GEOLOGICAL SURVEY CIRCULAR 81

September 1950

COAL RESOURCES OF WYOMING

By

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Andrew Brown, and Dorothy A. Taylor

Prepared as Part of a Program
of the Department of the Interior
for Development of the Missouri River Basin

UNITED STATES DEPARTMENT OF THE INTERIOR

Oscar L. Chapman, Secretary

GEOLOGICAL SURVEY

W. E. Wrather, Director

WASHINGTON, D. C.

Free on application to the Geological Survey, Washington 25, D. C.

PREFACE

This report on the coal resources of Wyoming is the fourth of a series of State summary reports prepared by the Geological Survey as part of a program of reappraising the coal reserves of the United States. Summary studies of the coal reserves in other States are contained in the preliminary map entitled "Geology of the Deep River coal field, Chatham, Lee, and Moore Counties, N. C." (1949) and in Circular 53, Coal resources of Montana (1949), and Circular 77, Coal resources of Michigan (1950). A report on the coal resources of New Mexico is planned for the near future.

W. E. Wrather,
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COAL RESOURCES OF WYOMING

INTRODUCTION

The accompanying report on the coal resources of Wyoming has been prepared as part of the Interior Department's program for the integrated development of the Missouri River Basin. It is based on studies of published and unpublished reports and files of the United States Geological Survey, publications of the Geological Survey of Wyoming, and records of mining companies, oil companies, and individuals who have made their files available to the Survey. The coal estimates included in the report, although the most comprehensive that can be prepared with the data available, still must be considered provisional in that information on the amount and grade of coal present in many parts of the State is meager or lacking. Much additional detailed mapping and exploration will be necessary before it can be said that Wyoming's coal resources have been adequately appraised.

The authors wish to express their appreciation for the cooperation and courtesies extended by numerous individuals in Wyoming who contributed invaluable information embodied in this report. For maps, well records, mine maps, and other items of information, they are greatly indebted to officials and representatives of the Union Pacific Coal Co., the Sheridan-Wyoming Coal Co., the Big Horn Coal Co., the Wyodak Coal Co., the Kemmerer Coal Co., and the Colony Coal Co.; to Edward Summerford, of Casper, Wyo.; to J. R. Lerwill, B. W. Dyer, H. B. Lindeman, and J. J. Bourquin, of the Conservation Division of the U. S. Geological Survey; to R. T. Littleton, of the Water Resources Division of the Geological Survey; and to various private mine owners and individuals throughout Wyoming.

WYOMING COAL RESERVES

Although little or no information is available about the coal in many parts of Wyoming, the original coal reserves in the parts of the State for which information is available are estimated to be 121,553,850,000 short tons, of which 13,234,950,000 tons is bituminous coal and 108,318,900,000 tons is sub-bituminous coal. Detailed estimates of reserves, in categories based on rank, thickness of coal, depth of overburden, and other pertinent factors, are given by townships, counties, and coal fields in subsequent pages of this report.

The total reported production of coal in Wyoming from 1865 through 1949 has been 362,375,000 tons, and actual production probably has been considerably more. (See fig. 1 and table 1.) Of this total nearly half

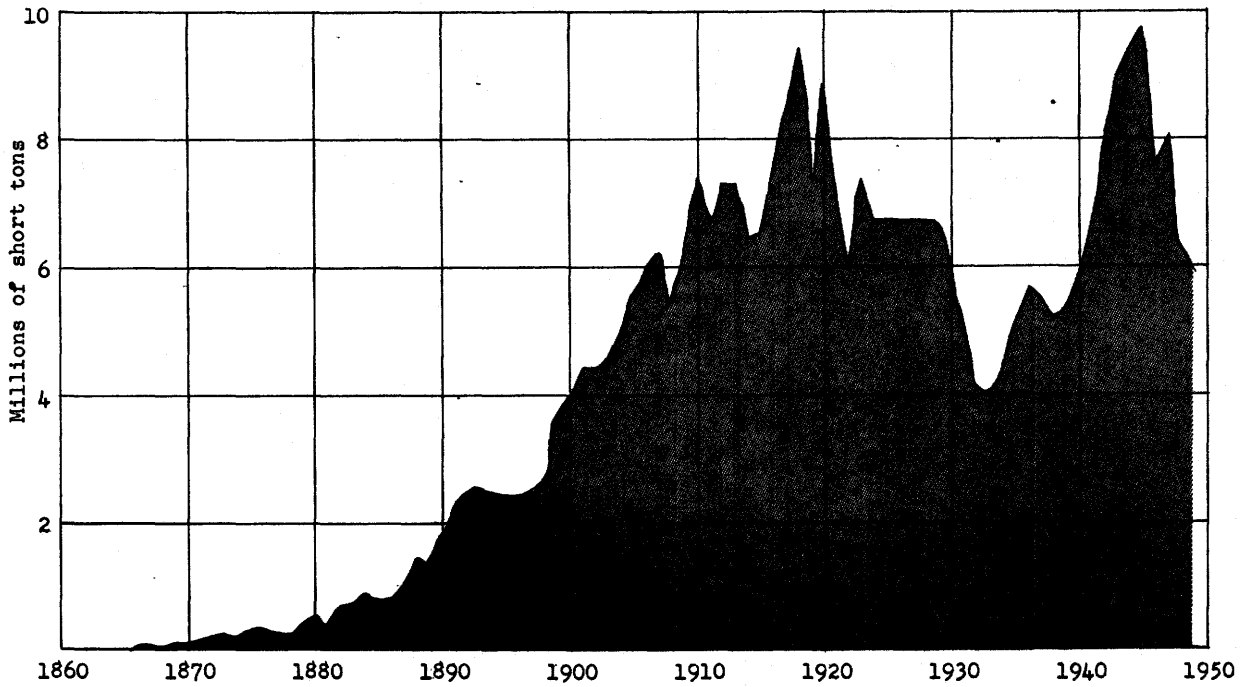


Figure 1.--Annual coal production in Wyoming, 1865-1949. (Data from U.S. Geological Survey, Mineral Resources of the United States, annual volumes, 1882-1923; U. S. Bureau of Mines, Minerals Yearbooks, 1924-1948.)

Table 1.--Coal production in Wyoming during the years 1938-49, in short tons.

(Figures from Annual Reports of the Wyoming State Inspector of Coal Mines, 1938-49, inclusive)

County	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Bighorn....	730	1,029	856	1,002	962	573	....	.....	....	....	....	....
Campbell...	106,342	108,794	119,663	122,775	121,635	167,066	223,356	101,209	174,337	209,272	263,266	314,200
Carbon.....	591,216	584,956	635,901	756,753	892,377	1,216,732	1,208,880	1,485,512	1,079,409	1,237,133	921,199	896,325
Converse...	8,038	19,441	21,536	15,789	18,556	17,249	15,407	13,768	13,932	12,448	11,153	9,750
Crook.....	....	1,190	852	377	....	....	....	....	....	....	....	....
Fremont....	44,325	38,647	42,529	35,526	20,597	10,188	10,054	8,726	7,194	8,725	9,140	8,665
Hot Springs	61,891	61,600	72,179	88,304	135,405	174,097	154,827	160,630	72,480	69,502	50,794	48,430
Johnson....	9,605	10,505	13,343	12,568	12,969	8,644	9,592	7,546	6,223	5,000	....	3,280
Lincoln....	428,282	449,002	455,266	487,597	581,365	617,506	545,207	509,652	390,934	420,636	408,290	284,160
Natrona....	3,195	3,481	3,023	3,006	1,541	1,480	1,071	885	....	....	....	....
Park.....	1,585	2,763	2,963	2,603	1,549	327	560	....	....	....	....	....
Sheridan...	629,792	584,182	606,582	602,668	786,250	962,681	1,140,657	1,290,671	1,330,877	1,181,252	1,048,713	1,147,920
Sublette...	311	1,253	685	594	401	439	511	....	....	800	668	1,000
Sweetwater.	3,315,682	3,527,411	3,859,426	4,524,598	5,565,415	6,047,051	6,136,981	6,251,667	4,538,617	4,907,680	3,691,813	3,256,630
Teton.....	1,082	1,539	1,032	1,306	793	330	1,799	1,113	....	....	222	150
Uinta.....	17,649	15,134	14,859	15,935	15,041	13,360	10,686	5,414	2,675	2,299	3,041	2,130
Weston.....	248	84	....	....	....	....	....	....	....	....	....	....
Total.....	5,219,973	5,411,011	5,850,695	6,671,401	8,154,856	9,237,723	9,459,588	9,836,793	7,616,678	8,054,747	6,408,299	5,972,640

has been mined in the Rock Springs field and nine-tenths has been taken from the six largest producing districts. In 1949,1/ a total of 56 mines were operated in 11 counties and 3,814 men were employed in coal-mining operations. Of the 5,972,640 tons produced in that year 1,061,067 tons, or 17.7 percent, was recovered by stripping operations and 4,911,573 tons, or 82.3 percent, by underground mining. Most of the mines are mechanized, as is illustrated by the fact that 98.88 percent of the tonnage produced in 1949 was mined by mechanical means.

That Wyoming coal is marketed over a wide area is shown by a distribution analysis compiled for 1946, the latest year for which such figures are available. 2/ In that year, of a total reported production of about 7.5 million tons, more than 5 million tons, or 69 percent, was used as railroad fuel in Wyoming and nearby States, and industrial and retail uses in Wyoming accounted for an additional 4 percent. The remainder, about 27 percent, was shipped to other States for industrial use and retail sale. By far the largest out-of-state shipments, about 9 percent of the total production, went to the State of Washington. Nebraska, South Dakota, Montana, Idaho, and Colorado each received more than 100,000 tons of Wyoming coal, and eight other States received smaller amounts. In the same year only about 30,000 tons of coal, mostly from Colorado, was shipped into the State.

In later sections of this report estimates are given of total production from a number of the more important fields. These figures are only approximate because of difficulties inherent in breaking down reported totals by counties into totals by fields. They are sufficiently accurate, however, to be useful in evaluating the production capacity of the various fields and are introduced for that purpose only.

Classes of reserves

Classification according to characteristics of coal

The estimates of reserves presented in the report are subdivided according to rank of coal, thickness of beds, and thickness of overburden.

Rank of coal.--The rank of coal is determined according to the standard specifications of the American Society for Testing Materials, which are reproduced on page 4 of this report. Most of the Wyoming coals are of bituminous and sub-bituminous rank. A small area in the northeastern part of the Powder River Basin is believed to contain lignite that is very near in rank to sub-bituminous C coal. Larger areas of coal on the east side of the Powder River Basin contain coal that appears to be gradational between lignite and sub-bituminous coal. For the purpose of this appraisal, however, all the coal in the Powder River Basin is classified under the heading "Sub-bituminous coal."

Thickness of beds.--The minimum thickness of coal included in the estimates of reserves is 14 inches for bituminous coal and 2.5 feet for sub-bituminous coal and lignite. Coal thicker than the minimum for each rank is divided into three thickness groups. For bituminous coal the ranges are 14 to 28 inches, 28 to 42 inches, and more than 42 inches. For sub-bituminous coal and lignite the thickness ranges are 2.5 to 5 feet, 5 to 10 feet, and more than 10 feet. These ranges accord essentially with those recommended by the National Bituminous Coal Advisory Council.

Thickness of overburden.--The estimated reserves are subdivided into three depth ranges: less than 1,000 feet, 1,000 to 2,000 feet, and 2,000 to 3,000 feet. No coal under more than 3,000 feet of cover is included in the estimates.

