.	10.
	Ce	ppm -s	15. L	50.	15.	20.	50.	70. L	N	N	N	N	N	500.
	Co	ppm -s	5.	10.	10.	15.	7.	7.	0.7	5.	5.	30.	50.	300.
	Cr	ppm -s	5.	50.	10.	5.	15.	20.	3.	2.	2.	150.	150.	150.
	Ga	ppm -s	1.	10.	3;	1.	5.	3.	0.7	B	1.5	30.	50.	20.
	La	ppm -s	3. L	30.	5.	10.	15.	15.	N	N	N	70.	70.	150.
	Mo	ppm -s	1.	7.	1.5	1.	1.5	2.	2.	1.5	1.5	15.	15.	20.
	Nb	ppm -s	0.7 L	3.	1.	0.7	1. L	2. L	N	1.5 L	N	N	N	N
	Nd	ppm -s	5. L	50.	7.	10.	15.	20.	B	N	B	N	N	150.

Ni	ppm - s	5.	20.	10.	10	7.	20.	1.5	5.	7.	150.	200.	200.
Sc	ppm - s	0.7	5.	1.5	1.	5.	3.	0.3	0.7 L	N	30.	30.	20.
Sr	ppm - s	50.	200.	150.	70.	50.	70.	30.	20.	70.	700.	150.	3000.
V	ppm - s	5.	70.	10.	10.	50.	20.	3.	5.	5.	300.	300.	150.
Y	ppm - s	2.	20.	5.	7.	10.	7.	3.	2.	2.	100.	70.	200.
Yb	ppm - s	0.2	2.	0.5	0.2	1.	2.	0.2	B	0.7	10.	10.	15.
Zr	ppm - s	5.	20.	7.	7.	7.	20.	2.	2.	1.5	100.	100.	100.

Analysts: Claude Huffman, Jr., Chemist-in-Charge, U. S. Geological Survey, Denver, Colorado.
J. W. Baker, A. J. Bartel, E. Brandt, G. T. Burrow, N. M. Conklin, J. G. Crock, J. Gardner, M. L. Goff, P. Guest, J. P. Hemming, R. J. Knight, R. E. McGregor, V. Merritt, H. T. Millard, G. O. Riddle, G. D. Shipley,
V. C. Smith, J. A. Thomas, R. J. Vinnola, J. S. Wahlberg, R. J. White, and R. J. Young.

Data compiled by Boyd R. Haley, U. S. Geological Survey in cooperation with the Arkansas Geological Commission.

TABLE 4A. --- MAJOR AND MINOR OXIDE AND TRACE-ELEMENT COMPOSITION OF THE LABORATORY ASH OF COAL SAMPLES FROM ARKANSAS

[Values are in either percent or parts per million. The coals were ashed at 525° C. An L after a value means less than the value shown. N means not detected, B means not determined, and — means not looked for. S after the element title means that the values listed were determined by semiquantitative spectrographic analysis. The spectrographic results are to be identified with geometric brackets whose boundaries are 1.2, 0.83, 0.56, 0.38, 0.26, 0.18, 0.12, etc., but are reported arbitrarily as mid-points of these brackets, or two brackets at 95-percent confidence. Samples D179994, D175929, and D179993 are from the Charleston coal bed in the Savanna Formation; sample D189166 is from an Atoka coal bed, and the remaining samples are from the Lower Hartshorne coal bed in the McAlester Formation. These samples are from localities outside the study area. UTM coordinates are given in Table 6.]

Sample numbers: U. S. Geological Survey laboratory numbers.

Elements		(D175919)	(D179989)	(D179990)	(D176059)	(D175918)	(D176060)	(D179994)	(D175929)	(D179993)	(D189164)	(D189165)	(D189166)
ASH	%	3.2	15.5	5.4	3.6	5.6	12.1	2.2	7.8	8.2	12.8	30.9	4.3
SiO ₂	%	14.	42.	16.	22.	24.	23.	16.	4.5	6.7	34.	40.	14.
Al ₂ O ₃	%	22.	32.	19.	24.	19.	20.	10.	3.6	4.0	27.	29.0	23.
CaO	%	6.7	1.3	8.2	7.4	5.4	7.1	5.7	14.	13.	7.4	2.3	13.
MgO	%	4.86	1.58	5.71	4.20	2.94	5.99	5.26	3.67	4.33	3.25	1.19	3.45
Na ₂ O	%	1.23	1.36	2.50	3.37	0.39	1.69	0.19	0.09	0.09	0.71	.34	2.05
K ₂ O	%	0.42	1.6	0.58	1.3	0.96	1.3	0.61	0.18	0.20	1.3	2.0	1.0
Fe ₂ O ₃	%	23.	7.8	14.	15.	25.	20.	28.	46.	34.	13.	20.	25.
MnO	%	0.12	0.009	0.050 L	0.019	0.048	0.091	0.050 L	0.13	0.17	0.050	0.050	0.050
TiO ₂	%	0.94	1.1	0.97	1.1	0.68	0.91	0.43	0.21	0.15	1.1	0.86	0.96
P ₂ O ₅	%	0.35	1.0 L	1.1	0.62	0.29	0.39	1.0 L	0.36	1.0 L	1.3	1.0	2.6
SO ₃	%	14.	2.4	17.	17.	8.7	15.	15.	15.	12.	7.4	1.5	17.0
Cl	%	0.10 L	0.20 L	0.20 L	0.10 L	0.10 L	0.10 L	0.20 L	0.10 L	0.20 L	0.20	0.20	0.20
Cd	ppm	2.0	1.0 L	1.0	1.0 L	1.0	1.0 L	1.0 L	1.0	1.0 L	1.0	1.0	1.0 L
Cu	ppm	170.	200.	124.	188.	324.	130.	190.	142.	68.	234.	162.	346.
Li	ppm	55.	145.	55.	96.	120.	113.	26.	17.	17.	208.	270.	47.
Pb	ppm	30.	70.	30.	35.	55.	35.	25. L	25. L	25. L	60.	100.	35.
Zn	ppm	36.	115.	180.	55.	640.	67.	240.	368.	210.	148.	211.	108.
Ag	ppm - s	N	1.	1.	N	1.	N	1.	N	N	—	—	—
B	ppm - s	150.	150.	150.	200.	50.	300.	50.	50. L	N	—	—	—
Ba	ppm - s	1500.	700.	3000.	500.	1500.	1000.	700.	300.	300.	—	—	—
Be	ppm - s	5.	15.	15.	15.	15.	7.	10.	5.	N	—	—	—
Ce	ppm - s	500. L	300.	300.	700.	700.	500. L	N	N	N	—	—	—
Co	ppm - s	150.	70.	200.	500.	150.	70.	30.	70.	50.	—	—	—
Cr	ppm - s	150.	300.	200.	150.	300.	150.	150.	30.	30.	—	—	—
Ga	ppm - s	30.	70.	50.	30.	70.	30.	30.	B	15.	—	—	—
La	ppm - s	100. L	200.	100.	300.	300.	100.	N	N	N	—	—	—
Mo	ppm - s	30.	50.	30.	30.	30.	15.	100.	20.	20.	—	—	—
Nb	ppm - s	20. L	20.	20.	20.	20. L	20. L	N	20. L	N	—	—	—
Nd	ppm - s	150. L	300.	150.	300.	300.	150.	B	N	B	—	—	—
Ni	ppm - s	150.	150.	200.	300.	150.	150.	70.	70.	70.	—	—	—
Sc	ppm - s	20.	30.	30.	30.	70.	30.	15.	10. L	N	—	—	—
Sr	ppm - s	1500.	1500.	3000.	2000.	1000.	700.	1500.	300.	700.	—	—	—
V	ppm - s	150.	500.	200.	300.	700.	200.	150.	70.	50.	—	—	—
Y	ppm - s	70.	150.	100.	200.	200.	70.	150.	30.	30.	—	—	—
Yb	ppm - s	7.	15.	10.	7.	20.	15.	10.	B	7.	—	—	—
Zr	ppm - s	150.	150.	150.	200.	150.	150.	100.	30.	20.	—	—	—

TABLE 5A. -- CONTENT OF SEVEN TRACE ELEMENTS IN COAL SAMPLES FROM ARKANSAS

[Analysis on air-dried (32° C) coal. All values are in parts per million. An L after the value means less than the value shown.]

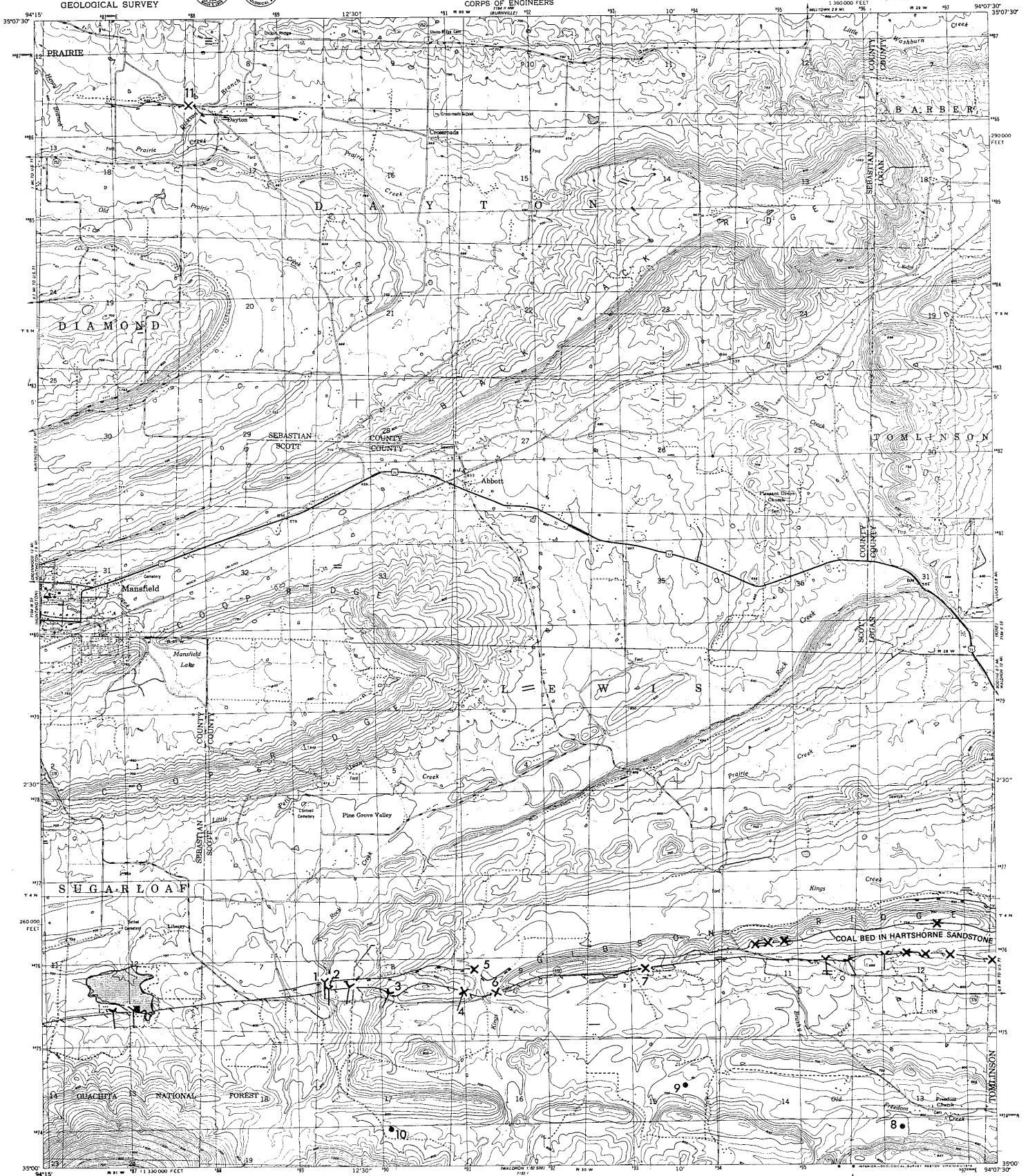
Elements		(D175919)	(D179989)	(D179990)	(D176059)	(D175918)	(D176060)	(D179994)	(D175929)	(D179993)	(D189164)	(D189165)	(D189166)
As	ppm	5.	30.	4.	3.	8.	5.	15.	120.	63	N	N	N
F	ppm	20. L	100.	35.	50.	35.	120.	25.	25.	20. L	170.	275.	95.
Hg	ppm	0.08	0.27	0.06	0.02	0.06	0.23	0.09	0.59	0.48	0.20	1.4	0.10
Sb	ppm	0.1	0.7	0.1	0.2	0.3	0.5	0.2	0.4	0.2	N	N	N
Se	ppm	2.4	3.5	1.2	1.0	1.6	3.3	1.1	2.2	1.6	—	—	—
Th	ppm	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	3.0 L	N	N	N
U	ppm	0.4	3.2	0.5	0.2 L	0.3	1.3	0.2 L	0.2 L	0.2 L	2.73	5.38	0.90

Analysts: Claude Huffman, Jr., Chemist-in-Charge, U. S. Geological Survey, Denver, Colorado.
J. W. Baker, A. J. Bartel, E. Brandt, G. T. Burrow, N. M. Conklin, J. G. Crock, J. Gardner, M. L. Goff, P. Guest, J. P. Hemming, R. J. Knight, R. E. McGregor, V. Merritt, H. T. Millard, G. O. Riddle, G. D. Shipley,
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Data compiled by Boyd R. Haley, U. S. Geological Survey in cooperation with the Arkansas Geological Commission.

COAL LOCALITY MAPS

QUADRANGLE	PLATE
Abbott	1
Barber	2
Barling	3
Bates	4
Blue Mountain	5
Booneville SE	6
Burnville	7
Caulksville	8
Cauthron	9
Cecil	10
Charleston	11
Chickalah Mountain West	12
Clarksville	13
Coal Hill	14
Delaware	15
Greenwood	16
Hartford	17
Hartman	18
Huntington	19
Knoxville	20
Lavaca	21
Lee Mountain	22
Magazine Mountain NE	23
Mulberry	24
New Blaine	25
Ozark	26
Paris	27
Russellville West	28
Waldron NE	29
Waldron NW	30



Mapped by the Army Map Service
Published for civil use by the Geological Survey

STATE OF ARKANSAS

DEPARTMENT OF COMMERCE
ARKANSAS GEOLOGICAL COMMISSION
NORMAN F. WILLIAMS, DIRECTOR

COAL LOCALITIES, ABBOTT QUADRANGLE, ARKANSAS EXPLANATION

ABBOTT, ARK.
SWA BARBER 17 QUADRANGLE
N3500-W9407 5/7.5
1948
PHOTOREVISED 1978
AMS 7154 15W-SERIES 1984

COAL SITES

Type of locality indicated by symbol.

