MISCELLANEOUS ANALYSES OF COAL SAMPLES FROM VARIOUS FIELDS OF THE UNITED STATES.

INTRODUCTION.

From time to time during the last six years a large number of analyses have been made of samples of coal collected from various States and fields by members of the United States Geological Survey, but for one reason or another they have not been published. Most of the samples were taken in anticipation of a geologic report on the field from which they were obtained, but, largely on account of the urgent demand for the classification and valuation of public coal lands, the preparation of the several reports has been greatly delayed and some of them have been abandoned. The analyses, however, are so valuable to persons interested in the fields that they are herewith published independently of the reports to which they pertain. The descriptions are necessarily brief, but it is believed that enough data are given to supply the present needs.

During the early stages of land classification all analytical work was done by the Geological Survey, but with the establishment of the Bureau of Mines "the analyzing and testing of coals, lignites, and other mineral fuel substances" of the United States passed by law to that bureau. Accordingly all coal analyses bearing laboratory numbers greater than 10534 should be credited to the Bureau of Mines, and those bearing a smaller number should be credited to the Geological Survey. Although the analytical work has passed from one bureau to the other, the laboratory and many of the chemists engaged in the work have remained the same.

In the table the analyses are given in four forms, marked A, B, C, and D. Analysis A represents the sample as it comes from the mine. This form is not well suited for comparison because the amount of moisture in the sample as it comes from the mine is largely a matter of accident, and consequently analyses of the same coal expressed in this form may vary widely. Analysis B represents the sample after it has been dried at a temperature a little above the normal until its weight becomes constant. This form of analysis is best adapted to general purposes of comparison. Analysis C represents the theoretical condition of the coal after all the moisture has been eliminated. Analysis D represents the coal after all moisture and ash have been

theoretically removed. This is supposed to represent the true coal substance, free from the most significant impurities. Forms C and D are obtained from the others by recalculation. They should not be used in comparison, for they represent theoretical conditions that never exist.

In the analytical work it is not possible to determine the proximate constituents of coal or lignite with the same degree of accuracy as the ultimate constituents. Therefore the air-drying loss, moisture, volatile matter, fixed carbon, and ash are given to one decimal place only; whereas the ash (in the ultimate analysis), sulphur, hydrogen, carbon, nitrogen, and oxygen are given to two decimal places. The determination of the calorific value to individual units is not reliable, hence in the column headed "Calories" the values are given to the nearest five units, and in the column headed "British thermal units" they are given to the nearest tens, as the value of a British thermal unit is about one-half that of a calorie.

ANALYSES.

[Made by the United States Geological Survey and the Bureau of Mines. F. M. Stanton and A. C. Fieldner, chemists in charge.

ALABAMA.

JEFFERSON COUNTY.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.					Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
						Ft. in.	*Ft. in.*														
Seloca mine, Seloca	W. F. Prouty	Jefferson Bituminous.	26	14 S.	3 W.	.....	(a)	3948	2.2	A	3.2	29.0	56.8	11.03	2.58	4.83	72.43	1.56	7.57	7,315	13,160
										B	1.0	29.7	58.0	11.28	2.64	4.69	74.06	1.59	5.74	7,480	13,460
										C	....	30.0	58.6	11.40	2.67	4.62	74.85	1.62	4.84	7,555	13,600
										D	....	33.8	66.2	.....	3.01	5.21	84.48	1.82	5.48	8,530	15,350
Watt mine of Morgan Coal Co., Watts Mines.	Butts and Prouty.	Black Creek Bituminous.	26	14 S.	3 W.	3 3½	3 3½	3949	.3	A	1.3	33.2	63.6	1.87	.73	5.29	83.20	1.77	7.14	8,425	15,170
										B	1.0	33.3	63.8	1.88	.73	5.28	83.45	1.77	6.89	8,450	15,220
										C	....	33.7	64.4	1.90	.74	5.22	84.31	1.80	6.03	8,540	15,370
										D	....	34.3	65.7	.....	.75	5.31	85.95	1.83	6.16	8,705	15,670
Mine of Little Warrior Coal & Coke Co., Littleton.	W. F. Prouty	Mary Lee Bituminous.	6	16 S.	4 W.	.....	(a)	4011	2.2	A	3.1	25.4	56.8	14.7	.91	.....	.....	.....	.....	.....	.....
										B	1.0	25.9	58.1	15.0	.93	.....	.....	.....	.....	.....	.....
										C	....	26.2	58.7	15.1	.94	.....	.....	.....	.....	.....	.....
										D	....	30.9	69.1	.....	1.11	.....	.....	.....	.....	.....	.....

ST. CLAIR COUNTY.

Vulcan No. 4 mine of Branch Coal Co., Coal City.	Chas. Butts	Broken Arrow Bituminous.	6	16 S.	4 W.	4 1½	3 3½	12436	2.9	A	3.7	29.1	58.7	8.5	1.43	.....	.....	.....	.....	.....	.....
										B	.9	29.9	60.4	8.8	1.50	.....	.....	.....	.....	.....	.....
										C	....	30.2	61.0	8.8	1.52	.....	.....	.....	.....	.....	.....
										D	....	33.1	66.9	.....	1.67	.....	.....	.....	.....	.....	.....
Do	do	Broken Arrow Bituminous.	6	16 S.	4 W.	4 9	3 8	12437	2.7	A	3.5	29.1	59.2	8.2	1.36	.....	.....	.....	.....	.....	.....
										B	.9	29.9	60.8	8.4	1.40	.....	.....	.....	.....	.....	.....
										C	....	30.1	61.4	8.5	1.41	.....	.....	.....	.....	.....	.....
										D	....	32.9	67.1	.....	1.54	.....	.....	.....	.....	.....	.....

a Car sample.

ALABAMA—Continued.

ST. CLAIR COUNTY—Continued.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.					Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
						Ft. in.	*Ft. in.*														
Vulcan No. 4 mine of Branch Coal Co., Coal City.	Chas. Butts.....	Broken Arrow... Bituminous.	6	16 S.	4 W.	4 3½	3 5	12438	3.7	A	4.4	27.7	56.6	11.3	1.43	.....	.....	.....	.....	.....	.....
										B	.7	28.8	58.8	11.7	1.49	.....	.....	.....	.....	.....	.....
										C	....	29.0	59.2	11.8	1.50	.....	.....	.....	.....	.....	.....
										D	....	32.9	67.1	.....	1.70	.....	.....	.....	.....	.....	.....
Do.....	.....do.....	Broken Arrow... Bituminous.	6	16 S.	4 W.	.....	(*a*)	12439	3.1	A	3.9	28.2	58.6	9.33	1.46	5.10	75.71	1.32	7.08	7,500	13,500
										B	.9	29.0	60.5	9.63	1.51	4.91	78.13	1.36	4.46	7,740	13,930
										C	....	29.3	61.0	9.71	1.52	4.85	78.81	1.37	3.74	7,805	14,050
										D	....	32.4	67.6	.....	1.68	5.37	87.28	1.52	4.15	8,645	15,560
Coal Branch mine of Seaboard Coal & Coke Co., Coal City.	.....do.....	Coal City..... Bituminous.	12	16 S.	3 W.	5	4 10	12440	1.8	A	2.8	32.9	60.3	4.0	1.10	.....	.....	.....	.....	8,055	14,500
										B	1.0	33.5	61.4	4.1	1.12	.....	.....	.....	.....	8,200	14,670
										C	....	33.9	62.0	4.1	1.13	.....	.....	.....	.....	8,285	14,910
										D	....	35.3	64.7	.....	1.18	.....	.....	.....	.....	8,640	15,550
Do.....	.....do.....	Coal City..... Bituminous.	12	16 S.	3 W.	3 10	3 10	12441	1.2	A	2.0	34.3	58.2	5.5	1.30	.....	.....	.....	.....	8,000	14,400
										B	.8	34.7	58.9	5.6	1.32	.....	.....	.....	.....	8,100	14,580
										C	....	35.0	59.4	5.6	1.33	.....	.....	.....	.....	8,165	14,690
										D	....	37.1	62.9	.....	1.41	.....	.....	.....	.....	8,650	15,570
Do.....	.....do.....	Coal City..... Bituminous.	12	16 S.	3 W.	2 10	2 10	12442	1.4	A	2.4	33.7	60.7	3.2	.81	.....	.....	.....	.....	8,215	14,790
										B	1.0	34.2	61.5	3.3	.82	.....	.....	.....	.....	8,330	14,500
										C	....	34.5	62.2	3.3	.83	.....	.....	.....	.....	8,415	15,150
										D	....	35.7	64.3	.....	.86	.....	.....	.....	.....	8,705	15,670
Do.....	.....do.....	Coal City..... Bituminous.	12	16 S.	3 W.	.....	(*b*)	12443	1.5	A	2.4	33.3	60.0	4.31	1.07	5.27	81.85	1.46	6.04	8,140	14,650
										B	.9	33.8	60.9	4.38	1.09	5.18	83.10	1.48	4.77	8,260	14,870
										C	....	34.1	61.5	4.42	1.10	5.13	83.85	1.50	4.00	8,335	15,010
										D	....	35.7	64.3	.....	1.15	5.37	87.72	1.57	4.19	8,720	15,700

CALIFORNIA.

CONTRA COSTA COUNTY.

Black Diamond mine, Los Medanos.	M. R. Campbell...	Subbituminous.	....	2 N.	1 W.	2	8	2	7	2463	7.7	A	15.0	38.4	34.5	12.1	5.57	.....	.....	.....	.....	5,135	9,240
												B	7.9	41.6	37.4	13.1	6.03	.....	.....	.....	.....	5,560	10,010
												C	....	45.2	40.5	14.3	6.55	.....	.....	.....	.....	6,040	10,870
												D	....	52.7	47.3	.....	7.64	.....	.....	.....	.....	7,045	12,580

COLORADO.

ADAMS COUNTY.

Mine of E. B. Thomas.....	G. B. Richardson.	Subbituminous.	12	1 S.	61 W.	8		4		13141	26.9	A	35.0	[c]27.4	30.2	7.38	0.31	6.56	41.71	0.74	43.30	3,880	6,980
												B	11.1	37.5	41.3	10.09	.43	4.88	57.06	1.01	26.53	5,305	9,550
												C	....	42.1	46.5	11.35	.48	4.11	64.17	1.14	18.75	5,970	10,740
												D	....	47.5	52.5	.....	.54	4.64	72.38	1.29	21.15	6,730	12,120

EL PASO COUNTY.

Mine of J. M. Mosby.....	G. B. Richardson.	Mosby..... Subbituminous.	18	13 S.	62 W.	4	8	4	4	10732	20.8	A	33.1	[c]26.0	27.0	13.89	0.30	6.48	37.25	0.68	41.40	3,445	6,200
												B	15.6	32.8	34.1	17.54	.38	5.27	47.03	.86	28.92	4,350	7,830
												C	....	38.8	40.4	20.77	.45	4.19	55.70	1.02	17.87	5,150	9,270
												D	....	49.0	51.0	.....	.57	5.29	70.30	1.29	22.55	6,500	11,700
Mine of H. W. Purdon.....	.....do.....	Purdon..... Subbituminous.	27	11 S.	61 W.	6	9½	6	6	10741	25.2	A	33.7	[c]23.4	24.7	18.21	.32	6.31	33.21	.54	41.41	3,060	5,510
												B	11.3	31.4	33.0	24.35	.43	4.69	44.40	.72	25.41	4,090	7,360
												C	....	35.4	37.2	27.45	.48	3.87	50.06	.81	17.33	4,610	8,300
												D	....	48.7	51.3	.....	.66	5.33	69.00	1.12	23.89	6,355	11,440

GARFIELD COUNTY.

