

State of Arkansas

ARKANSAS GEOLOGICAL COMMISSION
Norman F. Williams, Director

INFORMATION CIRCULAR 20-K

**Low-Volatile Bituminous Coal and Semianthracite
in the Arkansas Valley Coal Field**

By

Boyd R. Haley
U. S. Geological Survey
Little Rock, Arkansas



Prepared in cooperation with the
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**Low-Volatile Bituminous Coal and
Semianthracite in the Arkansas Valley
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by

Boyd R. Haley, U. S. Geological Survey

This report presents generalized information pertaining to the extent, thickness, depth of burial, and quality of the coal in west-central Arkansas. It is a modification of some of the information contained in the report 'Coal resources of Arkansas, 1954' (Haley, 1960). The modification is based on information obtained since 1955 by personnel of the U. S. Geological Survey and the Arkansas Geological Commission.

The extent, thickness, and depth of the coal beds as shown on the generalized maps of this report are described in greater detail in geologic reports published as chapters of Arkansas Information Circular 20. These reports are listed in the Bibliography and their respective areas are shown on the Map of miscellaneous coal beds.

The analyses listed in Table 1 were done by the Coal Analyses Section of the U. S. Bureau of Mines in Pittsburgh, Pennsylvania. They are keyed by locality number to the generalized maps of the coal beds. The estimated reserves of low-volatile bituminous coal and of semianthracite are tabulated in Tables 2 and 3.

The recorded production of coal of all ranks for the years 1968-1976 inclusive and the total recorded production for each county and for the state since 1880 is listed in table 4.

TABLE 1 - PROXIMATE AND ULTIMATE ANALYSES OF COAL IN WEST CENTRAL ARKANSAS

Locality Number /1	Thickness (inches)	Site of sample /2	U. S. Bur. Mines lab No.	Condition /3	Air-drying loss	Proximate analyses				Ultimate analyses							Btu/lb.	Fusibility of ash (°F.)			Free swelling Index No.	Source of analyses /4	Remarks		
						Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon	Nitrogen		Oxygen	Initial deformation temperature	Softening temperature				Fluid temperature	
1	28	P	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	-	-	-	-	-	-	-	-	-
				3	-	27.5	72.5	-	1.2	-	-	4.1	81.3	1.8	11.6	13650	-	-	-	-	-	-	-	-	-
2	17	S	K-54030	1	4.4	21.6	66.9	7.1	0.8	0.12	0.44	4.8	78.5	1.6	7.2	13690	2130	2180	2300	8	A	Coal is slightly weathered; only the upper bed was sampled.			
				2	-	22.6	69.9	7.5	0.8	0.12	0.46	4.5	82.2	1.7	3.3	14320	-	-	-	-	-	-	-	-	-
				3	-	24.5	75.5	-	0.9	0.13	0.49	4.9	88.8	1.8	3.6	15480	-	-	-	-	-	-	-	-	-
3	-	M	3503	1	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
4	10	S	K-54029	1	1.7	21.2	66.8	10.3	2.0	0.17	1.46	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	4.4	79.6	1.6	1.8	13920	-	-	-	-	-	-	-	-	-
				3	-	24.1	75.9	-	2.3	0.17	1.66	4.9	88.9	1.8	2.1	15560	-	-	-	-	-	-	-	-	-
11	11	S	K-54028	1	2.3	20.6	68.9	8.2	1.2	0.08	0.58	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	4.2	81.9	1.6	2.7	14300	-	-	-	-	-	-	-	-	-
				3	-	23.1	76.9	-	1.3	0.08	0.65	4.6	89.4	1.8	2.9	15610	-	-	-	-	-	-	-	-	-
19	19	S	K-54027	1	2.9	21.1	70.1	5.9	0.8	0.04	0.25	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	4.3	84.4	1.6	2.8	14580	-	-	-	-	-	-	-	-	-
				3	-	23.2	76.8	-	0.8	0.04	0.27	4.6	89.9	1.7	3.0	15530	-	-	-	-	-	-	-	-	-
5	-	M	3500	1	4.1	18.2	69.9	7.8	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	B		
				2	-	18.9	73.0	8.1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	37	S	K-54026	1	9.7	24.5	61.8	4.0	0.6	0.01	0.17	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	4.2	3.5	77.9	1.6	12.0	12770	-	-	-	-	-	-	-	-
				3	-	28.4	71.6	-	0.6	0.01	0.19	4.4	3.6	81.5	1.7	12.6	13360	-	-	-	-	-	-	-	-

6	T	B-55082	1	1.0	1.7	19.2	71.5	7.6	1.0	-	-	-	-	-	-	2060	-	-	-	A	Sample of 2.5-inch coal.		
			2	-	-	19.6	72.7	7.7	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	21.2	78.8	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	M	B-55083	1	1.3	2.1	18.5	66.6	12.8	1.1	-	-	-	-	-	-	2180	-	-	-	A	Sample of less than 2.5-inch coal.		
			2	-	-	18.9	68.0	13.1	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	21.8	78.2	-	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1	2.0	2.4	18.9	68.9	9.8	0.8	-	-	-	-	-	-	-	2000	-	-	-	B	-	-	
		1	2.8	3.4	19.4	66.3	10.9	1.1	-	-	-	-	-	-	-	2090	-	-	-	B	-	-	
		1	2.4	2.9	19.6	67.0	10.5	1.4	-	-	-	-	-	-	-	2020	-	-	-	B	-	-	
8	M	29838	1	2.4	2.9	19.3	67.3	10.5	1.1	-	-	-	-	-	-	-	-	-	-	B	Composite of samples 29835, 29836, and 29837.		
			2	-	-	19.9	69.3	10.8	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	22.3	77.7	-	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	M	81809	1	1.9	2.5	16.5	73.2	7.8	0.8	-	-	-	-	-	-	2130	-	-	-	B	-		
			1	1.8	2.3	17.0	71.6	9.1	1.0	-	-	-	-	-	-	2010	-	-	-	B	-		
		81811	1	2.2	2.8	17.6	72.3	7.8	0.9	-	-	-	-	-	-	2060	-	-	-	B	-		
			1	2.0	2.5	16.8	72.8	7.9	0.9	-	-	-	-	-	-	-	-	-	-	-	B	Composite of samples 81809, 81810, and 81811.	
		2594	1	4.9	5.4	16.0	69.8	8.8	3.2	-	-	-	-	-	-	-	-	-	-	-	B	-	
			2	-	-	16.9	73.8	9.3	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		2593	1	3.5	4.0	16.9	73.2	5.9	1.5	-	-	-	-	-	-	-	-	-	-	-	B	-	
			2	-	-	17.6	76.2	6.2	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1068	M	1066	1	-	0.9	18.3	71.7	9.1	1.7	-	-	-	-	-	-	-	-	-	-	B	-
					2	-	-	18.5	72.3	9.2	1.8	-	-	-	-	-	-	-	-	-	-	-	-
10	T	B-57205	1	-	0.8	17.8	72.7	8.7	2.0	-	-	-	-	-	-	-	-	-	-	B	-		
			2	-	-	17.9	73.3	8.8	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	20.8	79.2	-	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-57206	1	2.8	3.2	18.4	70.3	8.1	2.2	-	-	-	-	-	-	-	2220	-	-	-	A	Sample of 2.5-inch coal.			
	2	-	-	19.0	72.7	8.3	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	3	-	-	20.8	79.2	-	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
W-59615	M	W-59620	1	3.5	4.1	16.5	63.8	15.6	2.3	-	-	-	-	-	-	-	-	-	-	A	Sample of less than 2.5-inch coal.		
			2	-	-	17.2	66.5	16.3	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	
			3	-	-	20.5	79.5	-	2.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
W-59632	M	W-59632	1	-	3.8	18.1	70.6	7.5	1.2	-	-	-	-	-	-	-	-	-	-	B	-		
			2	-	-	18.8	73.4	7.8	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
W-59632	M	W-59632	1	-	2.7	17.4	70.1	9.8	1.7	-	-	-	-	-	-	-	-	-	-	B	-		
			2	-	-	17.9	72.0	10.1	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
W-59632	M	W-59632	1	-	3.5	17.2	69.7	9.6	2.0	-	-	-	-	-	-	-	-	-	-	B	-		
			2	-	-	17.8	72.3	9.9	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

TABLE 1 -- PROXIMATE AND ULTIMATE ANALYSES OF COAL IN WEST CENTRAL ARKANSAS (Continued)

Locality Number $\bar{1}$	Thickness (inches)	Site of sample $\bar{2}$	U. S. Bur. Mines Lab No.	Condition $\bar{3}$	Air-drying loss	Proximate analyses				Ultimate analyses					Btu/lb.	Fusibility of ash ($^{\circ}$ F.)			Free swelling Index No.	Source of analyses $\bar{4}$	Remarks						
						Moisture	Volatle matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen		Carbon	Nitrogen	Oxygen				Initial deformation temperature	Softening temperature	Fluid temperature			
11			W-69633	1		3.1	17.2	72.4	7.3	1.8											B						
				2				17.7	74.8	7.5	1.9																
		M	27612	1	2.3	2.7	19.1	70.3	7.9	1.6							2730					B					
				1	3.1	3.7	18.2	67.9	10.2	1.8								2110					B				
				1	3.3	3.8	17.3	69.5	9.4	1.7									2060					B			
				1	2.8	3.3	18.2	69.7	8.8	1.8									2120					B			
			1	2.4	2.9	18.8	69.7	8.6	2.5									2070					B				
12			27617	1	2.8	3.2	18.1	69.7	9.0	1.9				4.4	78.7	1.6											
				2			18.7	72.0	9.3	1.9				4.2	81.3	1.6											
				3				20.6	79.4		2.1			4.6	89.7	1.8											
			1045	1		1.0	17.9	73.6	7.5	1.1																	
		M		2				18.1	74.3	7.6	1.1																
				1	0.8		18.5	73.7	7.0	1.2																	
13			1046	1		0.8	18.5	73.7	7.0	1.2																	
				2			18.6	74.4	7.0	1.2																	
			2585	1	2.9	3.5	16.7	72.0	7.8	1.3																	
				2				17.3	74.6	8.1	1.3																
			2586	1	3.5	4.0	16.8	72.1	7.1	1.3																	
				2				17.5	75.1	7.4	1.4																
13	40	S	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				2040	2080	2180	9	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										
				3				20.6	79.4		0.7	0.01	0.10	0.52	4.7	90.2	1.9	2.6									
			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					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										
				3			22.1	77.9		0.9	0.02	0.37	0.52	4.7	90.9	1.9	1.6										