- ✕ Outcrop
- ✕ Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊗ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed
(in Savanna Formation)
- ● ● ● Upper Hartshorne coal bed
(in McAlester Formation)
- Unnamed coal bed
in Savanna Formation
- Lower Hartshorne coal bed
(in McAlester Formation)
- Charleston coal bed
(in Savanna Formation)
- Unnamed coal bed in
Atoka Formation
- Unnamed coal bed in
McAlester Formation

FAULTS

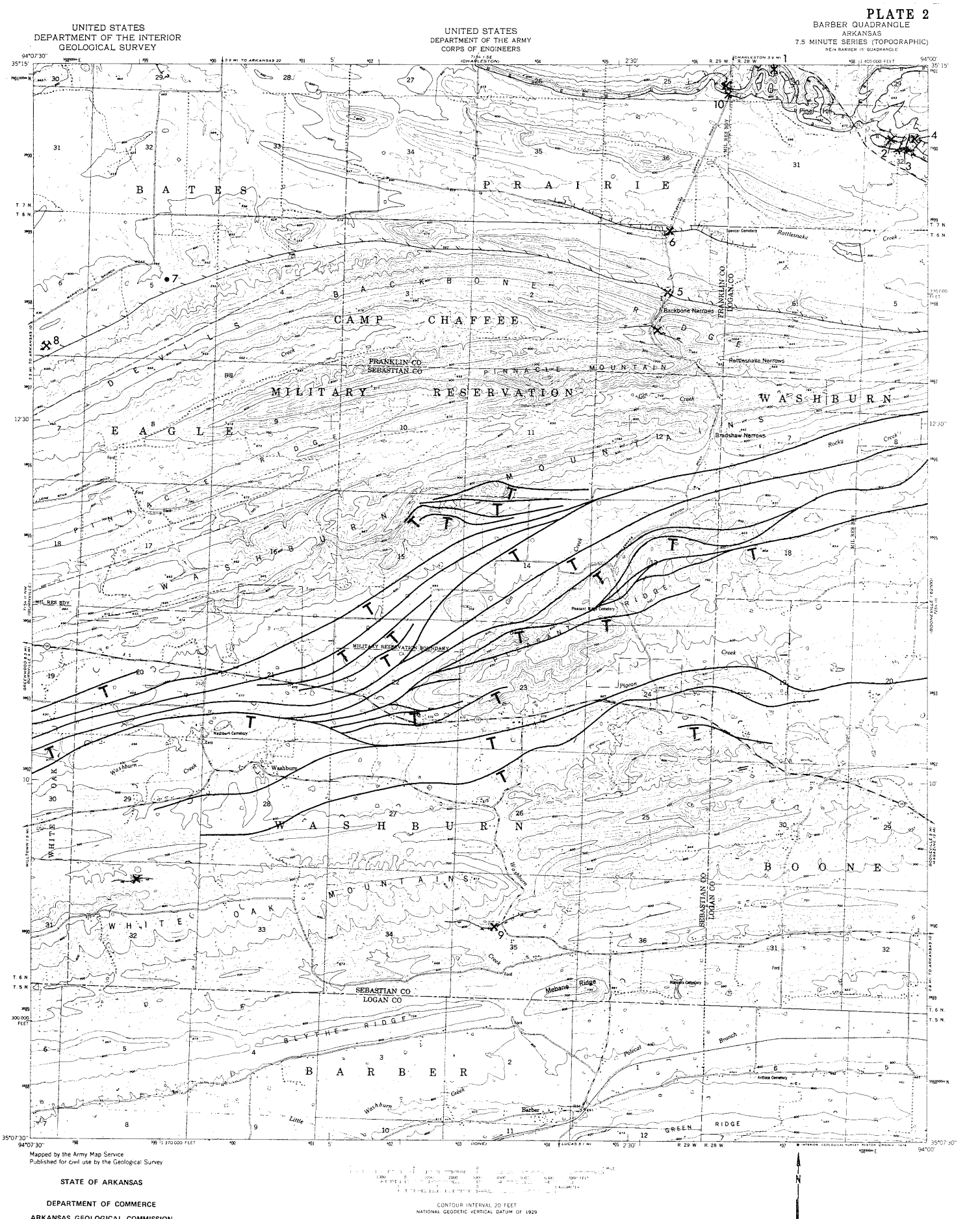
Normal fault Reverse fault

U, Upthrown side
D, Downthrown side T, Upper plate

IDENTIFICATION NUMBERS

25

ID number: All sites included in Table 1 are identified by numbers assigned sequentially within each quadrangle.



EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- ✕ Outcrop
- ✕ Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed
(in Savanna Formation)
- ● ● ● Upper Hartshorne coal bed
(in McAlester Formation)
- Unnamed coal bed
in Savanna Formation
- Lower Hartshorne coal bed
(in McAlester Formation)
- Charleston coal bed
(in Savanna Formation)
- Unnamed coal bed in
Atoka Formation
- Unnamed coal bed in
McAlester Formation

FAULTS

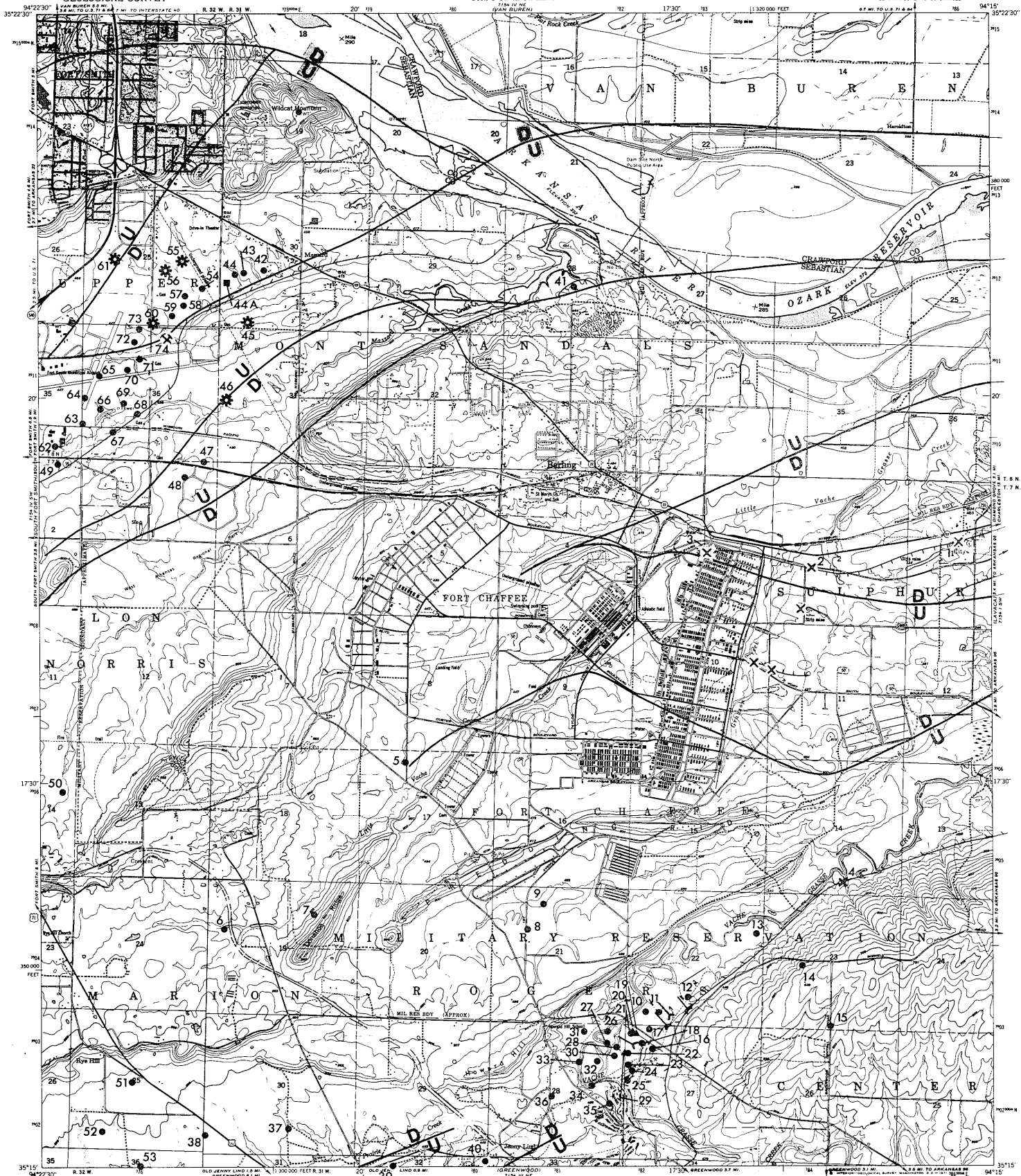
Normal fault Reverse fault

- U, Upthrown side
- D, Downthrown side
- T, Upper plate

IDENTIFICATION NUMBERS

25

ID number: All sites included in Table 1 are identified by numbers assigned sequentially within each quadrangle.



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COAL LOCALITIES, BARLING QUADRANGLE, ARKANSAS

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- X Outcrop
- X Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊛ ⊙ ⊗ ⊘ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed
(in Savanna Formation)
- — — Unnamed coal bed
in Savanna Formation
- — — Charleston coal bed
(in Savanna Formation)
- — — Unnamed coal bed in
McAlester Formation
- ● ● ● Upper Hartshorne coal bed
(in McAlester Formation)
- — — Lower Hartshorne coal bed
(in McAlester Formation)
- — — Unnamed coal bed in
Atoka Formation

FAULTS

Normal fault Reverse fault

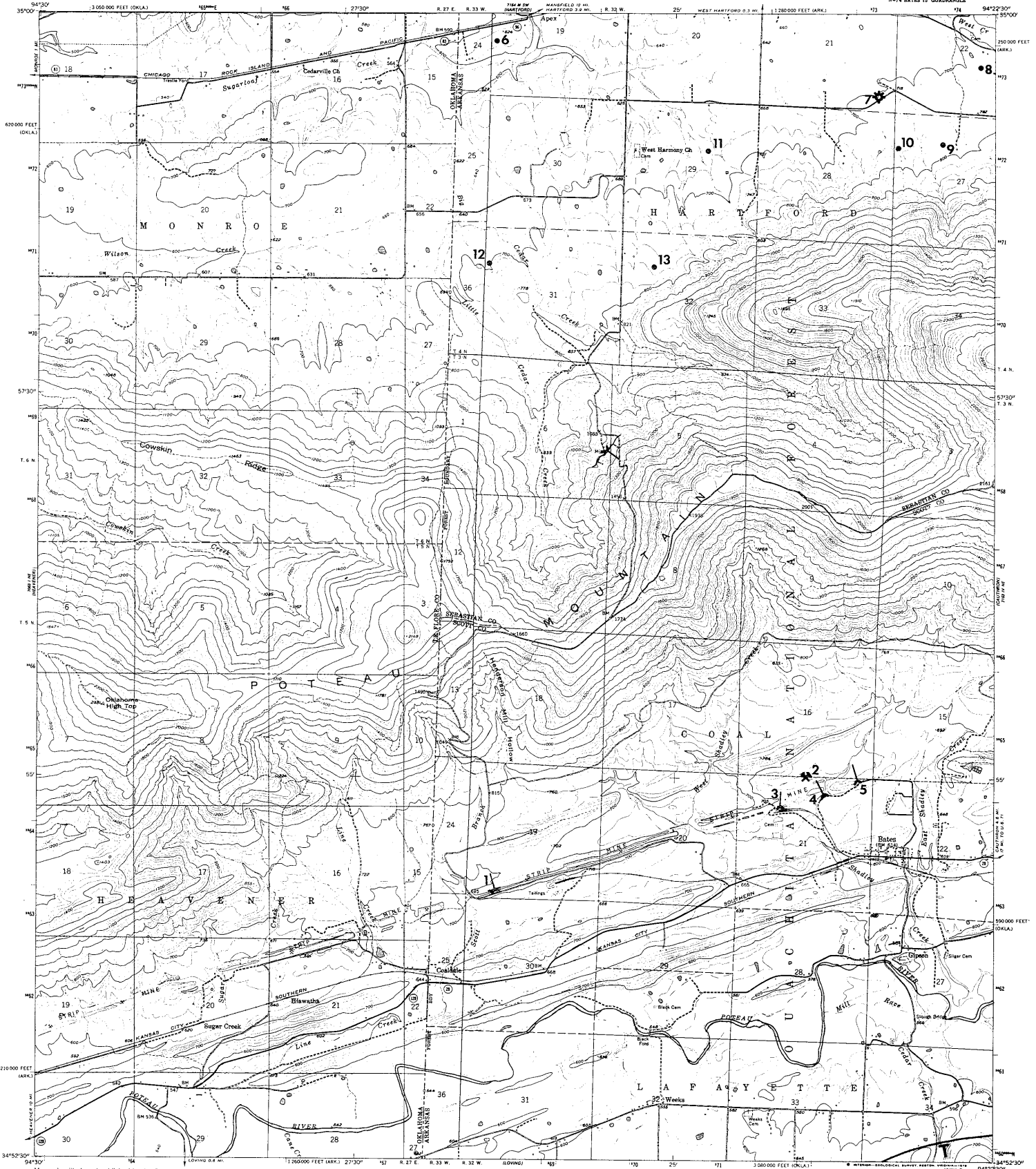
- U, Upthrown side
D, Downthrown side
- T, Upper plate

IDENTIFICATION NUMBERS

25

ID number: All sites included in Table 1 are identified by numbers assigned sequentially within each quadrangle.

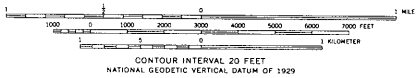
BARLING, ARK.
SECTION 14 VAN BUREN 15 QUADRANGLE
N3515—W9415/7.5
1947
PHOTOREVISED 1971
AMS 7154 IV SE—SERIES 5884



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BATES, ARK.-OKLA.
NW 1/4 BATES 19' QUADRANGLE
N 34°52' E - W 64°22' S, 7.5
1958
PHOTOREVISED 1979
DMA 7155 IV NW-SERIES 1984

COAL LOCALITIES, BATES QUADRANGLE, ARKANSAS

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- ✕ Outcrop
- ✕ Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed
(in Savanna Formation)
- • • • Upper Hartshorne coal bed
(in McAlester Formation)
- Unnamed coal bed
in Savanna Formation
- Charleston coal bed
(in Savanna Formation)
- Unnamed coal bed in
McAlester Formation
- Lower Hartshorne coal bed
(in McAlester Formation)
- Unnamed coal bed in
Atoka Formation

FAULTS

Normal fault Reverse fault

- U, Upthrown side
D, Downthrown side
- T, Upper plate

IDENTIFICATION NUMBERS

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ID number: All sites included in Table 1 are identified by numbers assigned sequentially within each quadrangle.

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BLUE MOUNTAIN, ARK.
N3507 5—W9337 5/7 5
1966
AMS 7254 II NW SERIES V884

Type of locality indicated by symbol.

Reverse fault

Strip mine

Mine entry or slope

Mine shaft

Site in underground mine

Shallow drill hole

(dry hole, gas show, gas well)

Paris coal bed
(in Savanna Formation)

Unnamed coal bed
in Savanna Formation

Charleston coal bed
(in Savanna Formation)

Unnamed coal bed in
McAlester Formation

Upper Hartshorne coal bed
(in McAlester Formation)

Lower Hartshorne coal bed
(in McAlester Formation)

Unnamed coal bed in
Atoka Formation

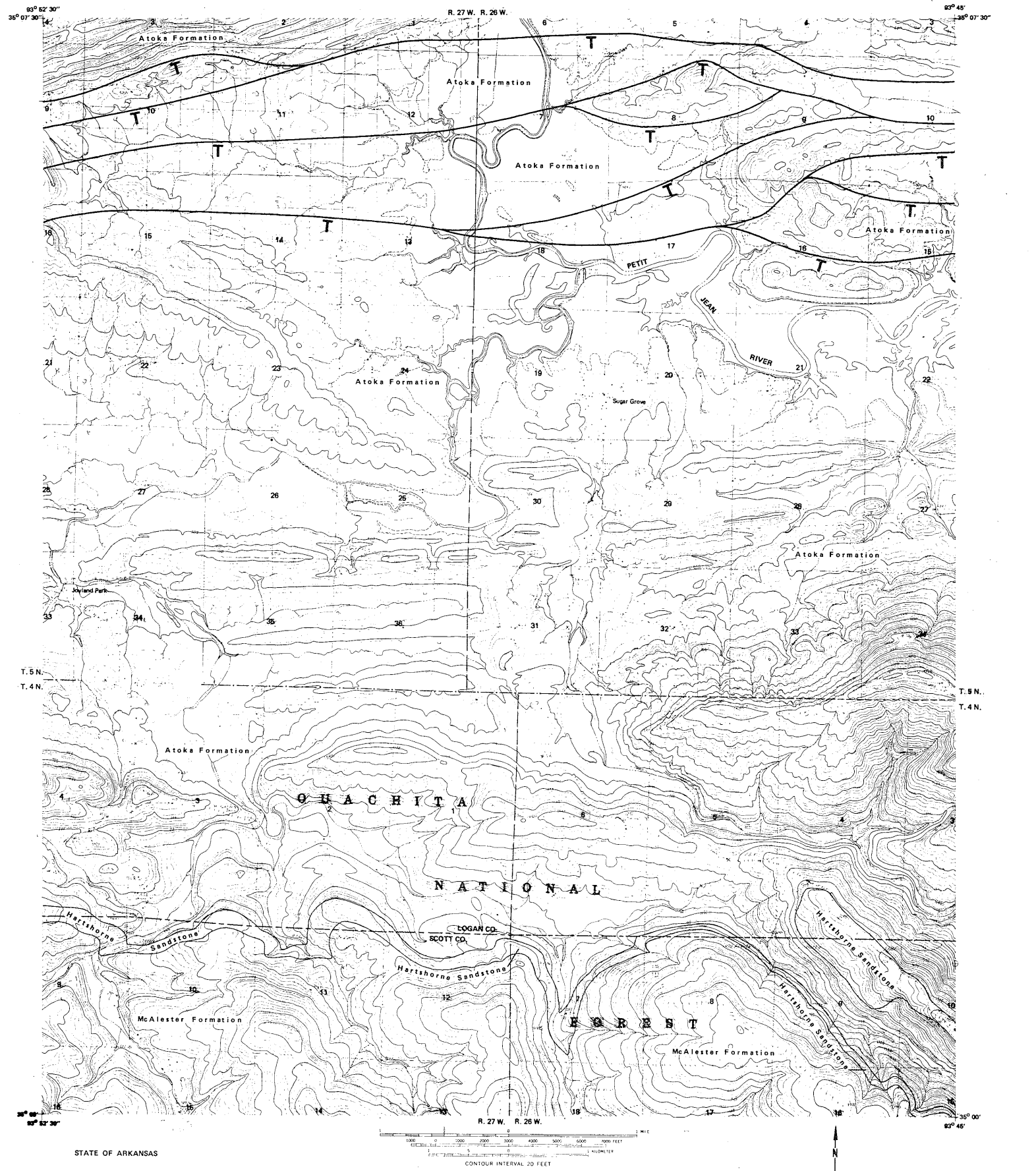
U, *Upthrown side*

D, *Downthrown side*

T, Upper plate

25

ID number: All sites included in Table 1 are identified by numbers assigned sequentially within each quadrangle.