Coal Ridge mine, 3 miles southeast of Newcastle.	A. L. Beekly.....	G.....	8	6 S.	90 W.	5		5		8804	17.4	A	25.2	30.7	39.9	4.2	0.31	.....	.....	.....	.....	4,230	7,970
												B	9.4	37.2	48.3	5.1	.38	.....	.....	.....	.....	5,360	9,650
												C	....	41.0	53.3	5.7	.41	.....	.....	.....	.....	5,915	10,650
												D	....	43.5	56.5	.....	.43	.....	.....	.....	.....	6,270	11,280
Entry No. 1 of Boston Coal Co., South Canyon.	.....do.....	E..... Bituminous.	14	6 S.	90 W.	3		3		8805	2.9	A	6.4	34.7	54.2	4.7	.50	.....	.....	.....	.....	6,880	12,390
												B	3.7	35.7	55.8	4.8	.51	.....	.....	.....	.....	7,090	12,560
												C	....	37.1	57.9	5.0	.53	.....	.....	.....	.....	7,360	13,240
												D	....	39.0	61.0	.....	.56	.....	.....	.....	.....	7,745	13,940

[a] Composite of Nos. 12436, 12437, and 12438. [b] Composite of Nos. 12440, 12441, and 12442. [c] Volatile matter determined by the "modified" method.

COLORADO—Continued.

GARFIELD COUNTY—Continued.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.					Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
						Ft. in.	*Ft. in.*														
Keystone mine of Coryell Mine Leasing Co., 1 mile southwest of Newcastle.	A. L. Beekly.....	Keystone No. 2. Bituminous.	4	6 S.	91 W.	2 8	2 8	8807	2.8	A	5.3	33.3	52.2	9.22	.42	5.14	68.28	1.25	15.69	6,860	12,350
										B	2.6	34.2	53.7	9.49	.43	4.97	70.25	1.29	13.57	7,060	12,710
										C	....	35.1	55.2	9.74	.44	4.80	72.10	1.32	11.60	7,245	13,040
										D	....	38.9	61.1	.....	.49	5.32	79.88	1.46	12.85	8,030	14,450
South Canyon mine of Boston Coal Co., South Canyon.	.....do.....	Wheeler..... Bituminous.	14	6 S.	90 W.	14	9	8808	2.9	A	6.8	32.5	51.3	9.4	.34	.....	.....	.....	.....	6,515	11,730
										B	4.1	33.4	52.8	9.7	.35	.....	.....	.....	.....	6,710	12,080
										C	....	34.9	55.0	10.1	.36	.....	.....	.....	.....	6,995	12,590
										D	....	38.8	61.2	.....	.40	.....	.....	.....	.....	7,785	14,010
Mine of Martin Ohrkraut, 3 miles south of South Canyon.	.....do.....	Keystone No. 2.. Bituminous.	23	6 S.	90 W.	3 6	3 6	8809	4.2	A	10.3	28.8	52.8	8.1	.27	.....	.....	.....	.....	6,120	11,020
										B	6.4	30.0	55.1	8.5	.28	.....	.....	.....	.....	6,390	11,500
										C	....	32.1	58.9	9.0	.30	.....	.....	.....	.....	6,825	12,280
										D	....	35.3	64.7	.....	.33	.....	.....	.....	.....	7,500	13,500
Coryell mine of Coryell Mine Leasing Co., Newcastle.	.....do.....	Allen..... Bituminous.	2	6 S.	91 W.	.....	(a)	8810	2.0	A	4.8	33.2	53.9	8.1	.45	.....	.....	.....	.....	6,700	12,060
										B	2.8	33.9	55.1	8.2	.46	.....	.....	.....	.....	6,840	12,310
										C	....	34.9	56.6	8.5	.47	.....	.....	.....	.....	7,035	12,670
										D	....	38.1	61.9	.....	.51	.....	.....	.....	.....	7,690	13,840
Trial entry of Boston Coal Co., 2 miles south of South Canyon.	.....do.....	Allen..... Bituminous.	14	6 S.	90 W.	5 6	5 6	8811	6.0	A	10.7	31.6	52.0	5.7	.42	.....	.....	.....	.....	6,495	11,690
										B	5.0	33.6	55.3	6.1	.45	.....	.....	.....	.....	6,910	12,430
										C	....	35.4	58.2	6.4	.47	.....	.....	.....	.....	7,275	13,090
										D	....	37.8	62.2	.....	.50	.....	.....	.....	.....	7,775	13,790
Entry No. 3 of Boston Coal Co., 2 miles south of South Canyon.	.....do.....	D..... Bituminous.	14	6 S.	90 W.	4 6	4 6	8812	4.1	A	8.6	32.3	51.3	7.8	.58	.....	.....	.....	.....	6,520	11,740
										B	4.6	33.7	53.5	8.2	.61	.....	.....	.....	.....	6,800	12,240
										C	....	35.3	56.1	8.6	.63	.....	.....	.....	.....	7,130	12,840
										D	....	38.6	61.4	.....	.69	.....	.....	.....	.....	7,805	14,050
Diamond mine of Cardiff Coal & Coke Co., 4 miles southwest of Cardiff.	.....do.....	B..... Bituminous.	8	7 S.	89 W.	16 8	8	9143	8.9	A	12.2	[b]34.2	48.6	5.0	.48	.....	.....	.....	.....	6,170	11,100
										B	3.6	37.6	53.3	5.5	.53	.....	.....	.....	.....	6,770	12,190
										C	....	39.0	55.3	5.7	.55	.....	.....	.....	.....	7,025	12,650
										D	....	41.3	58.7	.....	.58	.....	.....	.....	.....	7,450	13,410

Do	do	Diamond Bituminous.	8	7 S.	89 W.	4		4		9144	9.6	A	11.4	[b]35.1	51.4	2.1	.55					6,840	12,310
												B	2.0	38.9	56.8	2.3	.61					7,565	13,620
												C	....	39.7	58.0	2.3	.62					7,715	13,890
												D	....	40.6	59.4	.....	.63					7,900	14,220
Midland mine of Rocky Mountain Fuel Co., Sunlight.	do	C Bituminous.	34	7 S.	89 W.	6		6		9191	3.3	A	6.9	36.2	52.0	4.92	1.06	5.47	69.04	1.44	18.07	6,810	12,260
												B	3.8	37.4	53.7	5.09	1.10	5.27	71.40	1.49	15.65	7,045	12,680
												C	....	38.9	55.8	5.28	1.14	5.07	74.18	1.55	12.78	7,320	13,170
												D	....	41.1	58.9	.....	1.20	5.35	78.32	1.64	13.49	7,725	13,910
Do	do	B Bituminous.	34	7 S.	89 W.	6		6		9192	4.8	A	7.7	36.5	48.7	7.08	.78	5.50	67.16	1.46	18.02	6,720	12,100
												B	3.1	38.3	51.2	7.44	.82	5.22	70.55	1.53	14.44	7,060	12,710
												C	....	39.5	52.8	7.67	.84	5.04	72.75	1.58	12.12	7,280	13,100
												D	....	42.8	57.2	.....	.91	5.46	78.80	1.71	13.12	7,885	14,190
Do	do	A Bituminous.	34	7 S.	89 W.	6		6		9193	5.0	A	7.4	34.8	49.2	8.6	.67					6,720	12,100
												B	2.5	36.6	51.8	9.1	.70					7,075	12,730
												C	....	37.6	53.1	9.3	.72					7,255	13,060
												D	....	41.4	58.6	.....	.79					8,000	14,400
Do	do	D Bituminous.	34	7 S.	89 W.	8		8		9194	2.1	A	5.3	38.0	53.7	3.0	.86					7,325	13,190
												B	3.2	38.8	54.9	3.1	.88					7,485	13,470
												C	....	40.1	56.7	3.2	.91					7,735	13,920
												D	....	41.5	58.5	.....	.94					7,990	14,380
Marion mine of Colorado Fuel & Iron Co., Marion.	do	Allen Bituminous.	10	8 S.	89 W.	4	7	4	7	9195	1.6	A	3.8	36.3	55.3	4.60	.40	5.50	73.78	1.64	14.08	7,450	13,410
												B	2.2	36.9	56.2	4.67	.41	5.41	74.98	1.67	12.86	7,570	13,630
												C	....	37.7	57.5	4.78	.42	5.28	76.70	1.71	11.11	7,745	13,940
												D	....	39.6	60.4	.....	.44	5.54	80.55	1.80	11.67	8,135	14,640
Do	do	Allen Bituminous.	10	8 S.	89 W.	5	2	5		9196	2.6	A	4.4	36.7	54.6	4.30	.46	5.58	73.85	1.64	14.17	7,505	13,510
												B	1.9	37.6	56.1	4.41	.47	5.43	75.83	1.68	12.18	7,705	13,870
												C	....	38.3	57.2	4.50	.48	5.33	77.28	1.72	10.69	7,855	14,140
												D	....	40.2	59.8	.....	.50	5.58	80.92	1.80	11.20	8,225	14,800
Do	do	Anderson Bituminous.	10	8 S.	89 W.	4		4		9197	4.3	A	6.3	34.8	56.0	2.92	.42	5.56	74.31	1.55	15.24	7,440	13,390
												B	2.1	36.3	58.5	3.05	.44	5.31	77.65	1.62	11.93	7,775	13,990
												C	....	37.1	59.8	3.12	.45	5.19	79.34	1.65	10.25	7,945	14,300
												D	....	38.3	61.7	.....	.46	5.36	81.89	1.70	10.59	8,200	14,760
Mascot mine of Farmers Union Co., 1 mile north of Sunlight.	do	Upper A Bituminous.	28	7 S.	89 W.	6	1	5	4	9200	3.9	A	8.7	35.7	50.8	4.8	.62					6,580	11,840
												B	5.0	37.2	52.8	5.0	.64					6,850	12,330
												C	....	39.1	55.6	5.3	.68					7,205	12,970
												D	....	41.3	58.7	.....	.72					7,610	13,700
Do	do	Lower A Bituminous.	28	7 S.	89 W.	4	5	3		9201	4.3	A	8.9	33.1	41.8	16.2	2.08					5,640	10,160
												B	4.8	34.6	43.7	16.9	2.17					5,895	10 610
												C	....	36.3	45.9	17.8	2.28					6,195	11,150
												D	....	44.2	55.8	.....	2.77					7,530	13,550
Prospect of Colorado Fuel & Iron Co.	do	Keystone Bituminous.	9	8 S.	89 W.	3	6	3	6	9202	13.4	A	24.1	[b]28.4	36.2	11.3	.29					4,190	7,540
												B	12.4	32.7	41.8	13.1	.33					4,835	8,710
												C	....	37.4	47.7	14.9	.38					5,520	9,930
												D	....	43.9	56.1	.....	.45					6,485	11,670

[a] Car sample.

[b] Volatile matter determined by the "modified" method.

COLORADO—Continued.

JACKSON COUNTY.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.					Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
						Ft. in.	*Ft. in.*														
Mine of N. Suddeth	A. L. Beekly	Subbituminous	15	9 N.	78 W.	50	20	12414	8.2	A	20.0	a32.5	42.5	5.00	0.59	5.82	57.05	0.78	30.76	5,420	9,750
										B	12.8	35.4	46.3	5.45	.64	5.35	62.15	.85	25.56	5,905	10,630
										C	....	40.7	53.1	6.25	.74	4.50	71.28	.97	16.26	6,770	12,190
										D	....	43.4	56.6	.....	.79	4.80	76.03	1.03	17.35	7,225	13,000
Mine of L. Marr	....do	Subbituminous	35	9 N.	78 W.	53	6	12415	7.4	A	16.7	a33.0	46.7	3.59	.16	5.63	60.20	.70	29.72	5,755	10,360
										B	10.1	35.6	50.4	3.88	.17	5.19	65.01	.76	24.99	6,215	11,190
										C	....	39.7	56.0	4.31	.19	4.53	72.29	.84	17.84	6,910	12,440
										D	....	41.4	58.6	.....	.20	4.73	75.54	.88	18.65	7,220	13,000
Mine of John F. Mitchell	....do	Mitchell Subbituminous	24	8 N.	82 W.	11 4	S	12539	4.1	A	20.7	a33.6	35.7	9.96	.83	6.32	51.27	1.27	30.35	5,025	9,040
										B	17.3	35.1	37.2	10.39	.87	6.11	53.46	1.32	27.85	5,240	9,430
										C	....	42.4	45.0	12.56	1.05	5.07	64.67	1.60	15.05	6,735	11,410
										D	....	48.5	51.5	.....	1.20	5.80	73.96	1.83	17.21	7,245	13,050
Mine of Wm. Monahan	....do	Subbituminous	31	10 N.	81 W.	4 6	4 6	12540	4.8	A	19.7	a32.8	44.0	3.47	.68	6.39	57.70	1.49	30.27	5,715	10,290
										B	15.6	34.4	46.3	3.65	.71	6.16	60.61	1.57	27.30	6,005	10,810
										C	....	40.8	54.9	4.32	.85	5.23	71.85	1.86	15.89	7,120	12,810
										D	....	42.6	57.4	.....	.89	5.47	75.09	1.94	16.61	7,440	13,390
Riach mine of Northern Colorado Coal Co., Coalmont.	....do	Subbituminous	24	7 N.	81 W.	77	7	12601	5.9	A	22.8	a36.2	34.1	6.90	.70	6.30	51.74	1.14	33.22	5,005	9,010
										B	18.0	38.5	36.2	7.33	.74	5.99	54.98	1.21	29.75	5,320	9,570
										C	....	46.9	44.2	8.94	.91	4.88	67.03	1.48	16.76	6,485	11,670
										D	....	51.5	48.5	.....	1.00	5.36	73.61	1.63	18.40	7,120	12,820
McCallum mine	....do	McCallum Subbituminous	18	9 N.	78 W.	35	7	12774	5.2	A	19.2	a33.5	41.0	6.29	.27	5.75	56.34	.82	30.53	5,355	9,640
										B	14.8	35.3	43.3	6.63	.28	5.45	59.43	.87	27.34	5,645	10,170
										C	....	41.4	50.8	7.78	.33	4.48	69.71	1.01	16.69	6,625	11,920
										D	....	44.9	55.1	.....	.36	4.86	75.59	1.10	18.09	7,180	12,930
Mine of Wm. Winscom	....do	Winscom Subbituminous	14	8 N.	78 W.	3 7	2 7	12775	5.2	A	18.1	a34.5	35.3	12.13	.80	5.82	52.44	1.11	27.70	5,555	9,280
										B	13.6	36.4	37.2	12.80	.84	5.53	55.32	1.17	24.34	5,435	9,790
										C	....	42.1	43.1	14.80	.98	4.65	64.00	1.35	14.22	6,290	11,320
										D	....	49.4	50.6	.....	1.15	5.46	75.12	1.58	16.69	7,380	13,290