14	T	B-58752	1	4.0	18.0	70.5	6.9	0.7	-	-	-	-	-	-	-	-	-	-	-	2130	A	Sample of 2-inch coal.
			2	-	18.9	73.8	7.3	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	20.4	79.6	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		B-58753	1	7.2	17.3	66.3	8.3	0.6	-	-	-	-	-	-	-	-	-	-	-	2230	-	Sample of less than 2-inch coal.
			2	-	18.8	72.2	9.0	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	20.7	79.3	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	M	3148	1	3.7	16.5	74.1	4.9	1.8	-	-	-	-	-	-	-	-	-	-	-	-	B	Coal is weathered.
			2	-	17.3	77.5	5.2	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	M	3155	1	2.7	14.9	74.9	6.7	1.2	-	-	-	-	-	-	-	-	-	-	-	-	B	Coal is weathered.
			2	-	15.4	77.7	6.9	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		3156	1	2.0	16.9	74.1	7.2	0.7	-	-	-	-	-	-	-	-	-	-	-	-	B	Coal is weathered.
			2	-	16.4	76.2	7.4	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		3150	1	2.2	15.8	75.9	5.3	0.9	-	-	-	-	-	-	-	-	-	-	-	-	B	Coal is weathered.
			2	-	16.2	78.3	5.5	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	M	1052	1	-	19.7	69.6	9.7	1.1	-	-	-	-	-	-	-	-	-	-	-	-	B	Coal is weathered.
			2	-	19.9	70.3	9.8	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1054	1	-	16.9	71.8	10.3	0.6	-	-	-	-	-	-	-	-	-	-	-	-	B	Coal is weathered.
			2	-	17.1	72.5	10.4	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	M	3152	1	1.8	15.5	76.1	5.8	2.1	-	-	-	-	-	-	-	-	-	-	-	-	B	Coal is weathered.
			2	-	15.9	78.2	5.9	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	M	A-99402	1	2.8	16.2	72.1	8.2	0.9	-	-	-	-	-	-	-	-	-	-	-	2090	C	Composite of samples 99402, 99403, and 99404.
			1	2.5	16.6	70.7	9.4	1.0	-	-	-	-	-	-	-	-	-	-	-	2090	C	Composite of samples 99402, 99403, and 99404.
		A-99404	1	2.8	16.5	71.9	8.2	0.8	-	-	-	-	-	-	-	-	-	-	-	2140	C	Composite of samples 99402, 99403, and 99404.
20	T	B-83115	1	1.6	16.9	73.2	7.4	1.2	-	-	-	-	-	-	-	-	-	-	-	2270	A	Sample of 8-inch coal.
			2	-	17.4	75.0	7.6	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	18.8	81.2	-	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		B-83116	1	1.2	17.8	73.0	7.2	1.2	-	-	-	-	-	-	-	-	-	-	-	2270	A	Sample of 4 to 8-inch coal.
			2	-	18.2	74.5	7.3	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	19.6	80.4	-	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	M	B-83117	1	1.6	17.1	69.5	10.9	1.3	-	-	-	-	-	-	-	-	-	-	-	2530	A	Sample of 4-inch coal.
			2	-	17.5	71.3	11.2	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	19.7	80.3	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		A-99414	1	6.4	15.2	72.6	5.2	1.2	-	-	-	-	-	-	-	-	-	-	-	2360	C	Sample of 4-inch coal.
		A-99415	1	3.8	16.5	73.7	5.4	1.3	-	-	-	-	-	-	-	-	-	-	-	2180	C	Sample of 4-inch coal.

See footnotes at end of table.

TABLE 1 -- PROXIMATE AND ULTIMATE ANALYSES OF COAL IN WEST CENTRAL ARKANSAS (Continued)

Locality Number /1	Thickness (inches)	Site of sample /2	U. S. Bur. Mines lab No.	Condition /3	Air-drying loss	Proximate analyses				Ultimate analyses						Btu/lb.	Fusibility of ash (°F.)	Free swelling index No.	Source of analyses /4	Remarks	
						Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Sulphate	Pyritic	Organic	Hydrogen	Carbon						Nitrogen
22	18	S	A-99416	1	5.1	5.7	15.5	73.5	5.3	1.8	-	-	-	-	-	-	-	C	Composite of samples 99414, 99415, and 99416.		
				2	-	5.7	15.5	73.3	5.5	1.5	-	4.7	80.1	1.7	6.5	-	-	-		-	
				3	-	-	16.5	77.7	5.8	1.5	-	4.3	85.0	1.8	1.6	-	-	-		-	-
23	18	O	K-63742	1	-	7.4	18.0	69.1	5.6	0.6	0.01	0.02	0.59	4.4	74.7	1.6	13.1	A	Coal is slightly weathered.		
				2	-	-	19.5	74.5	6.0	0.7	0.01	0.02	0.64	3.9	80.7	1.8	6.9	-		-	-
				3	-	-	20.8	79.2	-	0.7	0.01	0.02	0.68	4.1	85.9	1.9	7.4	-		-	-
24	-	M	3175	1	-	4.6	21.6	71.5	2.3	0.8	0.01	0.02	0.68	4.6	82.6	1.7	8.0	A	Coal is slightly weathered.		
				2	-	-	16.2	73.5	10.5	1.2	-	-	-	-	-	-	-	-		-	-
				3	-	-	23.2	76.8	-	0.8	0.01	0.07	0.71	4.3	86.6	1.8	4.1	-		-	-
25	-	M	18062	1	2.7	3.6	15.7	65.5	15.2	1.7	-	-	-	4.1	72.6	1.6	4.8	B	Sample of less than 1.5-inch coal.		
				2	-	-	16.3	68.0	15.7	1.7	-	3.9	75.2	1.7	1.8	-	-	-		-	-
				3	-	-	19.4	80.6	-	2.1	-	4.6	89.3	2.0	2.0	-	-	-		-	-
26	-	M	18063	1	2.6	3.6	17.5	60.7	18.2	1.4	-	-	-	4.0	69.6	1.6	5.2	B	Sample of less than 1.5-inch coal.		
				2	-	-	18.1	63.0	18.9	1.4	-	3.7	72.2	1.6	2.2	-	-	-		-	-
				3	-	-	22.3	77.7	-	1.8	-	4.5	89.0	2.0	2.7	-	-	-		-	-
26	-	M	A-99418	1	3.3	4.1	15.4	75.4	5.1	1.1	-	-	-	-	-	-	-	C	Sample of less than 1.5-inch coal.		
				2	-	-	15.3	76.2	5.0	1.0	-	-	-	-	-	-	-	-		-	-
				3	-	-	15.4	75.8	4.7	1.0	-	-	-	-	-	-	-	-		-	-
26	-	M	A-99421	1	3.1	3.8	15.5	75.7	5.0	1.1	-	-	-	4.7	82.2	1.8	5.2	C	Sample of less than 1.5-inch coal.		
				2	-	-	16.1	78.7	5.2	1.1	-	4.4	85.5	1.9	1.9	-	-	-		-	-
				3	-	-	17.0	83.0	-	1.2	-	4.7	90.2	2.0	1.9	-	-	-		-	-
26	-	M	B-69518	1	1.9	2.4	17.8	69.5	10.3	0.8	-	-	-	4.2	78.4	1.7	4.6	A	Sample of less than 1.5-inch coal.		
				2	-	-	18.3	71.2	10.5	0.8	-	4.1	80.4	1.7	2.5	-	-	-		-	-
				3	-	-	20.4	79.6	-	0.9	-	4.6	89.8	1.9	2.8	-	-	-		-	-

TABLE 1 -- PROXIMATE AND ULTIMATE ANALYSES OF COAL IN WEST CENTRAL ARKANSAS (Continued)

Locality Number /1	Thickness (inches)	Site of sample /2	U. S. Bur. Mines tab No.	Condition /3	Air-drying loss	Proximate analyses				Ultimate analyses						Btu./lb.	Fusibility of ash (°F.)			Free swelling Index No.	Source of analyses /4	Remarks				
						Moisture	Volatiles matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon		Nitrogen	Oxygen	Initial deformation temperature				Softening temperature	Fluid temperature		
29	28	M	B-60296	1	1.6	2.0	18.1	73.7	6.2	0.8	-	-	-	4.5	82.9	1.8	3.8	-	2360	-	-	-	A			
				2	-	-	18.4	75.3	6.3	0.8	-	-	-	-	4.3	84.6	1.9	2.1	-	-	-	-	-	-	-	
				3	-	-	19.7	80.3	-	0.9	-	-	-	-	4.6	90.3	2.0	2.2	-	-	-	-	-	-	-	
30	30		B-60297	1	1.4	1.9	18.2	73.1	6.8	0.9	-	-	-	-	-	-	-	-	2300	-	-	-	A			
				2	-	-	18.6	74.5	6.9	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				3	-	-	20.0	80.0	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30	30		B-60298	1	1.5	1.9	18.0	73.7	6.4	0.8	-	-	-	-	-	-	-	-	2300	-	-	-	A			
				2	-	-	18.5	75.1	6.5	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				3	-	-	19.7	80.3	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30	-	M	A-3299	1	2.2	2.9	18.2	75.4	3.5	0.9	-	-	-	-	-	-	-	-	2180	-	-	-	B			
				2	-	-	18.4	75.0	6.6	0.8	-	-	-	-	4.3	84.1	1.8	2.4	-	-	-	-	-	-	-	
				3	-	-	19.8	80.2	-	0.9	-	-	-	-	4.6	90.1	1.9	2.5	-	-	-	-	-	-	-	
31	27	M	A-3300	1	2.7	3.2	18.3	75.4	3.1	0.9	-	-	-	-	-	-	-	-	2060	-	-	-	B			
				2	-	-	18.0	75.8	3.1	0.9	-	-	-	-	4.7	84.0	1.9	5.4	-	-	-	-	-	-	-	
				3	-	-	18.6	78.2	3.2	0.9	-	-	-	-	4.5	86.6	2.0	2.8	-	-	-	-	-	-	-	
31	30	M	B-23747	1	1.6	2.1	18.4	74.3	5.2	0.8	-	-	-	-	-	-	-	-	2480	-	-	-	A			
				2	-	-	18.8	75.9	5.3	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				3	-	-	19.9	80.1	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30	30		B-23748	1	4.0	4.6	17.1	74.7	3.6	0.9	-	-	-	-	-	-	-	-	2140	-	-	-	A			
				2	-	-	18.0	78.2	3.8	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				3	-	-	18.7	81.3	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30	-		B-23749	1	2.8	3.3	17.6	74.7	4.4	0.9	-	-	-	4.7	83.6	1.8	4.6	-	-	-	-	-	A			
				2	-	-	18.2	77.2	4.6	0.9	-	-	-	-	4.5	86.5	1.8	1.7	-	-	-	-	-	-	-	
				3	-	-	19.1	80.9	-	0.9	-	-	-	-	4.7	90.6	1.9	1.9	-	-	-	-	-	-	-	