STATE OF ARKANSAS
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COAL LOCALITIES, BOONEVILLE S.E. QUADRANGLE, ARKANSAS

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- X Outcrop
- X Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⚙ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed
(in Savanna Formation)
- — — Unnamed coal bed
in Savanna Formation
- — — Charleston coal bed
(in Savanna Formation)
- — — Unnamed coal bed in
McAlester Formation
- ● ● Upper Hartshorne coal bed
(in McAlester Formation)
- — — Lower Hartshorne coal bed
(in McAlester Formation)
- — — Unnamed coal bed in
Atoka Formation

FAULTS

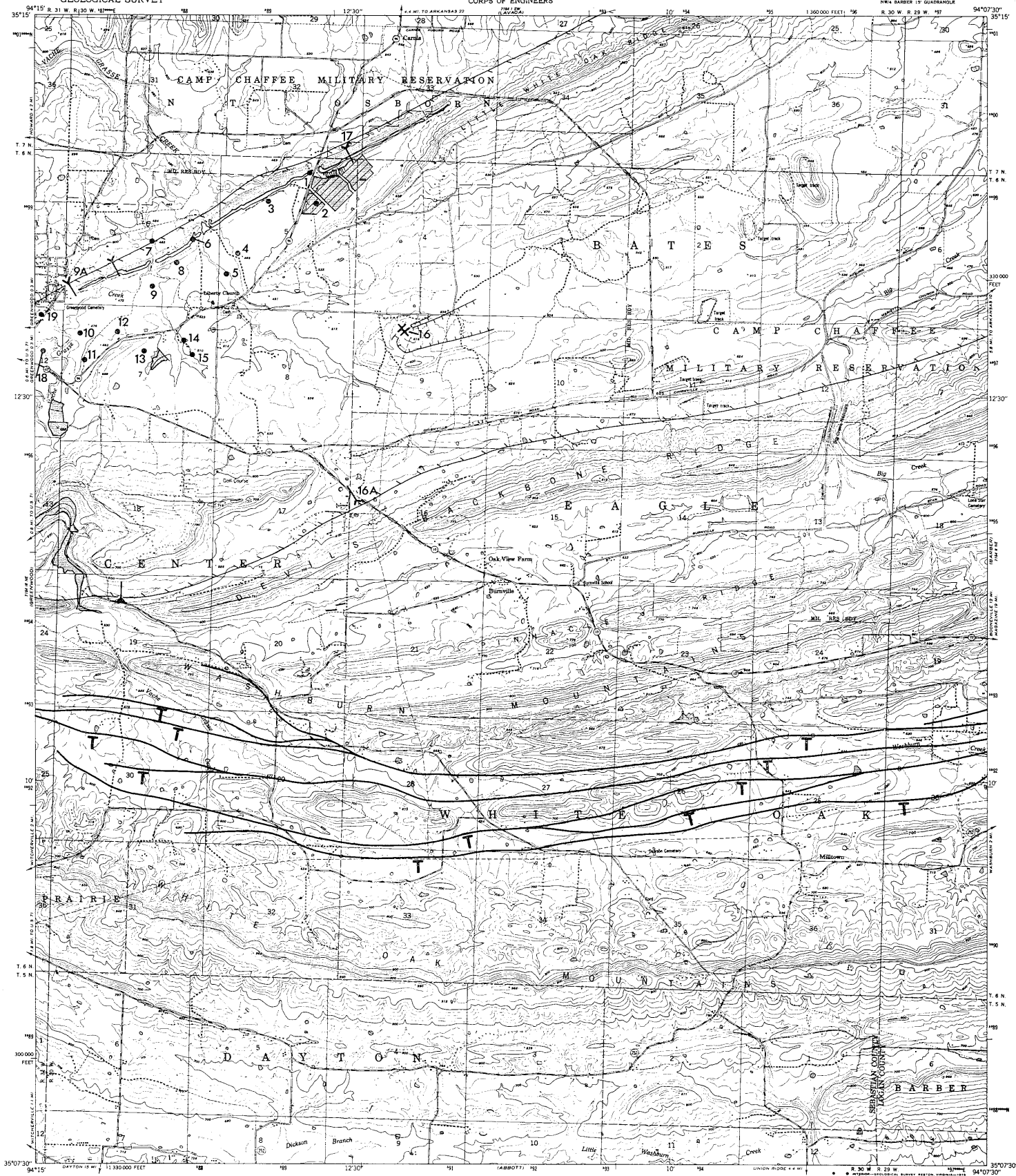
Normal fault Reverse fault

- U, Upthrown side
- D, Downthrown side
- T, Upper plate

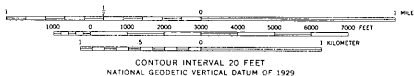
IDENTIFICATION NUMBERS

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COAL LOCALITIES, BURNVILLE QUADRANGLE, ARKANSAS

BURNVILLE, ARK.
NW4 BARBER 17 QUADRANGLE
N2507 5-W2507 5/5
1947
PHOTOREVISED 1978
AMS 7154 R NW-SERIES 1984

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- ✕ Outcrop
- ✕ Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed
(in Savanna Formation)
- ● ● Upper Hartshorne coal bed
(in McAlester Formation)
- Unnamed coal bed
in Savanna Formation
- Lower Hartshorne coal bed
(in McAlester Formation)
- Charleston coal bed
(in Savanna Formation)
- Unnamed coal bed in
Atoka Formation
- Unnamed coal bed in
McAlester Formation

FAULTS

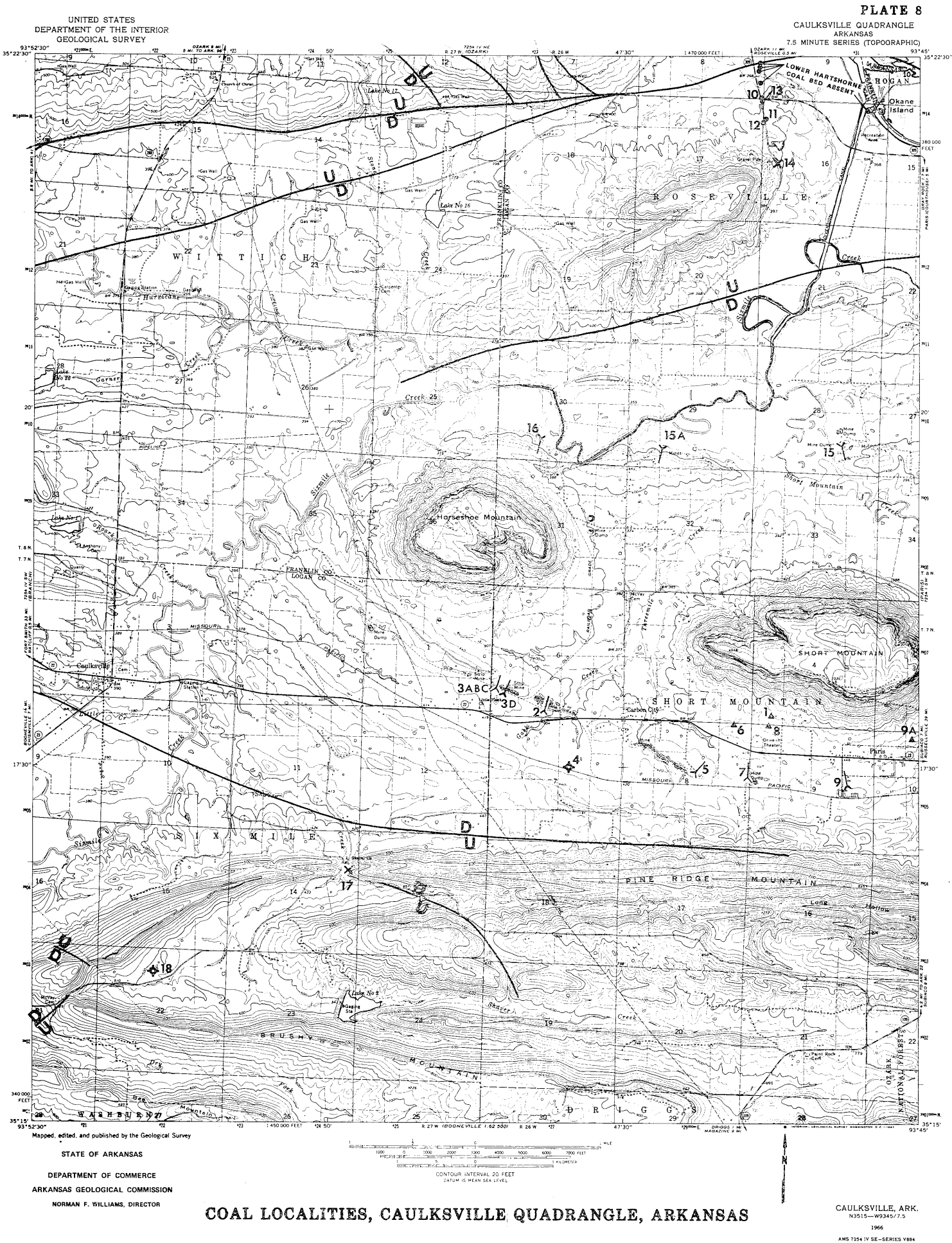
Normal fault Reverse fault

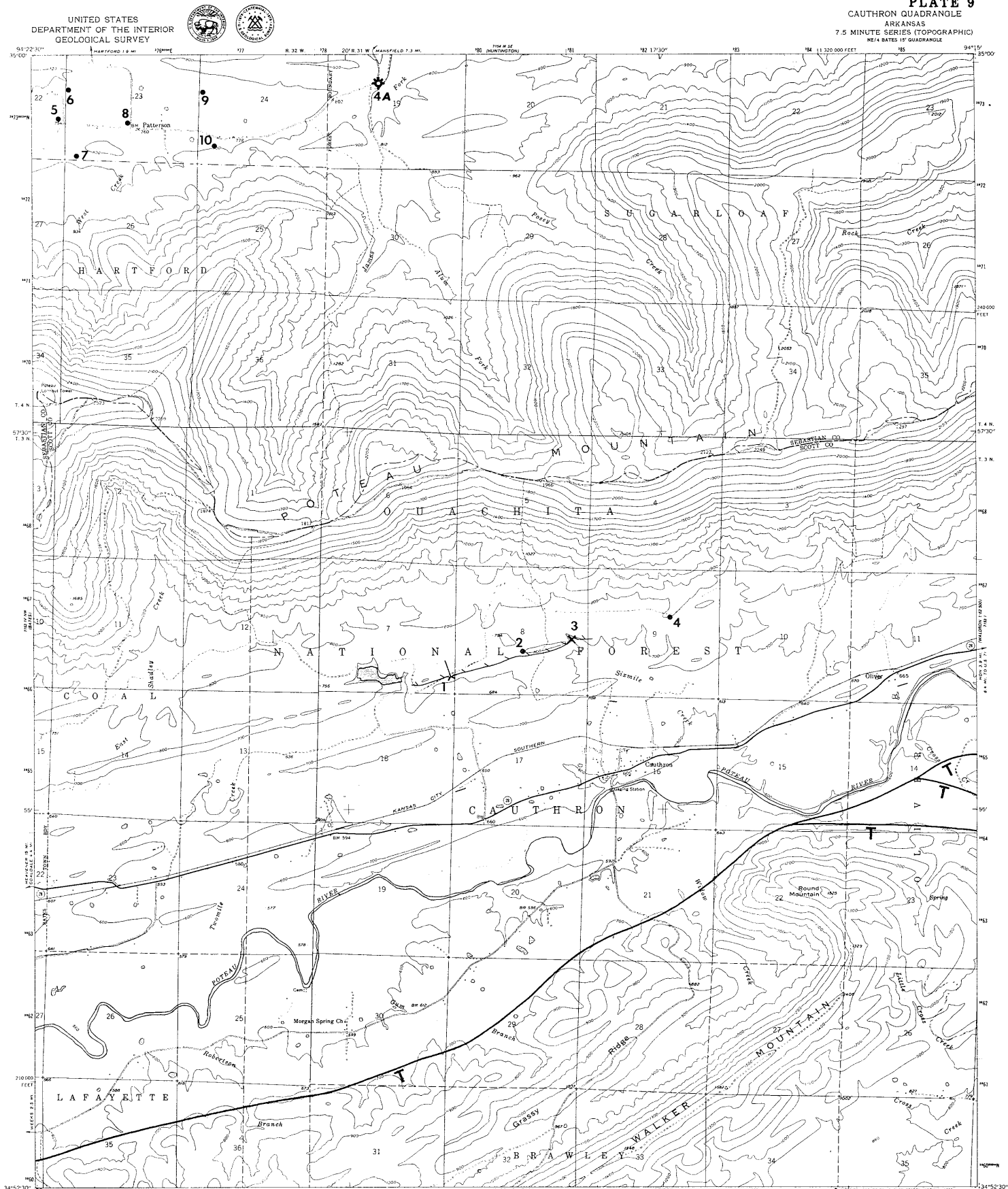
- U, Upthrown side
- D, Downthrown side
- T, Upper plate

IDENTIFICATION NUMBERS

25

ID number: All sites included in Table 1 are identified by numbers assigned sequentially within each quadrangle.