Classification according to reliability of data

The estimates of reserves included in this report are further divided into three categories, termed "Measured," "Indicated," and "Inferred," according to the reliability of the data upon which the estimates are based. The definitions of these categories were formulated jointly by members of the U. S. Geological Survey and the Bureau of Mines. They may be summarized as follows:

Measured reserves.--Measured reserves include beds for which positive information as to thickness and extent is available from surveys of the outcrop and from mine workings and drill records. The points of observation and measurement are judged to be so closely spaced that the computed tonnage can be considered to be within 20 percent of the true tonnage. Although the distances between measured sections will vary considerably in different beds and under different conditions in the same bed, the points of observation are, in general, about half a mile apart. The outer limit of a block of measured reserves, therefore, is usually about a quarter of a mile from the last point of definite information or approximately half the distance between points of observation. Where no data other than measurements along the outcrop are available, but where the continuity of the outcrop is measured in miles and conditions suggest that the coal is present at a considerable distance from the outcrop, a smooth line drawn approximately half a mile from the outcrop is taken as the limit of measured reserves.

Indicated reserves.--Indicated reserves are computed partly from specific measurements and partly from the projection of visible data for considerable distances on geologic evidence. In general, the points of observation are approximately 1 mile apart, or as much as 1½ miles for beds of known continuity. For example, if drilling on half-mile centers has proved a block of coal of fairly uniform thickness and extent, the area of measured coal is considered to extend for a quarter of a mile on all sides of the area actually drilled. If from geologic evidence the bed is believed to have greater continuity, this area of measured reserves is surrounded by a belt of indicated reserves that, according to the judgment of the appraiser, may be as much as 1½ miles wide. Where only outcrop measurements are available, but where the bed is continuous over long distances and conditions suggest that the coal is present at comparable distances back of the outcrop, the area of indicated reserves is bounded by a line drawn 2 miles behind the outcrop and the half-mile line drawn to limit measured reserves.

[1] McCleod, Hugh, Annual Report of the State Inspector of Coal Mines of Wyoming, year ending Dec. 31, 1949 (1950).

[2] Scalf, F. C., Bituminous coal distribution, calendar year 1946: U. S. Bur. Mines Min. Market Rept., Mine Market Survey 1592, 1948.

CLASSIFICATION OF COALS BY RANK.[a]

Legend: F.C. = Fixed Carbon. V.M. = Volatile Matter. Btu. = British thermal units.

Class	Group	Limits of Fixed Carbon or Btu. Mineral-Matter-Free Basis	Requisite Physical Properties
I. Anthracitic	1. Meta-anthracite	Dry F.C., 98 per cent or more (Dry V.M., 2 per cent or less)	
	2. Anthracite	Dry F.C., 92 per cent or more and less than 98 per cent (Dry V.M., 8 per cent or less and more than 2 per cent)	
	3. Semianthracite	Dry F.C., 86 per cent or more and less than 92 per cent (Dry V.M., 14 per cent or less and more than 8 per cent)	Nonagglomerating[b]
II. Bituminous[d]	1. Low volatile bituminous coal	Dry F.C., 78 per cent or more and less than 86 per cent (Dry V.M., 22 per cent or less and more than 14 per cent)	
	2. Medium volatile bituminous coal	Dry F.C., 69 per cent or more and less than 78 per cent (Dry V.M., 31 per cent or less and more than 22 per cent)	
	3. High volatile *A* bituminous coal	Dry F.C., less than 69 per cent (Dry V.M., more than 31 per cent); and moist[c] Btu., 14,000[e] or more	
	4. High volatile *B* bituminous coal	Moist[c] Btu., 13,000 or more and less than 14,000[e]	
	5. High volatile *C* bituminous coal	Moist Btu., 11,000 or more and less than 13,000[e]	Either agglomerating or nonweathering[f]
III. Subbituminous	1. Subbituminous *A* coal	Moist Btu., 11,000 or more and less than 13,000[e]	Both weathering and nonagglomerating
	2. Subbituminous *B* coal	Moist Btu., 9500 or more and less than 11,000[e]	
	3. Subbituminous *C* coal	Moist Btu., 8300 or more and less than 9500[e]	
IV. Lignitic	1. Lignite	Moist Btu., less than 8300	Consolidated
	2. Brown coal	Moist Btu., less than 8300	Unconsolidated

[a] This classification does not include a few coals which have unusual physical and chemical properties and which come within the limits of fixed carbon or Btu. of the high-volatile bituminous and subbituminous ranks. All of these coals either contain less than 48 per cent dry, mineral-matter-free fixed carbon or have more than 15,500 moist, mineral-matter-free Btu.

[b] If agglomerating, classify in low-volatile group of the bituminous class.

[c] Moist Btu. refers to coal containing its natural bed moisture but not including visible water on the surface of the coal.

[d] It is recognized that there may be noncaking varieties in each group of the bituminous class.

[e] Coals having 69 per cent or more fixed carbon on the dry, mineral-matter-free basis shall be classified according to fixed carbon, regardless of Btu.

[f] There are three varieties of coal in the high-volatile C bituminous coal group, namely, Variety 1, agglomerating and nonweathering; Variety 2, agglomerating and weathering; Variety 3, nonagglomerating and nonweathering.

Inferred reserves.--Inferred reserves are those for which estimates are based largely on broad knowledge of the geological characteristics of the bed or region, supported by few or no actual exposures or measurements. In general, inferred reserves lie outside the limits defined above for measured and indicated reserves, but only in areas where there is good evidence for believing that coal, in the thickness and of the rank given, is actually present.

Distinction between original, remaining, and recoverable reserves

The estimates given in this report are of original coal reserves in the ground before mining. They include the narrow weathered zone at the outcrops and coal under railways, roads, and the like, but exclude all known areas of burned coal. Calculation on the basis of original reserves, rather than of reserves remaining as of a certain date, is the only practicable procedure in Wyoming, where many coal-bearing areas have not been surveyed and where total production is relatively insignificant compared to total reserves. As new mapping and exploration is carried on, estimates of original reserves are certain to be increased over the conservative totals presented in this report. Meanwhile, a small amount of coal will be mined and lost in mining each year. Estimates of remaining and recoverable reserves as of any given time can be ascertained more readily, therefore, if the records of original reserves and of the amount of coal mined and lost in mining are kept separately.

As previously mentioned, the total amount of coal mined in Wyoming to January 1, 1950, is about 400,000,000 tons. In addition to the coal actually mined, a large amount is lost. Recent appraisals by many investigators in different parts of the United States have shown conclusively that losses in mining range from 35 to nearly 60 percent of the coal originally in the ground. In Wyoming, where comparatively large pillars are the rule and where, in some mines, a considerable thickness of coal is left in the roof, it is likely that losses in mining are at least 50 percent of the coal in the ground, and this assumption is followed here. On this basis, 400,000,000 tons of coal has been mined in Wyoming to January 1, 1950, and an equal amount has been lost in mining. The total of 800,000,000 tons, when subtracted from the total original reserves of 121,553,850,000 tons, leaves remaining reserves on January 1, 1950, of 120,753,850,000 tons. As the total production and mining losses to January 1, 1950, are only 0.7 percent of the estimated original reserves, it is obvious that the effect of mining on the total reserves of the State has been very small and that present and future investigations of the coal deposits will affect the reserve figure far more than mining on the present scale.

Assuming that mining losses in the future will remain about equal to actual production, the recoverable reserves of Wyoming are estimated as half the remaining reserves, or 60,376,925,000 tons of coal that, on the basis of rank, thickness, depth, and continuity, is considered ultimately minable under the definitions and assumptions used in compiling this report. It is recognized that much coal meeting these requirements is not economically recoverable at the present time, but the consideration of mining costs, transportation problems, and the like is beyond the province of a summary appraisal of reserves.

Methods of estimating reserves

With few exceptions, the reserve estimates in this report were computed for individual coal beds and for individual townships. The first step in the work was the preparation of work maps, usually on the scale of 1 inch or half an inch to the mile, on which all mapped coal outcrops, drill holes, mines, location and thickness of measured sections, and other data were plotted. In areas where several coal beds crop out, separate maps were made for each bed.

After this basic information was assembled, lines were drawn on the maps bounding the areas in which sufficient evidence for calculating reserves in each category and depth and thickness range was available. A continuous bed extending around a spur or basin was considered to underlie the area enclosed by the line of outcrop. For all other beds the length of outcrop, within each thickness range, was considered to establish the presence of coal in a semicircular area extending from the outcrop and having a radius equal to half the length of the outcrop. Where the information was obtained from an isolated mine working, the coal was considered to extend beyond the working in an arc with a maximum radius of half a mile. Where the information was from an isolated drill hole too far removed from other holes or outcrops to be incorporated with other established coal areas, the bed was considered to extend in a circle with a maximum radius of half a mile beyond the hole.

After the total area of coal occurrence had been determined as described, it was divided on the work maps into subordinate areas of measured, indicated, and inferred reserves in accordance with the definitions outlined in preceding paragraphs. The area underlain by coal in each category, rank, and depth and thickness range was then measured with a planimeter.

The weight of the coal was taken as 1,770 tons per acre-foot for sub-bituminous coal and 1,800 tons for bituminous coal. The average thickness used in calculations was a weighted average of all thickness figures within the measured areas, which figures represented the total thickness of the bed minus the total thickness of partings more than three-eighths inch thick. All coal beds dipping less than 18° were considered to be horizontal for purposes of making reserve calculations, as the correction for dip, less than 5 percent, was less than the normal variation in the thickness of the bed. Similarly, where the dip of the coal beds was steeper than 78°, they were assumed to be vertical and to extend to a depth of 3,000 feet. A correction for dip was employed in estimating reserves in all coal beds dipping between 18° and 78°.

Areas considered and omitted in preparing reserve estimates

Wyoming contains large areas that in all probability contain minable coal at depths of less than 3,000 feet but for which little or no information is available. Although it would have been possible to make rough calculations, on a regional basis, of the coal in such areas, it was decided to omit them from the accompanying estimates, which are thus confined to areas where definite information about the extent and thickness of the coal beds was available.