32	T	B-54866	1	1.5	2.4	17.7	77.1	2.8	0.8	-	-	-	-	-	-	-	2050	A	Sample of 10-inch coal.	
			2	-	-	18.2	78.9	2.9	0.8	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	18.7	81.3	-	0.9	-	-	-	-	-	-	-	-	-	-	-
33	T	B-54867	1	1.4	2.3	18.1	75.3	4.3	0.9	-	-	-	-	-	-	-	2150	A	Sample of 2.5 to 10-inch coal.	
			2	-	-	18.5	77.1	4.4	0.9	-	-	-	-	-	-	-	-	-	-	
			3	-	-	19.3	80.7	-	1.0	-	-	-	-	-	-	-	-	-	-	
33	T	B-54868	1	1.8	2.8	17.3	71.0	8.9	1.1	-	-	-	-	-	-	-	2290	A	Sample of less than 2.5-inch coal.	
			2	-	-	17.8	73.1	9.1	1.1	-	-	-	-	-	-	-	-	-	-	
			3	-	-	19.6	80.4	-	1.2	-	-	-	-	-	-	-	-	-	-	
33	T	B-82723	1	0.6	1.4	18.6	75.8	4.2	0.8	-	-	-	-	-	-	-	2390	A	Sample of 10-inch coal.	
			2	-	-	18.9	76.8	4.3	0.8	-	-	-	-	-	-	-	-	-	-	
			3	-	-	19.7	80.3	-	0.9	-	-	-	-	-	-	-	-	-	-	
33	T	B-82724	1	1.1	1.7	18.7	75.4	4.2	1.0	-	-	-	-	4.7	84.7	1.9	3.5	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	-	-	
			3	-	-	19.8	80.2	-	1.1	-	-	-	-	4.7	90.1	2.0	2.1	-	-	
34	M	B-82725	1	0.6	1.4	17.7	72.6	8.3	0.9	-	-	-	-	-	-	-	2190	A	Sample of 1.25 to 2.5-inch coal.	
			2	-	-	18.0	73.6	8.4	0.9	-	-	-	-	-	-	-	-	-	-	
			3	-	-	19.6	80.4	-	1.0	-	-	-	-	-	-	-	-	-	-	
34	M	B-82726	1	1.8	2.6	17.8	69.3	10.3	0.9	-	-	-	-	-	-	-	2290	A	Sample of less than 1.25-inch coal.	
			2	-	-	18.3	71.1	10.6	1.0	-	-	-	-	-	-	-	-	-	-	
			3	-	-	20.5	79.5	-	1.1	-	-	-	-	-	-	-	-	-	-	
34	M	3173	1	2.4	3.2	14.8	72.7	9.3	3.1	-	-	-	3.8	78.4	1.5	3.9	-	B	-	
			2	-	-	15.3	75.1	9.6	3.2	-	-	-	3.5	81.0	1.6	1.1	-	-	-	
			3	-	-	17.0	83.0	-	3.6	-	-	-	3.9	89.6	1.7	1.2	-	-	-	
35	M	B-60289	1	1.6	2.0	18.1	70.4	9.5	1.4	-	-	-	4.1	79.4	1.5	4.1	-	A	-	
			2	-	-	18.5	71.8	9.7	1.4	-	-	-	4.0	81.0	1.6	2.3	-	-	-	
			3	-	-	20.4	79.6	-	1.6	-	-	-	4.4	89.7	1.7	2.6	-	-	-	
36	-	B-60290	1	1.5	2.0	16.6	71.4	10.0	1.5	-	-	-	-	-	-	-	2150	A	-	
			2	-	-	16.9	72.9	10.2	1.5	-	-	-	-	-	-	-	-	-	-	
			3	-	-	18.8	81.2	-	1.7	-	-	-	-	-	-	-	-	-	-	
36	-	B-60291	1	1.5	2.0	16.4	73.1	8.5	1.3	-	-	-	-	-	-	-	2230	A	-	
			2	-	-	16.7	74.6	8.7	1.3	-	-	-	-	-	-	-	-	-	-	
			3	-	-	18.3	81.7	-	1.5	-	-	-	-	-	-	-	-	-	-	
36	-	B-60292	1	1.5	2.0	16.8	71.8	9.4	1.4	-	-	-	4.1	79.5	1.6	4.0	-	A	Composite of samples B-60290 and B-60291.	
			2	-	-	17.2	73.2	9.6	1.4	-	-	-	4.0	81.1	1.6	2.3	-	-	-	
			3	-	-	19.0	81.0	-	1.6	-	-	-	4.4	89.7	1.8	2.5	-	-	-	
36	M	2599	1	1.7	2.0	15.9	75.0	7.1	1.1	-	-	-	-	-	-	-	-	B	-	
			2	-	-	16.2	76.6	7.2	1.1	-	-	-	-	-	-	-	-	-	-	-
			1	1.8	2.1	16.1	75.1	6.7	1.8	-	-	-	-	-	-	-	-	-	B	-
2	-	-	16.5	76.7	6.8	1.8	-	-	-	-	-	-	-	-	-	-	-			

See footnotes at end of table.

TABLE 1 -- PROXIMATE AND ULTIMATE ANALYSES OF COAL IN WEST CENTRAL ARKANSAS (Continued)

Locality Number /1	Thickness (inches)	Site of sample /2	U. S. Bur. Mines lab No.	Condition /3	Air-drying loss	Proximate analyses				Ultimate analyses						Btu./lb.	Fusibility of ash (°F.)	Free swelling index No.	Source of analyses /4	Remarks
						Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon					
Initial deformation temperature	Softening temperature	Fluid temperature																		
37	—	M	1049	1	—	1.0	18.7	73.3	7.0	2.1	—	—	—	—	—	—	14390	B		
				2	—	—	18.9	74.1	7.0	2.1	—	—	1.7	—	—	—	14530	B		
38	—	M	1053	1	—	0.8	16.6	73.5	9.1	2.5	—	—	—	—	—	—	13440	B		
				2	—	—	16.7	74.1	9.2	2.5	—	—	—	—	—	13720	B			
38	—	M	W-69378	1	—	2.0	16.1	71.4	10.5	1.6	—	—	—	—	—	13840	B			
				2	—	—	16.4	72.9	10.7	1.6	—	—	—	—	14080	B				
38	—	M	W-69372	1	—	1.7	16.9	73.0	8.4	1.2	—	—	—	—	13960	C				
				2	—	—	17.2	74.3	8.5	1.3	—	—	—	—	14180	C				
38	—	M	W-69397	1	—	1.6	17.0	73.4	8.0	1.2	—	—	—	14340	C					
				2	—	—	17.3	74.6	8.1	1.2	—	—	—	14350	C					
39	—	M	A-99398	1	1.2	1.7	15.4	76.7	6.2	1.0	—	—	—	14140	C					
				2	1.6	2.1	14.7	77.5	5.7	1.0	—	—	—	14350	C					
39	—	M	A-99400	1	1.7	2.2	14.0	76.8	7.0	1.2	—	—	—	14140	C					
				2	1.5	2.1	14.8	76.8	6.3	1.1	—	—	1.6	3.7	14290	C				
39	—	M	A-99401	2	—	—	15.1	78.5	6.4	1.1	—	—	—	14590	C					
				3	—	—	16.2	83.8	—	1.2	—	—	1.7	1.9	15590	C				
40	—	M	3149	1	2.2	3.0	14.9	74.7	7.4	1.7	—	—	—	—	—	—	B			
				2	—	—	15.4	77.0	7.6	1.8	—	—	—	—	—	—	—	B		
40	—	M	1030	1	—	—	17.9	71.5	9.6	2.1	—	—	—	14100	B					
				2	—	—	18.1	75.2	9.7	2.1	—	—	—	—	14230	B				
40	—	M	1031	1	—	0.8	17.2	74.3	7.7	1.6	—	—	—	—	—	—	B			
				2	—	—	17.3	75.0	7.7	1.7	—	—	—	—	—	—	—	B		
41	48	M	3153	1	2.4	3.2	14.6	76.1	6.1	1.5	—	—	—	—	—	—	A			
				2	—	—	15.1	78.6	6.3	1.6	—	—	—	—	—	—	—	A		
41	48	M	B-55051	1	1.1	1.8	15.4	75.3	7.5	1.2	—	—	—	14120	A					
				2	—	—	15.7	76.6	7.7	1.3	—	—	—	—	14380	A				
41				3	—	—	17.0	83.0	—	1.4	—	—	15570	A						

Composite of samples A-99399, A-99400, and A-99401.

41	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	—	—	—	—	—	—
		3	—	—	17.9	82.1	—	4.5	—	—	—	—	—	15460	—	—	—	—	—	—
43	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	—	—	—	—	—	—
		3	—	—	17.3	82.7	—	1.3	—	—	—	—	—	15560	—	—	—	—	—	—
—	B-55054	1	1.4	2.1	15.4	72.8	9.7	2.1	—	—	—	—	—	13700	—	—	—	A	—	—
		2	—	—	15.8	74.3	9.9	2.2	—	—	—	—	—	13990	—	—	—	—	—	—
		3	—	—	17.5	82.5	—	2.4	—	—	—	—	—	15540	—	—	—	—	—	—
—	B-54869	1	0.5	1.3	15.3	74.5	8.9	2.8	—	—	—	—	—	13930	2380	—	—	A	—	—
		2	—	—	15.5	75.5	9.0	2.9	—	—	—	—	—	14110	—	—	—	—	—	—
		3	—	—	17.0	83.0	—	3.1	—	—	—	—	—	15510	—	—	—	—	—	—
—	B-54870	1	0.5	1.4	15.7	73.8	9.1	2.6	—	—	—	—	—	13910	2380	—	—	A	—	—
		2	—	—	15.9	74.9	9.2	2.6	—	—	—	—	—	14100	—	—	—	—	—	—
		3	—	—	17.6	82.4	—	2.9	—	—	—	—	—	15530	—	—	—	—	—	—
42	B-54871	1	0.5	1.4	15.3	72.1	11.2	2.7	—	—	—	—	—	13520	2100	—	—	A	—	—
		2	—	—	15.5	73.2	11.3	2.8	—	—	—	—	—	13720	—	—	—	—	—	—
		3	—	—	17.4	82.6	—	3.1	—	—	—	—	—	15470	—	—	—	—	—	—
—	B-54872	1	1.8	2.7	14.8	70.6	11.9	2.4	—	—	—	—	—	13230	2060	—	—	A	—	—
		2	—	—	15.2	72.6	12.2	2.4	—	—	—	—	—	13590	—	—	—	—	—	—
		3	—	—	17.3	82.7	—	2.8	—	—	—	—	—	15480	—	—	—	—	—	—
44	3372	1	1.4	2.2	14.0	72.1	11.7	2.1	—	—	—	—	—	—	—	—	—	B	—	—
		2	—	—	14.3	73.8	11.9	2.1	—	—	—	—	—	—	—	—	—	—	—	—
Franklin County																				
43	E-40766	1	—	30.9	23.7	33.7	11.7	0.4	—	—	—	—	—	5910	2480	2910	—	A	—	—
		2	—	—	34.2	48.9	16.9	0.6	—	—	—	—	—	8550	—	—	—	—	—	—
		3	—	—	41.2	58.8	—	0.7	—	—	—	—	—	10290	—	—	—	—	—	—
44	B-55747	1	3.1	3.9	16.2	74.4	5.5	0.7	—	—	—	—	—	14090	2410	—	—	A	—	—
		2	—	—	16.8	77.5	5.7	0.7	—	—	—	—	—	14660	—	—	—	—	—	—
		3	—	—	17.9	82.1	—	0.7	—	—	—	—	—	15550	—	—	—	—	—	—
—	B-55748	1	1.2	1.9	16.7	75.7	5.7	0.6	—	—	—	—	—	14360	2450	—	—	A	—	—
		2	—	—	17.0	77.2	5.8	0.6	—	—	—	—	—	14630	—	—	—	—	—	—
		3	—	—	18.1	81.9	—	0.7	—	—	—	—	—	15530	—	—	—	—	—	—
—	B-55749	1	1.5	2.2	16.4	73.7	7.7	0.7	—	—	—	—	—	14010	2180	—	—	—	—	—
		2	—	—	16.8	75.4	7.8	0.7	—	—	—	—	—	14330	—	—	—	—	—	—
		3	—	—	18.2	81.8	—	0.8	—	—	—	—	—	15560	—	—	—	—	—	—
—	B-55750	1	5.5	6.3	16.1	70.0	7.6	0.7	—	—	—	—	—	13360	2330	—	—	A	—	—
		2	—	—	17.2	74.7	8.1	0.7	—	—	—	—	—	14250	—	—	—	—	—	—
		3	—	—	18.7	81.3	—	0.8	—	—	—	—	—	15510	—	—	—	—	—	—

TABLE 1 -- PROXIMATE AND ULTIMATE ANALYSES OF COAL IN WEST CENTRAL ARKANSAS (Continued)

Locality Number /1	Thickness (inches)	Site of sample /2	U. S. Bur. Mines lab No.	Condition /3	Air-drying loss	Proximate analyses				Ultimate analyses							Fusibility of ash (°F.)	Free swelling index No.	Source of analyses /4	Remarks							
						Moisture	Volatiles matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon	Nitrogen					Oxygen	Initial deformation temperature	Softening temperature	Fluid temperature			
45	28	S	K-54019	1	1.7	2.6	15.9	76.1	5.4	0.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Sample of 2.5-inch coal.		
				2	—	—	16.4	78.1	5.5	0.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
				3	—	—	17.3	82.7	—	0.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
46	—	T	B-55789	1	1.9	2.6	14.5	77.6	5.3	1.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Sample of 8-inch coal.		
				2	—	—	14.9	79.7	5.4	1.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
				3	—	—	15.8	84.2	—	1.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
47	—	M	B-55790	1	1.9	2.7	14.3	77.3	5.7	1.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Sample of 3 to 8-inch coal.		
				2	—	—	14.7	79.5	5.8	1.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
				3	—	—	15.6	84.4	—	2.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
48	—	T	B-55786	1	1.6	2.5	13.9	71.5	10.7	2.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Sample of 1.25 to 3-inch coal.		
				2	—	—	14.5	74.4	11.1	2.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
				3	—	—	16.3	83.7	—	2.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
47	—	M	A-99376	1	2.1	2.8	13.9	75.3	8.0	2.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Sample of less than 1.25-inch coal.		
				2	—	—	14.8	78.3	6.9	1.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
				3	—	—	15.9	84.1	—	2.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
47	—	M	A-99375	1	1.8	2.6	14.0	71.7	11.7	3.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Sample of less than 1.25-inch coal.		
				2	—	—	14.0	73.7	9.7	3.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
				3	—	—	16.0	84.0	—	3.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
47	—	M	A-99377	1	2.0	2.6	14.0	73.7	9.7	3.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Composite of samples A-99376 and A-99375.		
				2	—	—	14.4	75.6	10.0	3.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
				3	—	—	16.0	84.0	—	3.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
48	—	T	B-55786	1	1.6	2.5	15.1	76.5	5.9	1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Sample of 6-inch coal.		
				2	—	—	15.4	78.5	6.1	1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—
				3	—	—	16.4	83.6	—	1.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—