LA PLATA COUNTY.

Prospect	J. H. Gardner	B [b] Bituminous.	19	35 N.	8 W.	12	4	4	8431	2.1	A	5.2	27.3	53.0	14.46	1.98	4.93	64.33	1.22	13.08	6,335	11,410
											B	3.2	27.9	54.1	14.77	2.02	4.80	65.71	1.25	11.45	6,470	11,650
											C	....	28.8	55.9	15.25	2.09	4.59	67.87	1.29	8.91	6,685	12,030
											D	....	34.0	66.0	.....	2.47	5.42	80.09	1.52	10.50	7,885	14,200
Do	do	A Bituminous.	19	35 N.	8 W.	3	2	2 6	8433	1.3	A	3.2	27.3	49.3	20.17	.77	4.83	63.30	1.21	9.72	6,315	11,370
											B	2.0	27.6	50.0	20.44	.78	4.75	64.13	1.23	8.67	6,395	11,520
											C	....	28.2	50.9	20.85	.80	4.62	65.44	1.25	7.04	6,525	11,750
											D	....	35.6	64.4	.....	1.01	5.83	82.68	1.58	8.90	8,245	14,840
Palmer mine	do	B Bituminous.	15	35 N.	6 W.	8		8	9146	2.0	A	3.3	34.6	50.7	11.41	.86	5.36	69.12	1.33	11.92	6,950	12,510
											B	1.3	35.4	51.7	11.64	.88	5.24	70.53	1.36	10.35	7,090	12,760
											C	....	35.8	52.4	11.80	.89	5.17	71.46	1.38	9.30	7,185	12,930
											D	....	40.6	59.4	.....	1.01	5.86	81.02	1.56	10.55	8,145	14,660

MOFFAT COUNTY.

Moore mine	John A. Davis	Subbituminous	16	5 N.	90 W.	5	2	4 8	9134	10.0	A	12.4	34.1	48.0	5.47	0.50	5.54	62.34	1.32	24.83	6,170	11,110
											B	2.7	37.9	53.3	6.08	.55	4.92	69.27	1.47	17.71	6,855	12,340
											C	....	38.9	54.8	6.25	.57	4.76	71.19	1.51	15.72	7,045	12,690
											D	....	41.5	58.5	.....	.61	5.07	75.94	1.61	16.77	7,515	13,530
Wise mine	do	Subbituminous	6	5 N.	91 W.	9		8 6	9135	10.7	A	13.3	33.5	45.8	7.40	.51	5.66	60.27	1.05	25.11	5,835	10,510
											B	2.9	37.5	51.3	8.29	.57	5.01	67.49	1.18	17.46	6,535	11,760
											C	....	38.6	52.9	8.53	.59	4.83	69.50	1.21	15.34	6,730	12,110
											D	....	42.2	57.8	.....	.65	5.28	75.98	1.32	16.77	7,355	13,240
Hamilton mine	do	Subbituminous	24	5 N.	91 W.	5	8	5 8	9136	9.7	A	12.5	[a]29.6	48.1	9.79	.84	5.56	60.40	1.26	22.15	5,920	10,650
											B	3.1	32.9	53.2	10.84	.93	4.96	66.89	1.40	14.98	6,554	11,800
											C	....	33.9	54.9	11.19	.96	4.76	69.01	1.44	12.64	6,760	12,170
											D	....	38.2	61.8	.....	1.08	5.36	77.71	1.62	14.23	7,615	13,700
Haubrich mine	do	Subbituminous	29	6 N.	91 W.	6	10	4 7	9137	13.8	A	17.7	[a]30.4	48.1	3.78	.51	5.94	59.63	1.51	28.63	5,740	10,340
											B	4.6	35.2	55.8	4.38	.59	5.12	69.18	1.75	18.98	6,660	11,990
											C	....	36.9	58.5	4.60	.62	4.83	72.50	1.84	15.61	6,980	12,570
											D	....	38.7	61.3	.....	.65	5.06	75.99	1.93	16.37	7,315	13,170
Ratcliff mine	do	Subbituminous	31	6 N.	91 W.	13		10	9138	10.2	A	13.4	[a]35.5	47.9	3.18	.34	5.82	62.94	1.20	26.52	6,115	11,010
											B	3.7	39.5	53.3	3.54	.38	5.22	70.09	1.34	19.43	6,810	12,260
											C	....	41.0	55.3	3.68	.39	4.99	72.73	1.39	16.82	7,070	12,720
											D	....	42.6	57.4	.....	.40	5.18	75.51	1.44	17.47	7,340	13,210
James mine	E. T. Hancock	Bituminous (?)	14	3 N.	93 W.	8		6 4	12704	.8	A	11.4	40.2	44.5	3.87	.54	5.57	65.27	1.32	23.43	6,310	11,360
											B	10.7	40.6	44.8	3.90	.54	5.52	65.80	1.33	22.91	6,310	11,360
											C	....	45.4	50.2	4.37	.61	4.85	73.68	1.49	15.00	7,125	12,820
											D	....	47.5	52.5	.....	.64	5.07	77.05	1.56	15.68	7,450	13,410

[a] Volatile matter determined by the "modified" method.

[b] Weathered coal.

COLORADO—Continued.

MONTEZUMA COUNTY.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.					Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
						Ft. in.	*Ft. in.*														
Mine of Fred Haller	M. K. Shaler	Bituminous	30	37 N.	13 W.	(a)	.....	4330	6.8	A	7.7	27.9	48.1	16.34	1.02	4.87	64.24	0.89	12.64	6,380	11,480
										B	1.0	29.9	51.6	17.53	1.09	4.41	68.93	.96	7.08	6,845	12,320
										C	....	30.2	52.1	17.71	1.11	4.34	69.61	.96	6.27	6,915	12,440
										D	....	36.7	63.3	.....	1.34	5.28	84.58	1.17	7.63	8,400	15,120
Prospect	M. A. Pishel	Bituminous	21	36 N.	12 W.	1 6½	1 2	12444	1.4	A	2.6	23.2	41.3	32.9	.45	.....	.....	.....	.....	.....	.....
										B	1.2	23.6	41.9	33.3	.46	.....	.....	.....	.....	.....	.....
										C	....	23.9	42.4	33.7	.46	.....	.....	.....	.....	.....	.....
										D	....	36.0	64.0	.....	.69	.....	.....	.....	.....	.....	.....
Mine of Fred Haller	do	Bituminous	30	37 N.	13 W.	3 10	1 9	12504	2.1	A	4.0	28.6	47.6	19.8	.61	.....	.....	.....	.....	6,065	10,910
										B	1.9	29.3	48.6	20.2	.62	.....	.....	.....	.....	6,195	11,150
										C	....	29.9	49.5	20.6	.64	.....	.....	.....	.....	6,315	11,370
										D	....	37.6	62.4	.....	.81	.....	.....	.....	.....	7,955	14,320
Prospect	do	Bituminous	29	36 N.	15 W.	4 4	2 6½	12551	.9	A	10.3	31.8	49.7	8.2	.53	.....	.....	.....	.....	.....	.....
										B	9.5	32.1	50.2	8.2	.53	.....	.....	.....	.....	.....	.....
										C	....	35.5	55.4	9.1	.59	.....	.....	.....	.....	.....	.....
										D	....	39.0	61.0	.....	.65	.....	.....	.....	.....	.....	.....
Mowry mine	do	Bituminous	35	36 N.	16 W.	2 8	2 2	12586	3.1	A	4.8	34.6	42.3	18.30	7.56	4.85	59.90	1.11	8.28	6,145	11,070
										B	1.8	35.7	43.6	18.89	7.80	4.65	61.82	1.15	5.69	6,345	11,420
										C	....	36.3	44.5	19.23	7.94	4.53	62.95	1.17	4.18	6,460	11,630
										D	....	45.0	55.0	.....	9.83	5.61	77.94	1.45	5.17	8,000	14,400
Prospect of E. J. Hamilton	do	Bituminous [b]	3	35 N.	18 W.	2 8	1 7	15686	3.2	A	7.7	21.0	58.7	12.6	.46	.....	.....	.....	.....	6,035	10,860
										B	4.7	21.7	60.6	13.0	.48	.....	.....	.....	.....	6,230	11,220
										C	....	22.8	63.6	13.6	.50	.....	.....	.....	.....	6,540	11,770
										D	....	26.3	73.7	.....	.58	.....	.....	.....	.....	7,570	13,630
Prospect	do	Bituminous	23	36 N.	16 W.	4 8½	1 7	12785	4.5	A	8.0	32.3	45.5	14.18	.57	4.72	60.29	1.01	19.23	5,800	10,440
										B	3.7	33.8	47.6	14.85	.60	4.42	63.13	1.06	15.94	6,075	10,930
										C	....	35.1	49.5	15.42	.62	4.17	65.57	1.10	13.12	6,310	11,350
										D	....	41.5	58.5	.....	.73	4.93	77.52	1.30	15.52	7,460	13,420

OURAY COUNTY.

Law Creek mine	W. T. Lee	Law Creek Subbituminous (?).	22	46 N.	7 W.	20	6	12651	3.5	A	14.1	37.8	41.0	7.1	0.58								
										B	11.0	39.2	42.5	7.3	.60								
										C	....	44.0	47.7	8.3	.68								
										D	....	48.0	52.0	.....	.74								

PITKIN COUNTY.

Spring Gulch mine of Colorado Fuel & Iron Co., Spring Gulch.	A. L. Beekly	Sunshine Bituminous.[c]	22	8 S.	89 W.	8	4	8	4	9198	1.8	A	2.9	33.3	56.7	7.11	0.46	5.41	75.13	1.74	10.15	7,620	13,720
												B	1.1	33.9	57.8	7.24	.47	5.30	76.51	1.77	8.71	7,760	13,970
												C	....	34.3	58.4	7.32	.47	5.24	77.36	1.79	7.82	7,850	14,130
												D	....	37.0	63.0	.....	.51	5.65	83.47	1.93	8.44	8,470	15,240
Do	do	Anderson Bituminous.[c]	22	8 S.	89 W.	4	6	4	6	9199	2.1	A	3.4	34.2	55.2	7.23	.57	5.39	74.49	1.59	10.73	7,500	13,500
												B	1.3	34.9	56.4	7.39	.58	5.27	76.09	1.62	9.05	7,660	13,790
												C	....	35.3	57.2	7.48	.59	5.19	77.10	1.65	7.99	7,765	13,980
												D	....	38.2	61.8	.....	.64	5.61	83.33	1.78	8.64	8,390	15,100

RIO BLANCO COUNTY.