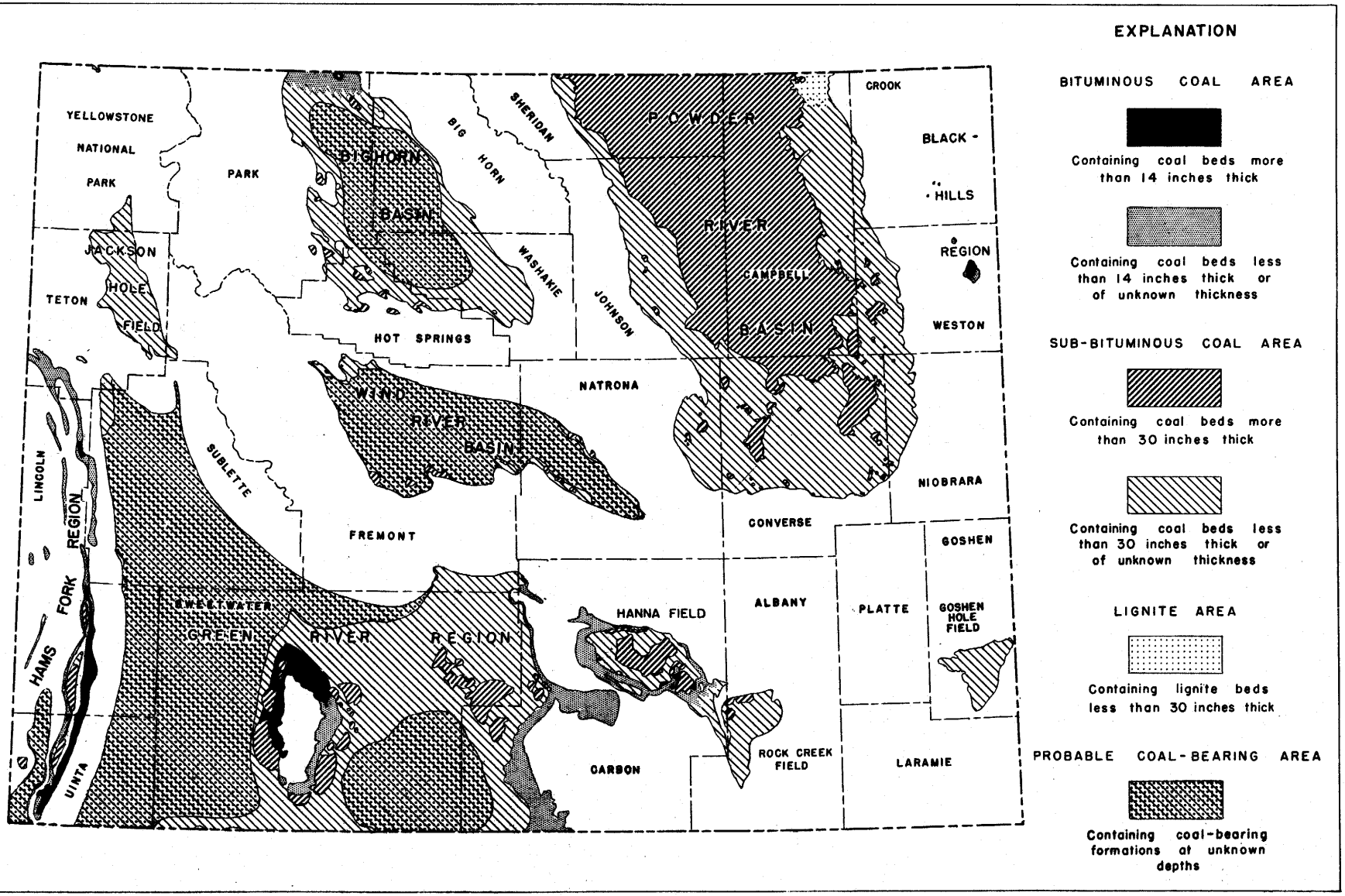
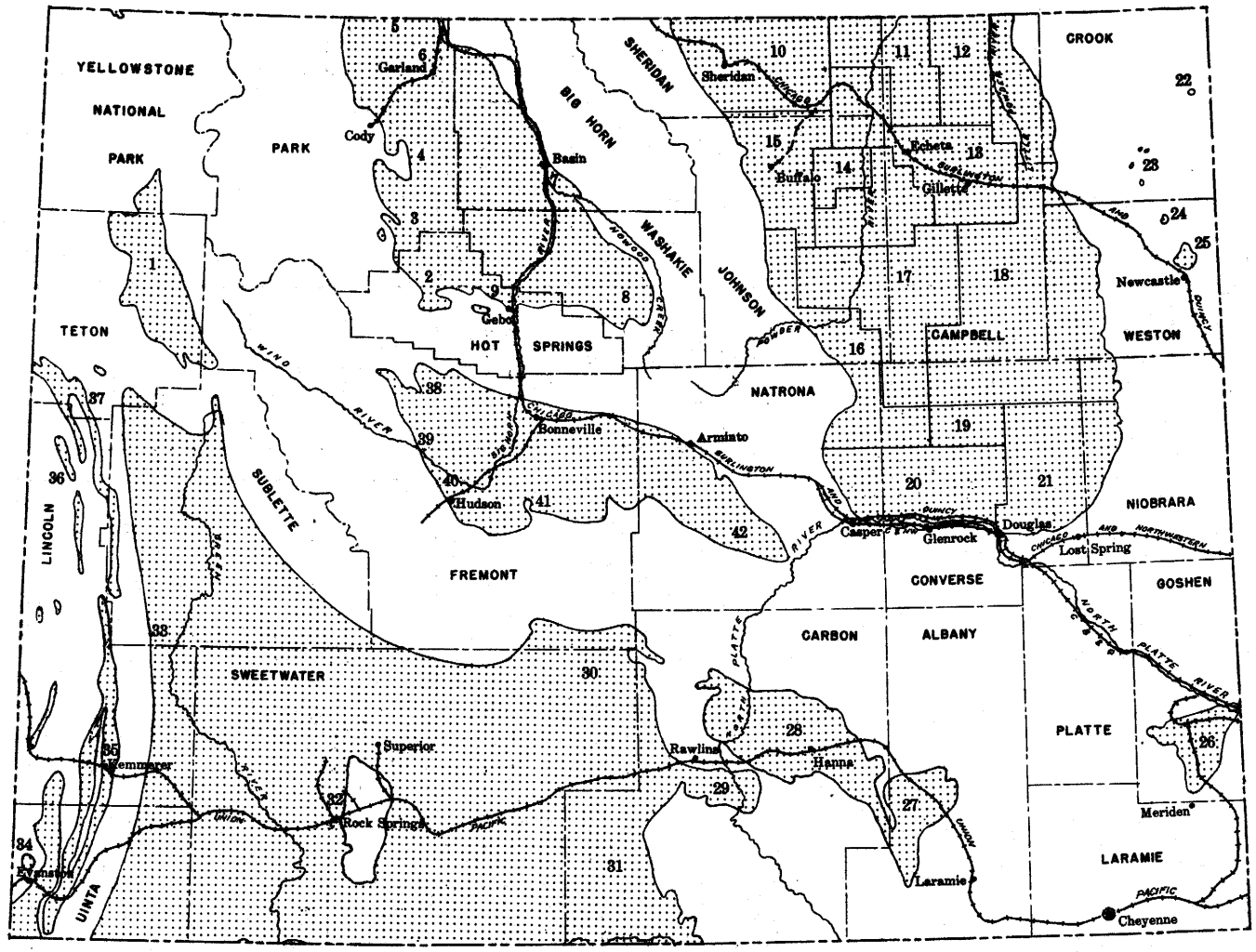


Figure 2.—Map of Wyoming showing coal-bearing areas

0 25 50 75 100 Miles



EXPLANATION

No. on map	Coal Field
1.	Jackson Hole
2.	Grass Creek
3.	Meeteetse
4.	Oregon Basin
5.	Silvertip
6.	Garland
7.	Basin
8.	Southeastern
9.	Gebo
10.	Sheridan
11.	Spotted Horse
12.	Little Powder River
13.	Powder River
14.	Barber
15.	Buffalo
16.	Sussex
17.	Pumpkin Buttes
18.	Gillette
19.	Dry Cheyenne
20.	Glenrock
21.	Lost Spring
22.	Aladdin
23.	Sundance
24.	Skull Creek
25.	Cambria
26.	Goshen Hole
27.	Rock Creek
28.	Hanna
29.	Kindt Basin
30.	Great Divide Basin
31.	Little Snake River
32.	Rock Springs
33.	Labarge Ridge
34.	Evanston
35.	Kemmerer
36.	Greys River
37.	McDougal
38.	Muddy Creek
39.	Pilot Butte
40.	Hudson
41.	Alkali Butte
42.	Powder River

Figure 3.-Map of Wyoming showing location of coal fields

0 25 50 75 100 Miles

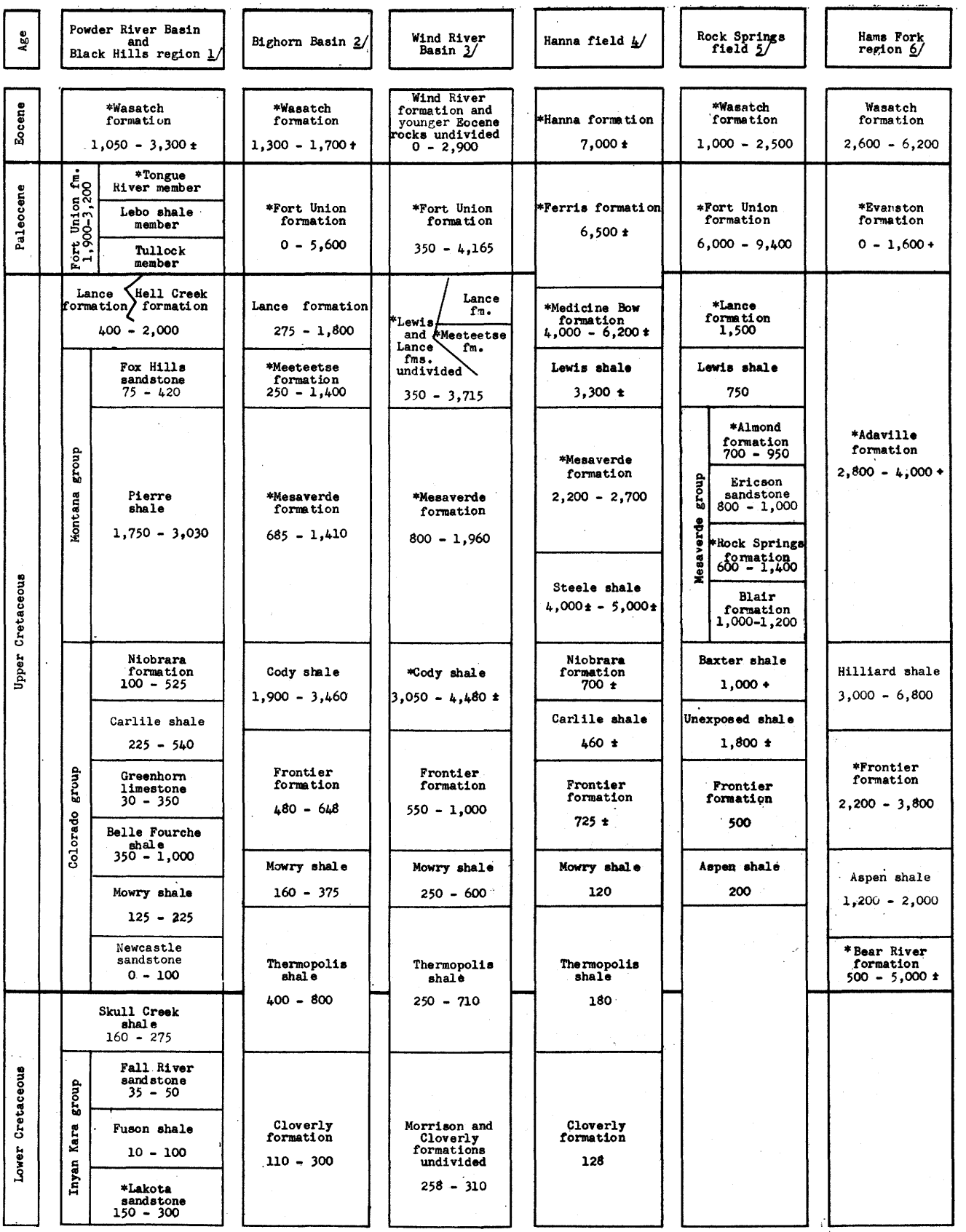


Figure 4.--Generalized stratigraphic sections in main coal-bearing regions of Wyoming, showing range of thickness of each formation in feet. The sections are independent, the only correlations intended being the lines representing major age divisions. Asterisk (*) indicates formations in which minable coal is exposed.

REFERENCES CITED IN STRATIGRAPHIC SECTIONS ON OPPOSITE PAGE

1/ Dobbin, C. E., and Horn, G. H., Geology of the Mush Creek and Osage oil fields and vicinity, Weston County, Wyo.: U. S. Geol. Survey Oil and Gas Inv. Preliminary Map 103, Aug. 9, 1949.

Rubey, W. W., Lithologic studies of fine-grained Upper Cretaceous sedimentary rocks of the Black Hills region: U. S. Geol. Survey Prof. Paper 165, pp. 3-5, 1930.

Thom, W. T., Jr., and Dobbin, C. E., Stratigraphy of Cretaceous-Eocene transition beds in eastern Montana and the Dakotas: Geol. Soc. America Bull., vol. 35, no. 3, pp. 488-489, 1924.

Stone, R. W., Coal in the Black Hills, Wyo.-S. Dak.: U. S. Geol. Survey Bull. 499, pp. 10-15, 1912.

2/ Rogers, C. P., Richards, P. W., Conant, L. C., and others, Geology of the Worland-Hyattsville area: U. S. Geol. Survey Oil and Gas Inv. Preliminary Map 84, May 1948.

Stipp, T. E., and French, H. F., Geologic and structure map of the Little Buffalo Basin oil and gas field and vicinity, Park and Hot Springs Counties, Wyo.: U. S. Geol. Survey Min. Resources Map, Dec. 7, 1945.