49	M	B-55787	1	1.6	2.4	15.2	77.1	5.3	0.9	-	-	-	-	-	-	-	-	-	2410	-	-	-	A	Sample of 2.5 to 6-inch coal.
			2	-	-	15.6	78.9	5.5	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	16.5	83.5	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		B-55788	1	2.8	3.7	14.7	71.9	9.7	1.5	-	-	-	-	-	-	-	-	-	2050	-	-	-	A	Sample of less than 0.75-inch coal.
			2	-	-	15.2	74.7	10.1	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	16.9	83.1	-	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		A-99378	1	2.1	2.5	14.2	75.4	7.9	2.0	-	-	-	-	-	-	-	-	-	2400	-	-	-	C	-
		A-99379	1	2.3	2.8	13.9	76.1	7.2	1.9	-	-	-	-	-	-	-	-	-	2430	-	-	-	C	-
		A-99380	1	1.9	2.4	13.8	77.7	6.1	1.7	-	-	-	-	-	-	-	-	-	2440	-	-	-	C	-
		A-99381	1	2.1	2.6	14.3	76.0	7.1	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	C	Composite of samples B-99378, B-99379, and B-99380.
			2	-	-	14.7	78.0	7.3	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	15.8	84.2	-	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		A-99367	1	1.9	2.4	15.7	76.3	5.6	0.7	-	-	-	-	-	-	-	-	-	2400	-	-	-	C	-
50	M	A-99368	1	2.8	3.3	13.6	80.3	2.8	0.7	-	-	-	-	-	-	-	-	-	2220	-	-	-	C	-
		A-99369	1	3.0	3.4	14.3	78.6	3.7	0.7	-	-	-	-	-	-	-	-	-	2360	-	-	-	C	-
		A-99370	1	2.6	3.1	14.6	78.2	4.1	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	C	Composite of samples A-99367, A-99368, and A-99369.
			2	-	-	15.0	80.7	4.3	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	15.7	84.3	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		3370	1	2.4	3.4	12.1	78.4	6.1	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	B	-
51	M		2	-	-	12.5	81.2	6.3	4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1130	1	0.7	1.4	14.8	76.8	7.0	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	B	-
52	M		2	-	-	15.0	77.9	7.1	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1131	1	1.3	1.8	15.0	75.9	7.3	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	B	-
			2	-	-	15.3	77.3	7.4	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	S	K-54017	1	-	2.7	18.8	75.6	2.9	0.8	0.01	0.22	0.55	4.6	85.7	1.9	4.1	2250	2360	2570	9	-	-	A	-
			2	-	-	19.4	77.6	3.0	0.8	0.01	0.22	0.56	4.4	88.1	1.9	1.8	-	-	-	-	-	-	-	-
			3	-	-	19.9	80.1	-	0.8	0.01	0.23	0.58	4.6	90.8	2.0	1.8	-	-	-	-	-	-	-	-
54	T	B-57592	1	2.2	2.6	16.2	76.9	4.3	0.7	-	-	-	-	-	-	-	-	-	2290	-	-	-	A	Sample of mine-run coal.
			2	-	-	16.7	78.9	4.4	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	17.4	82.6	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	S	K-63743	1	-	1.3	16.1	66.7	15.9	1.4	0.01	0.74	0.67	3.9	73.1	1.5	4.2	-	-	2910	-	-	-	A	-
			2	-	-	16.3	67.6	16.1	1.4	0.01	0.75	0.68	3.8	74.0	1.6	3.1	-	-	-	-	-	-	-	-
			3	-	-	19.4	80.6	-	1.7	0.01	0.89	0.81	4.6	88.2	1.9	1.7	-	-	-	-	-	-	-	-
56	T	B-57591	1	1.9	2.3	16.6	77.1	4.0	0.8	-	-	-	-	-	-	-	-	-	2270	-	-	-	A	-
			2	-	-	17.0	78.9	4.1	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	17.7	82.3	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

TABLE 1 -- PROXIMATE AND ULTIMATE ANALYSES OF COAL IN WEST CENTRAL ARKANSAS (Continued)

Locality Number /1	Thickness (inches)	Site of sample /2	U. S. Bur. Mines lab No.	Condition /3	Air-drying loss	Proximate analyses				Ultimate analyses							Btu/lb.	Fusibility of ash (°F.)			Free swelling Index No.	Source of analyses /4	Remarks					
						Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Sulphate	Pyritic	Organic	Hydrogen	Carbon	Nitrogen		Oxygen	Initial deformation temperature	Softening temperature				Fluid temperature				
57	22	S	K-63741	1	-	1.6	16.0	78.1	4.3	0.6	0.01	0.07	0.52	4.3	85.4	1.7	3.7	14700	2070	2120	2220	7	A					
				2	-	-	16.3	79.3	4.4	0.6	0.01	0.07	0.52	4.2	86.8	1.7	2.3	14930	-	-	-	-	-	-	-	-	-	
				3	-	-	17.0	83.0	-	0.6	0.01	0.07	0.52	4.4	90.8	1.8	2.4	15620	-	-	-	-	-	-	-	-	-	-
58	22	M	E-40762	1	-	1.1	16.1	73.6	9.2	5.5	-	-	-	3.9	78.6	1.5	1.3	13860	2300	2440	2520	8	A					
				2	-	-	16.3	74.4	9.3	5.6	-	-	-	3.9	79.5	1.6	0.1	14010	-	-	-	-	-	-	-	-	-	
				3	-	-	18.0	82.0	-	6.1	-	-	-	4.3	87.7	1.7	0.2	15540	-	-	-	-	-	-	-	-	-	-
59	14	S	K-54016	1	-	3.4	17.7	75.7	3.2	0.6	0.01	0.14	0.43	4.5	84.0	1.8	5.9	14480	2090	2140	2190	5	A	Sample collected 21 years after Sample E-40762.				
				2	-	-	18.3	78.4	3.3	0.6	0.01	0.14	0.45	4.3	87.0	1.9	2.9	14990	-	-	-	-	-	-	-	-	-	
				3	-	-	18.9	81.1	-	0.6	0.01	0.15	0.46	4.4	90.0	1.9	3.1	15500	-	-	-	-	-	-	-	-	-	-
60	14	S	E-40761	1	-	9.6	14.2	69.8	6.4	0.7	0.05	0.16	0.52	4.8	75.9	1.6	10.6	12990	2140	2250	2570	4	A					
				2	-	-	15.7	77.2	7.1	0.8	0.06	0.17	0.58	4.1	84.0	1.8	2.2	14370	-	-	-	-	-	-	-	-	-	
				3	-	-	16.9	83.1	-	0.9	0.07	0.19	0.62	4.4	90.4	1.9	2.4	15470	-	-	-	-	-	-	-	-	-	-
61	12	S	G-49866	1	-	2.0	11.7	81.9	4.4	0.6	-	-	-	4.2	85.8	1.6	3.0	14750	2020	2220	2440	5.5	A					
				2	-	-	14.6	81.0	4.4	1.0	-	-	-	4.1	87.0	1.7	1.8	14960	-	-	-	-	-	-	-	-	-	
				3	-	-	15.3	84.7	-	1.0	-	-	-	4.3	91.0	1.7	2.0	15660	-	-	-	-	-	-	-	-	-	-
62	18	M	B-84599	1	-	1.1	15.4	79.6	3.9	0.8	-	-	-	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	-	-	-	-	-	-	-	-		
				3	-	-	12.5	87.5	-	0.7	-	-	-	3.9	90.6	1.7	3.1	15260	-	-	-	-	-	-	-	-	-	
62	18	M	B-84600	1	-	4.8	12.0	79.5	3.7	0.6	-	-	-	4.3	86.0	1.8	3.2	14810	2170	2300	2500	5.5	A	Hardgrove grindability index 100.				
				2	-	-	12.6	83.5	3.9	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				3	-	-	13.1	86.9	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	18	M	B-84600	1	-	6.5	11.9	77.5	4.1	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
				2	-	-	12.7	82.9	4.4	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3	-	-	13.3	86.7	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

19	B-84601	1	7.7	8.5	11.6	76.1	3.8	0.7										2290		A	
		2	-	-	12.7	83.1	4.2	0.7											-		-
		3	-	-	13.2	86.8	-	0.7											-		-
19	B-84602	1	5.9	6.8	11.4	78.3	3.5	0.7										2290		A	
		2	-	-	12.3	83.9	3.8	0.7										-		-	
		3	-	-	12.7	87.3	-	0.7										-		-	
63	B-84603	1	5.7	6.7	11.6	77.9	3.8	0.6					4.5	81.9	1.6	7.6	13960		A	Composite of samples B-84599 to B-84602 inclusive.	
		2	-	-	12.4	83.5	4.1	0.7					4.0	87.9	1.7	1.6	14970		-		
		3	-	-	12.9	87.1	-	0.7					4.2	91.6	1.8	1.7	15600		-		
20	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	2190	A	Sample of 5.5 to 7.5-inch coal.	
		2	-	-	14.4	82.5	3.1	0.6	0.01	0.12	0.48		4.0	89.0	1.8	1.5	15070	2250	-		
		3	-	-	14.8	85.2	-	0.6	0.01	0.13	0.50		4.1	91.8	1.8	1.7	15550	-	-		
64	B-56000	1	1.4	2.1	12.4	75.3	10.2	3.2										2330		A	
		2	-	-	12.7	76.9	10.4	3.2										-		-	
		3	-	-	14.2	85.5	-	3.6										-		-	
65	B-56001	1	1.3	2.0	12.8	75.7	9.5	2.7										2400		A	
		2	-	-	13.1	77.2	9.7	2.8										-		-	
		3	-	-	14.5	85.5	-	3.1										-		-	
65	B-56002	1	1.7	2.4	12.5	75.2	9.9	2.5										2260		A	
		2	-	-	12.8	77.0	10.2	2.5										-		-	
		3	-	-	14.3	85.7	-	2.8										-		-	
66	B-56003	1	3.0	4.0	12.6	70.8	12.6	2.5										2190		A	
		2	-	-	13.2	73.7	13.1	2.6										-		-	
		3	-	-	15.1	84.9	-	3.0										-		-	
65	M	1	1.0	2.1	11.4	77.9	8.6	2.0												B	
		2	-	-	11.7	79.5	8.8	2.0										-		-	
66	B-56005	1	1.2	1.8	12.0	75.1	11.1	3.9										2450		A	
		2	-	-	12.2	76.5	11.3	3.9										-		-	
		3	-	-	13.8	86.2	-	4.4										-		-	
66	B-56006	1	1.3	1.8	11.9	75.0	11.3	4.0										2450		A	
		2	-	-	12.2	76.3	11.5	4.1										-		-	
		3	-	-	13.7	86.3	-	4.6										-		-	
66	B-56007	1	1.1	1.8	11.8	75.9	10.5	3.4										2450		A	
		2	-	-	12.0	77.3	10.7	3.4										-		-	
		3	-	-	13.4	86.6	-	3.8										-		-	
66	B-56008	1	1.2	1.9	11.6	74.4	12.1	3.5										2290		A	
		2	-	-	11.8	75.9	12.3	3.6										-		-	
		3	-	-	13.4	86.6	-	4.1										-		-	
66	B-56009	1	1.6	2.4	12.4	69.4	15.8	2.6										2210		A	
		2	-	-	12.7	71.1	16.2	2.6										-		-	
		3	-	-	15.1	84.9	-	3.1										-		-	

See footnotes at end of table.