Mine of Meeker Coal Co., Meeker.	E. T. Hancock	Old Pollard Bituminous.	22	1 N.	94 W.	6	6	6	6	12426	6.6	A	12.7	35.9	45.6	5.83	0.44	5.69	64.92	1.25	21.87	6,330	11,390
												B	6.5	38.5	48.8	6.24	.47	5.31	69.51	1.34	17.13	6,775	12,200
												C	....	41.1	52.2	6.68	.50	4.90	74.33	1.43	12.16	7,250	13,050
												D	....	44.1	55.9	.....	.54	5.25	79.65	1.53	13.03	7,765	13,980
Mine of F. Fairfield	do	Bituminous	28	1 N.	94 W.	6	8	6	4	12518	4.0	A	11.0	38.5	44.3	6.20	.85	5.80	64.20	1.32	21.63	6,315	11,370
												B	7.3	40.1	46.1	6.46	.89	5.58	66.87	1.37	18.83	6,575	11,840
												C	....	43.3	49.7	6.97	.96	5.15	72.15	1.48	13.29	7,095	12,770
												D	....	46.5	53.5	.....	1.03	5.54	77.55	1.59	14.29	7,625	13,930
Cornrike mine	do	Cornrike Bituminous (?).	10	2 N.	93 W.	21		7	6	12695	3.7	A	13.9	42.0	41.9	2.21	.28	6.01	63.91	1.28	26.31	6,260	11,270
												B	10.6	43.6	43.5	2.29	.29	5.82	66.37	1.33	23.90	6,505	11,710
												C	....	48.8	48.6	2.57	.33	5.19	74.21	1.49	16.21	7,270	13,090
												D	....	50.1	49.9	.....	.34	5.33	76.17	1.53	16.63	7,465	13,430
Mine of Gilbert Wesson	do	Bituminous (?)	30	2 N.	92 W.	18	3½	18	1	12705	5.9	A	14.4	38.4	41.2	6.01	.81	5.83	60.64	1.24	25.47	5,890	10,600
												B	9.0	40.8	43.8	6.39	.86	5.49	64.44	1.32	21.50	6,260	11,260
												C	....	44.9	48.1	7.02	.95	4.94	70.84	1.45	14.80	6,880	12,380
												D	....	48.3	51.7	.....	1.02	5.31	76.19	1.56	15.92	7,400	13,320
Sulphur Creek mine of Arthur Burnham.	do	Bituminous (?)	3	1 N.	94 W.	5	9	5	7¾	12773	2.5	A	10.4	36.6	44.7	8.30	.59	5.40	63.38	1.36	20.97	6,255	11,260
												B	8.1	37.5	45.9	8.51	.60	5.25	65.01	1.39	19.24	6,415	11,550
												C	....	40.8	49.9	9.26	.66	4.73	70.74	1.52	13.09	6,985	12,570
												D	....	45.0	55.0	.....	.73	5.21	77.96	1.68	14.42	7,695	13,850

[a] Section of bed not measured. It is probably the same as No. 12504.

[b] Weathered coal.

[c] Coking coal.

COLORADO—Continued.

RIO BLANCO COUNTY—Continued.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.					Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
						Ft. in.	*Ft. in.*														
Black Diamond mine of George Lord.	E. T. Hancock....	Bituminous (?)..	15	1 N.	94 W.	6 5	6 5	12776	2.5	A	10.8	37.2	44.0	7.98	.49	5.52	63.98	1.32	20.71	6,230	11,220
										B	8.5	38.2	45.1	8.18	.50	5.37	65.62	1.35	18.98	6,390	11,510
										C	....	41.8	49.3	8.95	.55	4.84	71.74	1.48	12.44	6,990	12,580
										D	....	45.9	54.1	.....	.60	5.32	78.79	1.63	13.66	7,675	13,820
Montgomery mine.....	.....do	Bituminous (?)..	25	1 N.	94 W.	7 6	7 6	12777	2.0	A	12.4	38.6	42.9	6.13	.71	5.38	62.61	1.33	23.84	5,995	10,790
										B	10.6	39.4	43.7	6.26	.72	5.27	63.89	1.36	22.50	6,115	11,010
										C	....	44.1	48.9	7.00	.81	4.58	71.45	1.52	14.64	6,840	12,320
										D	....	47.4	52.6	.....	.87	4.92	76.83	1.63	15.75	7,355	13,240

ROUTT COUNTY.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.					Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
Green mine, Hayden Gulch.	John A. Davis....	(*a*) Subbituminous.	12	4 N.	89 W.	7 11	7	9693	4.8	A	12.2	35.8	47.4	4.62	0.44	5.51	64.99	1.41	23.03	6,320	11,380
										B	7.8	37.6	49.8	4.85	.46	5.23	68.27	1.48	19.71	6,640	11,950
										C	....	40.8	53.9	5.26	.50	4.73	74.02	1.61	13.88	7,200	12,960
										D	....	43.0	57.0	.....	.53	4.99	78.13	1.70	14.65	7,595	13,680

KANSAS.

LEAVENWORTH COUNTY.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.					Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
Penitentiary mine, Lansing.	M. Albertson.....	Bituminous.....	19	9 S.	23 E.	1 10	1 10	12841	8.3	A	11.1	34.5	41.0	13.4	5.07	.....	.....	.....	.....	.....	.....
										B	3.0	37.7	44.7	14.6	5.53	.....	.....	.....	.....	.....	.....
										C	....	38.8	46.1	15.1	5.70	.....	.....	.....	.....	.....	.....
										D	....	45.7	54.3	.....	6.71	.....	.....	.....	.....	.....	.....

Do	do	Bituminous	19	9 S.	23 E.	1 10	1 10	12842	8.0	A	10.8	36.6	41.3	11.3	3.43						
										B	3.0	39.8	44.9	12.3	3.63						
										C	....	41.1	46.3	12.6	3.74						
										D	....	47.0	53.0	.....	4.28						
Do	do	Bituminous	19	9 S.	23 E.	1 10	1 10	12843	9.6	A	12.0	35.7	39.6	12.7	3.50						
										B	2.6	39.5	43.8	14.1	3.87						
										C	....	40.5	45.0	14.5	3.98						
										D	....	47.4	52.6	.....	4.66						
Do	do	Bituminous	19	9 S.	23 E.	.....	(b)	12844	8.6	A	11.1	35.5	40.7	12.70	3.99	5.30	60.72	1.13	16.16	6,145	11,070
										B	2.7	38.9	44.5	13.90	4.36	4.75	66.43	1.24	9.32	6,725	12,110
										C	....	39.9	45.8	14.29	4.49	4.58	68.30	1.27	7.07	6,915	12,450
										D	....	46.6	53.4	.....	5.24	5.34	79.69	1.48	8.25	8,070	14,520
Mine No. 3 of Home Riverside Coal Co., Leavenworth.	do	Leavenworth Bituminous.	25	8 S.	22 E.	1 10	1 10	12845	7.6	A	10.6	37.1	36.2	16.1	5.19						
										B	3.3	40.1	39.1	17.5	5.62						
										C	....	41.5	40.4	18.1	5.81						
										D	....	50.6	49.4	.....	7.09						
Do	do	Leavenworth Bituminous	25	8 S.	22 E.	1 10	1 10	12846	9.6	A	12.6	34.8	33.2	19.4	4.66						
										B	3.4	38.5	36.7	21.4	5.15						
										C	....	39.8	38.0	22.2	5.33						
										D	....	51.1	48.9	.....	6.85						
Do	do	Leavenworth Bituminous.	25	8 S.	22 E.	1 10	1 10	12847	9.8	A	13.0	34.2	40.2	12.6	4.56						
										B	3.6	37.9	44.5	14.0	5.06						
										C	....	39.3	46.2	14.5	5.24						
										D	....	45.9	54.1	.....	6.13						
Do	do	Leavenworth Bituminous.	25	8 S.	22 E.	.....	(c)	12848	9.0	A	12.1	35.4	36.4	16.07	4.77	5.16	56.54	1.07	16.39	5,675	10,220
										B	3.3	38.9	40.1	17.66	5.24	4.57	62.13	1.18	9.22	6,235	11,230
										C	....	40.3	41.4	18.27	5.42	4.34	64.29	1.22	6.46	6,455	11,620
										D	....	49.3	50.7	.....	6.63	5.31	78.66	1.49	7.91	7,895	14,210
Mine No. 1 of Home Riverside Coal Co., Leavenworth.	do	Leavenworth Bituminous.	36	8 S.	22 E.	1 10	1 10	12849	9.7	A	12.6	34.2	40.4	12.8	4.50						
										B	3.2	37.9	44.7	14.2	4.98						
										C	....	39.1	46.2	14.7	5.15						
										D	....	45.8	54.2	.....	6.04						
Do	do	Leavenworth Bituminous.	36	8 S.	22 E.	1 10	1 10	12850	8.9	A	11.8	34.5	39.1	14.6	4.40						
										B	3.2	37.8	43.0	16.0	4.83						
										C	....	39.1	44.4	16.5	4.99						
										D	....	46.8	53.2	.....	5.98						
Do	do	Leavenworth Bituminous.	36	8 S.	22 E.	1 10	1 10	12851	8.8	A	11.4	36.1	38.8	13.7	4.17						
										B	2.9	39.5	42.5	15.1	4.57						
										C	....	40.7	43.8	15.5	4.71						
										D	....	48.2	51.8	.....	5.57						
Mine No. 1 of Home Riverside Coal Co., Leavenworth.	M. Albertson	Leavenworth Bituminous.	36	8 S.	22 E.	.....	(d)	12852	9.1	A	12.0	35.2	39.1	13.70	4.41	5.31	58.94	1.09	16.55	5,955	10,720
										B	3.2	38.7	43.0	15.07	4.85	4.73	64.84	1.20	9.31	6,550	11,790
										C	....	40.0	44.4	15.56	5.01	4.52	66.94	1.24	6.73	6,765	12,180
										D	....	47.4	52.6	.....	5.93	5.35	79.28	1.47	7.97	8,010	14,420

a Weathered coal. b Composite of Nos. 12841, 12842, and 12843. c Composite of Nos. 12845, 12846, and 12847. d Composite of Nos. 12849, 12850, and 12851.

KENTUCKY.

PIKE COUNTY.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.						Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
						Ft. in.	*Ft. in.*														
Mine of Edgewater Coal & Coke Co., Hellier.	C. H. Wegemann.	Upper Elkhorn. Bituminous.[a]	.....	.....	.....	3 6	(b)	12004	0.5	A	1.9	35.5	59.9	2.70	0.57	5.38	81.37	1.42	8.56	8,165	14,690
										B	1.4	35.7	60.2	2.71	.57	5.35	81.78	1.43	8.16	8,205	14,770
										C	....	36.2	61.1	2.75	.58	5.26	82.98	1.45	6.98	8,325	14,990
										D	....	37.2	62.8	.....	.60	5.41	85.33	1.49	7.17	8,560	15,410

MISSOURI.

HARRISON COUNTY.

Cainesville mine of Grand River Coal & Coke Co., Cainesville.	H. Hinds.....	Cainesville..... Bituminous.	13	65 N.	26 W.	3 10½	3 10½	12679	7.8	A	13.0	39.7	35.4	11.9	5.24	.....	.....	.....	.....	5,865	10,560
										B	5.6	43.1	38.4	12.9	5.68	.....	.....	.....	.....	6,360	11,450
										C	....	45.6	40.7	13.7	6.02	.....	.....	.....	.....	6,740	12,130
										D	....	52.9	47.1	.....	6.98	.....	.....	.....	.....	7,810	14,050
Do.....	.....do.....	Cainesville..... Bituminous.	13	65 N.	26 W.	3 9½	3 9½	12680	8.8	A	11.7	38.8	38.8	10.7	5.13	.....	.....	.....	.....	6,125	11,020
										B	3.2	42.5	42.6	11.7	5.63	.....	.....	.....	.....	6,715	12,090
										C	....	43.9	44.0	12.1	5.81	.....	.....	.....	.....	6,935	12,480
										D	....	50.0	50.0	.....	6.61	.....	.....	.....	.....	7,890	14,210
Do.....	.....do.....	Cainesville..... Bituminous.	13	65 N.	26 W.	3 9¼	3 9¼	12681	10.1	A	13.1	38.9	37.3	10.7	4.78	.....	.....	.....	.....	6,045	10,880
										B	3.4	43.2	41.5	11.9	5.32	.....	.....	.....	.....	6,725	12,110
										C	....	44.7	43.0	12.3	5.50	.....	.....	.....	.....	6,960	12,530
										D	....	51.0	49.0	.....	6.27	.....	.....	.....	.....	7,935	14,280

MONTANA.