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COAL LOCALITIES, CAUTHRON QUADRANGLE, ARKANSAS

CAUTHRON, ARK.
NE 1/4 BATES 15' QUADRANGLE
N 3452.5—W 9415/7.5
1958
PHOTOREVISED 1979
DMA 1:100,000 NE-SERIES 1094

EXPLANATION

- ### COAL SITES
- Type of locality indicated by symbol.
- ✕ Outcrop
 - ✕ Strip mine
 - Mine entry or slope
 - Mine shaft
 - ▲ Site in underground mine
 - Shallow drill hole
 - ⊕ ⊗ ⊙ Deep Wells
(dry hole, gas show, gas well)

- ### OUTCROP OF COAL BEDS
- (Coal present on patterned side of line)
- || || || Paris coal bed
(in Savanna Formation)
 - — — Unnamed coal bed
in Savanna Formation
 - — — Charleston coal bed
(in Savanna Formation)
 - — — Unnamed coal bed in
McAlester Formation
 - ● ● Upper Hartshorne coal bed
(in McAlester Formation)
 - — — Lower Hartshorne coal bed
(in McAlester Formation)
 - — — Unnamed coal bed in
Atoka Formation

- ### FAULTS
- Normal fault Reverse fault
- U, Upthrown side T, Upper plate
D, Downthrown side

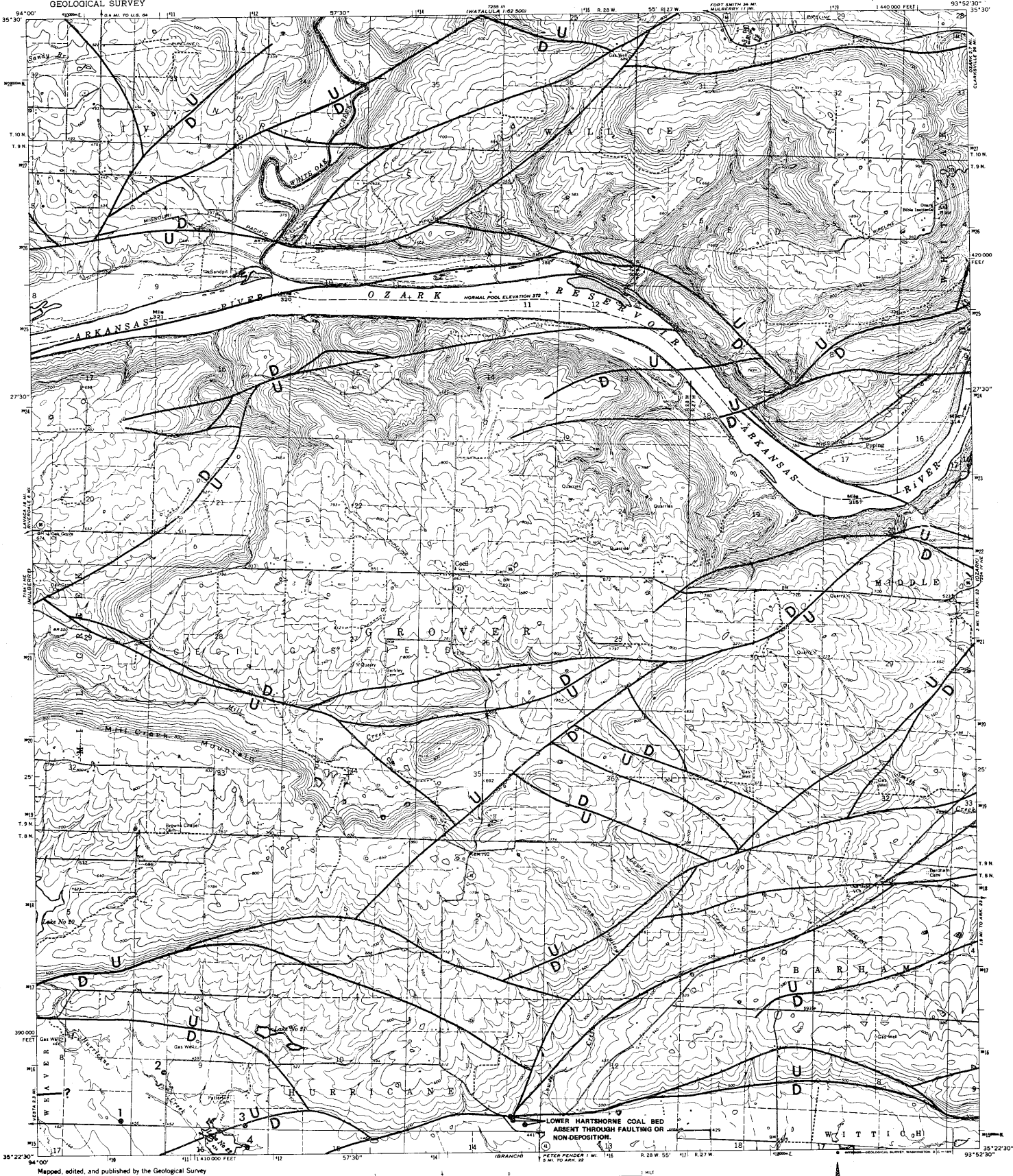
IDENTIFICATION NUMBERS

25

ID number: All sites included in Table 1 are identified by numbers assigned sequentially within each quadrangle.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

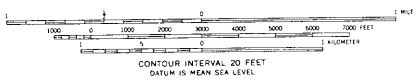
CECIL QUADRANGLE
ARKANSAS—FRANKLIN CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



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DEPARTMENT OF COMMERCE
ARKANSAS GEOLOGICAL COMMISSION
NORMAN F. WILLIAMS, DIRECTOR



COAL LOCALITIES, CECIL QUADRANGLE, ARKANSAS

CECIL, ARK.
N3522.5—W9352.5/7.5
1965
AMS 7254 IV NW—SERIES V884

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- X Outcrop
- X Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells (dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed (in Savanna Formation)
- • • • Upper Hartshorne coal bed (in McAlester Formation)
- — — — Unnamed coal bed in Savanna Formation
- — — — Lower Hartshorne coal bed (in McAlester Formation)
- — — — Charleston coal bed (in Savanna Formation)
- — — — Unnamed coal bed in Atoka Formation

FAULTS

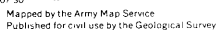
Normal fault Reverse fault

- U, Upthrown side
- D, Downthrown side
- T, Upper plate

IDENTIFICATION NUMBERS

25

ID number: All sites included in Table 1 are identified by numbers assigned sequentially within each quadrangle.



DEPARTMENT OF COMMERCE
KANSAS GEOLOGICAL COMMISSION
NORMAN F. WILLIAMS, DIRECTOR

CHARLESTON, ARK.
[1] 400 VAY & 15-121838WANGUO
N3515-W9400:7.5

1946

PHOTOCOPIED 1971
AMS 154 US\$ 25.00 1988

Type of locality indicated by symbol.

ID number: All sites included in Table 1 are identified by numbers assigned sequentially within each quadrangle.



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ARKANSAS GEOLOGICAL COMMISSION
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CHICKALAH MOUNTAIN WEST, ARK.
N 3507.5 - W 9322.5 / 7.5

1972
AMS 7354 (1) NW - SERIES Y804

COAL LOCALITIES, CHICKALAH MTN. WEST QUADRANGLE, ARKANSAS

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- ✕ Outcrop
- ✕ Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed
(in Savanna Formation)
- Unnamed coal bed
in Savanna Formation
- || || || Charleston coal bed
(in Savanna Formation)
- Unnamed coal bed in
McAlester Formation
- ● ● Upper Hartshorne coal bed
(in McAlester Formation)
- Lower Hartshorne coal bed
(in McAlester Formation)
- Unnamed coal bed in
Atoka Formation
- Unnamed coal bed in
McAlester Formation

FAULTS

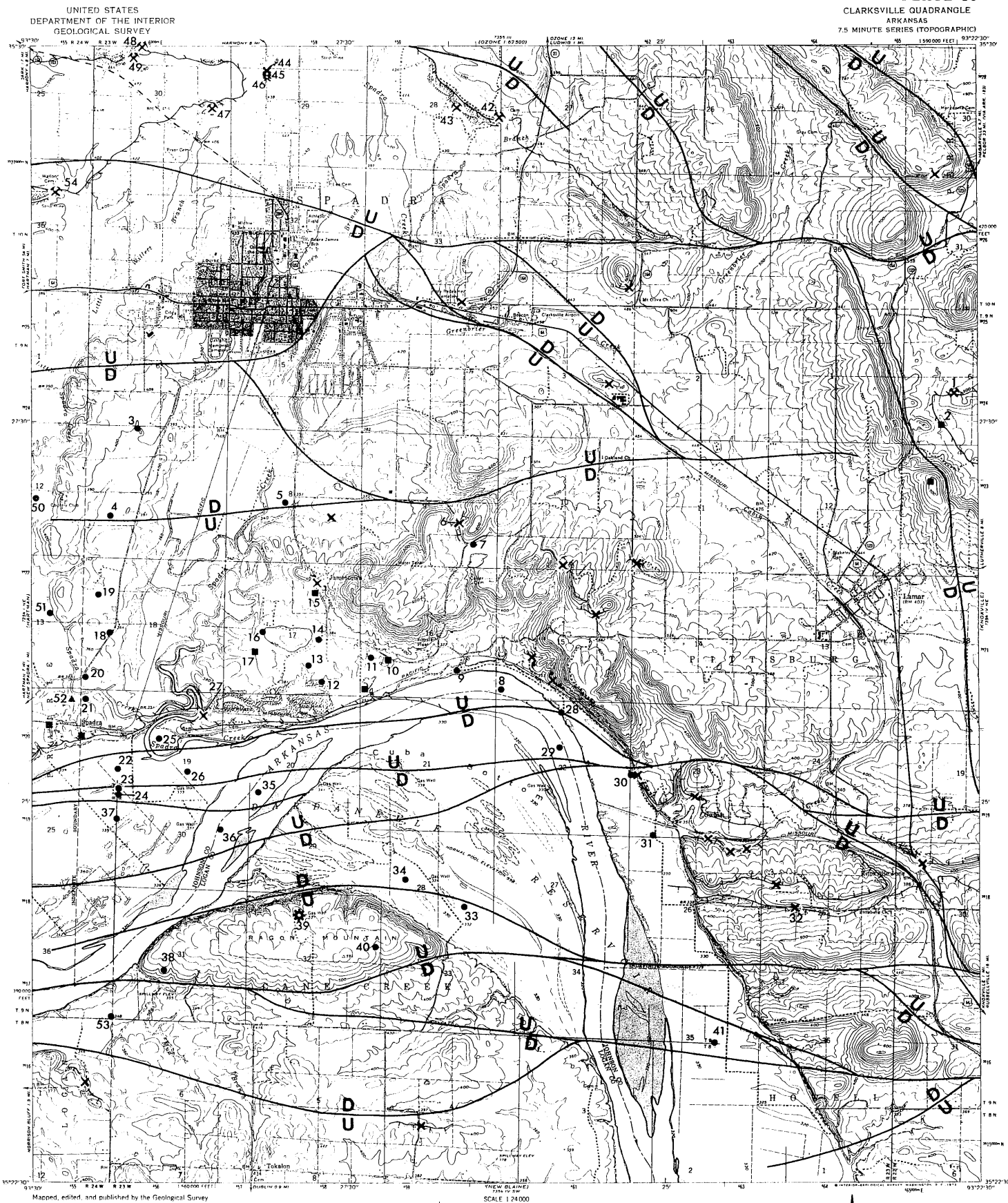
Normal fault Reverse fault

- U, Upthrown side
D, Downthrown side
- T, Upper plate

IDENTIFICATION
NUMBERS

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STATE OF ARKANSAS

DEPARTMENT OF COMMERCE
ARKANSAS GEOLOGICAL COMMISSION

NORMAN F. WILLIAMS, DIRECTOR

SCALE 1:24,000

CONTOUR INTERVAL 20 FEET

DOTTED LINES REPRESENT 10 FOOT CONTOURS

NATURAL MEAN SEA LEVEL

CLARKSVILLE, ARK.

N 3522 G. - W 9322 G. / 7.5

1962

AMS 2354 IV NW, SERIES V84

COAL LOCALITIES, CLARKSVILLE QUADRANGLE, ARKANSAS

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- X Outcrop
- X Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells (dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed (in Savanna Formation)
- • • • Upper Hartshorne coal bed (in McAlester Formation)
- Unnamed coal bed in Savanna Formation
- Lower Hartshorne coal bed (in McAlester Formation)
- Charleston coal bed (in Savanna Formation)
- Unnamed coal bed in Atoka Formation
- Unnamed coal bed in McAlester Formation

FAULTS

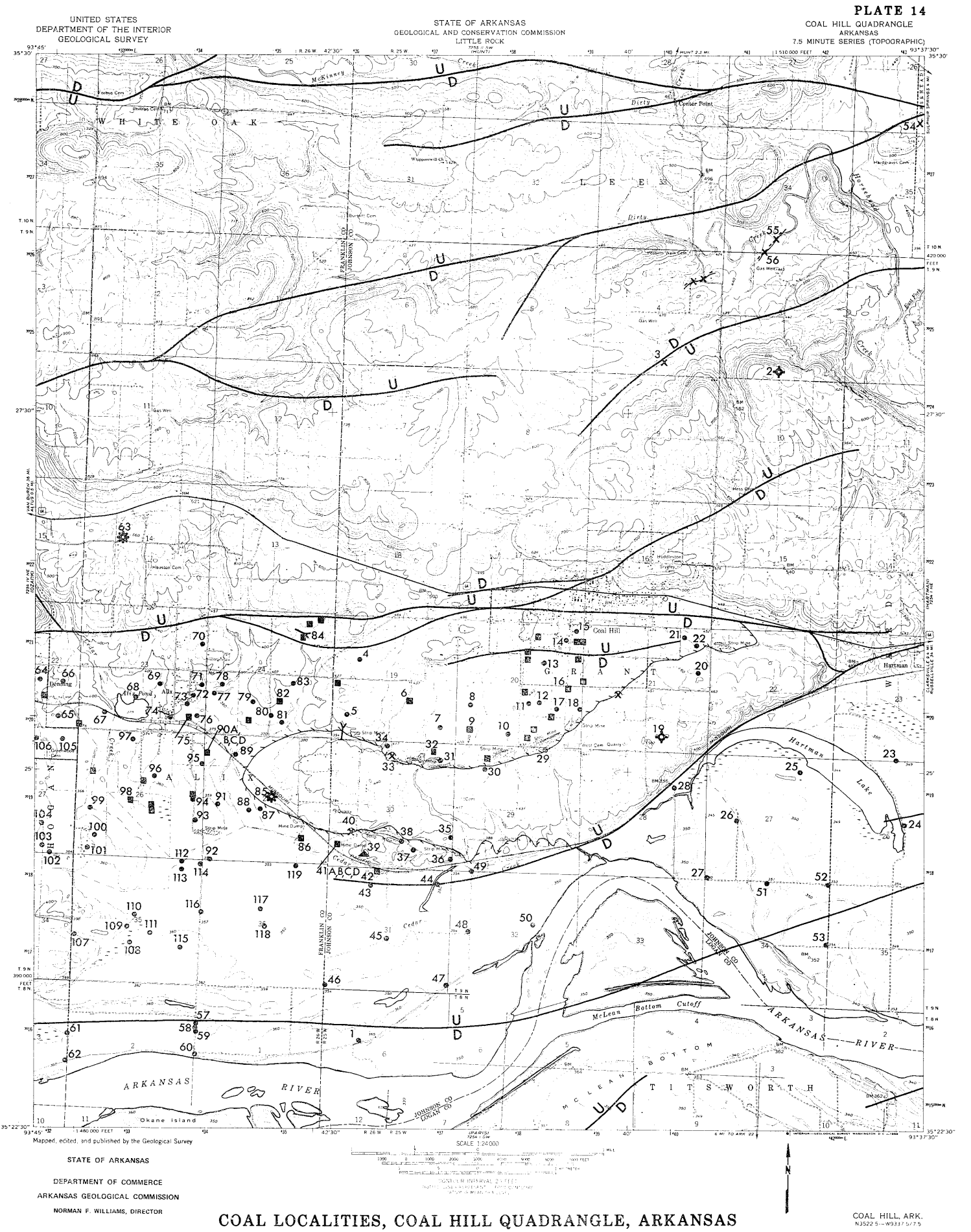
Normal fault Reverse fault

- U, Upthrown side
- D, Downthrown side
- T, Upper plate

IDENTIFICATION NUMBERS

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EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- ✕ Outcrop
- ✕ Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed
(in Savanna Formation)
- Unnamed coal bed
in Savanna Formation
- Charleston coal bed
(in Savanna Formation)
- Unnamed coal bed in
McAlester Formation
- ● ● Upper Hartshorne coal bed
(in McAlester Formation)
- Lower Hartshorne coal bed
(in McAlester Formation)
- Unnamed coal bed in
Atoka Formation

FAULTS

Normal fault Reverse fault

- U, Upthrown side
D, Downthrown side
- T, Upper plate

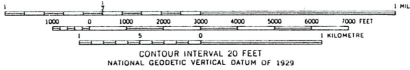
IDENTIFICATION NUMBERS

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COAL LOCALITIES, DELAWARE QUADRANGLE, ARKANSAS

DELAWARE, ARK.
N 3515-W9315/7.5
1962
AMS 7304 IV SE-SERIES V884

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- ✕ Outcrop
- ✕ Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed
(in Savanna Formation)
- i i i Unnamed coal bed
in Savanna Formation
- | | | Charleston coal bed
(in Savanna Formation)
- • • • Unnamed coal bed in
McAlester Formation
- • • • Upper Hartshorne coal bed
(in McAlester Formation)
- / / / Lower Hartshorne coal bed
(in McAlester Formation)
- — — Unnamed coal bed in
Atoka Formation