TABLE 1 -- PROXIMATE AND ULTIMATE ANALYSES OF COAL IN WEST CENTRAL ARKANSAS (Continued)

Locality Number /1	Thickness (inches)	Site of sample /2	U. S. Bur. Mines lab No.	Condition /3	Air-drying loss	Proximate analyses				Ultimate analyses						Btu/lb.	Fusibility of ash (°F.)			Free swelling Index No.	Source of analyses /4	Remarks						
						Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Sulphate	Pyritic	Organic	Hydrogen	Carbon		Nitrogen	Oxygen	Initial deformation temperature				Softening temperature	Fluid temperature				
67	-	T	B-57787	1	1.5	2.1	12.4	77.2	8.3	2.4	-	-	-	-	-	-	-	2400	-	-	A	Sample of 6 to 7.5-inch coal.						
				2	-	-	12.6	79.0	8.4	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
				3	-	-	13.8	86.2	-	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
				1	1.8	2.3	12.2	77.8	7.7	2.2	-	-	-	-	-	-	-	-	-	2360	-	-	A	Sample of 3 to 6-inch coal.				
				2	-	-	12.5	79.6	7.9	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
				3	-	-	13.5	86.5	-	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				1	1.7	2.3	12.1	78.0	7.6	1.8	-	-	-	-	-	-	-	-	-	2290	-	-	A	Sample of 1.5 to 3-inch coal.				
				2	-	-	12.4	79.8	7.8	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				3	-	-	13.4	86.6	-	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	-	M	B-57790	1	1.8	2.5	11.6	75.9	10.0	1.9	-	-	-	-	-	-	-	-	2120	-	-	A	Sample of 0.625 to 1.5-inch coal.					
				2	-	-	11.9	77.8	10.3	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
				3	-	-	13.3	86.7	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				1	2.5	3.3	11.7	71.9	13.1	1.6	-	-	-	-	-	-	-	-	-	2190	-	-	A	Sample of less than 0.625-inch coal.				
				2	-	-	12.1	74.3	13.6	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				3	-	-	14.0	86.0	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				1	2.5	3.1	10.3	79.5	7.1	1.5	-	-	-	-	-	-	-	-	-	2370	-	-	C	-				
				1	1.7	2.3	10.9	78.2	8.6	2.0	-	-	-	-	-	-	-	-	-	2380	-	-	C	-				
				1	1.7	2.3	10.3	80.6	6.8	1.5	-	-	-	-	-	-	-	-	-	2390	-	-	C	-				
69	19	S	A-99389	1	2.0	2.6	10.6	79.3	7.5	1.7	-	-	-	-	-	-	-	-	-	-	-	C	Composite of samples A-99386, A-99387, and A-99388.					
				2	-	-	10.8	81.5	7.7	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
				3	-	-	11.7	88.3	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				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	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	-	-	-	-	-	-	-	-	-	-	
				3	-	-	12.2	87.8	-	1.2	0.01	0.30	0.88	4.0	90.4	1.7	2.7	-	-	-	-	-	-	-	-	-	-	-
				1	2.5	3.1	12.2	76.1	8.6	3.9	-	-	-	-	-	-	-	-	-	2510	-	-	A	Sample of 10-inch coal.				
				2	-	-	12.6	78.5	8.9	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				3	-	-	13.9	86.1	-	4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

71	M	A-99390	1	1.8	2.6	11.4	78.1	7.9	1.7	-	-	-	-	-	-	-	-	-	2310	C	Sample of less than 0.875-inch coal.			
			2	3.4	4.3	11.7	67.8	16.2	3.1	-	-	-	-	-	-	-	-	-	-	2430	A	Sample of 0.875 to 3-inch coal.		
			3	-	-	12.3	70.7	17.0	3.3	-	-	-	-	-	-	-	-	-	-	2430	C	Sample of 3 to 5-inch coal.		
72	S	K-54020	1	-	3.6	14.5	71.3	10.6	1.3	0.11	0.75	0.46	3.8	77.4	1.6	5.3	13150	2080	2130	2180	0.5	A	Sample of 5 to 10-inch coal.	
			2	-	-	15.1	74.0	10.9	1.4	0.11	0.78	0.48	3.5	80.3	1.6	2.3	13646	-	-	-	-	-	-	-
			3	-	-	16.9	83.1	-	1.5	0.11	0.88	0.54	4.0	90.2	1.8	2.5	15310	-	-	-	-	-	-	-
73	M	B-23744	1	3.0	3.5	12.2	76.6	7.7	1.4	-	-	-	-	-	-	-	-	-	-	2210	A	Sample of 5.5 to 7.5-inch coal.		
			2	-	-	12.7	79.3	8.0	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	13.8	86.2	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	T	B-57442	1	1.7	2.3	12.1	75.9	9.7	1.7	-	-	-	-	-	-	-	-	-	-	2300	-	Sample of 2.25 to 5.5-inch coal.		
			2	-	-	12.4	77.7	9.9	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	13.7	86.3	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	T	B-57441	1	1.7	2.3	12.2	76.1	9.4	1.5	-	-	-	-	-	-	-	-	-	-	2320	A	Sample of 5.5 to 7.5-inch coal.		
			2	-	-	12.5	77.9	9.6	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	13.9	86.1	-	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	M	B-23745	1	3.2	3.8	12.8	75.1	8.3	1.1	-	-	-	-	-	-	-	-	-	-	2140	A	Composite of samples B-23744 and B-23745.		
			2	-	-	13.3	78.1	8.6	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	14.5	85.5	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	M	B-23746	1	3.1	3.6	12.6	75.8	8.0	1.2	-	-	-	-	-	-	-	-	-	-	-	-	Composite of samples B-23744 and B-23745.		
			2	-	-	13.1	78.6	8.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	14.3	85.7	-	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	T	B-57442	1	1.7	2.3	12.1	75.9	9.7	1.7	-	-	-	-	-	-	-	-	-	-	2300	-	Sample of 2.25 to 5.5-inch coal.		
			2	-	-	12.4	77.7	9.9	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			3	-	-	13.7	86.3	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

TABLE 1 -- PROXIMATE AND ULTIMATE ANALYSES OF COAL IN WEST CENTRAL ARKANSAS (Continued)

Locality Number /1	Thickness (inches)	Site of sample /2	U. S. Bur. Mines lab No.	Condition /3	Air-drying loss	Proximate analyses				Ultimate analyses						Btu./lb.	Fusibility of ash (°F.)			Free swelling index No.	Source of analyses /4	Remarks		
						Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon		Nitrogen	Oxygen	Initial deformation temperature				Softening temperature	Fluid temperature
75	-	-	B-57443	1	1.8	2.2	12.2	74.7	10.9	2.1	-	-	-	-	-	-	2220	-	-	A	Sample of 1.5 to 2.25-inch coal.			
				2	-	-	12.5	76.3	11.2	2.2	-	-	-	-	-	-	-	-	-	-		-		
				3	-	-	14.0	86.0	-	2.4	-	-	-	-	-	-	-	-	-	-		-	-	
				1	1.8	2.2	11.9	74.8	11.1	1.9	-	-	-	-	-	-	-	2170	-	-		A	Sample of 0.875 to 1.5-inch coal.	
				2	-	-	12.2	76.4	11.4	2.0	-	-	-	-	-	-	-	-	-	-		-		
				3	-	-	13.8	86.2	-	2.2	-	-	-	-	-	-	-	-	-	-		-		
				1	1.8	2.2	12.7	72.9	12.2	1.8	-	-	-	-	-	-	-	2220	-	-		A	Sample of less than 0.875-inch coal.	
				2	-	-	13.0	74.6	12.4	1.9	-	-	-	-	-	-	-	-	-	-		-		
				3	-	-	14.8	85.2	-	2.2	-	-	-	-	-	-	-	-	-	-		-		
76	-	-	18755	1	2.2	2.8	11.9	75.2	10.1	2.2	-	-	-	-	-	2180	-	-	B	Composite of samples A-99410, A-99411, and A-99412.				
				2	-	-	12.2	77.4	10.4	2.2	-	-	-	-	-	-	-	-	-		-			
				3	-	-	13.7	86.3	-	2.5	-	-	-	-	-	-	-	-	-		-	-		
				1	1.7	2.5	11.3	77.4	8.8	1.7	-	-	-	-	-	-	2450	-	-		C			
				1	2.0	2.9	10.7	77.7	8.7	1.8	-	-	-	-	-	-	2360	-	-		C			
				1	1.5	2.6	10.7	77.6	9.1	2.2	-	-	-	-	-	-	2330	-	-		C			
				1	1.7	2.7	10.9	77.6	8.8	2.0	-	-	-	-	-	-	-	-	-		-	-	-	
				2	-	-	11.2	79.7	9.1	2.0	-	-	-	-	-	-	-	-	-		-	-	-	-
				3	-	-	12.4	87.6	-	2.2	-	-	-	-	-	-	-	-	-		-	-	-	-
1	1.4	2.1	9.8	78.8	9.3	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	Coal is weathered.				
2	-	-	10.0	80.5	9.5	1.8	-	-	-	-	-	-	-	-	-	-	-	-						
3	-	-	11.1	88.9	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-						
77	-	-	3218	1	2.6	3.8	16.0	75.8	4.4	2.2	-	-	-	-	-	-	-	-	-		B			
				2	-	-	16.6	78.8	4.6	2.3	-	-	-	-	-	-	-	-	-			-		