Pierce, W. G., and Andrews, D. A., Geology and coal reserves of the region south of Cody, Park County, Wyo.: U. S. Geol. Survey Bull. 921-B, pl. 14, 1941.

Hewett, D. F., Geology and oil and coal resources of the Oregon Basin, Meeteetse, and Grass Creek Basin quadrangles, Wyo.: U. S. Geol. Survey Prof. Paper 145, p. 10, 1926.

3/ Williams, M. D., and Sharkey, H. H. R., Geology of the Bargee area, Fremont County, Wyo.: U. S. Geol. Survey Oil and Gas Inv. Preliminary Map 56, June 28, 1946.

Hares, C. J., and others, Geologic map of the southeastern part of the Wind River Basin and adjacent areas in central Wyoming: U. S. Geol. Survey Oil and Gas Inv. Preliminary Map 51, Feb. 25, 1946.

4/ Dobbin, C. E., Bowen, C. F., and Hoots, H. W., Geology and coal and oil resources of the Hanna and Carbon Basins: U. S. Geol. Survey Bull. 804, pp. 9-10, 1929.

5/ Schultz, A. R., Oil possibilities in and around Baxter Basin in the Rock Springs uplift, Sweetwater County, Wyo.: U. S. Geol. Survey Bull. 702, p. 24, 1920.

Schultz, A. R., The southern part of the Rock Springs coal field, Sweetwater County, Wyo.: U. S. Geol. Survey Bull. 381, pp. 223-224, 1910.

6/ Schultz, A. R., Geology and geography of a portion of Lincoln County, Wyo.: U. S. Geol. Survey Bull. 543, pp. 29-30, 1914.

Veatch, A. C., Geography and geology of a portion of southwestern Wyoming: U. S. Geol. Survey Prof. Paper 56, p. 50, 1907.

The townships in known and probable coal-bearing regions for which no reserve estimates are given are listed in table 2. Table 3 gives a quantitative analysis of these omitted areas as compared to the total coal-bearing area of Wyoming. A few areas in Wyoming, of which Goshen County is a typical example, contain coal that is thinner than the minimum established for the purpose of preparing the accompanying estimate of reserves. These areas are not shown in table 2, which includes only areas for which information is lacking, but are included with the areas listed as having been appraised in table 3. Estimates of the reserves in all other townships in Wyoming are given in table 4 to 11.

Table 3 reveals strikingly the fact that, of the 40,055 square miles of known or probable coal-bearing land in Wyoming, 21,413 square miles or 53.46 percent of the total had to be omitted in preparing the accompanying estimate of reserves. As this vast area is mapped and prospected, it is certain that additional coal will be discovered and that the coal reserves of the State will be increased accordingly.

WYOMING COAL FIELDS

Wyoming contains 10 major coal-bearing areas. (See figs. 2 and 3.) Three of these areas, the Black Hills region, the Powder River Basin, and the Goshen Hole field, are in the Northern Great Plains province, which covers approximately the eastern fourth of the State. The remaining seven regions--the Bighorn Basin, the Wind River Basin, the Hanna field, the Rock Creek field, the Green River region, the Hams Fork region, and the Jackson Hole field--are in the Rocky Mountain province, which includes the western three-fourths of the State.

The coal-bearing rocks in Wyoming range in age from Lower Cretaceous to Eocene, but those containing most of the reserves range from the Mesaverde and equivalent formations of Upper Cretaceous age to the Wasatch formation of Eocene age. The coal-bearing formations as named in different parts of Wyoming, and their thickness ranges in the respective areas, are shown in the stratigraphic chart (fig. 4).

Wyoming coal ranges in rank from lignite to high volatile A bituminous. Lignite occurs only in the northeastern part of the Powder River Basin and is in such small quantity that it is included in the estimates of reserves with sub-bituminous coal, which is found in nearly all the coal regions of the State. Bituminous coal occurs in the Black Hills region, the Hanna field, the Kindt Basin field, the Little Snake River field, the the Great Divide Basin field, the Rock Springs field, the Hams Fork region, and the Silvertip field. The highest-rank coal, high volatile B and A bituminous, is restricted to beds in the Frontier formation of Upper Cretaceous age in the Hams Fork region.

Each of the Wyoming coal fields is discussed in detail in the following pages. All sources of information are listed in footnotes or in the selected bibliography on pages 75-76. In the descriptions of the fields, the townships comprising the fields are given, even though it was impossible to show these land subdivisions on the small-scale index maps (figs. 2 and 3). This circular is complementary, however, to a map titled "Coal resources map of Wyoming, "3/ drawn to a scale of about 8 miles to the inch, which shows the townships, outcrops of coal beds, and coal-bearing areas in more detail.

Black Hills region

General features

The Wyoming part of the Black Hills region is in Crook and Weston Counties in the northeastern part of the State. This region is a dissected plateau tilted slightly away from the Black Hills, which are to the east in South Dakota. The plateau is underlain by the massive Lakota sandstone of Lower Cretaceous age, which is from 150 to 300 feet thick and contains a few beds of shale and coal.

The minable coal in the region is confined to a single bed, which crops out sporadically at or near the base of the Lakota sandstone. The outcrops occur in a narrow, discontinuous belt that enters Wyoming near the town of Newcastle and leaves it near the northeastern corner of the State. The most westerly exposures are in Tps. 50 and 51 N., R. 64 W. Coal thick enough to mine occurs at several localities, the largest quantities being in the Cambria field.

Description of fields

Cambria field.--The Cambria field (fig. 3, loc. 25) is near Newcastle, in northern Weston County, in Tps. 45 and 46 N., Rs. 61 and 62 W. The coal crops out in the walls of steep canyons, about 200 to 300 feet below the surface of the plateau. Over an area of about 12 square miles the coal generally is 3 to 10 feet thick, solid coal at some places, coal with sandstone and shale partings at others. Outside this small area the coal thins rapidly and merges into a zone composed largely of carbonaceous shale.

Most of the coal in the Cambria field is of high volatile C bituminous rank. An analysis, on the as-received basis, of a sample from the Antelope No. 3 mine, shows 16.6 percent ash, 4.9 percent sulfur, and 10,247 B.t.u. The sulfur content of the coal, which averages higher than that from any other Wyoming field, is particularly noticeable. However, much of the sulfur can be removed by treatment. Coal from certain parts of the bed has coking qualities and has been employed in the past for manufacturing coke for smelters in the Black Hills region. The mines in the Cambria field have been closed for a number of years, and most of the better-quality and more accessible coal has been mined out.

Other fields.--Fields in the Black Hills region, other than the Cambria, on which reserves have been computed are the Skull Creek, Sundance, and Aladdin fields, all of which contain bituminous coal in the Lakota sandstone comparable to that in the Cambria field. The Skull Creek field (fig. 3, loc. 24), near the corner of Tps. 47 and 48 N., Rs. 62 and 63 W., is the largest of these fields. The Sundance field (fig. 3, loc. 23) is

[3] Berryhill, H. L., Jr., Brown, D. M., Burns, R. N., and Combo, J. X., Coal resources map of Wyoming: U. S. Geol. Survey Coal Inv. Map C 6, 1950. Price, $1.00.

about 25 miles north of the Skull Creek exposure, and the Aladdin field (fig. 3, loc. 22) is farther north in T. 54 N., R. 61 W. The quantity of coal in these areas is small.

Reserves and production

Nearly all the reserves in the Wyoming part of the Black Hills region are concentrated in the Cambria field, the original reserves of which are estimated at about 36 million tons (table 13). Reported production from the beginning of mining to Dec. 31, 1949, is more than 10.5 million tons, and mining losses have probably equaled that figure, giving 21 million tons mined and lost in mining and about 15 million tons remaining in the ground. Most of this present reserve is in small pockets that would be difficult and expensive to mine, and for that reason the field as a whole is usually considered to be "mined out." It is possible, however, that under favorable conditions a considerable amount of this coal might be recovered by small operations, though it is not attractive to large companies.

Estimated original reserves in fields in the Black Hills region other than the Cambria field are about 6 million tons.

Powder River Basin

General features

The Powder River Basin, which covers more than 12,000 square miles in northeastern Wyoming, includes parts of Sheridan, Crook, Weston, Campbell, Johnson, Niobrara, Converse, and Natrona Counties and is a continuation into Wyoming of the vast region, underlain by the coal-bearing Fort Union formation, that includes northwestern South Dakota, the western half of North Dakota, and most of the eastern half of Montana. The principal towns in the basin are Sheridan and Gillette, both of which are on the Chicago, Burlington & Quincy Railroad, which crosses the northern part of the area in a general northwesterly direction.

Structurally, the Powder River Basin is a gentle syncline, downfolded between the Bighorn Mountains on the west and the Black Hills on the east. The axis of the syncline is considerably west of the center of the basin, and this asymmetry is reflected in the dips of the rocks, which are usually less than 5° on the east side of the basin but considerably steeper and more irregular on the southwestern and western edges close to the Bighorn Mountains. The surface of the area is a dissected plain, characterized in some places by badland topography. Burned coal beds, which are more resistant to erosion than the other strata, are prominent in the area and cap some of the land forms.

The rocks exposed in the Powder River Basin are mostly sandstone and shale of the Lance formation of Upper Cretaceous age and the Fort Union and Wasatch formations of Paleocene and Eocene ages, respectively (fig. 4). The Lance contains small amounts of impure coal that are of little commercial importance; all the reserves reported for the basin, therefore, are in the Fort Union and Wasatch formations. The Fort Union consists of 1,900 to 3,200 feet of alternating sandstone, shale, and coal; it is divided from oldest to youngest into the Tullock, Lebo shale, and Tongue River members. The Tullock and Lebo shale members contain coal only locally; most of the minable coal is in the Tongue River member, which is 500 to 800 feet thick. The Roland coal, the thickest and most extensive coal bed in Wyoming, is at or near the top of the Tongue River member.

The Wasatch formation, which in the Powder River Basin is 1,050 to 3,500 feet thick, is composed largely of shale, sandstone, and coal. In the eastern part of the basin the formation contains the thick and persistent Felix coal bed, and in the central and western parts another thick coal bed, the Healy or Lower Ulm, is exposed. Originally these beds were in all probability continuous over large areas, but much of the coal has been removed by erosion and the remaining outcrops have been burned extensively.

Several coal beds in the Powder River Basin, particularly the Roland and Felix beds, are believed to be continuous, or nearly continuous, for long distances across several fields. The Roland bed is persistent over a north-south distance of about 100 miles; the higher Felix bed, for about 80 miles. Other beds, particularly the Lower Ulm, have also been traced across several fields.

The coal in the eastern part of the Powder River Basin is of sub-bituminous C rank, or is gradational between lignite and sub-bituminous C coal; some lignite may be present locally. In the western part of the basin the coal is of sub-bituminous C and B rank.

In general, the coal beds in the Powder River Basin are thickest in the northern part of the basin and thin toward the south. The most persistent beds are on the eastern and northern sides, where the enclosing strata have relatively low dips. On the southern and southwestern sides the coal beds are notably lenticular, dips are relatively steep, and some structural disturbances, indicated by faulting, have taken place. Most of the mining in the region has been concentrated around the town of Sheridan, in the northwestern part of the basin, and at Wyodak, near Gillette, on the eastern side.

Description of fields

In all, 12 coal fields in the Powder River Basin have been named and described. (See fig. 3.) The Sheridan, Spotted Horse, and Little Powder River fields form the northern part of the basin. The Powder River, Pumpkin Buttes, and Gillette fields are on the eastern limb. Three fields, the Glenrock, Lost Spring, and Dry Cheyenne, are in the southern end of the basin, and two others, the Sussex and Buffalo fields, are on the southwestern limb. The Barber field and much of the unmapped area of the basin are approximately in the center. Each field will be discussed, beginning with the Sheridan field and continuing clockwise around the basin.

Sheridan field.--The Sheridan field (fig. 3, loc. 10) is in Sheridan County and covers about 1,100 square miles in Tps. 54-58 N., Rs. 79-86 W. It is bounded on the north by the Wyoming-Montana State line, on the east by the Spotted Horse and Powder River fields, on the south by the Buffalo field, and on the west by the western limit of workable coal in the Powder River Basin. The Chicago, Burlington & Quincy Railroad crosses the field, passing through the town of Sheridan.