FLATHEAD COUNTY.

Prospect in bank of North Fork of Flathead River.	M. R. Campbell...	(c) Subbituminous.	33	34 N.	20 W.	6	11	3	6	12786	10.0	A	22.2	d32.5	36.4	8.9	2.27	.....	.....	.....	.....	4,890	8,800
												B	13.5	36.1	40.5	9.9	2.52	.....	.....	.....	.....	5,435	9,780
												C	.....	41.8	46.8	11.4	2.92	.....	.....	.....	.....	6,280	11,310
												D	.....	47.2	52.8	.....	3.30	.....	.....	.....	.....	7,090	12,760

MUSSELSHELL COUNTY.

Prospect.....	R. W. Richards...	Subbituminous .	....	9 N.	27 E.	4	5	2	11	6829	14.0	A	18.1	27.2	50.5	4.15	0.88	5.46	60.48	0.77	28.26	5,790	10,420
												B	4.8	31.7	58.7	4.82	1.02	4.54	70.32	.90	18.40	6,730	12,120
												C	.....	33.2	61.7	5.07	1.08	4.20	73.88	.94	14.83	7,070	12,730
												D	.....	35.0	65.0	.....	1.14	4.42	77.83	.99	15.62	7,750	13,410
Commercial mine of Roundup Coal Mining Co., 1 mile west of Roundup.	C. T. Lupton.....	Roundup..... Subbituminous.	23	8 N.	25 E.	5	8	5	8	8801	8.1	A	14.3	27.8	52.0	5.9	.48	.....	.....	.....	.....	6,135	11,050
												B	6.7	30.3	56.6	6.4	.52	.....	.....	.....	.....	6,675	12,020
												C	.....	32.5	60.6	6.9	.56	.....	.....	.....	.....	7,160	12,890
												D	.....	34.9	65.1	.....	.60	.....	.....	.....	.....	7,690	13,840
Mine No. 2 of Republic Coal Co., 3 miles southwest of Roundup.	.....do.....	Roundup..... Subbituminous.	36	8 N.	25 E.	5	8	5	8	8802	7.1	A	13.7	28.0	51.8	6.5	.46	.....	.....	.....	.....	6,210	11,180
												B	7.1	30.1	55.7	7.1	.49	.....	.....	.....	.....	6,685	12,040
												C	.....	32.4	60.0	7.6	.53	.....	.....	.....	.....	7,195	12,950
												D	.....	35.1	64.9	.....	.57	.....	.....	.....	.....	7,785	14,020
Mine No. 1 of Republic Coal Co., Roundup.	.....do.....	Roundup..... Subbituminous.	24	8 N.	25 E.	5	8½	5	8½	8803	6.5	A	13.4	28.1	52.3	6.2	.39	.....	.....	.....	.....	6,140	11,050
												B	7.4	30.0	56.0	6.6	.42	.....	.....	.....	.....	6,565	11,820
												C	.....	32.4	60.4	7.2	.45	.....	.....	.....	.....	7,085	12,760
												D	.....	34.9	65.1	.....	.50	.....	.....	.....	.....	7,635	13,740

SWEETGRASS COUNTY.

Loffer mine.....	F. H. Kay.....	Bituminous.....	29	4 S.	16 E.	5	9	4	7	6320	2.4	A	6.7	32.4	44.5	16.41	0.53	5.04	61.47	1.10	15.45	5,935	10,680
												B	4.4	33.2	45.6	16.81	.54	4.89	62.98	1.13	13.65	6,080	10,940
												C	.....	34.7	47.7	17.60	.57	4.60	65.92	1.18	10.13	6,365	11,450
												D	.....	42.1	57.9	.....	.69	5.58	80.00	1.43	12.30	7,720	13,900

a Coking coal. b Car sample. c Weathered coal. d Volatile matter determined by the "modified" method.

MONTANA—Continued.

TETON COUNTY.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.					Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
						Ft. in.	*Ft. in.*														
Birch Creek mine of A. G. Blair.	E. Stebinger.....	Bituminous.....	32	31 N.	5 W.	1 10	1 10	12427	1.3	A	6.5	40.4	39.2	13.89	3.08	5.16	60.71	1.13	16.03	6,070	10,930
										B	5.3	40.9	39.7	14.07	3.12	5.09	61.51	1.14	15.07	6,150	11,070
										C	....	43.2	41.9	14.87	3.30	4.74	64.97	1.21	10.91	6,495	11,690
										D	....	50.7	49.3	.....	3.88	5.57	76.32	1.42	12.81	7,630	13,740
Mine of B. Allison, Cutbank.	.....do.....	Allison..... Bituminous.	29	34 N.	6 W.	1 10	1 10	12494	2.9	A	7.8	30.2	34.3	27.7	1.78	.....	.....	.....	.....	4,835	8,710
										B	5.1	31.1	35.3	28.5	1.83	.....	.....	.....	.....	4,980	8,970
										C	....	32.8	37.1	30.1	1.93	.....	.....	.....	.....	5,245	9,450
										D	....	46.9	53.1	.....	2.76	.....	.....	.....	.....	7,505	13,510
Stone mine.....	.....do.....	Bituminous.....	35	36 N.	12 W.	2 10	2 10	12602	2.3	A	8.0	35.4	44.2	12.45	1.00	5.17	62.92	1.46	17.00	6,135	11,050
										B	5.8	36.2	45.3	12.74	1.02	5.03	64.40	1.49	15.32	6,280	11,310
										C	....	38.5	48.0	13.53	1.09	4.65	68.39	1.59	10.75	6,670	12,010
										D	....	44.5	55.5	.....	1.26	5.38	79.09	1.84	12.43	7,715	13,890

NORTH DAKOTA.

MORTON COUNTY.

Prospect on Cedar Creek, 8 miles northeast of Morristown.	A. L. Beekly.....	Lignite.....	12	129 N.	88 W.	3	3	7839	21.1	A	33.1	25.5	36.1	5.3	0.69	.....	.....	.....	.....	4,150	7,470
										B	15.2	32.4	45.7	6.7	.87	.....	.....	.....	.....	5,255	9,460
										C	....	38.2	53.9	7.9	1.03	.....	.....	.....	.....	6,200	11,160
										D	....	41.5	58.5	.....	1.12	.....	.....	.....	.....	6,735	12,120
Mine of A. L. McCord, 8 miles northeast of Morristown.	... do.....	Lignite.....	5	129 N.	88 W.	2 2	2 2	7841	19.3	A	32.1	25.6	31.7	10.6	1.19	.....	.....	.....	.....	3,790	6,820
										B	15.8	31.8	39.2	13.2	1.48	.....	.....	.....	.....	4,695	8,460
										C	....	37.7	46.6	15.7	1.75	.....	.....	.....	.....	5,580	10,040
										D	....	44.8	55.2	.....	2.07	.....	.....	.....	.....	6,615	11,910

Prospect, 6 miles north of Morristown.	....do....	Lignite....	4	129 N.	88 W.	2	6	2	6	7842	23.1	A	32.5	27.1	34.6	5.8	.37	.....	.....	.....	.....	4,030	7,250
												B	12.2	35.3	45.0	7.5	.48	.....	.....	.....	.....	5,240	9,430
												C	....	40.1	51.3	8.6	.55	.....	.....	.....	.....	5,965	10,740
												D	....	43.9	56.1	.....	.59	.....	.....	.....	.....	6,525	11,750
WARD COUNTY.																								
Coal Springs prospect....	M. A. Pishel....	(a) Lignite.	17	152 N.	92 W.	4	11	3	3	11294	33.7	A	41.0	a24.9	27.5	6.6	0.44	.....	.....	.....	.....	3,265	5,880
												B	11.0	37.5	41.6	9.9	.67	.....	.....	.....	.....	4,925	8,870
												C	....	42.2	46.7	11.1	.75	.....	.....	.....	.....	5,535	9,970
												D	....	47.5	52.5	.....	.84	.....	.....	.....	.....	6,230	11,220
WILLIAMS COUNTY.																								
Gelty mine of H. L. Duncan, 6 miles northeast of Trenton.	F. A. Herald....	Lignite....	27	154 N.	102 W.	5	6	5	1	12411	34.7	A	42.7	b25.7	24.8	6.8	1.38	.....	.....	.....	.....	3,370	6,060
												B	12.3	39.4	37.9	10.4	2.11	.....	.....	.....	.....	5,155	9,280
												C	....	44.9	43.2	11.9	2.41	.....	.....	.....	.....	5,880	10,580
												D	....	50.9	49.1	.....	2.74	.....	.....	.....	.....	6,675	12,010
Mine of U. S. Reclamation Service, 3 miles northeast of Williston.	....do....	Lignite....	7	154 N.	100 W.	10	3	8		12533	33.2	A	43.9	b24.9	25.4	5.8	.49	.....	.....	.....	.....	3,300	5,940
												B	16.0	37.2	38.1	8.7	.73	.....	.....	.....	.....	4,940	8,890
												C	....	44.3	45.3	10.4	.87	.....	.....	.....	.....	5,875	10,580
												D	....	49.5	50.5	.....	.97	.....	.....	.....	.....	6,555	11,800
Mine of John Bruegger....	....do....	Lignite....	8	154 N.	100 W.	11		5	6	12587	33.2	A	41.5	a27.0	27.2	4.3	.30	.....	.....	.....	.....	3,580	6,440
												B	12.5	40.4	40.7	6.4	.45	.....	.....	.....	.....	5,355	9,640
												C	....	46.1	46.5	7.4	.51	.....	.....	.....	.....	6,120	11,010
												D	....	49.8	50.2	.....	.55	.....	.....	.....	.....	6,605	11,890
Mine of R. M. Powell....	....do....	Lignite....	33	154 N.	100 W.	10		6	6	12588	34.7	A	42.9	b26.8	25.0	5.3	.71	.....	.....	.....	.....	3,460	6,230
												B	12.6	41.1	38.2	8.1	1.09	.....	.....	.....	.....	5,300	9,540
												C	....	47.0	43.7	9.3	1.24	.....	.....	.....	.....	6,065	10,920
												D	....	51.8	48.2	.....	1.37	.....	.....	.....	.....	6,685	12,030
OKLAHOMA. **PITTSBURG COUNTY.**																								
Borehole No. 2, 1 mile southeast of Savanna.	A. W. Thompson..	Lower Hartshorne. Bituminous.	16	4 N.	14 E.	3	10	3	10	5921	0.7	A	2.6	33.5	54.5	9.37	1.35	4.72	72.56	1.57	10.43	7,210	12,980
												B	2.0	33.7	54.9	9.44	1.36	4.67	73.07	1.58	9.88	7,260	13,070
												C	....	34.4	56.0	9.62	1.39	4.55	74.52	1.61	8.31	7,405	13,330
												D	....	38.0	62.0	.....	1.54	5.03	82.45	1.78	9.20	8,195	14,750
Borehole No. 7, 3 miles south of Craig.	....do....	McAlester. Bituminous.	19	4 N.	16 E.	4		4		6224	1.1	A	3.1	32.1	59.3	5.49	.89	5.13	73.52	1.89	13.08	7,495	13,500
												B	2.0	32.4	60.0	5.55	.90	5.07	74.34	1.91	12.23	7,580	13,650
												C	....	33.1	61.2	5.67	.92	4.94	75.87	1.95	10.65	7,735	13,930
												D	....	35.1	64.9	.....	.98	5.24	80.43	2.07	11.28	8,200	14,760
Borehole No. 9, 2 miles east of Carbon.	....do....	McAlester. Bituminous.	4	6 N.	16 E.	3	2	3	2	6225	1.0	A	2.1	27.6	50.2	20.07	5.73	4.46	63.66	1.33	4.75	6,495	11,700
												B	1.1	27.9	50.7	20.27	5.79	4.40	64.30	1.34	3.90	6,565	11,810
												C	....	28.2	51.3	20.50	5.85	4.32	65.02	1.36	2.95	6,635	11,950
												D	....	35.4	64.6	.....	7.36	5.43	81.79	1.71	3.71	8,345	15,030

a Weathered coal.

b Volatile matter determined by the modified method.