Charleston Coal bed
Sebastian County

78	16	S	K-63746	1	3.1	16.8	78.5	1.6	0.9	0.01	0.05	0.81	4.7	85.1	1.8	14740	2140	2190	2250	2	A	Coal is slightly weathered.
				2	—	17.3	81.0	1.7	0.9	0.01	0.05	0.84	4.4	87.8	1.8	15210	—	—	—	—	—	
				3	—	17.6	82.4	—	0.9	0.01	0.05	0.85	4.5	89.3	1.9	15470	—	—	—	—	—	
79	—	T	B-56102	1	1.6	19.3	71.7	6.8	3.1	—	—	—	—	—	—	14220	—	2330	—	—	A	
				2	—	19.7	73.4	6.9	3.2	—	—	—	—	—	—	—	—	—	—	—	—	
				3	—	21.2	78.8	—	3.4	—	—	—	—	—	—	—	—	—	—	—	—	
80	16	S	K-54022	1	—	20.4	71.2	7.7	3.5	0.13	2.94	0.40	4.4	81.7	1.6	14290	2200	2250	2300	9	A	
				2	—	20.7	72.2	7.1	3.5	0.13	2.98	0.40	4.3	82.8	1.6	14480	—	—	—	—	—	
				3	—	22.3	77.7	—	3.8	0.14	3.21	0.44	4.6	89.2	1.7	15590	—	—	—	—	—	
81	16	S	K-63745	1	—	18.6	72.8	6.8	3.4	0.01	2.51	0.89	4.4	81.0	1.6	14200	2480	2530	2590	9	A	
				2	—	18.9	74.2	6.9	3.5	0.01	2.56	0.91	4.3	82.5	1.6	14450	—	—	—	—	—	
				3	—	20.3	79.7	—	3.7	0.01	2.75	0.98	4.6	88.6	1.8	15530	—	—	—	—	—	
				Paris Coal bed																		
				Franklin County																		
82	27	M	E-40767	1	—	20.0	74.3	4.7	2.4	—	—	—	4.6	83.8	1.5	14750	2090	2190	2380	9	A	
				2	—	20.2	75.1	4.7	2.4	—	—	—	4.5	84.6	1.5	14900	—	—	—	—	—	
				3	—	21.2	78.8	—	2.4	—	—	—	4.7	88.8	1.6	15640	—	—	—	—	—	
				Logan County																		
83	—	T	B-56172	1	0.8	18.6	71.5	8.6	2.1	—	—	—	—	—	—	14050	—	2420	—	—	A	Sample of 9-inch coal.
				2	—	18.8	72.5	8.7	2.1	—	—	—	—	—	—	14230	—	—	—	—	—	
				3	—	20.6	79.4	—	2.3	—	—	—	—	—	—	15590	—	—	—	—	—	
				1	0.8	18.9	71.4	8.4	2.1	—	—	—	—	—	—	14070	—	2430	—	—	A	Sample of 5 to 9-inch coal.
				2	—	19.2	72.3	8.5	2.1	—	—	—	—	—	—	14250	—	—	—	—	—	
				3	—	21.0	79.0	—	2.3	—	—	—	—	—	—	15580	—	—	—	—	—	
				1	0.7	18.4	72.0	8.3	2.0	—	—	—	—	—	—	14130	—	2410	—	—	A	Sample of 3 to 5-inch coal.
				2	—	18.6	73.0	8.4	2.1	—	—	—	—	—	—	14320	—	—	—	—	—	
				3	—	20.3	79.7	—	2.3	—	—	—	—	—	—	15640	—	—	—	—	—	
				1	0.9	18.5	71.2	8.8	2.0	—	—	—	—	—	—	13970	—	2410	—	—	A	Sample of 1.25 to 3-inch coal.
				2	—	18.8	72.3	8.9	2.0	—	—	—	—	—	—	14180	—	—	—	—	—	
				3	—	20.7	79.3	—	2.2	—	—	—	—	—	—	15580	—	—	—	—	—	
				1	0.9	17.8	66.0	14.6	2.0	—	—	—	—	—	—	13000	—	2070	—	—	A	Sample of 0.875 to 1.25-inch coal.
				2	—	18.1	67.1	14.8	2.0	—	—	—	—	—	—	13200	—	—	—	—	—	
				3	—	21.3	78.7	—	2.4	—	—	—	—	—	—	15500	—	—	—	—	—	
				1	1.4	20.0	62.7	17.4	1.7	—	—	—	—	—	—	12380	—	2130	—	—	A	Sample of less than 0.875-inch coal.
				2	—	18.3	64.0	17.7	1.8	—	—	—	—	—	—	12630	—	—	—	—	—	
				3	—	22.2	77.8	—	2.1	—	—	—	—	—	—	15360	—	—	—	—	—	
		M	A-99628	1	1.0	18.6	71.4	8.4	2.4	—	—	—	—	—	—	14100	—	2370	—	—	C	

See footnotes at end of table.

TABLE 1 -- PROXIMATE AND ULTIMATE ANALYSES OF COAL IN WEST CENTRAL ARKANSAS (Continued)

Locality Number /1	Thickness (inches)	Site of sample /2	U. S. Bur. Mines lab No.	Condition /3	Air-drying loss	Proximate analyses				Ultimate analyses						Btu./lb.	Fusibility of ash (°F.)			Free swelling index No.	Source of analyses /4	Remarks				
						Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon		Nitrogen	Oxygen	Initial deformation temperature				Softening temperature	Fluid temperature		
84	-	T	A-99829	1	1.3	1.8	17.7	70.9	9.6	3.1	-	-	-	-	-	-	-	2370	-	-	C	Composite of samples A-99828, A-99829, and 99384.				
				1	1.5	2.0	18.2	71.3	8.5	2.3	-	-	-	-	-	-	-	-	2390	-	-		C			
				1	1.3	1.8	18.2	71.1	8.9	2.4	4.4	80.6	1.6	2.1	-	-	-	-	-	-	-		C			
				2	-	-	18.5	72.5	9.0	2.5	4.2	82.0	1.6	0.7	-	-	-	-	-	-	-		-	-		
				3	-	-	20.3	79.7	-	2.7	4.7	90.1	1.8	0.7	-	-	-	-	-	-	-		-	-		
				1	1.5	1.5	19.0	71.6	7.9	2.0	-	-	-	-	-	-	-	-	-	2320	-		-	A	Sample of 8-inch coal.	
				2	-	-	19.3	72.6	8.1	2.1	-	-	-	-	-	-	-	-	-	-	-		-	-	-	
				3	-	-	21.0	79.0	-	2.3	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
				1	1.2	1.5	19.0	71.3	8.2	2.0	-	-	-	-	-	-	-	-	-	-	2320		-	-	A	Sample of 3 to 8-inch coal.
85	-	T	B-57594	2	-	-	19.3	72.4	8.3	2.0	-	-	-	-	-	-	-	-	-	-	-	Sample of less than 3-inch coal.				
				3	-	-	21.0	79.0	-	2.2	-	-	-	-	-	-	-	-	-	-	-		-			
				1	2.0	2.5	17.4	58.5	21.6	1.7	-	-	-	-	-	-	-	-	-	-	-		-	A		
				2	-	-	17.9	59.9	22.2	1.8	-	-	-	-	-	-	-	-	-	-	-		-	-	-	
				3	-	-	23.0	77.0	-	2.2	-	-	-	-	-	-	-	-	-	-	-		-	-	-	
				1	1.3	1.7	18.6	72.3	7.4	2.1	-	-	-	-	-	-	-	-	-	2400	-		-	A	Sample of 8-inch coal.	
				2	-	-	18.9	73.6	7.5	2.2	-	-	-	-	-	-	-	-	-	-	-		-	-	-	
				3	-	-	20.5	79.5	-	2.3	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
				1	1.1	1.5	18.2	72.3	8.0	2.3	-	-	-	-	-	-	-	-	-	-	-		-	-	A	Sample of 3 to 8-inch coal.
86	-	M	B-56336	2	-	-	18.4	73.5	8.1	2.4	-	-	-	-	-	-	-	-	-	-	-	Sample of 1.25 to 3-inch coal.				
				3	-	-	20.1	79.9	-	2.6	-	-	-	-	-	-	-	-	-	-	-		-			
				1	1.3	1.7	17.8	69.3	11.2	2.4	-	-	-	-	-	-	-	-	-	-	-		-	A		
				2	-	-	18.1	70.5	11.4	2.4	-	-	-	-	-	-	-	-	-	-	-		-	-	-	
				3	-	-	20.4	79.6	-	2.7	-	-	-	-	-	-	-	-	-	-	-		-	-	-	
				1	1.5	2.1	17.3	59.9	20.7	1.9	-	-	-	-	-	-	-	-	-	-	-		-	-	A	Sample of less than 1.25-inch coal.
				2	-	-	17.7	61.1	21.2	2.0	-	-	-	-	-	-	-	-	-	-	-		-	-	-	
				3	-	-	22.5	77.5	-	2.5	-	-	-	-	-	-	-	-	-	-	-		-	-	-	
				1	1.1	1.7	17.9	71.1	9.3	2.6	-	-	-	-	-	-	-	-	-	-	-		-	-	C	

TABLE 1 -- PROXIMATE AND ULTIMATE ANALYSES OF COAL IN WEST CENTRAL ARKANSAS (Continued)

Locality Number /1	Thickness (inches)	Site of sample /2	U. S. Bur. Mines lab No.	Condition /3	Air-drying loss	Proximate analyses				Ultimate analyses						Btu./lb.	Fusibility of ash (°F.)			Free swelling index No.	Source of analyses /4	Remarks				
						Moisture	Volatile matter	Fixed carbon	Ash	Sulphur	Forms of Sulphur			Hydrogen	Carbon		Nitrogen	Oxygen	Initial deformation				Softening temperature	Fluid temperature		
93	-	T	B-56396	1	1.0	1.4	17.8	73.5	7.3	1.6	-	-	-	-	-	-	-	2500	-	-	A	Sample of 3 to 9-inch coal.				
				2	-	-	18.1	74.5	7.4	1.6	-	-	-	-	-	-	-	-	-	-	-		-			
				3	-	-	19.5	80.5	-	1.7	-	-	-	-	-	-	-	-	-	-	-		-	-		
				1	1.0	1.4	17.7	71.0	9.9	1.7	-	-	-	-	-	-	-	-	2380	-	-		A	Sample of 0.188 to 3-inch coal.		
				2	-	-	17.9	72.0	10.1	1.7	-	-	-	-	-	-	-	-	-	-	-		-		-	
				3	-	-	19.9	80.1	-	1.9	-	-	-	-	-	-	-	-	-	-	-		-		-	
				1	0.7	1.2	18.5	72.2	8.1	2.1	-	-	-	-	-	-	-	-	-	2430	-		-	A	Sample of 8-inch coal.	
				2	-	-	18.7	73.1	8.2	2.1	-	-	-	-	-	-	-	-	-	-	-		-	-		-
				3	-	-	20.4	79.6	-	2.3	-	-	-	-	-	-	-	-	-	-	-		-	-		-
1	0.7	1.1	18.3	72.2	8.4	1.9	-	-	-	-	-	-	-	-	-	2330	-	-	A	Sample of 4 to 8-inch coal.						
2	-	-	18.5	73.0	8.5	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-		-					
3	-	-	20.3	79.7	-	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-				
1	0.7	1.2	18.3	72.5	8.0	1.9	-	-	-	-	-	-	-	-	-	2400	-	-	A	Sample of 2 to 4-inch coal.						
2	-	-	18.5	73.4	8.1	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-				
3	-	-	20.1	79.9	-	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-			
1	0.8	1.4	17.8	68.8	12.0	2.0	-	-	-	-	-	-	-	-	-	2170	-	-	A	Sample of 1 to 2-inch coal.						
2	-	-	18.0	69.9	12.1	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-			
3	-	-	20.5	79.5	-	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-			
1	0.7	1.3	17.8	69.7	11.2	1.9	-	-	-	-	-	-	-	-	-	2230	-	-	A	Sample of 0.25 to 1-inch coal.						
2	-	-	18.1	70.5	11.4	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-			
3	-	-	20.4	79.6	-	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-		
1	0.8	1.3	18.1	67.6	13.0	1.6	-	-	-	-	-	-	-	-	-	2150	-	-	A	Sample of less than 0.25-inch coal.						
2	-	-	18.3	68.6	13.1	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-		
3	-	-	21.1	78.9	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-		
94	-	T	B-56398	1	1.2	1.6	18.7	70.5	9.2	2.3	-	-	-	-	-	-	2410	-	-	A	Sample of 8-inch coal.					
				2	-	-	19.0	71.6	9.4	2.4	-	-	-	-	-	-	-	-	-	-		-	-	-		
				3	-	-	20.9	79.1	-	2.6	-	-	-	-	-	-	-	-	-	-		-	-	-	-	

**TABLE 2 -- ESTIMATED ORIGINAL RESERVES OF LOW-VOLATILE BITUMINOUS COAL
IN THE ARKANSAS VALLEY COAL FIELD**
(in millions of short tons)

Lower Hartshorne Coal bed				
County	Thickness in inches			Total
	14-28	28-42	42+	
Crawford	138.4	104.9	46.6	289.9
Franklin	123.5	14.5	25.1	163.3
Johnson	37.5	19.1	2.8	59.4
Logan	5.3	3.7	—	9.0
Scott	40.9	29.7	33.6	104.2
Sebastian	270.6	475.6	268.0	1,014.2
Upper Hartshorne Coal bed				
Sebastian	16.4	27.8	0.1	27.9
Charleston Coal bed				
Franklin	40.3	—	—	40.3
Logan	0.5	—	—	0.5
Sebastian	20.9	—	—	20.9
Paris Coal bed				
Franklin	8.8	—	—	8.8
Logan	23.4	8.5	—	31.9