The coal-bearing rocks in the field are sandstone and shale of the Lance, Fort Union, and Wasatch formations (fig. 4). The Lance formation, of Upper Cretaceous age, locally contains a few thin coal beds, which are of little economic importance. The part of the Fort Union formation, of Paleocene age, that underlies the Tongue River member contains two workable coal beds known as the Masters No. 1, about 75 feet below the base of the Tongue River member, and the Masters No. 2, about 60 feet below the Masters No. 1. The average thickness of each of the Masters beds is about 6 feet; the maximum thickness is 16 feet.

By far the largest reserves in the Sheridan field are in seven workable coal beds in the Tongue River member of the Fort Union formation. These beds are exposed in the northwestern part of the field near the town of Sheridan. The base of the lowest, the Carney, is also the base of the Tongue River member. The Carney bed is 7 to 20 feet thick. About 85 feet above the Carney is the Monarch bed, the thickest in the field, which ranges from 8 to 36 feet. The Carney and Monarch beds apparently merge to the north and east of the exposures near Sheridan and in Montana form a single bed.

About 210 feet above the Monarch is the Deitz No. 3 coal bed, which has an average thickness of 12 feet but is as much as 24 to 30 feet thick locally. The Deitz No. 2 bed is 7 to 12 feet thick and is about 100 feet above the Deitz No. 3. The Deitz No. 1, which is 7 to 15 feet thick, is about 100 feet above the Deitz No. 2. The sixth of the minable coals in the Tongue River member, the Smith, is 210 to 215 feet above the Deitz No. 1 and is about 5 feet thick. The highest bed in the member is the Roland, about 125 feet above the Smith bed; the Roland coal, which is locally as much as 13 feet thick, is the top of the Fort Union formation in this area.

The rocks in the northwestern part of the Sheridan field, where the coal beds of the Tongue River member are exposed, dip 1° to 4° E. to SE. The coal is of subbituminous C and B rank. The average of ten analyses, on the as-received basis, of samples from mines in the Monarch bed, shows 4.3 percent ash, 0.54 percent sulfur, and 9,366 B.t.u.

Available analyses of coal from the Sheridan field are spotty in distribution and do not represent all beds. Those that are available show an increase in sulfur content from the lower to the higher beds, as shown in the following tabulation:

Sulfur content of coal in the Sheridan field, by beds

Bed	Number of analyses	Range of sulfur (percent)	Average sulfur (percent)
Deitz No. 2	8	0.73 - 1.30	0.94
Deitz No. 3	8	.31 - .60	.50
Monarch	57	.26 - 1.00	.51
Carney	16	.28 - .42	.33

In the south-central part of the Sheridan field the Fort Union formation is concealed, but the basal 1,000 to 1,200 feet of the overlying Wasatch formation locally contains several workable coal beds. None of these beds have been mined, and all are of relatively minor importance. The upper part of the Wasatch contains the Ulm coal group, consisting of the Lower Ulm bed and, about 100 feet higher, the Upper Ulm bed. These coals have been removed by erosion from a large part of the field and, where they are exposed, have been extensively burned along the outcrops. However, they contain in the aggregate large reserves. No analyses of coal from the younger rocks in the Sheridan field are available, but the coal is probably of sub-bituminous C or B rank.

Powder River field.--The Powder River field (fig. 3, loc. 13), as distinguished from the Powder River Basin, is southeast of the Sheridan field and includes about 1,000 square miles in Campbell, Johnson, and Sheridan Counties. The field, which is shaped somewhat like an hourglass, trends generally northwest between the Spotted Horse and Barber coal fields. For convenience in discussion, it is here divided into a northwestern and a southeastern part, the dividing line being approximately the divide between the Powder River and Little Powder River drainage systems. The northwestern part includes Tps. 50-52 N., R. 74 W.; Tps. 51 and 52 N., R. 75 W.; and Tps. 52-55 N., Rs. 76-78 W. The Powder River flows north through the central part of this area.

The coal-bearing rocks exposed in the northwestern part of the Powder River field are the Tongue River member of the Fort Union formation and the overlying Wasatch formation. In the Fort Union formation the lowest minable coal is the Smith bed, which crops out in the northern tier of townships (T. 55 N., Rs. 76-78 W.) but possibly underlies all parts of the field where the Tongue River member occurs. Where exposed, the Smith bed generally consists of about 10 feet of good coal.

About 80 feet above the Smith bed is the Roland coal bed, which, like the Smith, crops out only in the northern tier of townships. The thickness of the Roland bed is 3 to 7 feet, and the interval separating it from the Smith bed thins from west to east.

The Wasatch formation contains three important coal beds: the Arvada, Felix, and Lower Ulm. The lowest bed, the Arvada, is 125 to 225 feet above the Roland bed and not far above a coquinalike limestone stratum that forms a convenient horizon marker. The Arvada coal has a maximum thickness of 12 feet and an average thickness of 9 feet.

The Felix coal bed is 375 to 400 feet above the Arvada and reaches its maximum thickness of 30 feet near the Echeta station on the Chicago, Burlington & Quincy Railroad. East of the Powder River the bed averages more than 10 feet in thickness, but it thins to the northwest.

The highest minable coal in the field is the Healy bed, which is about 400 feet above the Felix bed and is exposed only in the highest parts of the area, where much of it has been burned along the outcrop. Where it has not been burned, its thickness at most outcrops is 10 to 15 feet.

Except for local rolls, the coal beds in the northwestern part of the Powder River field are essentially flat lying. The coal is of sub-bituminous C and B rank.

The southeastern part of the Powder River field includes Tps. 48-52 N., Rs. 70-73 W. It is south of

the Spotted Horse and Little Powder River fields and extends eastward from the divide between the Powder River and Little Powder River drainage systems to the eastern limit of minable coal in the Powder River Basin.

The rocks exposed in the southeastern part of the Powder River field are the Tongue River member of the Fort Union formation and the Wasatch formation. The most important coal beds are the Smith and Roland beds, both of which are in the Tongue River member of the Fort Union. The Smith bed crops out in an eastward-facing escarpment along a general northerly direction across the entire field. It reaches a maximum thickness of 38 feet in T. 50 N., R. 71 W., and thins both north and south of that township. It is, however, of minable thickness along most of its outcrop where it has not been burned.

The Roland bed is the thickest and most extensive coal in Wyoming. In T. 51 N., R. 72 W., it reaches a maximum thickness of 106 feet. In T. 50 N., R. 71 W., in the vicinity of the Wyodak strip mine, it apparently merges with the underlying Smith bed to form an aggregate thickness of about 90 feet, with only an 8-inch parting separating the two beds. About 3 miles northeast of the Wyodak mine the Roland coal is 30 feet above the Smith; and 2 miles northeast, where the Roland is 60 feet thick, the interval between it and the Smith is 76 feet. At Gillette, about 6 miles west of Wyodak, the Roland coal bed is 340 feet below the surface and about 90 feet above the Smith. At this point the Smith coal bed is 22 to 35 feet thick and the Roland bed is 55 to 65 feet thick. West of Gillette the interval separating the two coals thickens considerably.

The average dip of the coal beds in the southeastern part of the Powder River field is about 2° W., though steeper dips, in one place as much as 8°, are present locally. The coal is considered to be of subbituminous C rank, though some lignite may be present locally.

In the southeastern part of the Powder River field, a series of thin lenses of coal in the Wasatch formation apparently represents the Arvada bed, which is exposed in the areas to the west. The higher Felix coal bed, which has been removed by erosion east of the town of Gillette, is relatively persistent throughout its outcrop area and ranges in thickness from 7 to 22 feet, nearly all of which is clean coal. The higher coal beds in the Wasatch are not exposed in the southeastern part of the Powder River field.

Spotted Horse field.--The Spotted Horse field (fig. 3, loc. 11) is shaped like an inverted "L" and is bounded by the Sheridan field on the west, the Powder River field on the south, the Little Powder River field on the east, and the Montana-Wyoming State line on the north. The northern part of the field, in Tps. 56-58 N., Rs. 74-76 W., has not been mapped, and because of the lack of reliable information, no estimate of reserves in this area has been made. In all probability, however, a considerable amount of coal occurs in the Fort Union formation. The Wasatch formation is not present in this part of the field.

The southern part of the Spotted Horse field includes about 270 square miles in Tps. 53-55 N., Rs. 74 and 75 W. and the western half of R. 73 W. This area was mapped in detail by the U. S. Geological Survey in 1949.

The strata exposed in the southern part of the Spotted Horse field are the Tongue River member of the Fort Union formation and the Wasatch formation. The Fort Union contains two important coal beds, and the Wasatch formation contains three. The lowest coal bed in the Tongue River member is unnamed and of local extent. It is exposed in T. 53 N., R. 73 W., where it ranges from 3.7 to 14.2 feet in thickness and is clean coal except for a 2-inch parting in the 14.2-foot section. About 30 feet above this local bed is the Smith bed, which is 1.8 to 13 feet thick and is exposed over a large area. It is markedly shaly, however, except to the south, in T. 53 N., R. 73 W., where it contains 3.4 to 12.7 feet of clean coal. The Roland bed, the highest coal bed of the Tongue River member, does not crop out in the Spotted Horse field.

The lowest coal bed in the Wasatch formation is the Felix, which is 2.9 to 29 feet thick but in many places is shaly in the lower part. In T. 53 N., R. 73 W., the Felix bed is 12 feet thick but is divided into two benches by a parting 3 to 5.9 feet thick. The next succeeding bed is the Scott, which, though widespread, is less than 2.5 feet thick over most of its outcrop and thins noticeably toward the south. The Lower Ulm bed is about 340 feet above the Scott in the western part of the field, but the interval thins to about 260 feet at the western boundary. This bed has a maximum thickness of 17 feet to the north but thins toward the south. It is composed mostly of clean coal.

The rocks in the Spotted Horse field are flat lying or dip very slightly. No analyses are available, but the coal probably is of sub-bituminous C rank, comparable to that in the adjacent Sheridan and Powder River fields.

Little Powder River field.--The Little Powder River field (fig. 3, loc. 12) includes about 540 square miles in Campbell County, in Tps. 53-58 N., Rs. 71-73 W. It is east of the Spotted Horse field and north of the southeastern part of the Powder River field. The northern boundary is the Wyoming-Montana State line; the eastern limit is roughly parallel to, but 6 to 12 miles east of, the Little Powder River. The area as a whole is much dissected and has an average relief of 300 to 400 feet. In the western part of the field the rocks dip about 1° SW., but the angle of dip increases toward the eastern edge.

In the northeastern part of the field the Lance formation contains several beds of lignite that are too thin and impure to be considered minable. The largest coal reserves are in the Tongue River member of the Fort Union formation, which crops out west of the Little Powder River and is 800 to 1,000 feet thick. It is composed mostly of sandstone, shale, and coal. The coal beds in the Little Powder River field have been designated by letters, bed A being the highest and bed J the lowest. The most persistent are bed E, about 350 feet above bed J, and bed C, about 170 feet above bed E. Most of the other beds can be traced for short distances only, as the thickness and sequence of the rock are extremely variable. Bed E has an average thickness of 6.4 feet and, except in the southern part of the field, contains few partings. Bed C is more than 10 feet thick along most of its outcrop and at one

place consists of 24.5 feet of coal and only 0.5 foot of parting. Characteristically it is burned along the outcrop, and possibly only a small amount remains in the field.

The coal in the Fort Union formation in the Little Powder River field is difficult to classify because of the scarcity of analyses. It is near the boundary between lignite and sub-bituminous coal and for convenience is included with sub-bituminous coal in the estimates of reserves.