FAULTS

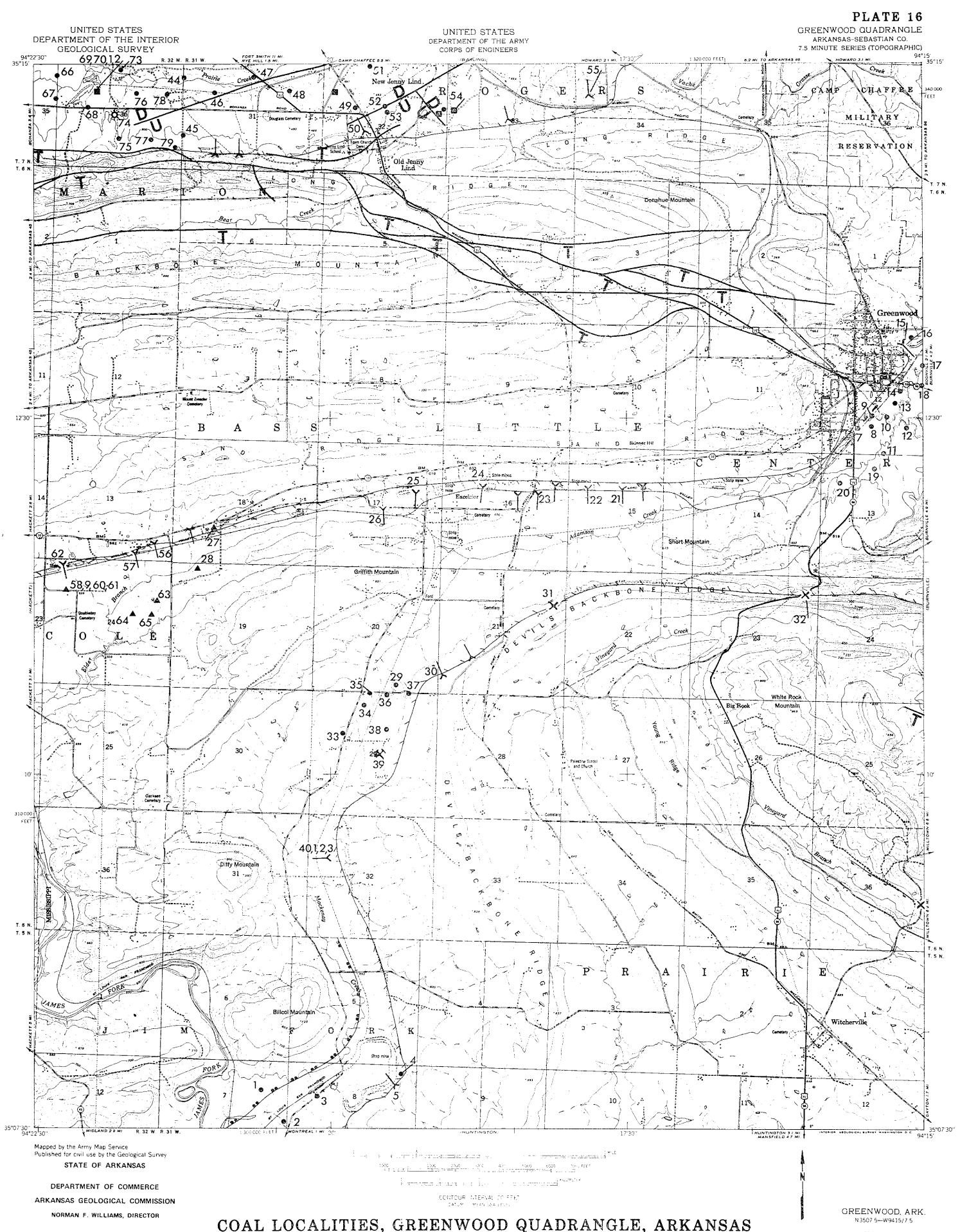
Normal fault Reverse fault

- U, Upthrown side
- D, Downthrown side
- T, Upper plate

IDENTIFICATION NUMBERS

25

ID number: All sites included in Table 1 are identified by numbers assigned sequentially within each quadrangle.



COAL LOCALITIES, GREENWOOD QUADRANGLE, ARKANSAS

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- ✕ Outcrop
- ✕ Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed
(in Savanna Formation)
- — — Unnamed coal bed
in Savanna Formation
- — — Charleston coal bed
(in Savanna Formation)
- — — Unnamed coal bed in
McAlester Formation
- — — Upper Hartshorne coal bed
(in McAlester Formation)
- — — Lower Hartshorne coal bed
(in McAlester Formation)
- — — Unnamed coal bed in
Atoka Formation

FAULTS

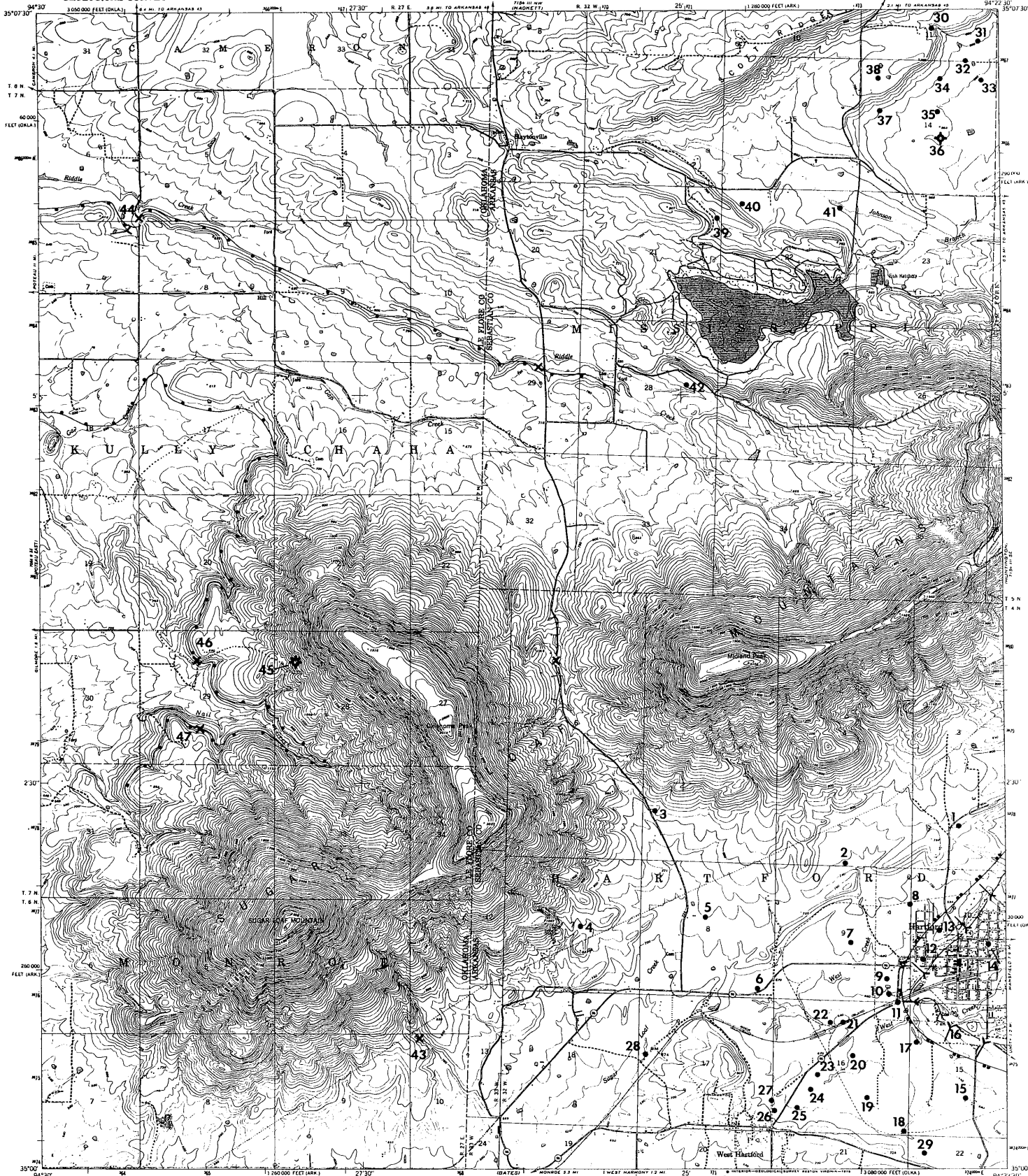
Normal fault Reverse fault

- U, Upthrown side
D, Downthrown side
- T, Upper plate

IDENTIFICATION
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CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



HARTFORD, ARK-OKLA
SW-4 GREENWOOD 11 QUADRANGLE
N3500-W3422 347.5
1947
PHOTO REPRODUCED 1978
AND 1154 III SW-SERIES 1984

COAL LOCALITIES, HARTFORD QUADRANGLE, ARKANSAS

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- X Outcrop
- X Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊗ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- Paris coal bed
(in Savanna Formation)
- Upper Hartshorne coal bed
(in McAlester Formation)
- Unnamed coal bed
in Savanna Formation
- Lower Hartshorne coal bed
(in McAlester Formation)
- Charleston coal bed
(in Savanna Formation)
- Unnamed coal bed in
Atoka Formation
- Unnamed coal bed in
McAlester Formation

FAULTS

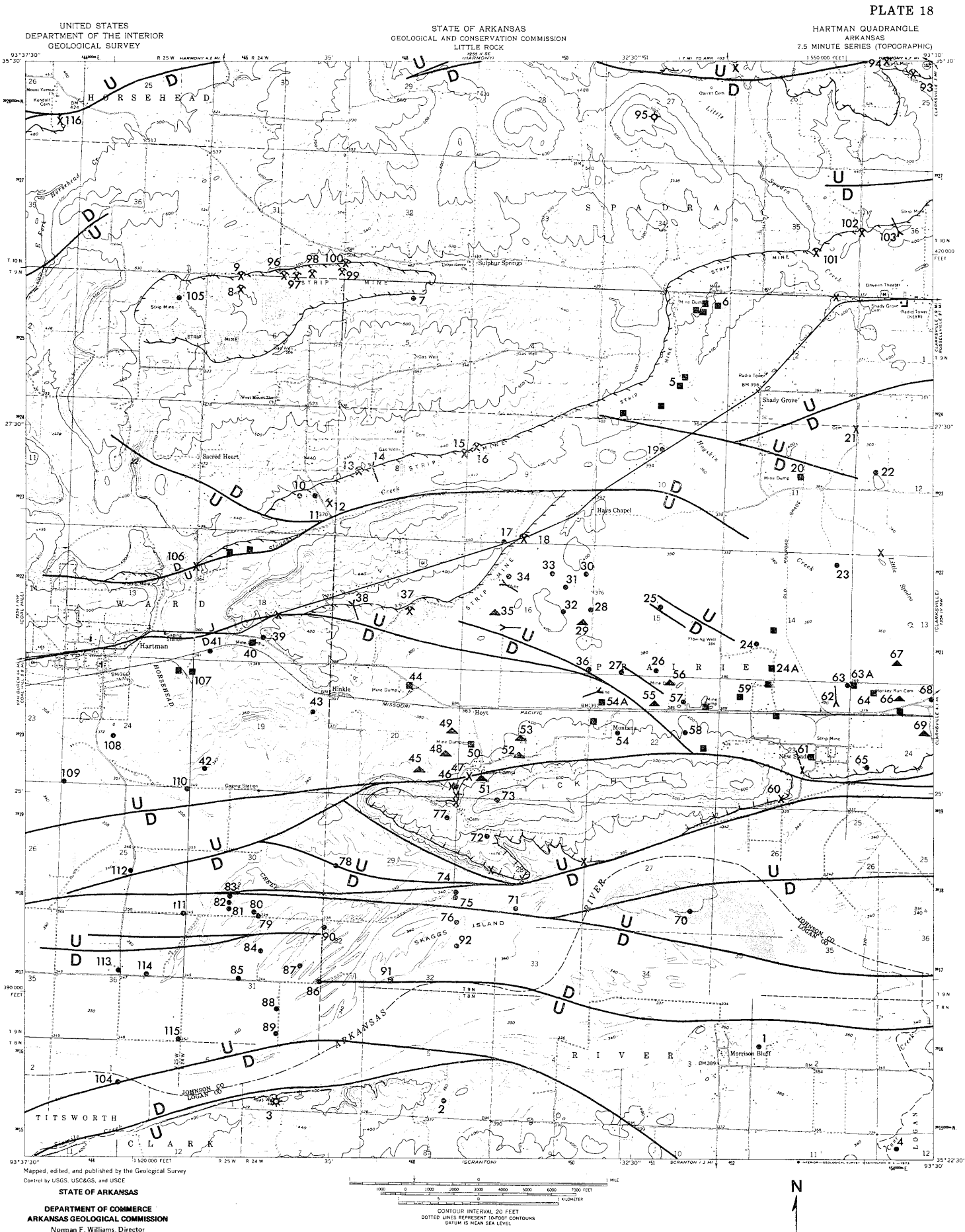
Normal fault Reverse fault

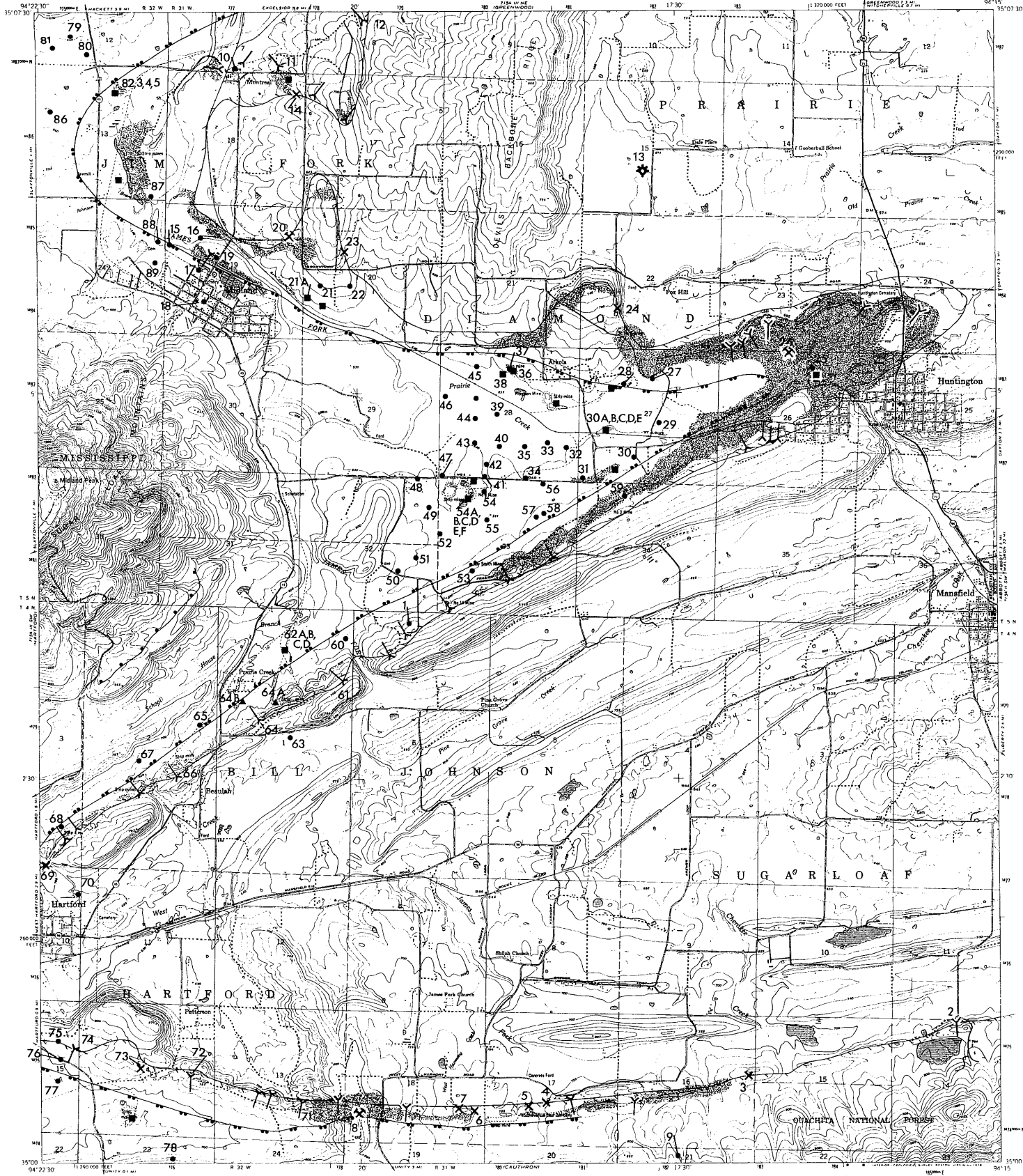
- U, Upthrown side
D, Downthrown side
- T, Upper plate

IDENTIFICATION NUMBERS

25

ID number: All sites included in Table 1 are
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within each quadrangle.