OREGON.

MALHEUR COUNTY.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.					Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
						Ft. in.	*Ft. in.*														
Honolulu prospect	C. F. Bowen	Lignite	....	22 S.	24 E.	2 4	2 4	12585	20.7	A	30.3	[a]19.0	18.9	31.8	2.66	.....	.....	.....	.....	2,430	4,380
										B	12.1	24.0	23.8	40.1	3.35	.....	.....	.....	.....	3,065	5,520
										C	....	27.3	27.1	45.6	3.82	.....	.....	.....	.....	3,490	6,280
										D	....	50.2	49.8	.....	7.03	.....	.....	.....	.....	6,415	11,550

PENNSYLVANIA.

SOMERSET COUNTY.

Linmer mine of Smith, Meyers & Co., 4½ miles southeast of Confluence.	C. T. Lupton	C[1] Bituminous.	....	.....	.....	3 6	3 6	13631	2.2	A	2.8	25.9	63.1	8.2	2.35	.....	.....	.....	.....	7,715	13,890
										B	.6	26.5	64.5	8.4	2.40	.....	.....	.....	.....	7,890	14,200
										C	....	26.7	64.9	8.4	2.42	.....	.....	.....	.....	7,935	14,290
										D	....	29.2	70.8	.....	2.64	.....	.....	.....	.....	8,670	15,600
Grassy Run No. 1, mine of Grassy Run Coal Co., 2½ miles northwest of Elk Lick.	do	"Four-foot" Semibituminous.	....	.....	.....	4 7	4 6	13664	2.2	A	2.7	19.6	65.0	12.7	2.30	.....	.....	.....	.....	7,355	13,240
										B	.5	20.1	66.5	12.9	2.35	.....	.....	.....	.....	7,525	13,540
										C	....	20.2	66.8	13.0	2.36	.....	.....	.....	.....	7,565	13,620
										D	....	23.2	76.8	.....	2.71	.....	.....	.....	.....	8,695	15,650

SULLIVAN COUNTY.

Mine of Randall & Shaad Bros. Anthracite Coal Co., Bernice.	C. A. Fisher	B Semianthracite.				2	9½	2	9½	9652	2.9	A	3.4	9.3	75.6	11.68	0.81	3.64	77.85	0.95	5.07	7,290	13,120
												B	.5	9.6	77.9	12.03	.83	3.42	80.17	.98	2.57	7,505	13,510
												C	....	9.7	78.2	12.09	.84	3.37	80.59	.98	2.13	7,545	13,580
												D	....	11.0	89.0	.....	.96	3.83	91.67	1.11	2.43	8,580	15,450
Mine of O'Boyle & Fay Anthracite Coal Co., Bernice.	.....do.....	Semianthracite..				3	5½	2	10½	9653	3.0	A	3.6	9.2	74.1	13.09	1.57	3.58	75.56	1.00	5.20	7,130	12,840
												B	.7	9.4	76.4	13.49	1.62	3.35	77.90	1.03	2.61	7,350	13,230
												C	....	9.5	76.9	13.59	1.63	3.29	78.43	1.04	2.02	7,400	13,320
												D	....	11.0	89.0	.....	1.89	3.80	90.76	1.20	2.35	8,565	15,420
Mine of Connell Anthracite Mining Co., Bernice.	.....do.....	Semianthracite..				3	1	3	1	9654	2.8	A	3.3	8.3	72.8	15.55	.53	3.54	74.03	.97	5.38	6,945	12,500
												B	.6	8.6	74.8	16.00	.55	3.32	76.16	1.00	2.97	7,145	12,860
												C	....	8.6	75.3	16.09	.55	3.28	76.60	1.00	2.48	7,185	12,930
												D	....	10.3	89.7	.....	.66	3.91	91.29	1.19	2.95	8,560	15,410
Mine of Northern Anthracite Coal Co., Lopez.	.....do.....	B Semianthracite.				7	½	6	8	9655	2.6	A	3.1	8.6	78.1	10.17	.67	3.47	79.49	1.10	5.10	7,430	13,380
												B	.6	8.8	80.2	10.44	.69	3.26	81.61	1.13	2.87	7,630	13,730
												C	....	8.9	80.6	10.50	.69	3.22	82.08	1.14	2.37	7,675	13,810
												D	....	9.9	90.1	.....	.77	3.60	91.71	1.27	2.65	8,575	15,430
Mine of O'Boyle & Fay Anthracite Coal Co., Bernice.	.....do.....	B Semianthracite.				6	8	6	3	9656	3.0	A	3.5	9.3	76.1	11.15	.78	3.62	77.60	1.00	5.85	7,340	13,220
												B	.5	9.6	78.4	11.49	.80	3.39	80.00	1.03	3.29	7,570	13,620
												C	....	9.6	78.8	11.55	.81	3.34	80.39	1.04	2.87	7,605	13,690
												D	....	10.9	89.1	.....	.92	3.78	90.89	1.18	3.23	8,600	15,480
Northern mine of Northern Anthracite Coal Co., Lopez.	.....do.....	B Semianthracite.				4	11	4	6	9664	3.0	A	3.6	9.1	75.4	11.92	.60	3.57	78.04	.97	4.90	7,260	13,070
												B	.6	9.4	77.7	12.29	.62	3.34	80.45	1.00	2.30	7,485	13,480
												C	....	9.5	78.1	12.36	.62	3.29	80.94	1.01	1.78	7,530	13,560
												D	....	10.8	89.2	.....	.71	3.75	92.35	1.15	2.04	8,595	15,470
Connell mine of Connell Anthracite Mining Co., Bernice.	.....do.....	B Semianthracite.				6		5	6	9665	2.6	A	3.4	8.5	76.6	11.50	.63	3.58	78.43	1.00	4.86	7,310	13,160
												B	.8	8.7	78.7	11.81	.65	3.38	80.52	1.03	2.61	7,505	13,510
												C	....	8.8	79.3	11.90	.65	3.31	81.18	1.04	1.92	7,565	13,620
												D	....	9.9	90.1	.....	.74	3.76	92.15	1.18	2.17	8,585	15,460

SOUTH DAKOTA.

SCHNASSE COUNTY.

Prospect, 12 miles southeast of Morristown.	A. L. Beekly.....	Lignite.....	19	21 N.	21 E.	2	11	2	11	7840	19.7	A	30.5	23.0	34.4	12.1	0.39	.....	.....	.....	.....	3,860	6,940
												B	13.4	28.6	42.9	15.1	.48	.....	.....	.....	.....	4,805	8,650
												C	....	33.0	49.5	17.5	.56	.....	.....	.....	.....	5,545	9,990
												D	....	40.0	60.0	.....	.68	.....	.....	.....	.....	6,720	12,100

[a] Volatile matter determined by "modified" method.

TENNESSEE.

BLEDSOE COUNTY.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.					Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
						Ft. in.	*Ft. in.*														
Al. Hale mine of G. A. Hart, Litton.	W. C. Phalen	Bituminous				8	8	10803	3.9	A	5.0	25.5	61.8	7.7	0.59					7,495	13,490
										B	1.2	26.5	64.3	8.0	.61					7,795	14,040
										C	....	26.8	65.1	8.1	.62					7,890	14,200
										D	....	29.2	70.8	.....	.67					8,585	15,450
Al. Hale mine, Litton	Chas. Butts	Bon Air Bituminous.				8	8	12584	2.2	A	3.3	27.9	63.2	5.6	1.88					7,850	14,130
										B	1.2	28.5	64.6	5.7	1.92					8,025	14,450
										C	....	28.8	65.4	5.8	1.94					8,120	14,620
										D	....	30.6	69.4	.....	2.06					8,620	15,520

UTAH.

CARBON COUNTY.

Prospect, 1 mile from Sunnyside.	F. R. Clark	(a) Bituminous.	5	15 S.	14 E.	13 10	9	12545	2.5	A	15.2	33.9	46.2	4.7	0.60					5,295	9,530
										B	13.0	34.7	47.4	4.9	.62					5,430	9,770
										C	....	39.9	54.5	5.6	.71					6,240	11,230
										D	....	42.3	57.7	.....	.75					6,610	11,900
Mine No. 3 of Utah Fuel Co., 1½ miles southeast of Sunnyside.	do	Bituminous *b*	9	15 S.	14 E.	6 2	6 2	12546	1.0	A	6.0	38.1	48.8	7.1	.56					6,665	11,990
										B	5.0	38.5	49.3	7.2	.57					6,730	12,110
										C	....	40.5	51.9	7.6	.60					7,065	12,750
										D	....	43.8	56.2	.....	.65					7,665	13,800
Mine No. 3 of Utah Fuel Co., Sunnyside.	do	Upper Bituminous. *b*	5	15 S.	14 E.	4 8	4 8	12630	1.5	A	5.1	38.4	48.7	7.81	.51	5.54	70.72	1.58	13.84	7,010	12,620
										B	3.6	39.1	49.4	7.93	.52	5.45	71.80	1.60	12.70	7,120	12,810
										C	....	40.5	51.3	8.23	.54	5.25	74.49	1.66	9.83	7,385	13,290
										D	....	44.1	55.9	.....	.59	5.72	81.17	1.81	10.71	8,045	14,490
Do	do	Lower Bituminous. *b*	5	15 S.	14 E.	6 10	6 10	12631	2.1	A	5.1	39.9	47.7	7.3	1.37					7,095	12,770
										B	3.0	40.8	48.7	7.5	1.40					7,246	13,040
										C	....	42.1	50.2	7.7	1.44					7,475	13,450
										D	....	45.6	54.4	.....	1.56					8,095	14,570