Gillette field.--The Gillette field (fig. 3, loc. 18), on the eastern side of the Powder River Basin, includes more than 3,000 square miles in Tps. 39-50 N., Rs. 65-69 W.; Tps. 39-47 N., Rs. 70-72 W.; and Tps. 39-42 N., Rs. 73 and 74 W. The field is in parts of Campbell, Crook, Weston, Niobrara, and Converse Counties. The town of Gillette, for which the field is named, is outside its boundaries, though the important mining district at Wyodak in the southeastern part of the Powder River field was described originally in U. S. Geological Survey Bulletin 796 as the "northwestern part of the Gillette field."

The coal-bearing rocks in the Gillette field are about 2,000 feet thick and include the Lance, Fort Union, and Wasatch formations. The coal beds are designated by letters, beginning with the topmost bed. The lowest of these, bed R and bed S, which are exposed in the northeast corner of the field in the Lance formation, are thin and of little importance. The two lower members of the Fort Union formation contain a considerable number of beds, which, however, are of little economic value except for beds J and K in the Lebo shale member, which are fairly persistent and individually are about 5 feet thick. In the uppermost, or Tongue River, member of the Fort Union, the lowest important coal beds are beds E and F, which crop out in the southern and central parts of the field, respectively, and probably represent the same horizon. The average thickness of these coal beds is about 5 feet. Between 50 and 75 feet above bed E is bed D, which extends north and south across the field and probably underlies most of the western half. Bed D has been correlated with the Roland coal bed of adjoining fields. It is 8 to 16 feet thick throughout most of the field but reaches a maximum thickness of 35 to 65 feet in the southern part of T. 41 N., R. 71 W., from which point it thins rapidly to the south. At some places shale partings are common in bed D and are thick enough locally to separate it into benches.

Bed C, 200 to 400 feet above bed D, crops out across the field from north to south and ranges from 3 to 12 feet in thickness. It is notably lenticular, however, and shale partings are common. In places these partings thicken and replace the coal within short distances.

Bed B, 350 to 900 feet above bed D, is second only to it in reserve tonnage of coal. Bed B crops out over most of the western part of the field, where its thickness ranges up to 21 feet. It has been correlated with the Felix bed of adjacent fields. Bed A is about 50 feet above bed B and, though 4 to 8 feet thick in places, is of local extent only.

In the northeast corner of the Gillette field, where thin and impure coal beds are exposed in the Lance formation, dips as steep as 30° have been observed. In the important coal-bearing areas to the west, however, dips generally do not exceed 5°.

Most of the coal in the Gillette field is of sub-bituminous C rank, though some lignite possibly is present. The average of four scattered analyses, on the as-received basis, of samples from bed D shows 6.8 percent ash, 0.5 percent sulfur, and 7,868 B.t.u.

Pumpkin Buttes field.--The Pumpkin Buttes field (fig. 3, loc. 17), lying west of the Gillette field, is a large T-shaped area near the center of the Powder River Basin. Only the northeastern part of the field, in Tps. 43-47 N., Rs. 73 and 74 W., and Tps. 43-46 N., Rs. 75 and 76 W., has been mapped. This area covers about 650 square miles. A careful reconnaissance did not disclose any coal outcrops either in the southern part of the field, including Tps. 39-42 N., Rs. 75 and 76 W., or in the northwestern part of the field, in Tps. 43-46 N., R. 77 W., and Tps. 44-46 N., Rs. 78-80 W. These two unmapped areas cover about 760 square miles.

The coal beds in the mapped parts of the Pumpkin Buttes field occur in the Wasatch formation. The coal is found in three areas: the Pumpkin Creek area, mostly in T. 46 N., R. 75 W.; the Divide area, mostly in T. 47 N., R. 74 W.; and the Belle Fourche area, near the eastern edge of the field and mostly in Tps. 43-46 N., R. 73 W. The lowest coal bed exposed in the field, bed E, crops out in the Belle Fourche area, in the banks of the Belle Fourche River, where it ranges from 2.7 to 18 feet in thickness. A bed that is possibly identical with bed E is exposed in the Pumpkin Creek area, but there it contains only 2 to 7 feet of impure coal split by many partings.

Bed E of the Belle Fourche area has been correlated with bed B, or the Felix coal bed, of the Gillette field. An interval of about 60 feet separates it from higher bed D, which is 1.7 to 7.6 feet thick but is markedly irregular in thickness and composition.

The highest coal beds in the field, beds C, B, and A, crop out in the Divide area. Of these, beds C and A are too thin at most outcrops to be of any value, and only bed B contains important reserves. It ranges in thickness from 6 to 11 feet, most of which is clean coal. Bed E, exposed in the Belle Fourche area, probably underlies both the Divide area and the watershed between it and the Belle Fourche area.

In general the dips of the coal beds in the Pumpkin Buttes field are low. The coal is of sub-bituminous rank.

In the original report on the Pumpkin Buttes field, an area southeast of the field just described was mapped and designated the "Dry Cheyenne area." As it is separated from the mapped part of the Pumpkin Buttes field by a distance of about 25 miles, it is treated in this report as a separate field.

Dry Cheyenne field.--The Dry Cheyenne field (fig. 3, loc. 19) includes Tps. 37 and 38 N., Rs. 71-74 W., and covers an area of about 290 square miles. The exposed rocks in the field are stratigraphically lower than those in the Pumpkin Buttes field and include only the upper part of the Tongue River member of the Fort

Union formation and the overlying Wasatch formation. Of the three coal beds exposed in the field, the lowest and thickest is bed H, exposed in the banks of the Dry Cheyenne River, which has been correlated with the Roland or bed D of the Gillette field. Here, as in most areas to the north, the top of the Roland coal is considered to be the top of the Fort Union formation. Though it is the most extensive coal in the field, the Roland has a maximum thickness of only 4.3 feet, due to thinning of the bed from north to south.

Bed G is about 200 feet above bed H in the Wasatch formation but averages only about 2 feet in thickness. Bed F is about 160 feet above bed G and has a maximum thickness of 11.5 feet. However, it is lenticular and of little economic importance.

Lost Spring field.--The Lost Spring field (fig. 3, loc. 21) includes about 1,060 square miles at the southeast end of the Powder River Basin in Tps. 32-38 N., Rs. 65-70 W., and Tps. 32 and 33 N., R. 71 W., in Converse and Niobrara Counties. The Chicago and North Western Railway crosses the field near its southern border through the towns of Lost Spring and Douglas. The Lost Spring field is south of the Gillette field and east of the Dry Cheyenne field.

The coal in the Lost Spring field is in the Fort Union formation and is confined to two zones separated by about 600 to 700 feet of non-coal-bearing strata. The coal bed in the lower zone, which crops out in the southern and eastern parts of the field, is lenticular, and the maximum thickness of any bed is 6 feet. However, several mines have been operated in these beds within an area about 10 miles long, west and northwest of the town of Lost Spring.

The upper coal zone is exposed in the northern part of the field. The beds in this zone are designated by letters, beginning with the lowest, contrary to the usual practice in the Powder River Basin, and several are fairly persistent over large areas. Bed E, the highest, has a maximum thickness of 9.6 feet. This bed has been correlated with bed J of the Gillette field, and bed B, which is lower, with bed K of that area. The coal in the upper coal zone is considerably better in quality and the beds are more consistent than in the lower zone, but they have not been developed, probably because of lack of transportation facilities.

The rocks dip to the west in the northern part of the field and to the northwest and west in the southern part, the dips being usually 1° to 4°. The coal is of sub-bituminous rank. An analysis, on the as-received basis, of coal from a prospect pit 35 miles north of Lost Spring shows 4.3 percent ash, 0.3 percent sulfur, and a heat value of 8,410 B.t.u.

Glenrock field.--The Glenrock field (fig. 3, loc. 20) covers an area of about 1,500 square miles in the southern part of the Powder River Basin, mostly in Converse County but extending westward into Natrona County. It includes Tps. 34-36 N., R. 71 W.; Tps. 32-36 N., R. 72 W.; Tps. 33-36 N., Rs. 72-78 W.; and Tps. 34-36 N., R. 79 W. The North Platte River flows eastward near the southern edge of the field and is paralleled by the Chicago, Burlington & Quincy Railroad and the Chicago and North Western Railway.

About 5,800 feet of strata, containing four coal zones, is exposed in the field. The two lowest coal beds, bed A and bed B, are too thin to mine. About 1,400 feet above bed A is the Glenrock-Big Muddy zone, which contains two beds that at some places are of minable thickness. The base of the Douglas-Inez coal zone is about 2,500 feet above the base of the Glenrock-Big Muddy zone. This zone also contains two coal beds, each more than 5 feet thick. The beds in both zones, however, are lenticular and cannot be traced over large areas.

Neither the rocks nor the coal beds in the Glenrock field have been correlated with those of adjacent areas. The small amount of evidence available points to Cretaceous age for beds A and B and Tertiary age for the Douglas-Inez beds; the age of the Glenrock-Big Muddy coal has not been determined.

The rocks in the Glenrock field form part of the southern edge of the Powder River Basin. Along the southern border, near the Laramie Range, the strata dip steeply to the north and northeast, but farther north, in the better coal-bearing areas, they are essentially flat lying. The coal is of sub-bituminous rank. An analysis, on the as-received basis, of a mine sample from the Upper Big Muddy zone shows 4.8 percent ash, 0.7 percent sulfur, and a heat value of 8,970 B.t.u.

Sussex field.--The Sussex field (fig. 3, loc. 16), on the southwestern side of the Powder River Basin, includes about 1,300 square miles in Tps. 37 and 38 N., Rs. 75 and 76 W.; Tps. 37-42 N., R. 77 W.; Tps. 37-43 N., R. 78 W.; Tps. 37-43 N., R. 79 W.; Tps. 42 and 43 N., R. 80 W.; Tps. 43-47 N., R. 81 W.; and Tps. 44-47 N., R. 82 W. The field is in parts of Johnson, Natrona, and Converse Counties, between the Glenrock field to the south and the Buffalo field to the north.

Exposures of coal in the Sussex field are not continuous, but are confined to six relatively small areas, locally termed basins. Of these, basin 1, in T. 37 N., R. 78 W., is in rocks of probable Cretaceous age and contains no coal of economic importance. The other five basins occur along a southwest-facing escarpment known as the Great Pine Ridge, which extends northwest across the eastern edge of the field. Basin 2, in Tps. 46 and 47 N., R. 81 W., contains seven numbered coal beds, which are lenticular and of minable thickness at only a few places. Basin 3, which is mostly in T. 44 N., R. 81 W., contains four coal beds within a stratigraphic interval of about 175 feet, but minable reserves are small. The only basin that contains large reserves is basin 4, which extends southeast from the southeastern part of T. 43 N., R. 79 W., to the northern part of T. 41 N., R. 77 W. It contains two minable beds, designated the upper and lower coal beds and believed to be in the lower part of the Wasatch formation. In the central part of basin 4 the lower bed reaches a thickness of 50 feet but thins to 3 feet within a distance of less than 3 miles. Both the upper and lower beds are of minable thickness along most of their outcrops but contain shale partings, which at some places are of considerable thickness.

Basin 5, in T. 39 N., R. 77 W., and basin 6, in T. 37 N., R. 76 W., contain but little minable coal.

The strata in the southern and central parts of the Sussex field (basins 2, 3, and 4) dip 11° to 27° E. and NE. Farther south (basins 5 and 6) the dips are normally 5° or less. Mining in basin 4, which contains most of the reserves, would be handicapped, not only by relatively steep dips, but by several faults that cut across the coal beds.

The coal in the Sussex field ranges from sub-bituminous C to sub-bituminous B in rank. An analysis, on the as-received basis, of a sample from the Blue Rock mine near Casper shows 5.2 percent ash, 0.4 percent sulfur, and a heat value of 8,700 B.t.u.

Buffalo field.--The Buffalo field (fig. 3, loc. 15) is on the west side of the Powder River Basin, between the Sheridan field on the north and the Sussex field on the south. It covers about 900 square miles in Tps. 52 and 53 N., R. 79 W.; Tps. 47-53 N., Rs. 80-82 W.; and Tps. 50-53 N., R. 83 W., mostly in Johnson County. The coal beds in four townships of the field (Tps. 51 and 52 N., Rs. 81 and 82 W.) were mapped in detail in 1949; the remainder of the field is covered by a reconnaissance map.