**TABLE 3 -- ESTIMATED ORIGINAL RESERVES OF SEMIANTHRACITE
IN THE LOWER HARTSHORNE COAL BED, ARKANSAS VALLEY COAL FIELD**
(in millions of short tons)

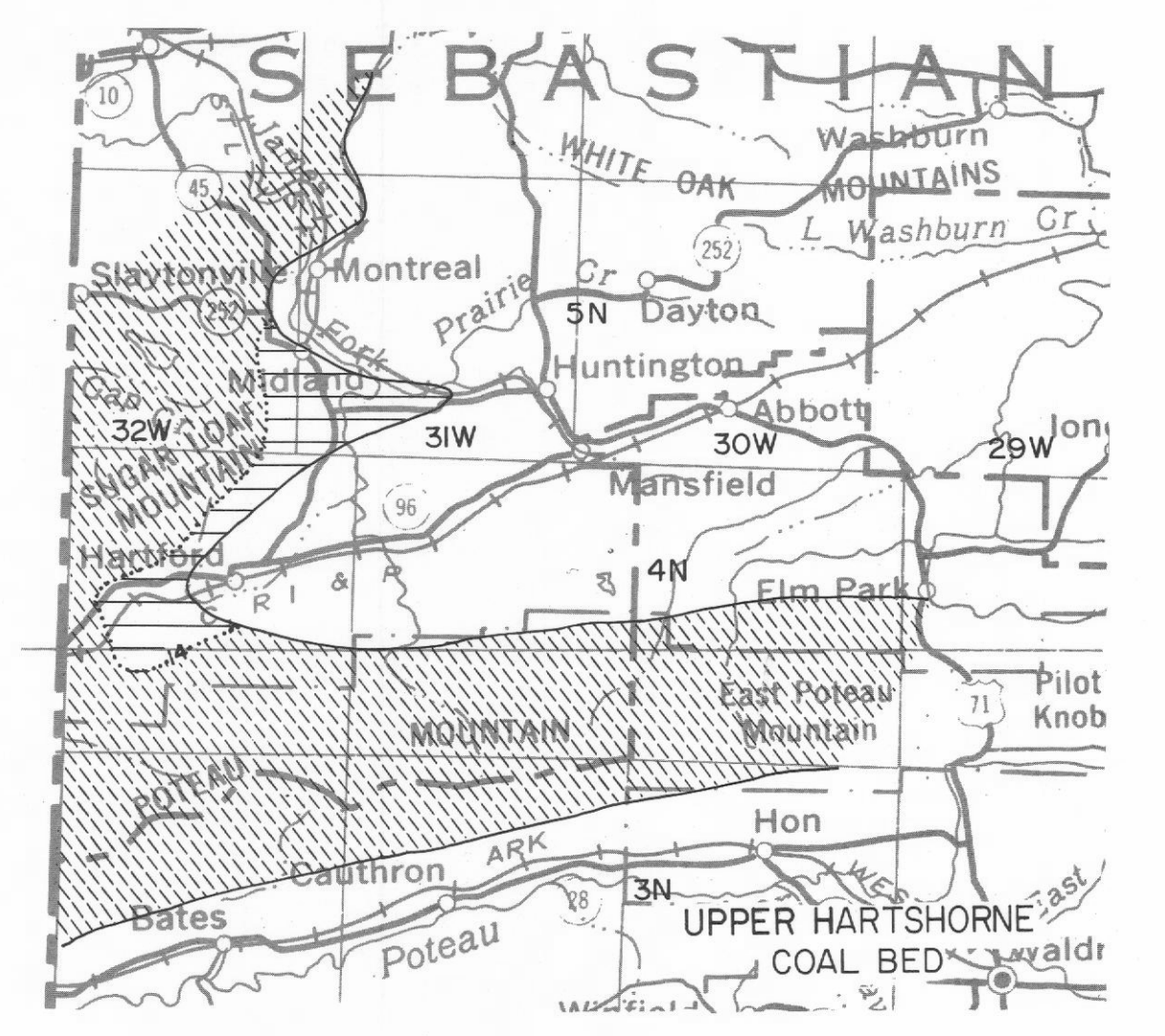
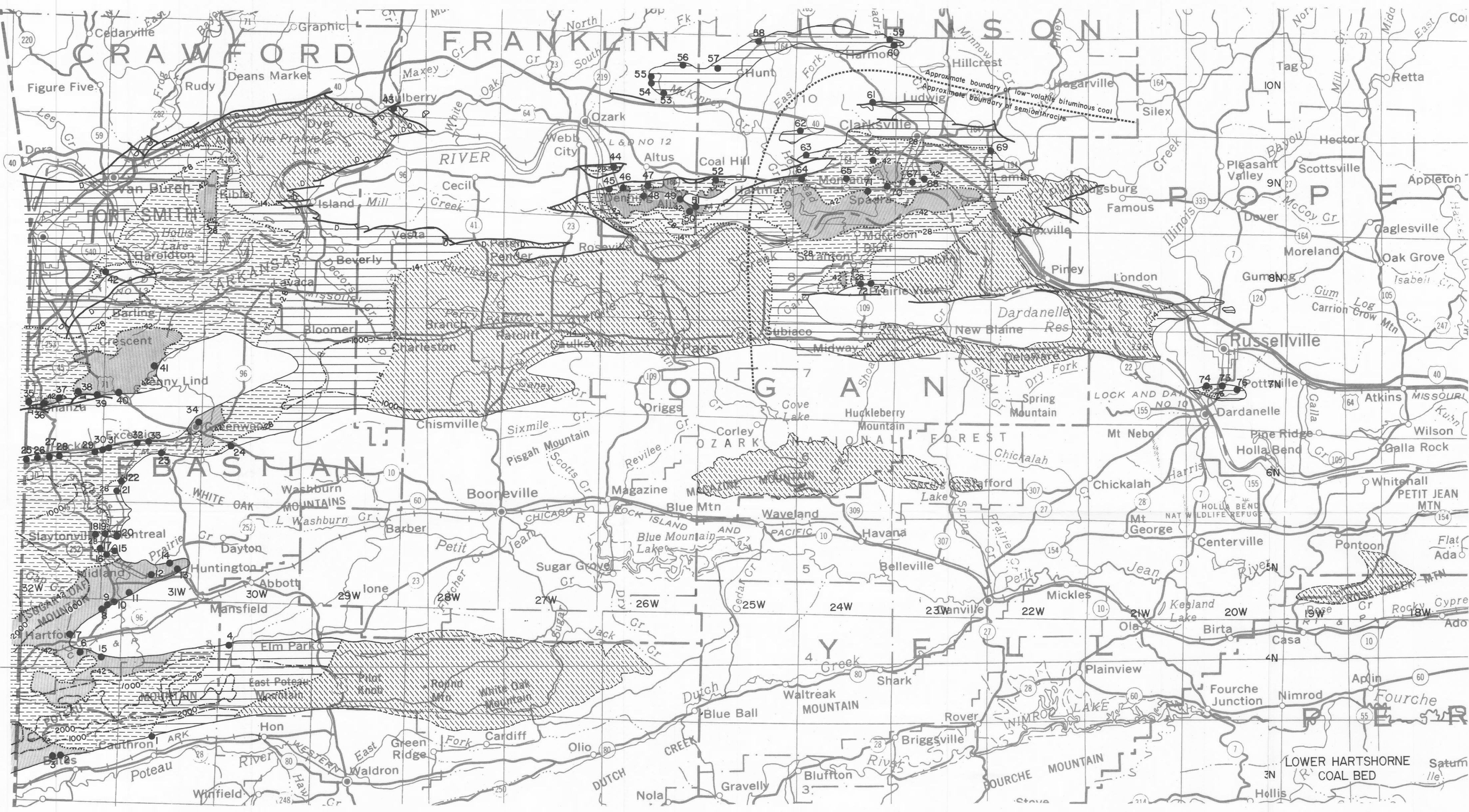
County	Thickness in inches			Total
	14-28	28-42	42+	
Johnson	56.0	161.5	57.4	274.0
Logan	64.7	64.3	28.5	157.5
Pope	18.6	3.1	1.7	23.4