Mine No. 1 of Utah Fuel Co., Sunnyside.	....do....	Lower Bituminous.[b]	8	14 S.	14 E.	7		5	5	12632	3.4	A	5.9	38.7	48.8	6.59	1.73	5.43	71.28	1.52	13.45	7,135	12,840
												B	2.7	40.0	50.5	6.82	1.79	5.23	73.79	1.57	10.80	7,385	13,290
												C	....	41.1	51.9	7.01	1.84	5.07	75.80	1.62	8.66	7,585	13,660
												D	....	44.2	55.8	.....	1.98	5.45	81.52	1.74	9.31	8,160	14,680
Prospect	....do....	Bituminous	32	13 S.	13 E.	5	7	5	7	12792	2.9	A	6.7	38.6	49.5	5.2	1.04	.....	.....	.....	.....	6,730	12,110
												B	3.9	39.7	51.0	5.4	1.07	.....	.....	.....	.....	6,930	12,470
												C	....	41.3	53.1	5.6	1.11	.....	.....	.....	.....	7,210	12,980
												D	....	43.8	56.2	.....	1.18	.....	.....	.....	.....	7,635	13,740
EMERY COUNTY.																							
Mine of P. A. and L. Larsen.	J. A. Taff.....	Bituminous.....	2	15 S.	6 E.	7	6	7	6	2142	3.9	A	7.8	42.4	47.0	2.8	0.52	.....	.....	.....	.....	.....	.....
												B	4.0	44.1	49.0	2.9	.54	.....	.....	.....	.....	.....	.....
												C	....	46.0	51.0	3.0	.56	.....	.....	.....	.....	.....	.....
												D	....	47.4	52.6	.....	.58	.....	.....	.....	.....	.....	.....
Williams mine, 2½ miles east of Emery.	C. T. Lupton.....	Williams Bituminous.	12	22 S.	6 E.	5	9½	5	3	12613	.9	A	4.0	41.8	42.6	11.6	4.66	.....	.....	.....	.....	6,660	11,990
												B	3.1	42.2	43.0	11.7	4.70	.....	.....	.....	.....	6,720	12,100
												C	....	43.5	44.4	12.1	4.85	.....	.....	.....	.....	6,935	12,480
												D	....	49.5	50.5	.....	5.52	.....	.....	.....	.....	7,890	14,200
Mine of Ira R. Browning, 4 miles south of Emery.	....do.....	Pugsley Bituminous.	33	22 S.	6 E.	20		12		12627	.3	A	4.0	40.9	49.2	5.93	.39	5.52	73.02	1.25	13.89	7,205	12,970
												B	3.6	41.0	49.4	5.95	.39	5.51	73.24	1.25	13.66	7,225	13,010
												C	....	42.6	51.2	6.17	.41	5.29	76.01	1.30	10.82	7,500	13,500
												D	....	45.4	54.6	.....	.44	5.64	81.01	1.39	11.52	7,990	14,380
Emery mine, 4 miles southeast of Emery.	....do.....	Grassy Valley Bituminous.	26	22 S.	6 E.	9	10	6		12652	1.8	A	5.2	39.1	41.6	14.1	.81	.....	.....	.....	.....	6,265	11,270
												B	3.4	39.8	42.4	14.4	.82	.....	.....	.....	.....	6,380	11,480
												C	....	41.2	43.9	14.9	.85	.....	.....	.....	.....	6,605	11,890
												D	....	48.4	51.6	.....	1.00	.....	.....	.....	.....	7,764	13,980
SUMMIT COUNTY.																							
Tom Reese mine of Tom Reese Grass Creek Coal Co., 6 miles northeast of Coalville.	C. H. Wegemann.	Wasatch Subbituminous.	24	3 N.	5 E.	8	6½	8	6½	13216	4.5	A	12.2	42.2	42.2	3.39	1.90	5.80	63.77	1.27	23.87	6,255	11,260
												B	8.0	44.2	44.2	3.55	1.99	5.55	66.77	1.33	20.81	6,550	11,790
												C	....	48.0	48.1	3.86	2.16	5.07	72.61	1.45	14.85	7,120	12,820
												D	....	50.0	50.0	.....	2.25	5.27	75.52	1.51	15.45	7,405	13,330
Gower Thomas mine of Superior Fuel & Briquette Co., 1 mile southeast of Coalville.	....do.....	Wasatch Subbituminous.	16	2 N.	5 E.	7	6	7	6	13217	7.8	A	17.1	[c]36.9	41.3	4.7	1.53	.....	.....	.....	.....	5,655	10,180
												B	10.1	40.1	44.7	5.1	1.66	.....	.....	.....	.....	6,135	11,040
												C	....	44.6	49.7	5.7	1.85	.....	.....	.....	.....	6,820	12,280
												D	....	47.2	52.8	.....	1.96	.....	.....	.....	.....	7,235	13,020
Wasatch mine of Weber Coal Co., 1½ miles northeast of Coalville.	....do.....	Wasatch Subbituminous.	3	2 N.	5 E.	10	6	10	6	13218	5.3	A	13.6	41.3	41.0	4.08	1.37	5.84	62.11	1.06	25.54	6,100	10,980
												B	8.8	43.6	43.3	4.31	1.45	5.54	65.59	1.12	21.99	6,440	11,590
												C	....	47.8	47.5	4.72	1.59	5.01	71.89	1.23	15.56	7,060	12,710
												D	....	50.2	49.8	.....	1.67	5.26	75.45	1.29	16.33	7,410	13,340

[a] Weathered coal. [b] Coking coal. [c] Volatile matter determined by the "modified" method.

VIRGINIA.

RUSSELL COUNTY.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.			Ultimate.						Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
						Ft. in.	*Ft. in.*														
Mine of Clinchfield Coal Corporation, Dante.	E. G. Woodruff...	Lower Banner Bituminous.[a]	....	.....	.....	2 4	2 4	10385	1.1	A	2.1	33.7	57.7	6.45	0.65	5.44	78.59	1.53	7.34	7,855	14,140
										B	1.0	34.2	58.3	6.52	.66	5.38	79.46	1.55	6.43	7,940	14,290
										C	....	34.5	58.9	6.59	.66	5.31	80.30	1.56	5.58	8,025	14,440
										D	....	36.9	63.1	.....	.71	5.68	85.96	1.67	5.98	8,590	15,460
Mine No. 3 of Clinchfield Coal Corporation, 1 mile east of Dante.	.....do.....	Upper Banner Bituminous.[a]	....	.....	.....	5 2½	4 10½	10387	1.4	A	2.3	35.7	55.0	7.00	.66	5.48	77.91	1.53	7.42	7,740	13,940
										B	.9	36.2	55.8	7.10	.67	5.40	79.02	1.55	6.26	7,850	14,130
										C	....	36.5	56.3	7.16	.68	5.35	79.73	1.56	5.52	7,920	14,260
										D	....	39.3	60.7	.....	.73	5.76	85.87	1.68	5.96	8,530	15,360

WISE COUNTY.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.			Ultimate.						Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
Swansea mine of Virginia Iron, Coal & Coke Co., Georgel.	E. G. Woodruff...	Upper Banner Bituminous.[a]	....	.....	.....	8 1½	6 7	10386	1.5	A	2.5	31.7	60.3	5.51	0.52	5.59	79.69	1.56	7.13	7,920	14,250
										B	1.0	32.2	61.2	5.59	.53	5.50	80.90	1.58	5.90	8,040	14,470
										C	....	32.5	61.8	5.65	.53	5.44	81.71	1.60	5.07	8,120	14,610
										D	....	34.5	65.5	.....	.56	5.76	86.60	1.70	5.38	8,605	15,490
Mine of Stonega Coke & Coal Co., Stonega.	.....do.....	Imboden Bituminous.[a]	....	.....	.....	6 3½	5 10	10388	.8	A	2.1	33.1	58.3	6.47	.68	5.29	77.85	1.47	8.24	7,775	13,990
										B	1.4	33.4	58.7	6.52	.69	5.24	78.48	1.48	7.59	7,835	14,110
										C	....	33.8	59.6	6.61	.70	5.16	79.57	1.50	6.46	7,945	14,300
										D	....	36.2	63.8	.....	.75	5.53	85.20	1.61	6.91	8,510	15,320
Mine No. 4 of Norton Coal Co., Norton.	.....do.....	Bituminous [a]	....	.....	.....	4 8	4 2½	10390	1.9	A	3.3	32.8	60.1	3.76	.90	5.55	80.01	1.58	8.20	7,895	14,210
										B	1.4	33.5	61.3	3.82	.92	5.44	81.56	1.61	6.64	8,045	14,490
										C	....	33.9	62.2	3.89	.93	5.36	82.75	1.63	5.44	8,165	14,700
										D	....	35.3	64.7	.....	.97	5.58	86.10	1.70	5.65	8,495	15,290

WASHINGTON.

KITTITAS COUNTY.

Buckhannon prospect	E. J. Saunders	Bituminous	16	18 N.	15 E.	3	9½	3	1½	13267	2.9	A	5.1	31.9	40.4	22.6	1.14					5,750	10,350
												B	2.2	32.8	41.7	23.3	1.17					5,925	10,660
												C		33.6	42.6	23.8	1.20					6,060	10,910
												D		44.1	55.9		1.58					7,955	14,320

LEWIS COUNTY.

Prospect	A. F. Collier	Edlands Subbituminous.[c]	12	12 N.	4 E.	4		4		12563	5.1	A	12.6	[b]28.6	36.9	21.9	0.73						
												B	7.9	30.1	38.9	23.1	.77						
												C		32.7	42.2	25.1	.84						
												D		43.7	56.3		1.12						
Prospect, 2 miles east of Morton.	do	Subbituminous.	6	12 N.	5 E.	2	10	2		12564	4.1	A	8.0	[b]22.7	53.3	16.0	.67						
												B	4.1	23.7	55.5	16.7	.70						
												C		24.7	57.9	17.4	.73						
												D		29.9	70.1		.88						
Prospect, 4 miles north of Morton.	do	Semianthracite.	14	13 N.	4 E.	14		6		12565	6.2	A	11.8	8.4	57.3	22.5	.79					5,385	9,690
												B	6.0	9.0	61.1	23.9	.84					5,740	10,330
												C		9.5	65.0	25.5	.90					6,105	10,990
												D		12.8	87.2		1.21					8,195	14,750

PIERCE COUNTY.

Prospect of Evans Creek Coal & Coke Co., 2 miles south of Fairfax.	Geo. W. Evans	Montezuma Bituminous.	2	17 N.	6 E.	8	9	4		12478	2.3	A	3.6	20.6	41.9	33.9	0.55					3,455	6,220
												B	1.3	21.1	42.9	34.7	.56					3,535	6,370
												C		21.4	43.5	35.1	.57					3,585	6,450
												D		32.9	67.1		.88					5,525	9,950
Prospect No. 2 of Tacoma Smelting Co.	do	No. 2 Bituminous.	34	18 N.	6 E.	5	2	3		12495	1.7	A	2.6	24.8	52.8	19.8	.68					6,585	11,860
												B	.9	25.2	53.7	20.2	.69					6,700	12,060
												C		25.5	54.2	20.3	.70					6,760	12,170
												D		32.0	68.0		.88					8,485	15,280
Prospect No. 1 of Tacoma Smelting Co.	do	No. 1 Bituminous.	34	18 N.	6 E.	2	10	2	10	12496	4.0	A	4.7	26.4	60.8	8.1	1.13					7,575	13,630
												B	.8	27.5	63.3	8.4	1.18					7,890	14,200
												C		27.7	63.8	8.5	1.19					7,950	14,310
												D		30.2	69.8		1.30					8,685	15,640
Prospect of Marshall Coal & Coke Co.	do	Nisqually Chief. Semibituminous.	15	15 N.	6 E.	12	9	11	8	12581	3.6	A	5.8	15.3	54.7	24.2	.41					5,780	10,410
												B	2.3	15.9	56.7	25.1	.43					6,000	10,800
												C		16.2	58.1	25.7	.44					6,140	11,050
												D		21.8	78.2		.59					8,265	14,877

[a] Coking coal.

[b] Volatile matter determined by the "modified" method.

[c] Weathered coal.

WEST VIRGINIA.

BRAXTON COUNTY.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.			Ultimate.						Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
						Ft. in.	*Ft. in.*														
Braxton mine of Braxton Coal & Coke Co., Braxton.	E. R. Lloyd.....	Pittsburgh..... Bituminous.	....	.....	.....	5 3	5 3	13556	1.2	A	2.8	40.9	47.6	8.7	3.40	.....	.....	.....	.....	7,380	13,290
										B	1.6	41.4	48.2	8.8	3.44	.....	.....	.....	.....	7,470	13,450
										C	....	42.1	49.0	8.9	3.50	.....	.....	.....	.....	7,595	13,680
										D	....	46.2	53.8	.....	3.84	.....	.....	.....	.....	8,340	15,020

FAYETTE COUNTY.

Prospect of W. M. Page on Rich Creek.	W. R. Calvert.....	Big Eagle..... Bituminous.[a]	....	.....	.....	5 9½	1 4	10476	1.0	A	1.8	44.9	49.9	3.44	0.87	6.96	80.57	1.51	6.65	8,515	15,330
										B	.8	45.3	50.4	3.47	.88	6.92	81.38	1.53	5.82	8,605	15,490
										C	....	45.7	50.8	3.50	.89	6.88	82.04	1.54	5.15	8,675	15,610
										D	....	47.4	52.6	.....	.92	7.13	85.01	1.60	5.34	8,985	16,180

GREENBRIER COUNTY.

Spruce Knob mine of Elk Lick Coal Co., 9 miles above Richwood.	E. R. Lloyd.....	Sewell (?)..... Bituminous.	....	.....	.....	4 10	4 1	13547	3.1	A	3.9	26.2	64.1	5.80	0.62	5.00	79.33	1.59	7.66	7,810	14,060
										B	.8	27.1	66.1	5.99	.64	4.81	81.87	1.64	5.05	8,060	14,510
										C	....	27.3	66.7	6.04	.65	4.76	82.56	1.65	4.34	8,130	14,630
										D	....	29.0	71.0	.....	.69	5.07	87.87	1.76	4.61	8,650	15,570

RANDOLPH COUNTY.