The most extensive coal beds in the Buffalo field are in the Wasatch formation, which includes the upper 600 to 800 feet of strata exposed in the area. Four coal beds are present in this interval: bed L and the Dry Creek, Healy, and Walters beds. Other local lenses also are present but are of minor importance. Bed L is confined to the eastern half of T. 52 N., R. 81 W., where it reaches a maximum thickness of 7.2 feet. The Dry Creek coal is of little economic importance except in T. 51 N., R. 81 W., where it reaches a maximum thickness of 13.9 feet and probably underlies most of the township at minable thickness. The Healy bed, which is about 130 feet above the Dry Creek, contains the largest reserves in the field. Its outcrop, however, is extensively clinkered. It reaches its greatest thickness in T. 52 N., R. 81 W., where the average for all complete sections is 18 feet. In the surrounding townships its average thickness is probably more than 12 feet. It thins to the south but is relatively thick and persistent to the north. The Healy bed has been correlated with the Lower Ulm coal bed of the Sheridan and other fields.

The Walters coal, about 175 feet above the Healy, is of wide areal extent but of little economic importance because of widespread burning, which is not confined to the outcrops, but has consumed most of the Walters coal in the field.

The rocks in the Buffalo field dip gently to the northeast except near the Bighorn Mountains, where the dips steepen. The coal is of sub-bituminous C rank. The average of three analyses, on the as-received basis, of samples from the Mitchell and Munkre mines shows 9.7 percent ash, 0.6 percent sulfur, and 7,516 B.t.u.

Barber field.--The Barber field (fig. 3, loc. 14) includes about 250 square miles in Tps. 51 and 52 N., Rs. 77 and 78 W., and Tps. 49-51 N., R. 79 W. The field, which is essentially an eastward continuation of the Buffalo field, is in Johnson County, east of the town of Buffalo.

In the Barber field the Wasatch formation contains many coal beds, but the area has not been adequately prospected and little detailed information is available. The coal occurs in four zones. The two lower zones are relatively unimportant, as the beds are lenticular and change rapidly within short distances. Some of the coal, however, is of minable thickness. The third zone from the bottom, the Healy or Ulm zone, is of considerable extent and fairly consistent thickness. Within 50 feet of strata, it contains one to three coal beds that range in thickness from a few inches to 18 feet. The highest coal bed, the Walters, is about 250 feet above the Healy. It has been largely removed by erosion, and most of the remaining outcrop is burned.

The rocks in the Barber field are essentially flat lying, and the coal is of sub-bituminous C rank. The estimates of reserves for the field are relatively low because of the scarcity of reliable information, and the area undoubtedly contains more minable coal than the tonnage figures indicate.

Central Part of the Powder River Basin.--An area of about 580 square miles in the central part of the Powder River Basin, north of the Pumpkin Buttes field, is not covered by maps or reports of any kind. This area includes Tps. 48 and 49 N., R. 74 W.; Tps. 47-50 N., R. 75 W.; Tps. 47-51 N., R. 76 W.; Tps. 47-49 N., Rs. 77 and 78 W.; and Tps. 47 and 48 N., R. 79 W. Although the coal-bearing rocks in this area are covered or poorly exposed, geological evidence points strongly to the presence of considerable coal at depth, and some inferred reserves for the Roland and Felix beds have been calculated for the area.

Reserves and production

The wide extent of the outcrops of the Roland and Felix coal beds and their equivalents on the east side of the Powder River Basin has been mentioned. The thicknesses used in calculating the reserve tonnages in these beds are conservative and are probably less than the true average thickness for the areas underlain by coal.

The estimated original reserves of coal in the Roland bed are 7,434,050,000 tons of measured and indicated coal and 38,141,630,000 tons of inferred coal, making a total for all three categories of 45,575,680,000 tons. The reserves in the Felix coal bed, in each of the three categories, are 5,515,290,000 tons, 13,137,730,000 tons, and 18,653,020,000 tons, respectively. These figures are incorporated in the township totals in tables 7-9 and 11.

The measured, indicated, and inferred original reserves in the entire Powder River Basin are estimated to total 94,881 million tons (table 13), or 78 percent of the reserves for the State as currently appraised. The total recorded production, from 1865 through 1949, from the Powder River Basin is approximately 51 million tons, of which more than 45 million tons has been taken from the Sheridan field, about 3 million tons from the Powder River field, and about 1.5 million tons from the Glenrock field. The total production from the basin to January 1, 1950, is about 15 percent of that for the entire State. Assuming that mining losses in the past have been equal to the coal recovered and that this ratio will be maintained in the future, the reserves remaining in the Powder River Basin on January 1, 1950, totaled 94,779 million tons, of which the ultimately recoverable reserves are 47,389 million tons.

The large reserves in the Powder River Basin are due partly to the fact that the coal beds are thick and continuous over relatively great distances and partly to the fact that the coal-bearing rocks are essentially flat lying and crop out almost everywhere in the basin. This is in marked contrast to other regions--particularly the Bighorn Basin, the Wind River Basin, and the western part of the Green River region--where the fields are small, seldom occupying more than a few townships, and are separated from each other by large areas in which no coal crops out. Also, dips in these regions are relatively steep compared with those in the Powder River Basin, and the coal is likely to be under prohibitive cover within a few miles of the outcrop.

The small amount of mining in the Powder River Basin compared to other parts of Wyoming is due primarily to the fact that the coal in the basin is younger and of lower rank than coals obtainable elsewhere in Wyoming. When supplies of higher-rank coal are exhausted, or when improved methods of utilizing low-rank coals are perfected, the Powder River Basin may well develop into the most important mining district in the State.

Goshen Hole field

The Goshen Hole field (fig. 3, loc. 26) includes about 250 square miles in Tps. 19-23 N., Rs. 60-64 W., in southern Goshen County in an area underlain by the Lance formation of Upper Cretaceous age. The area is about 75 miles southeast of the southern end of the Powder River Basin.

The coal-bearing rocks in the Goshen Hole field are exposed in a topographic basin. Most of the coal outcrops are along Horse Creek, where several mines have been opened in the past. No coal more than 2.5 feet thick is known to occur in the field, though it is reported that a well near Meriden, in the southern part of Goshen County, penetrated one coal bed 4 or 5 feet thick and several thinner beds, all less than 1,000 feet below the surface.

Because of the thinness of the beds at the surface, no reserves are given for the Goshen Hole field. No analyses of coal from the field are available, but the coal is presumably of sub-bituminous rank like coal of the same age and geologic relationships elsewhere.

Bighorn Basin

General features

The Bighorn Basin, which includes about 4,400 square miles in Big Horn, Park, Hot Springs, and Washakie Counties, is a broad structural basin bounded by the Bighorn Mountains on the east, the Owl Creek Mountains on the south, and the Absaroka Range on the west. To the north the basin continues a short distance into Montana. The Bighorn River flows northward across the southeastern part of the basin. The Chicago, Burlington & Quincy Railroad parallels the river throughout most of its course in Wyoming; a branch line of the same system extends southwest from the northern part of the basin to the town of Cody.

The Bighorn Basin is a region of broad, dissected plains, which are characterized locally by badland topography. In some areas gravel deposits washed down from the surrounding mountains cover much of the underlying rock. Around the margin of the basin, particularly on the southwest side, the rocks are folded locally into anticlines and synclines. Where coal-bearing rocks are exposed in the anticlines, erosion of the central parts of the structures has resulted in irregular patterns of coal distribution. Around the borders of the basin the beds dip at various angles, at places as much as 50°, in directions determined more by the local structures than by the major synclinal structure of the basin.

The coal-bearing rocks in the Bighorn Basin are the Mesaverde, Meeteetse, and Lance formations of Upper Cretaceous age and the Fort Union formation of Paleocene age (fig. 4). These rocks are exposed around the rim of the basin in a belt 3 to 15 miles wide. The large central part of the basin, which covers about 2,000 square miles, probably contains coal under deep cover, but the known reserves are in scattered, relatively small fields in the marginal belt. As a rule, the coal beds in these fields are lenticular and generally extend at minable thickness less than 5 miles along the outcrops. This is especially true along the eastern side where, as an example, the Basin and Garland fields are separated by a distance of about 45 miles in which no outcrops of minable coal are known. On the southern and western sides of the basin the coal apparently is thicker and the beds have a somewhat greater areal extent.

Description of fields

The fields in the Bighorn Basin are discussed below, beginning with the northernmost and continuing clockwise around the basin.

Silvertip field.--The Silvertip field (fig. 3, loc. 5) is a small elliptical area, at the Wyoming-Montana State line, where coal is exposed in an anticline. The Wyoming part of the field is in the northern part of T. 58 N., Rs. 99 and 100 W.

The coal in the Silvertip field occurs in the Eagle sandstone of Upper Cretaceous age, which has not been differentiated from the Mesaverde formation in other parts of the Bighorn Basin. One of the two minable beds is generally less than 2 feet thick, the other more than 2.5 feet. The anticline in which the coal is exposed is broken by many normal faults, which strike northeast at right angles to the axis, and in general the beds dip about 20° away from the crest. The coal is of high volatile C bituminous rank. An analysis, on the as-received basis, of a sample from the Silvertip mine shows 9.7 percent ash, 0.7 percent sulfur, and 10,300 B.t.u.

Garland field.--The Garland field (fig. 3, loc. 6), north of the village of Garland, is mostly in T. 56 N., R. 99 W. Coal of minable thickness is found in one bed, which reaches a maximum thickness of 6.3 feet. Gravel conceals the coal horizon at several places where the coal bed possibly is thick enough to mine.

The exact stratigraphic position of the coal has not been determined, but it probably lies near the contact between the Lance and Fort Union formations. The coal is of sub-bituminous A rank. An analysis, on the as-received basis, of a sample from the Honeysett mine at Garland shows 6.7 percent ash, 0.8 percent sulfur, and 10,870 B.t.u.

Basin field.--The Basin field (fig. 3, loc. 7) is about 45 miles southeast of the Garland field, on the eastern side of the Bighorn Basin. It is near the mouth of No Wood Creek, in parts of T. 50 N., Rs. 92 and 93 W. Most of the minable coal in the field is confined to an area of about 15 square miles.

Although coal occurs at several horizons in the Basin field, it is generally of minable thickness in only one bed, which is several hundred feet above the base of the Fort Union formation. The maximum thickness of the coal is 8.5 feet, generally including many thin partings. Locally the bed consists of 6 feet of clean coal, which, however, extends for less than 3 miles along the outcrop. The coal is of sub-bituminous A rank. An analysis, on the as-received basis, shows 13.7 percent ash, 1.8 percent sulfur, and 9,510 B.t.u. The high ash and sulfur contents are unusual among Wyoming coals.

Southeastern field.--The Southeastern field (fig. 3, loc. 8) includes part of the Bighorn Basin lying east of the Bighorn River and south of the Basin field. Coal crops out in this area in a band 6 to 10 miles wide, extending southeast from T. 49 N., R. 92 W., to T. 44 N., R. 89 W., and thence west to the river in T. 44 N., R. 94 W. Exposures of coal are fairly continuous throughout this area, though many of the beds are too thin to mine. The areas in which the coal is of minable thickness are mostly at the southeastern corner and along the southern side of the field. Mining has been carried on in sec. 34, T. 47 N., R. 90 W., in sec. 33, T. 46 N., R. 89 W., and in a number of places in T. 44 N., Rs. 90-92 W. The coal occurs in rocks of Cretaceous age and is of sub-bituminous rank.

A triangular area, between the coal outcrops on the east and south and the Bighorn River on the west, which covers about 150 square miles, is included in the Southeastern field because several drill holes not far east of the river show as many as 15 beds of coal, some of which are relatively thick. These holes establish the presence of coal in considerable quantity in an area where the coal-bearing rocks are covered. Coal is probably present to the northwest, also, but at greater depth.