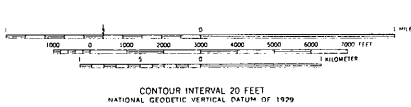




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HUNTINGTON, ARK
SEA GREENWOOD 15 QUADRANGLE
N3500-W9415/7.5
1948
PHOTOREVISED 1978
AMS 7144 III SE-SERIES 1984

COAL LOCALITIES, HUNTINGTON QUADRANGLE, ARKANSAS

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- ✕ Outcrop
- ✕ Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed
(in Savanna Formation)
- Upper Hartshorne coal bed
(in McAlester Formation)
- Unnamed coal bed
in Savanna Formation
- Lower Hartshorne coal bed
(in McAlester Formation)
- Charleston coal bed
(in Savanna Formation)
- Unnamed coal bed in
Atoka Formation
- Unnamed coal bed in
McAlester Formation

FAULTS

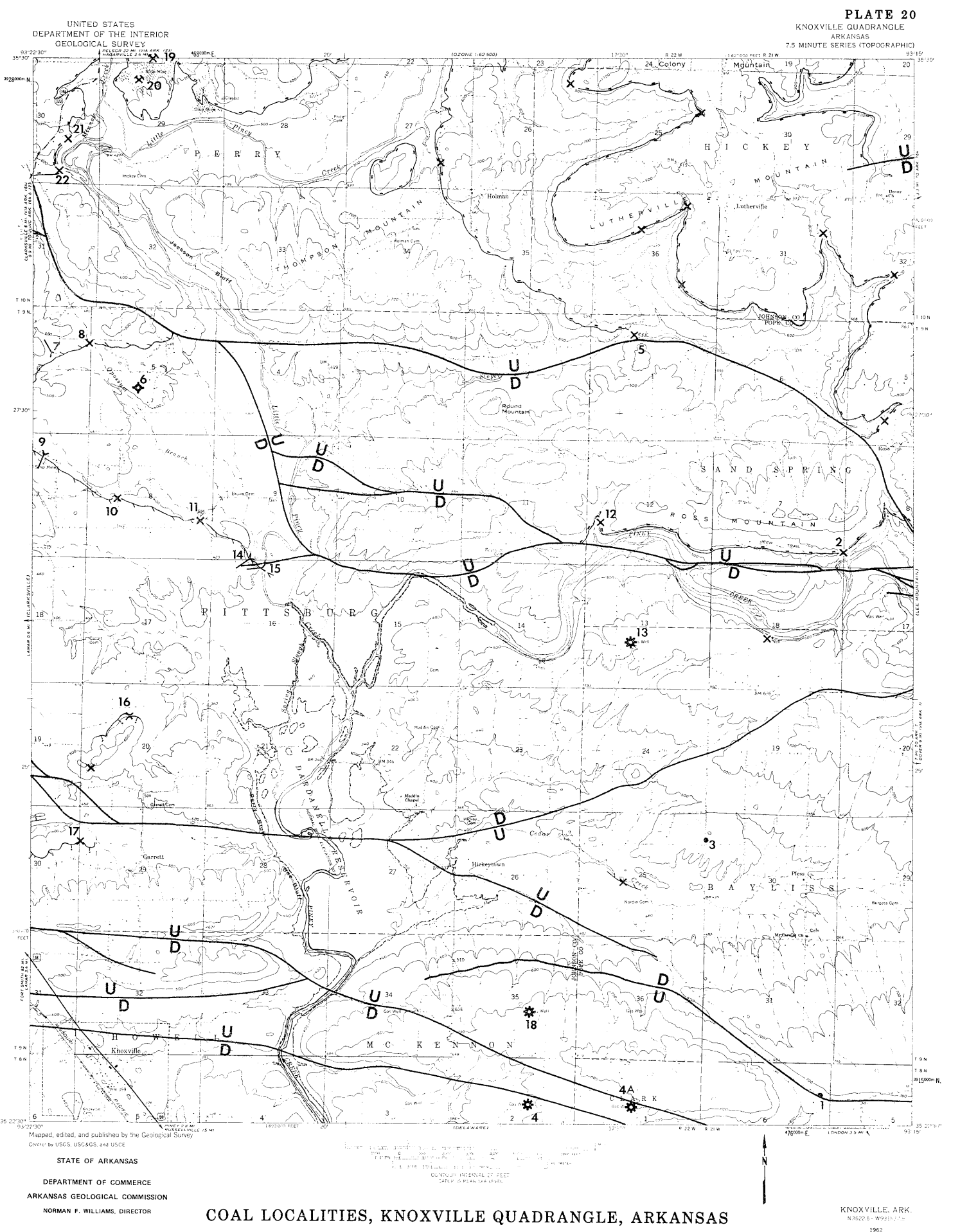
Normal fault Reverse fault

- U, Upthrown side
- D, Downthrown side
- T, Upper plate

IDENTIFICATION NUMBERS

25

ID number: All sites included in Table 1 are identified by numbers assigned sequentially within each quadrangle.



COAL LOCALITIES, KNOXVILLE QUADRANGLE, ARKANSAS

KNOXVILLE, ARK.
N 35° 02' 5" - W 93° 15' 15"
1962

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- X Outcrop
- X Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊗ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- Paris coal bed
(in Savanna Formation)
- Upper Hartshorne coal bed
(in McAlester Formation)
- Unnamed coal bed
in Savanna Formation
- Lower Hartshorne coal bed
(in McAlester Formation)
- Charleston coal bed
(in Savanna Formation)
- Unnamed coal bed in
Atoka Formation
- Unnamed coal bed in
McAlester Formation

FAULTS

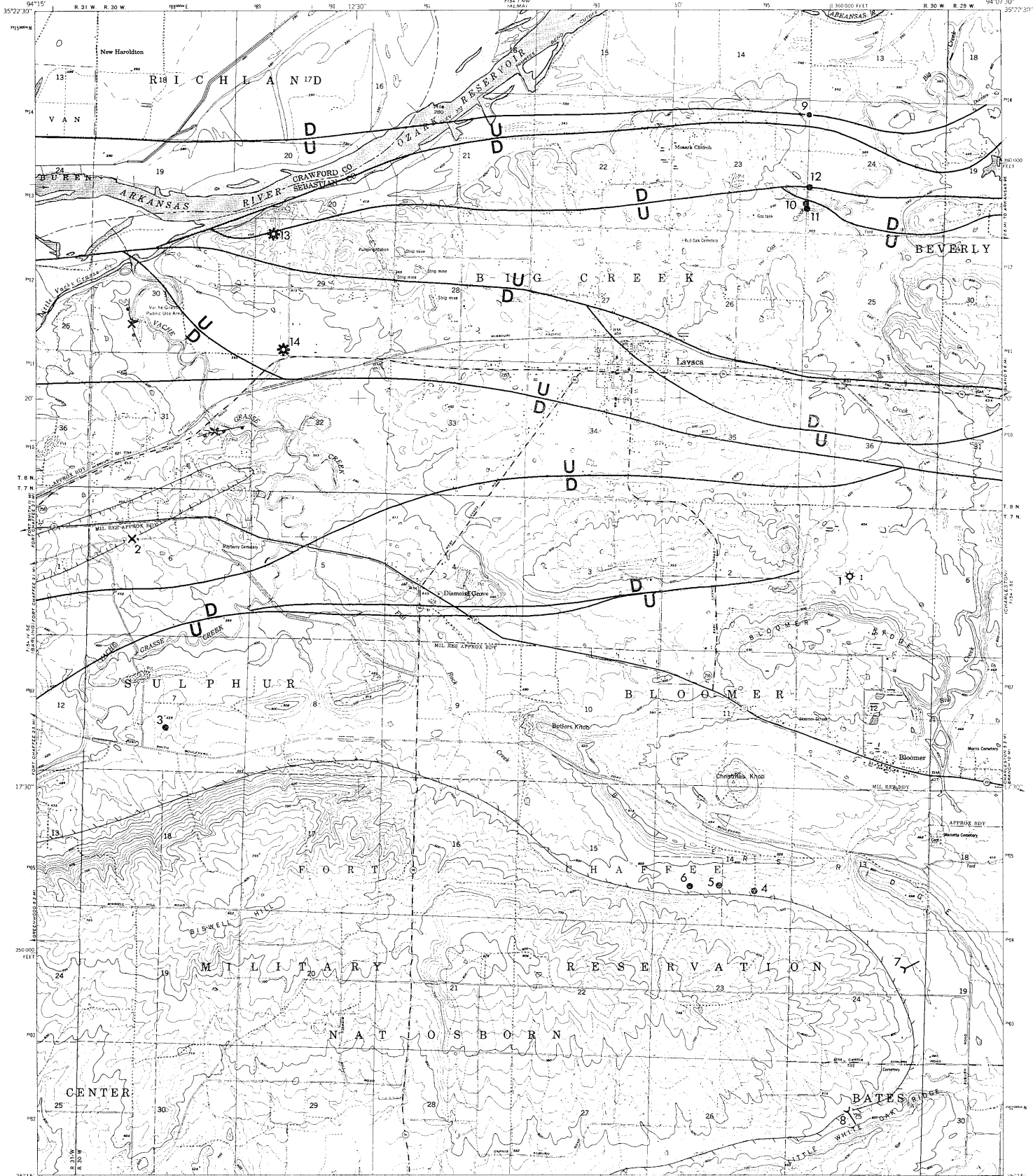
Normal fault Reverse fault

- U, Upthrown side
- D, Downthrown side
- T, Upper plate

IDENTIFICATION
NUMBERS

25

ID number: All sites included in Table 1 are identified by numbers assigned sequentially within each quadrangle.



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COAL LOCALITIES, LAVACA QUADRANGLE, ARKANSAS

LAVACA, ARK.
SW 1/4 SE 1/4 10, QUADRANGLE
N 3515—W 9407 5/7 5
1947
PHOTOREPROD. 1971
AMS 7154 1/5W SERIES YORK

EXPLANATION

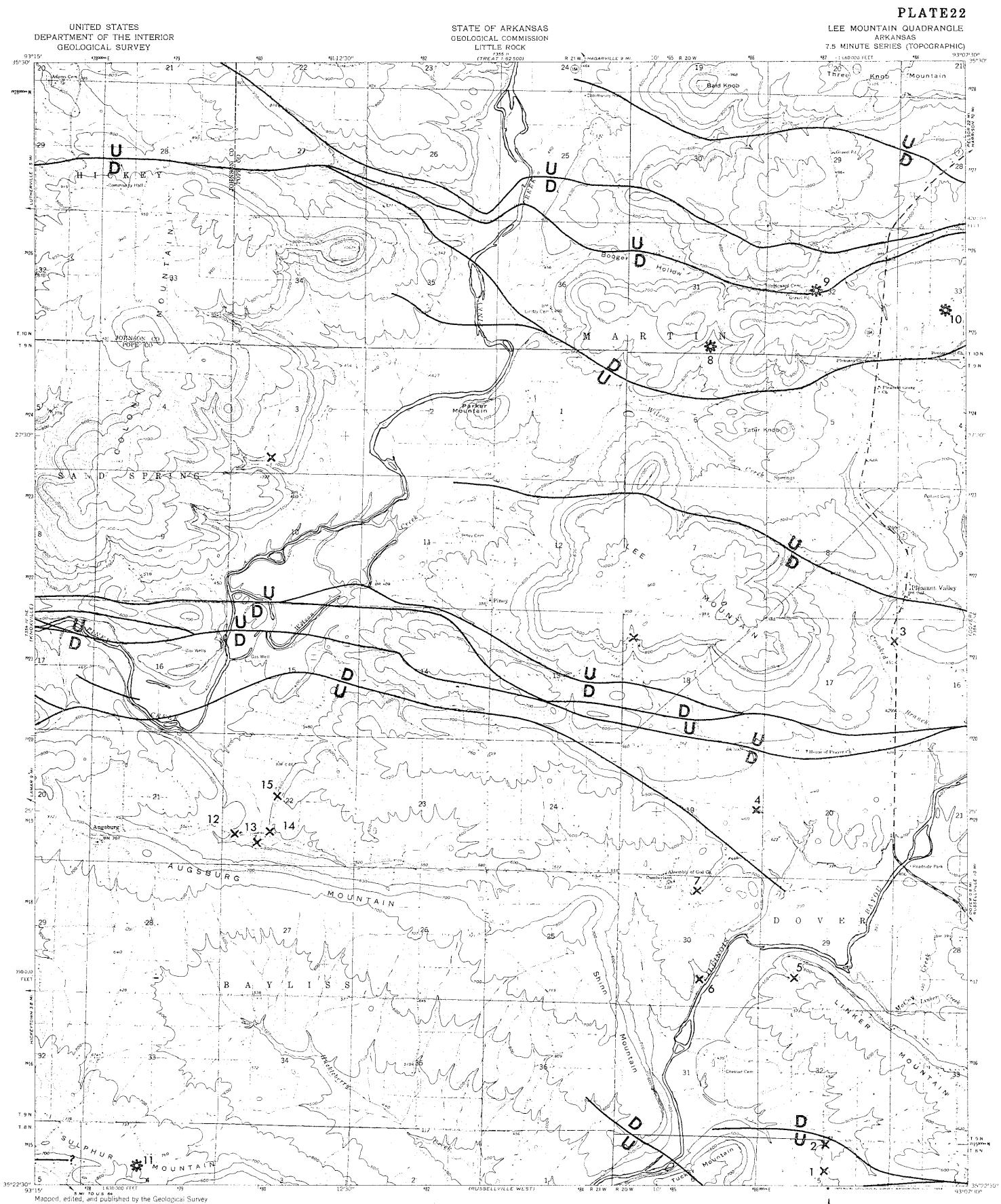
- COAL SITES**
Type of locality indicated by symbol.
- ⊗ Outcrop
 - ⊗ Strip mine
 - Mine entry or slope
 - Mine shaft
 - ▲ Site in underground mine
 - Shallow drill hole
 - ⊗ ⊗ ⊗ Deep Wells
(dry hole, gas show, gas well)

- OUTCROP OF COAL BEDS**
(Coal present on patterned side of line)
- || || || Paris coal bed
(in Savanna Formation)
 - — — Unnamed coal bed
in Savanna Formation
 - || || || Charleston coal bed
(in Savanna Formation)
 - — — Unnamed coal bed in
McAlester Formation
 - ● ● Upper Hartshorne coal bed
(in McAlester Formation)
 - — — Lower Hartshorne coal bed
(in McAlester Formation)
 - — — Unnamed coal bed in
Atoka Formation

- FAULTS**
- Normal fault
 - Reverse fault
 - U, Upthrown side
D, Downthrown side
 - T, Upper plate

IDENTIFICATION
NUMBERS

25
ID number: All sites included in Table 1 are identified by numbers assigned sequentially within each quadrangle.



STATE OF ARKANSAS
DEPARTMENT OF COMMERCE
ARKANSAS GEOLOGICAL COMMISSION
NORMAN F. WILLIAMS, DIRECTOR

COAL LOCALITIES, LEE MOUNTAIN QUADRANGLE, ARKANSAS

LEE MOUNTAIN, ARK.
N 31° 22' 5" - W 93° 07' 5" 7.5
1963
AMS 7354 1 NW - SERIES V984

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- X Outcrop
- X Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- || || || Paris coal bed
(in Savanna Formation)
- — — Unnamed coal bed
in Savanna Formation
- || || || Charleston coal bed
(in Savanna Formation)
- — — Unnamed coal bed in
McAlester Formation
- ● ● Upper Hartshorne coal bed
(in McAlester Formation)
- — — Lower Hartshorne coal bed
(in McAlester Formation)
- — — Unnamed coal bed in
Atoka Formation