**TABLE 4 -- RECORDED PRODUCTION OF COAL, IN SHORT TONS, IN
THE ARKANSAS VALLEY COAL FIELD, 1968--1976**

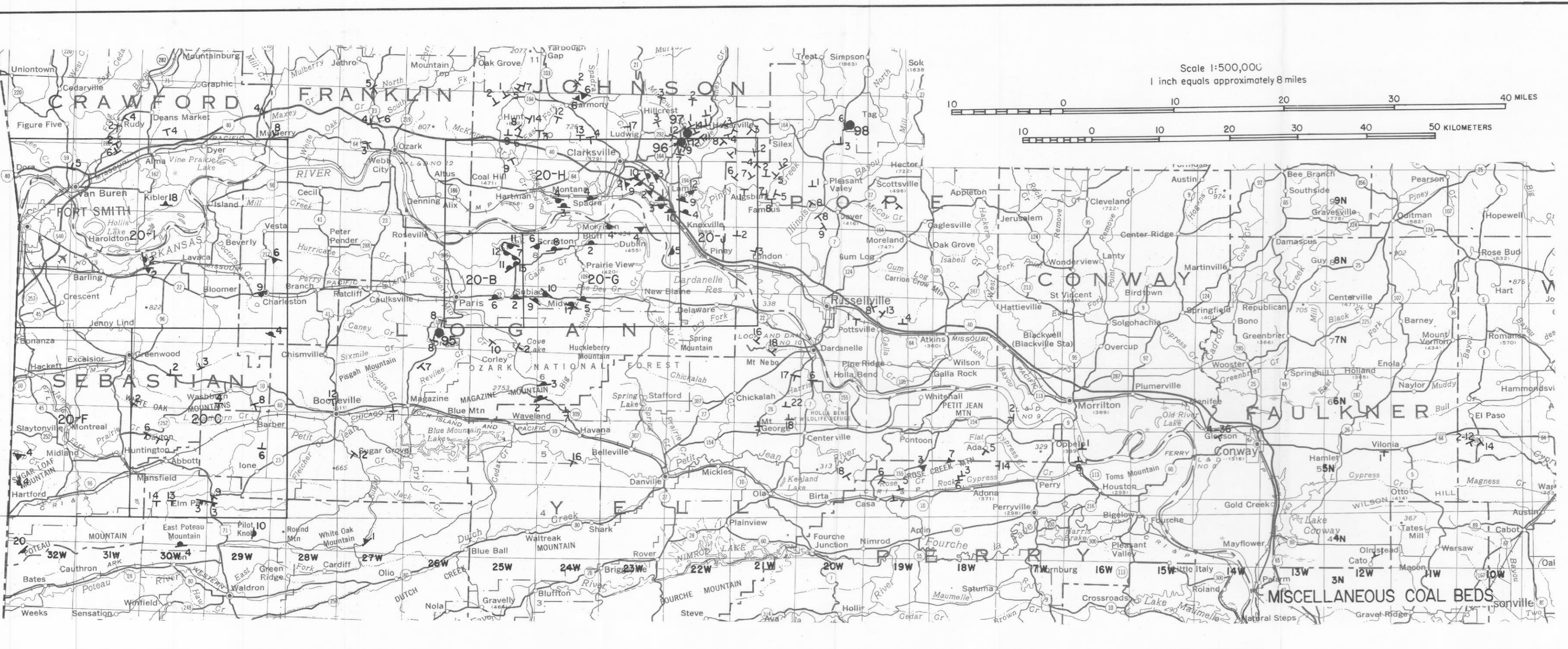
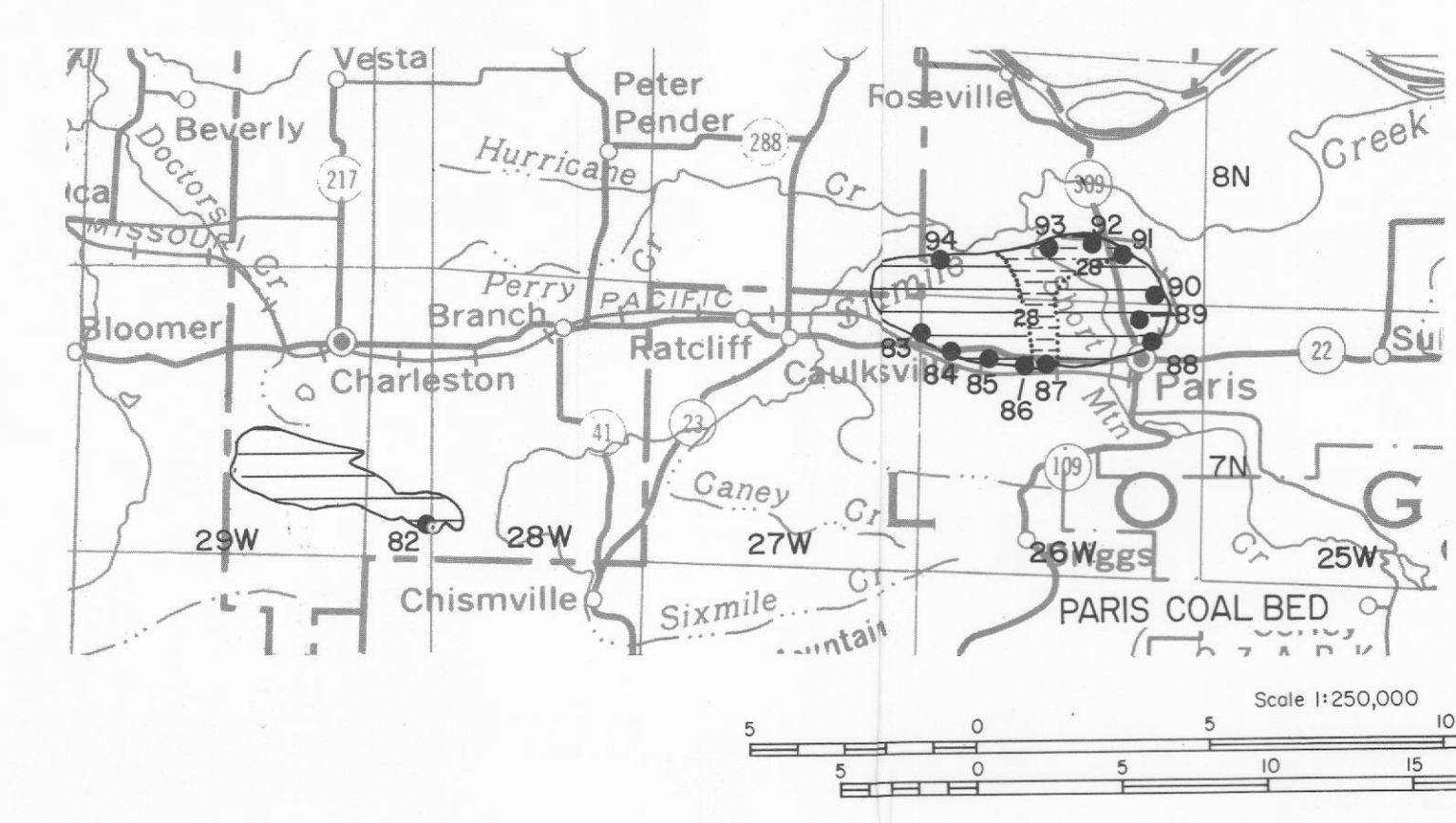
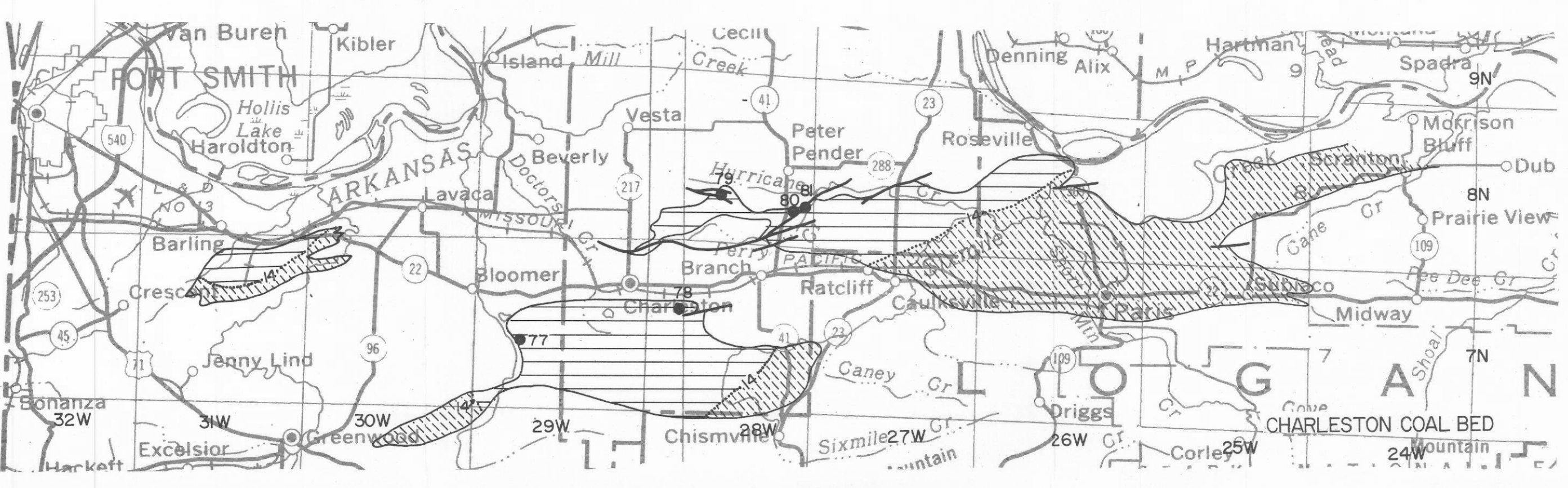
Year	County						Total
	Franklin	Johnson	Logan	Pope	Scott	Sebastian	
1968	66,000	140,000	—	—	—	5,000	211,000
1969	93,000	128,000	—	—	—	7,000	228,000
1970	104,000	133,000	8,000	—	—	23,000	268,000
1971	89,000	157,000	13,000	—	—	18,000	276,000
1972	84,000	192,000	4,000	—	—	148,000	428,000
1973	72,000	169,000	19,000	—	—	174,000	434,000
1974	100,889	161,035	17,001	—	—	175,000	453,925
1975	108,496	134,306	34,584	—	—	211,052	488,438
1976	110,477	146,945	10,441	—	—	237,874	505,737
Total since 1880	13,620,004	18,139,758	9,991,480	3,313,456	958,057	57,065,747	104,202,542

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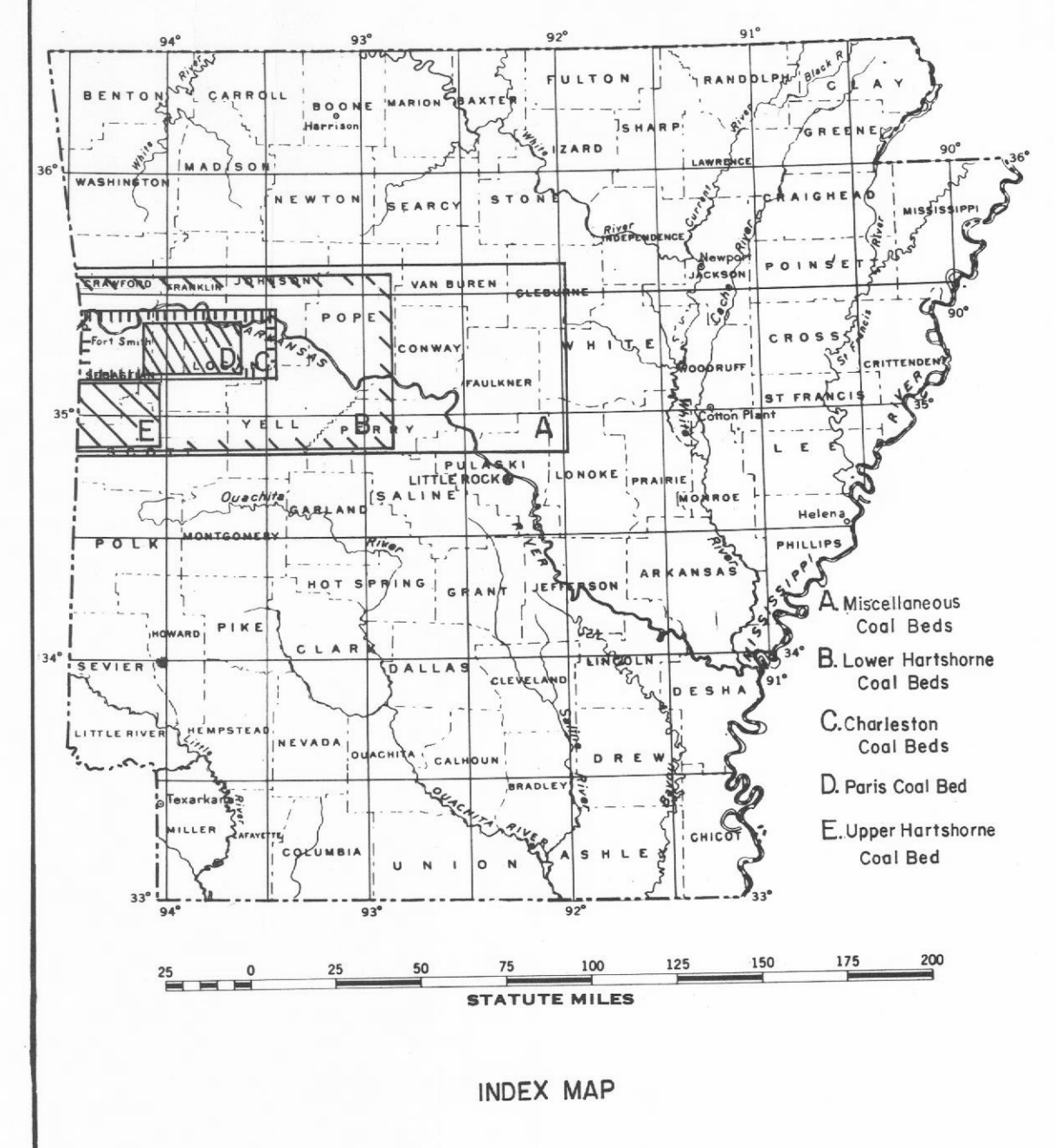
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- EXPLANATION**
- — — — — Outcrop of coal bed
- - - - - Dashed where projected
 - FAULT**
 - D — downthrown side of normal fault
 - T — thrust plate of reverse fault
 -28..... Coal thickness line
Thickness in inches
 - 1000----- Overburden thickness line
Thickness in feet
 - AREAS OF COAL THICKNESS**
 - [Solid black box] Coal thicker than 42 inches
 - [Horizontal lines box] Coal from 42 to 28 inches thick
 - [Vertical lines box] Coal from 28 to 14 inches thick
 - [Diagonal lines box] Coal less than 14 inches thick or thickness unknown
 - Location of coal analyses listed in table.



- EXPLANATION**
- Exposed Coal Bed
Number is thickness in inches
 - 2— Coal Bed in Savana Formation
 - 6— Coal Bed in McAlester Formation
 - 3— Coal Bed in Hartshorne Formation
 - 15— Coal Bed in Atoka Formation
 - 53 Location of Analyses Listed in table.
 - [Boxed 20-C] Area of Arkansas Geological Commission Information Circular 20-C



GENERALIZED MAPS OF COAL BEDS IN WEST-CENTRAL ARKANSAS

Boyd R. Haley
U.S. Geological Survey
1977