Mine of Tolbert & Spiker, 6 miles south of Mill Creek.	E. R. Lloyd.....	Sewell (?)..... Bituminous.	....	.....	.....	4	3 7	13561	3.4	A	5.0	25.5	58.7	10.8	0.49	.....	.....	.....	.....	.....	.....
										B	1.7	26.4	60.7	11.2	.51	.....	.....	.....	.....	.....	.....
										C	....	26.8	61.8	11.4	.52	.....	.....	.....	.....	.....	.....
										D	....	30.3	69.7	.....	.59	.....	.....	.....	.....	.....	.....
Hopkins mine of West Virginia Pulp & Paper Co., 9 miles southwest of Cheat Bridge.	.....do.....	Sewell (?)..... Bituminous.	....	.....	.....	4 7	4 7	13601	1.9	A	2.7	28.7	55.1	13.47	.96	4.74	73.22	1.09	6.52	7,190	12,950
										B	.8	29.3	56.2	13.73	.98	4.62	74.64	1.11	4.92	7,330	13,200
										C	....	29.5	56.6	13.85	.99	4.56	75.27	1.12	4.21	7,395	13,310
										D	....	34.3	65.7	.....	1.15	5.29	87.37	1.30	4.89	8,580	15,450

WYOMING.

CONVERSE COUNTY.

Prospect	C. H. Wegemann	Subbituminous	4	37 N.	75 W.	12	6	5	11048	14.3	A	28.1	[b]31.6	35.7	4.62	0.45	6.55	48.32	0.69	39.37	4,640	8,350
											B	16.1	36.9	41.6	5.39	.53	5.79	56.38	.81	31.10	5,415	9,740
											C	....	44.0	49.6	6.42	.63	4.77	67.18	.96	20.04	6,450	11,610
											D	....	47.0	53.0	.....	.67	5.10	71.79	1.03	21.41	6,890	12,410
Outcrop on Sand Creek	V. H. Barnett	Subbituminous	33	40 N.	72 W.	6	5	5 7	11442	19.6	A	27.4	[b]30.9	33.2	8.5	.36	.....	.....	.....	.....	4,370	7,870
											B	9.7	38.5	41.3	10.5	.45	.....	.....	.....	.....	5,440	9,790
											C	....	42.6	45.8	11.6	.50	.....	.....	.....	.....	6,625	10,450
											D	....	48.2	51.8	.....	.57	.....	.....	.....	.....	6,820	12,280

JOHNSON COUNTY.

Prospect	C. H. Wegemann	Subbituminous	36	43 N.	79 W.	13		3 7	10804	8.1	A	18.8	[b]35.8	37.9	7.5	0.57	.....	.....	.....	.....	5,085	9,160
											B	11.7	38.9	41.2	8.2	.62	.....	.....	.....	.....	5,535	9,960
											C	....	44.0	46.7	9.3	.70	.....	.....	.....	.....	6,265	12,280
											D	....	48.5	51.5	.....	.77	.....	.....	.....	.....	6,910	12,430
Do	do	Subbituminous	20	42 N.	78 W.	20	5	5	10827	9.4	A	23.5	[b]35.6	35.7	5.17	.49	6.50	51.24	0.70	35.90	5,030	9,050
											B	15.5	39.4	39.4	5.71	.54	6.03	56.56	.77	30.39	5,950	9,990
											C	....	46.6	46.7	6.75	.64	5.08	66.95	.91	19.67	6,570	11,820
											D	....	49.9	50.1	.....	.69	5.45	71.79	.98	21.09	7,045	12,680
Do	do	Subbituminous	32	41 N.	78 W.	2	2	2 2	11059	3.7	A	16.8	[b]31.4	36.8	14.99	1.54	5.53	48.93	1.00	28.01	4,710	8,480
											B	13.6	32.6	38.2	15.57	1.60	5.32	50.81	1.04	25.66	4,890	8,810
											C	....	37.8	44.2	18.02	1.85	4.40	58.83	1.20	15.70	5,665	10,200
											D	....	46.1	53.9	.....	2.26	5.37	71.76	1.46	19.15	6,910	12,430

PARK COUNTY.

Mine of Carl Thompson	D. F. Hewett	Subbituminous	34	51 N.	101 W.	5	7	3 3	12883	4.3	A	14.8	[b]35.1	38.5	11.6	0.68	.....	.....	.....	.....	5,285	9,510
											B	11.0	36.7	40.2	12.1	.71	.....	.....	.....	.....	5,520	9,940
											C	....	41.3	45.1	13.6	.80	.....	.....	.....	.....	6,205	11,170
											D	....	47.8	52.2	.....	.93	.....	.....	.....	.....	7,180	12,920
East Wiley mine of Geo. W. Schwoob and Leonard Olsen.	do	Subbituminous	10	51 N.	100 W.	4		3 7	12884	6.4	A	15.8	[a]35.4	41.0	7.8	0.90	.....	.....	.....	.....	5,675	10,210
											B	10.1	37.8	43.8	8.3	.96	.....	.....	.....	.....	6,060	10,910
											C	....	42.1	48.7	9.2	1.07	.....	.....	.....	.....	6,740	12,130
											D	....	46.3	53.7	.....	1.18	.....	.....	.....	.....	7,425	13,370

[a] Cannel coal.

[b] Volatile matter determined by the "modified" method.

WYOMING—Continued.

PARK COUNTY—Continued.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.					Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
						Ft. in.	*Ft. in.*														
Eagle mine	D. F. Hewett	Subbituminous.	2	51 N.	100 W.	5 8	5 5	12885	6.8	A	15.2	a32.1	41.1	11.6	0.53	.....	.....	.....	.....	5,265	9,480
										B	9.1	34.4	44.1	12.4	.57	.....	.....	.....	.....	5,650	10,170
										C	.....	37.8	48.5	13.7	.63	.....	.....	.....	.....	6,210	11,180
										D	.....	43.8	56.2	.....	.73	.....	.....	.....	.....	7,195	12,950
Mine of W. A. McGuffey	do	Subbituminous.	17	52 N.	100 W.	3 1	2 8	12866	5.8	A	15.5	a36.0	40.5	8.0	.91	.....	.....	.....	.....	5,670	10,200
										B	10.3	38.2	43.0	8.5	.97	.....	.....	.....	.....	6,015	10,830
										C	.....	42.5	48.0	9.5	1.08	.....	.....	.....	.....	6,710	12,080
										D	.....	47.0	53.0	.....	1.19	.....	.....	.....	.....	7,415	13,350
Black Diamond mine of Joseph Christopherson.	do	Subbituminous.	22	49 N.	100 W.	3 6	3 6	12887	7.3	A	17.8	a30.9	43.5	7.8	.20	.....	.....	.....	.....	5,330	9,590
										B	11.3	33.3	47.0	8.4	.22	.....	.....	.....	.....	5,750	10,350
										C	.....	37.6	52.9	9.5	.24	.....	.....	.....	.....	6,480	11,670
										D	.....	41.5	58.5	.....	.27	.....	.....	.....	.....	7,165	12,890
Greybull mine of Charles H. Wilson, Meeteetse.	do	Subbituminous.	13	48 N.	101 W.	5 7	5	12888	5.5	A	14.2	a35.8	37.7	12.3	.92	.....	.....	.....	.....	5,335	9,600
										B	9.2	37.9	39.8	13.1	.97	.....	.....	.....	.....	5,645	10,160
										C	.....	41.7	43.9	14.4	1.07	.....	.....	.....	.....	6,220	11,190
										D	.....	48.7	51.3	.....	1.25	.....	.....	.....	.....	7,260	13,070

SHERIDAN COUNTY.

Mine.	Collector.	Coal bed and kind of coal.	Location.			Thickness.		Laboratory No.	Air-drying loss.	Form of analysis.	Proximate.				Ultimate.					Heat value.	
			Sec.	T.	R.	Coal bed.	Part sampled.				Moisture.	Volatile matter.	Fixed carbon.	Ash.	Sulphur.	Hydrogen.	Carbon.	Nitrogen.	Oxygen.	Calories.	British thermal units.
Kooi No. 1, mine of Peter Kooi, Kooi.	O. B. Hopkins	Monarch Subbituminous.	23	57 N.	85 W.	23 10	9	12641	11.9	A	22.4	a35.0	37.5	5.1	0.55	.....	.....	.....	.....	5,105	9,190
										B	11.9	39.8	42.6	5.7	.62	.....	.....	.....	.....	5,795	10,430
										C	.....	45.2	48.3	6.5	.71	.....	.....	.....	.....	6,575	11,840
										D	.....	48.3	51.7	.....	.76	.....	.....	.....	.....	7,035	12,660
Hughey mine, 1½ miles south of Kooi.	do	Subbituminous.	27	57 N.	85 W.	4	4	12642	15.2	A	24.6	a35.2	35.3	4.9	.31	.....	.....	.....	.....	4,820	8,680
										B	11.1	41.5	41.6	5.8	.37	.....	.....	.....	.....	5,685	10,230
										C	.....	46.7	46.8	6.5	.41	.....	.....	.....	.....	6,395	11,510
										D	.....	49.9	50.1	.....	.44	.....	.....	.....	.....	6,840	12,310

Acme No. 3, mine of A. G. Craig, Acme.	....do....	Masters Subbituminous.	....	57 N.	85 W.	.....	.....	12683	9.5	A	(23.9	a34.1	38.2	3.81	.33	6.28	53.68	1.19	34.71	5,170	9,300
										B	15.9	37.7	42.2	4.21	.36	5.77	59.32	1.32	29.02	5,710	10,280
										C	....	44.8	50.2	5.01	.43	4.77	70.52	1.56	17.71	6,790	12,220
										D	....	47.2	52.8	.....	.45	5.02	74.24	1.64	18.65	7,145	12,870
Carney mine of Carney Coal Co., Carneyville.	....do....	Carney Subbituminous.	....	57 N.	84 W.	16	10	12684	11.6	A	25.2	a32.9	39.1	2.75	.32	6.28	53.49	1.11	36.05	5,090	9,160
										B	15.4	37.3	44.2	3.11	.36	5.64	60.51	1.25	29.13	5,755	10,360
										C	....	44.1	52.2	3.68	.43	4.64	71.56	1.48	18.21	6,810	12,250
										D	....	45.7	54.3	.....	.45	4.82	74.29	1.54	18.90	7,070	12,720
Monarch mine of Monarch Coal Co., Monarch.	....do....	Monarch Subbituminous.	....	57 N.	84 W.	25	10	12685	8.1	A	23.9	a34.3	38.4	3.35	.38	6.29	54.07	1.14	34.77	5,185	9,340
										B	17.2	37.4	41.8	3.65	.41	5.87	58.84	1.24	29.99	5,645	10,160
										C	....	45.1	50.5	4.40	.50	4.78	71.03	1.50	17.79	6,815	12,260
										D	....	47.2	52.8	.....	.52	5.00	74.30	1.57	18.61	7,125	12,830
Acme No. 1, mine of A. G. Craig, Acme.	....do....	Carney Subbituminous.	....	57 N.	85 W.	20 10	8	12687	8.0	A	21.1	a34.0	39.7	5.18	.35	6.01	54.87	1.11	32.48	5,210	9,380
										B	14.3	37.0	43.1	5.63	.38	5.56	59.64	1.21	27.58	5,665	10,200
										C	....	43.1	50.3	6.57	.44	4.64	69.60	1.41	17.34	6,610	11,900
										D	....	46.2	53.8	.....	.47	4.97	74.49	1.51	18.56	7,075	12,740
WESTON COUNTY.																					
Prospect, 2 miles southwest of Moorcroft.	A. W. Stickney...	Subbituminous.	29	48 N.	68 W.	2 4	2 4	12392	17.2	A	30.0	a28.8	34.5	6.7	0.92	.....	.....	.....	.....	.....	.....
										B	15.4	34.8	41.7	8.1	1.11	.....	.....	.....	.....	.....	.....
										C	....	41.1	49.3	9.6	1.31	.....	.....	.....	.....	.....	.....
										D	....	45.5	54.5	.....	1.45	.....	.....	.....	.....	.....	.....
Local mine.....	.....do.....	Subbituminous.	29	48 N.	67 W.	3	2 11	12446	14.0	A	26.1	a31.0	36.9	6.01	.56	6.26	49.36	0.91	36.90	4,645	8,370
										B	14.0	36.1	42.9	6.99	.65	5.46	57.39	1.06	28.45	5,405	9,730
										C	....	42.0	49.9	8.13	.76	4.55	66.77	1.23	18.56	6,285	11,320
										D	....	45.7	54.3	.....	.83	4.95	72.68	1.34	20.20	6,840	12,320

a Volatile matter determined by the "modified" method.

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