FAULTS

Normal fault Reverse fault

- U, Upthrown side
D, Downthrown side
- T, Upper plate

IDENTIFICATION
NUMBERS

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STATE OF ARKANSAS
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MAGAZINE MOUNTAIN NE, ARK.
N35075-W933075
1966
AMS 7254 (1) NE-SERIES VB84

COAL LOCALITIES, MAGAZINE MTN. N.E. QUADRANGLE, ARKANSAS

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- X Outcrop
- X Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⚙️ Deep Wells (dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- ||| Paris coal bed (in Savanna Formation)
- ||| Upper Hartshorne coal bed (in McAlester Formation)
- ||| Unnamed coal bed in Savanna Formation
- ||| Lower Hartshorne coal bed (in McAlester Formation)
- ||| Charleston coal bed (in Savanna Formation)
- ||| Unnamed coal bed in Atoka Formation
- ||| Unnamed coal bed in McAlester Formation

FAULTS

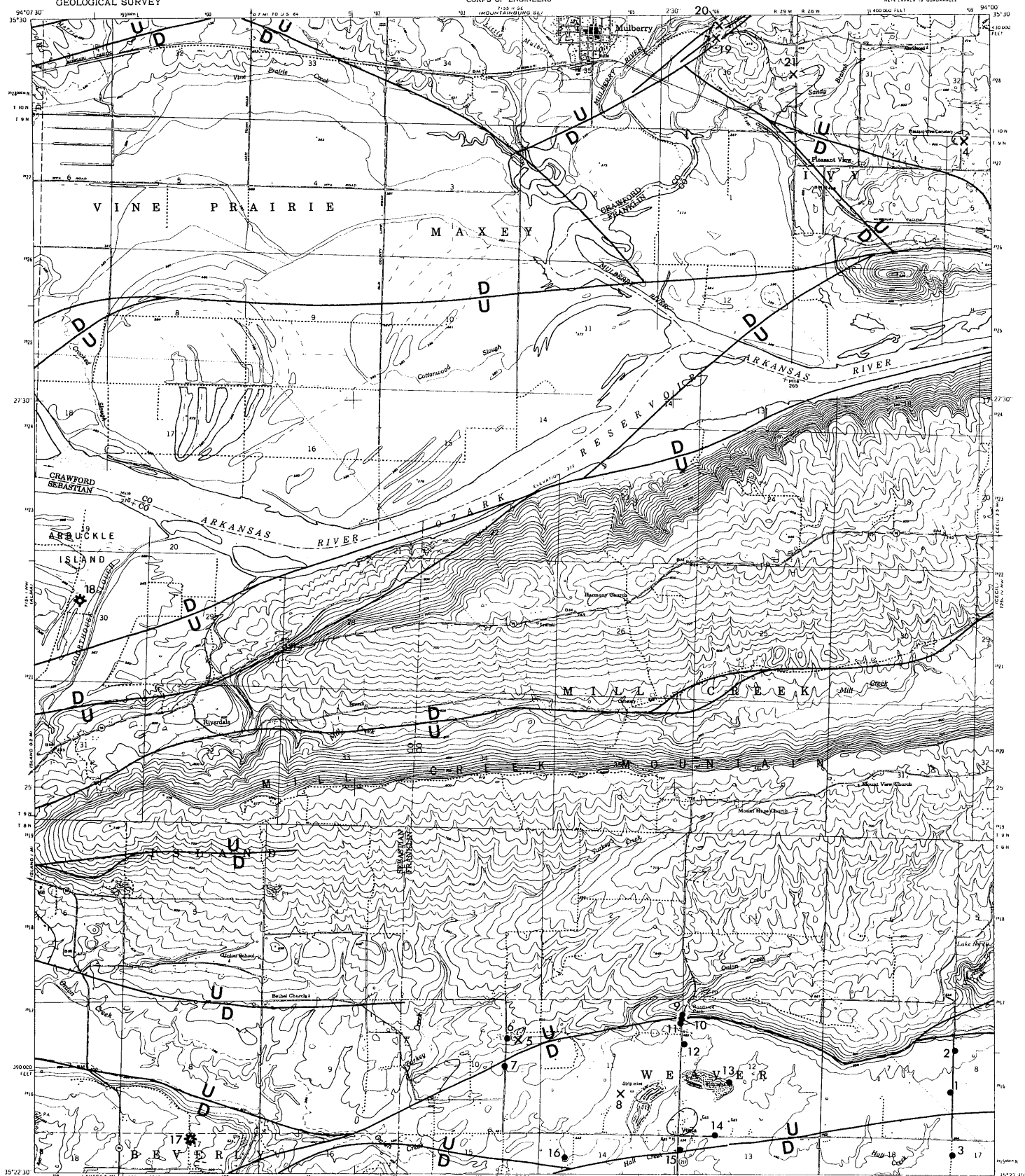
Normal fault Reverse fault

- U, Upthrown side
D, Downthrown side
- T, Upper plate

IDENTIFICATION NUMBERS

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STATE OF ARKANSAS

DEPARTMENT OF COMMERCE
ARKANSAS GEOLOGICAL COMMISSION
NORMAN F. WILLIAMS, DIRECTOR

COAL LOCALITIES, MULBERRY QUADRANGLE, ARKANSAS

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- ✕ Outcrop
- ✕ Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- Paris coal bed
(in Savanna Formation)
- Upper Hartshorne coal bed
(in McAlester Formation)
- Unnamed coal bed
in Savanna Formation
- Lower Hartshorne coal bed
(in McAlester Formation)
- Charleston coal bed
(in Savanna Formation)
- Unnamed coal bed in
Atoka Formation
- Unnamed coal bed in
McAlester Formation

FAULTS

Normal fault Reverse fault

- U, Upthrown side
- D, Downthrown side
- T, Upper plate

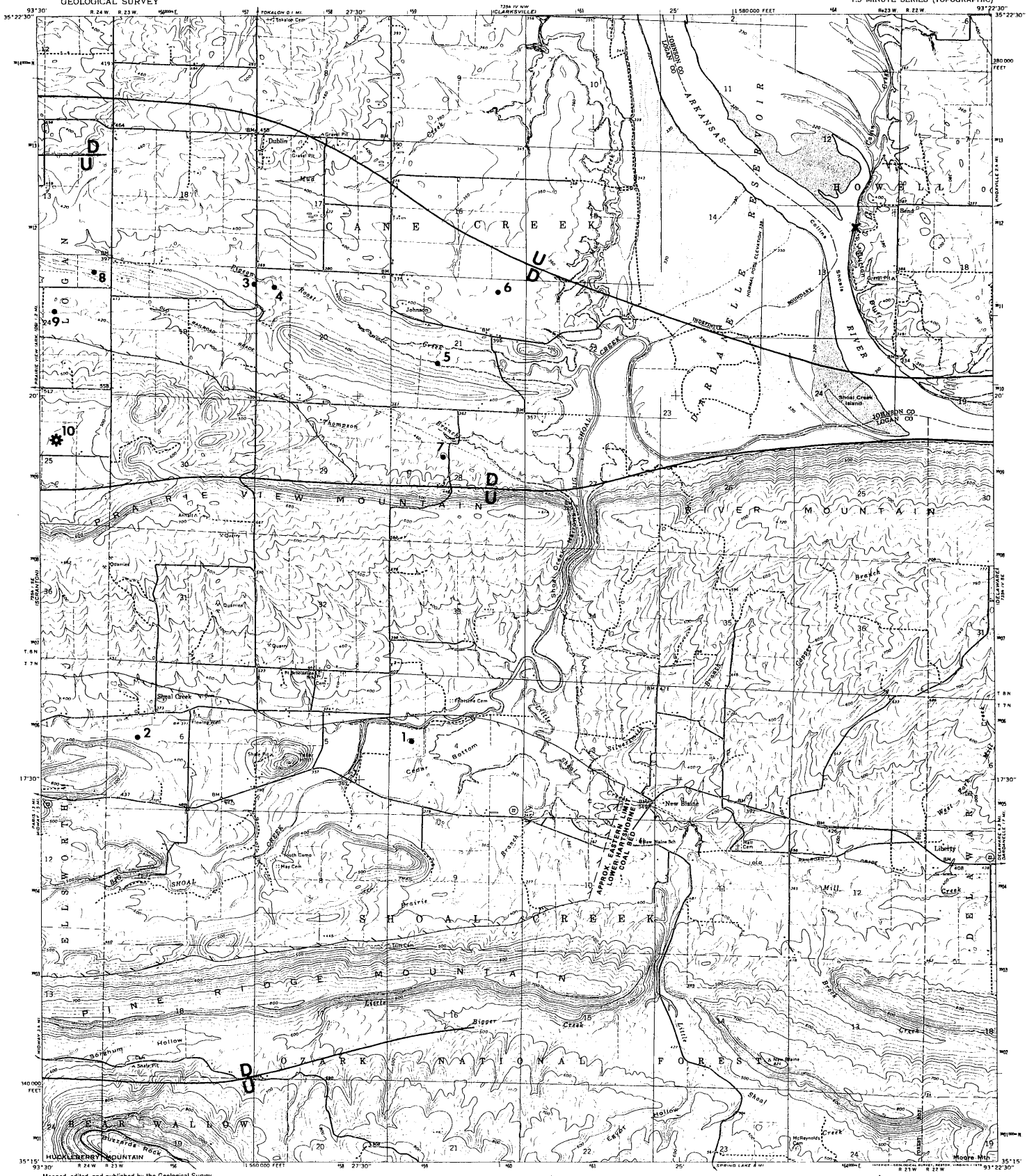
IDENTIFICATION NUMBERS

25

ID number: All sites included in Table 1 are
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within each quadrangle.

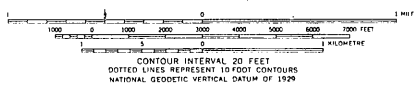
MULBERRY, ARK.
1:25,000 SCALE
N 3522 5-W 9400-7.5

1948
PHOTOREVISED 1971
AND FROM THE 1948 SERIES



Mapped, edited, and published by the Geological Survey

STATE OF ARKANSAS
DEPARTMENT OF COMMERCE
ARKANSAS GEOLOGICAL COMMISSION
NORMAN F. WILLIAMS, DIRECTOR



COAL LOCALITIES, NEW BLAINE QUADRANGLE, ARKANSAS

NEW BLAINE, ARK.
N3515-W9322.5/7.5
1962
AMS 7354 IV SW-SERIES V884

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- ✕ Outcrop
- ✕ Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- ||| Paris coal bed
(in Savanna Formation)
- ||| Unnamed coal bed
in Savanna Formation
- ||| Charleston coal bed
(in Savanna Formation)
- ||| Unnamed coal bed in
McAlester Formation
- ||| Upper Hartshorne coal bed
(in McAlester Formation)
- ||| Lower Hartshorne coal bed
(in McAlester Formation)
- ||| Unnamed coal bed in
Atoka Formation

FAULTS

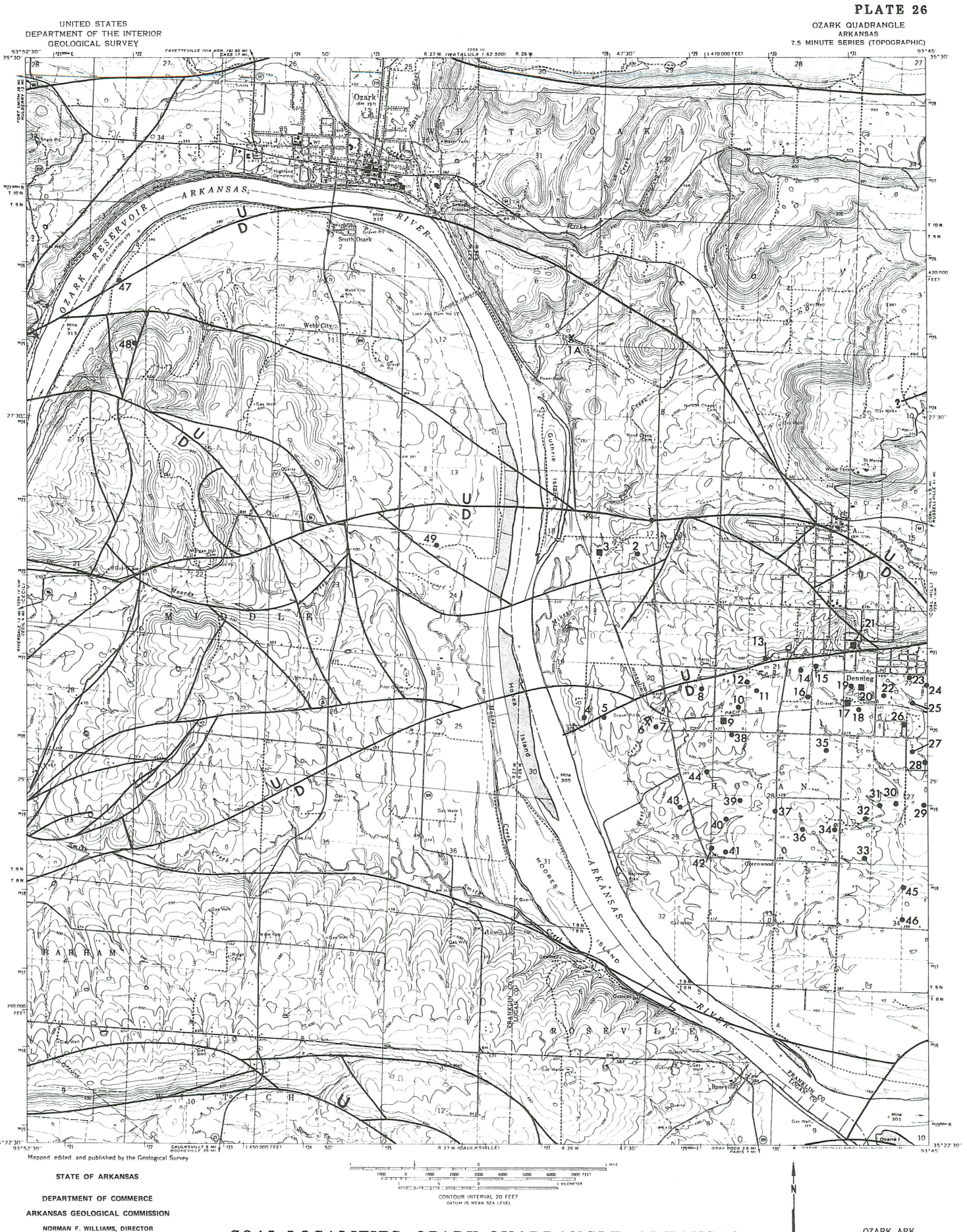
Normal fault Reverse fault

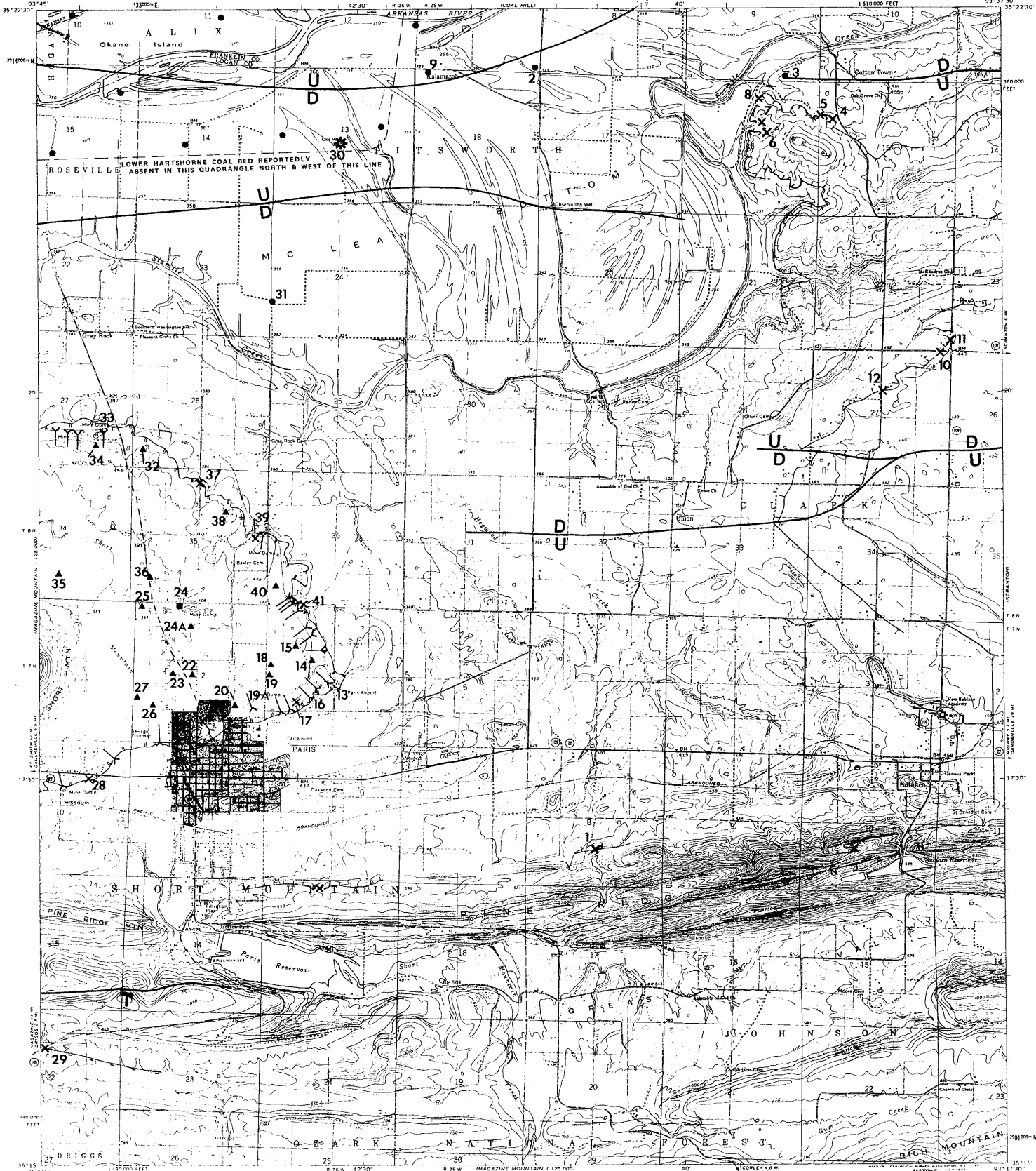
- U, Upthrown side
D, Downthrown side
- T, Upper plate

IDENTIFICATION
NUMBERS

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STATE OF ARKANSAS

DEPARTMENT OF COMMERCE
ARKANSAS GEOLOGICAL COMMISSION

NORMAN F. WILLIAMS, DIRECTOR

COAL LOCALITIES, PARIS QUADRANGLE, ARKANSAS

PARIS, ARK.

N3515-W3337 5/7.5

1961

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

X Outcrop

X Strip mine

— Mine entry or slope

■ Mine shaft

▲ Site in underground mine

● Shallow drill hole

⊕ ⊗ ⊛ Deep Wells
(dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

|| || ||
Paris coal bed
(in Savanna Formation)

| | |
Unnamed coal bed
in Savanna Formation

| | |
Charleston coal bed
(in Savanna Formation)

— — —
Unnamed coal bed in
McAlester Formation

— — —
Upper Hartshorne coal bed
(in McAlester Formation)

— — —
Lower Hartshorne coal bed
(in McAlester Formation)

— — —
Unnamed coal bed in
Atoka Formation

FAULTS

Normal fault

Reverse fault

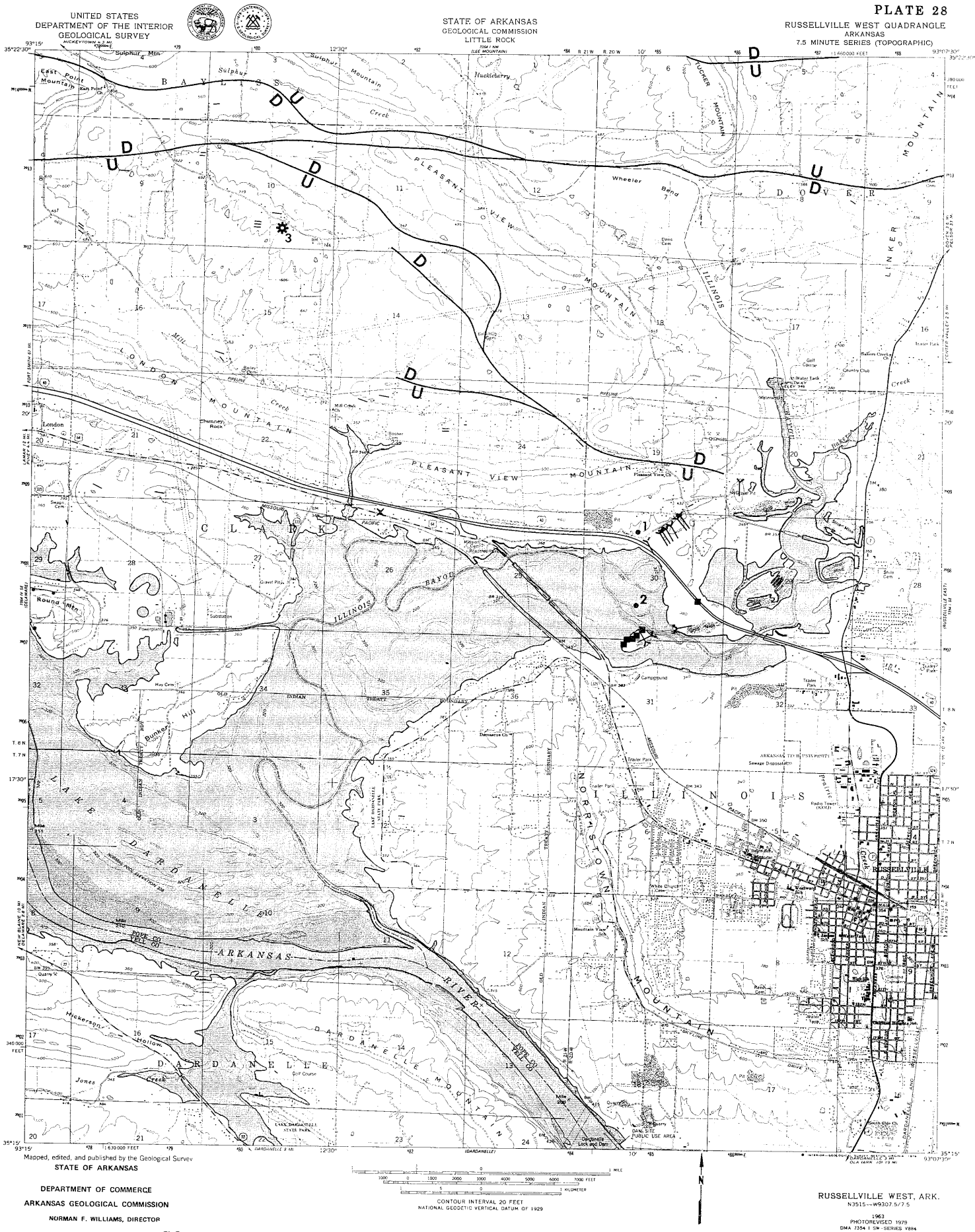
U, Upthrown side
D, Downthrown side

T, Upper plate

IDENTIFICATION
NUMBERS

25

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COAL LOCALITIES, RUSSELLVILLE WEST QUADRANGLE, ARKANSAS

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- X Outcrop
- X Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊛ Deep Wells
(dry hole, gas show, gas well)

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- Unnamed coal bed
in Savanna Formation
- Lower Hartshorne coal bed
(in McAlester Formation)
- Charleston coal bed
(in Savanna Formation)
- Unnamed coal bed in
McAlester Formation

FAULTS

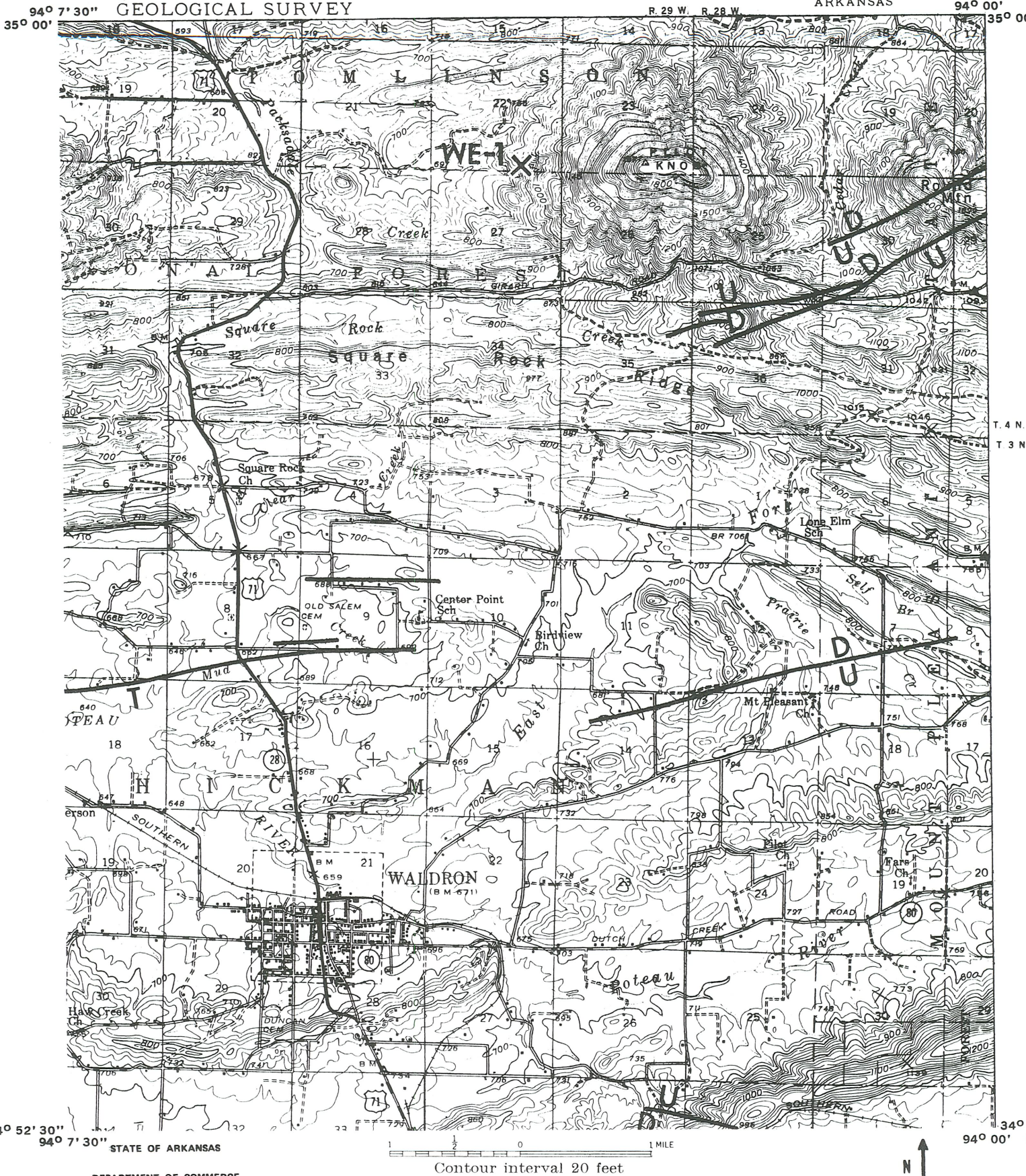
Normal fault Reverse fault

- U, Upthrown side
- D, Downthrown side
- T, Upper plate

IDENTIFICATION
NUMBERS

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DEPARTMENT OF COMMERCE
ARKANSAS GEOLOGICAL COMMISSION
NORMAN F. WILLIAMS, DIRECTOR

COAL LOCALITIES, WALDRON "NE" QUADRANGLE, ARK.

EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- X Outcrop
- X Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
- Shallow drill hole
- ⊕ ⊗ ⊗ Deep Wells (dry hole, gas show, gas well)

OUTCROP OF COAL BEDS

(Coal present on patterned side of line)

- Paris coal bed (in Savanna Formation)
- Unnamed coal bed in Savanna Formation
- Charleston coal bed (in Savanna Formation)
- Unnamed coal bed in McAlester Formation
- Upper Hartshorne coal bed (in McAlester Formation)
- Lower Hartshorne coal bed (in McAlester Formation)
- Unnamed coal bed in Atoka Formation

FAULTS

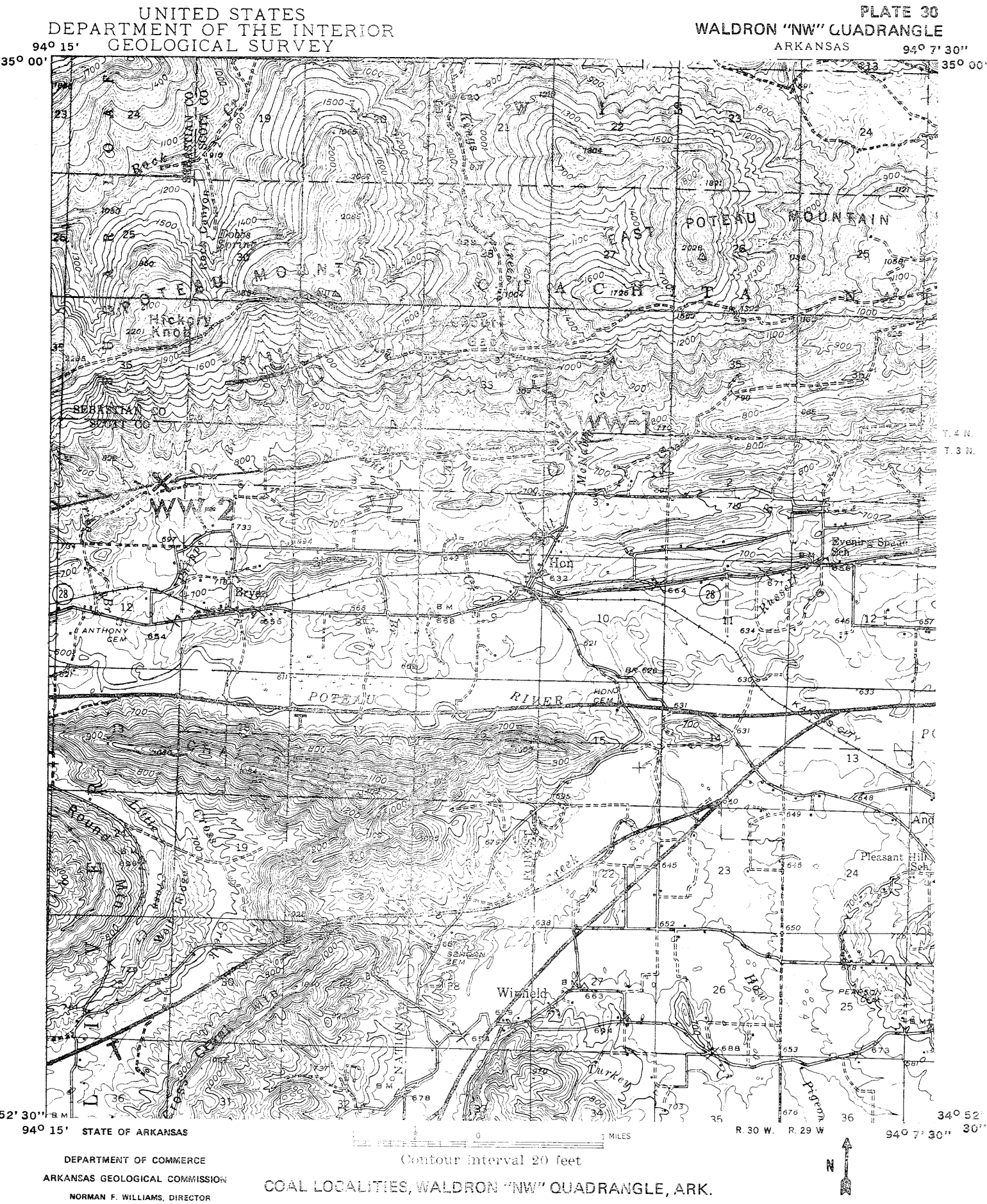
Normal fault Reverse fault

- U, Upthrown side
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EXPLANATION

COAL SITES

Type of locality indicated by symbol.

- X Outcrop
- X Strip mine
- Mine entry or slope
- Mine shaft
- ▲ Site in underground mine
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