Gebo field.--The Gebo field (fig. 3, loc. 9) is in Hot Springs County at the southern end of the Bighorn Basin, west of the Bighorn River, and includes parts of Tps. 44 and 45 N., Rs. 94-97 W. According to information available at present, the field contains the largest reserves of fairly thick, good-quality coal in the Bighorn Basin. The coal occurs in the Mesaverde formation of Upper Cretaceous age in a zone between two massive sandstones. The thickest and most extensive beds are in the eastern part of the field; the most important bed is the Gebo, which has a maximum thickness of 11 feet and is more than 5 feet thick for about 4 miles along the outcrop. Several other, less extensive beds are of minable thickness, some more than 5 feet thick. These coals do not crop out over the entire field, but are concentrated in five or six relatively small areas, where they are exposed in the flanks of minor folds that strike northwest. The maximum dip is about 25°.

The coal in the Gebo field is of sub-bituminous B and A rank. An analysis, on the as-received basis, of a mine sample from the Gebo bed shows 3.9 percent ash, 0.5 percent sulfur, and 11,280 B.t.u. Considerable mining has been done in the field, most of the recovery being from the Gebo bed.

Grass Creek field.--The Grass Creek field (fig. 3, loc. 2) extends from the southern border of T. 44 N. to the northern edge of T. 46 N., Rs. 98-100 W. In this area the Mesaverde, Meeteetse, and Fort Union formations all contain coal of minable thickness. Most of the reserves, however, are in the Mesaverde formation of Upper Cretaceous age, in a 160- to 220-foot thickness of sandstone, shale, and coal that lies above the massive basal sandstone of the formation.

The coal beds of the Mesaverde formation are exposed in the sides of several topographic basins and occur in several zones, which are known by different names in the different basins in which they are exposed. The most important of these areas is the Grass Creek Basin, in the northern part of the field, which contains coal of minable thickness at most places where the Mesaverde is exposed. The beds are lenticular, however, and are more than 5 feet thick in only two small areas. In T. 44 N., Rs. 98 and 99 W., in the southern part of the field, lenticular coal beds in the Mesaverde reach minable thickness along most of their outcrop in either or both of two coal horizons. The thickest beds are in the southern part of these townships, where the maximum thickness is slightly more than 5 feet.

The coal beds in the Meeteetse formation, of Upper Cretaceous age, at most places range from 1.5 to 2.5 feet in thickness and at a few places are continuous at a thickness of 2.5 feet or more for about a mile along the outcrop. The Fort Union formation, of Paleocene age, contains some thick coal, but it is confined to a few small areas.

The dips of the beds in the Grass Creek field range from 10° to 50°, the directions varying according to local structures. The coal in the field is of sub-bituminous B and A rank.

Meeteetse field.--The Meeteetse field (fig. 3, loc. 3), extending from the northern border of T. 46 N. to the northern border of T. 49 N., Rs. 99-102 W., is a northern continuation of the Grass Creek field, and the geologic relations in the two areas are much the same. The thickest and most persistent occurrence of coal in the Meeteetse field is in the Mesaverde formation, though the Meeteetse and Fort Union formations also contain minable coal at some places. As in the Grass Creek field, coal in the Mesaverde formation occurs above the basal sandstone and is in two zones separated by a massive sandstone bed. The lower of these zones is called the Wilson zone, and the upper the Buffalo zone. The Wilson zone contains the largest amount of thick coal, which consists in most measured sections of a lower bench 1.3 to 2.8 feet thick and two to four upper benches separated from the lower bench by a maximum of 1.2 feet of shale. The zone is fairly persistent, and at several places the coal is more than 5 feet thick. Apparently the coal is thickest and most persistent in T. 47 N., R. 101 W., but it is minable at other places, particularly in the adjoining townships. However, the total areal extent of the Wilson zone at minable thickness probably does not exceed one township. The dip of the Wilson coal beds is generally less than 15°, the maximum being 50°. The coal is of sub-bituminous B and A rank. An analysis, on the as-received basis, of a sample from the Wilson mine shows

12.3 percent ash, 0.9 percent sulfur, and a heat value of 9,600 B.t.u.

The reserves of coal in the Meeteetse formation are smaller than those in the Mesaverde formation. A few small areas covered by the Meeteetse in the eastern part of the field contain a bed that at one place reaches a thickness of 8.8 feet, two thin partings excluded. The coal, however, is at most places less than 5 feet thick and does not extend at minable thickness for more than 2 miles. Near its base the Fort Union formation contains coal thick enough to mine in one small area in T. 49 N., R. 100 W.

Oregon Basin field.--The Oregon Basin field (fig. 3, loc. 4) extends southward from the vicinity of the town of Cody and includes parts of Tps. 50-53 N., Rs. 100-102 W. In contrast to the series of small basins characteristic of other fields to the south, the Oregon Basin field is structurally a fairly large anticline, the central part of which has been removed by erosion to form the present basin. The thickest coal is in a zone 120 to 340 feet thick, which overlies the massive basal sandstone of the Mesaverde formation and contains two to seven lenticular beds. The coal is generally exposed in the sides of the basin from 100 to 200 feet above the floor. The upper part of the Meeteetse formation also is coal bearing, but the beds are thin and lenticular.

Most of the coal in the field is in the Mesaverde formation, but the beds are not well exposed. The thickest section, in T. 51 N., R. 101 W., shows 8.2 feet of coal separated by two partings, each 3 inches thick. The bed thins, however, to 3.7 feet of coal with an 8-inch parting within 1,300 feet of this exposure. At a few other places the coal in the Mesaverde is of minable thickness, but the extent of the beds is not known.

The Meeteetse formation contains a few lenticular coal beds, which cannot be correlated; locally, at outcrops a mile or more apart, however, the coal attains a maximum thickness of 3.5 feet of clean coal.

About 13 miles north of Cody, coal has been mined from a bed in the Mesaverde formation. This bed has a maximum thickness of 4.3 feet and contains three partings 2 to 7 inches thick. At another place northeast of Cody, in T. 53 N., R. 101 W., a coal bed in the Meeteetse formation has a maximum thickness of 4.5 feet, 0.1 foot of parting excluded. This bed dips about 50° NE. The coal is of sub-bituminous B rank. An analysis, on the as-received basis, of coal from the Cody mine shows 5.5 percent ash, 0.4 percent sulfur, and 10,060 B.t.u.

Reserves and production

The estimated original reserves in the Bighorn Basin, including measured, indicated, and inferred coal, are about 581 million tons, including 563 million tons of sub-bituminous coal and 18 million tons of bituminous coal. (See table 13.) The reported production from the basin prior to January 1, 1950, is about 12.5 million tons. Assuming that losses in mining have been, and will continue to be, equal to the coal recovered, the reserves remaining in the ground in the Bighorn Basin on January 1, 1950, totaled 556 million tons, and the ultimately recoverable reserves totaled 278 million tons.

Most of the coal mined in the Wind River Basin has been obtained from the Gebo field, the total original reserves of which are estimated to be more than 154 million tons. The reported production from this field to January 1, 1950, is about 12 million tons. The total coal mined and lost in mining in the field is therefore about 24 million tons, and the reserves remaining in the ground on January 1, 1950, total 130 million tons, half of which may be considered as ultimately recoverable.

Wind River Basin

General features

The Wind River Basin is in central Wyoming in Fremont and Natrona Counties. The basin is a large syncline that trends west-northwest and is bounded by the Absaroka Range, the Owl Creek Mountains, and the Bighorn Mountains on the north, the Wind River Range on the west and southwest, a north-facing erosional escarpment known as Beaver Rim on the south, and the Rattlesnake Mountains on the southeast. The basin is about 125 miles long and a maximum of 45 miles wide. As the synclinal structure is asymmetrical, dips are considerably steeper on the northern side than on the southern and in the constricted eastern part than in the wider central part. Throughout the basin many minor folds and a number of faults complicate the main structure.

Most of the Wind River Basin is drained by the Wind River, a tributary of the Bighorn River, but the eastern part of the basin is drained by the Powder and North Platte Rivers. The topography around the borders of the basin is characterized by steep, narrow ridges formed by the steeply dipping sandstone beds. Toward the center of the basin, however, the terrain is less rugged and is generally of the plains type.

The Chicago, Burlington & Quincy Railroad traverses the basin westward as far as Bonneville, near the Bighorn River, and then turns north in the river valley. From Bonneville the Chicago and North Western Railway extends southwestward through the town of Hudson.

In the western half of the basin the coal-bearing rocks are the Cody shale, the Mesaverde and Meeteetse formations of Upper Cretaceous age, and possibly the Fort Union formation of Paleocene age. The Lance formation, of Upper Cretaceous age, which overlies the Meeteetse and underlies the Fort Union, contains no coal in the western half of the basin. In the eastern half of the basin the interval between the Mesaverde and Fort Union formations has not been mapped in detail and at present is designated the Lewis and Lance formations, undivided, of Upper Cretaceous age. The Lewis shale of the eastern part may be the equivalent of the Meeteetse of the western half, though this cannot be definitely stated until mapping of the entire basin has been completed.

The coal-bearing formations crop out only around the rim of the basin; in the central part they are unconformably overlain by thick units of younger non-coal-bearing rocks, which also overlap the coal-bearing beds in some parts of the border zone. As a result, outcrops of coal are not continuous around the rim of the basin,

but are limited to small areas, which as a rule are separated by larger areas of non-coal-bearing younger rocks.

The Cody shale, which is 3,050 to 4,480 feet thick, contains thin coal beds in several areas. The Mesaverde formation, 800 to 1,960 feet thick, generally consists of two massive sandstone members, separated by a zone of sandy shale that contains, in the western part of the basin, more coal than any other unit in the basin. The Meeteetse and Lance formations in the western part of the basin, and the undivided Lewis and Lance formations in the eastern part, are 350 to 3,715 feet thick. They include sandy shale, sandstone, and coal. The Fort Union formation includes 350 to 4,165 feet of sandstone, sandy shale, and some coal.

Description of fields

The Wind River Basin contains five recognized coal fields, which, from west to east, are the Muddy Creek, Pilot Butte, Hudson, Alkali Butte, and Powder River fields. The last-named field, the largest in the Wind River Basin, contains reserves twice as large as those of the field with the second-largest reserves. The other fields, in order of descending reserves, are Alkali Butte, Hudson, Muddy Creek, and Pilot Butte. The Alkali Butte field contains the most extensive coal bed and one of the thickest without partings; it is 16.8 feet thick at one locality and extends at a minimum thickness of 10 feet for more than 2 miles along the outcrop.

All the fields in the Wind River Basin except the Powder River field are wholly or in part in the Wind River land survey; therefore, the land descriptions in the western part of the basin do not correspond with those in the eastern part or in other parts of Wyoming. The townships in the Wind River survey are numbered north and south from a base line that passes a few miles north of the town of Hudson; the ranges are numbered east and west from the Wind River meridian, which passes through the Muddy Creek field and the eastern edge of the Pilot Butte field.

Muddy Creek field.--The Muddy Creek field (fig. 3, loc. 38), which includes about 430 square miles in the northwestern part of the Wind River Basin in Tps. 5 and 6 N., Rs. 1-3 E. and 1 and 2 W., Wind River meridian, contains coal of minable thickness in the Mesaverde, Meeteetse, and--possibly--Fort Union formations. Recent mapping in the Shotgun district, one of the four small districts in the field, shows that the Meeteetse formation is 1,000 to 1,330 feet thick and that the overlying Lance, which in this area contains no coal, is 200 to 1,140 feet thick. The mapping also shows that much of the coal in the district, which was formerly thought to be in the Fort Union, is actually in the Meeteetse.

The four districts in the field are separated by areas in which younger formations conceal the coal-bearing rocks or in which coal, though exposed, is too thin to mine. The coal beds in all parts of the field are lenticular and in few places extend at minable thickness for more than a small part of a mile. The thickest bed is in the Meeteetse formation, in the district along Muddy Creek in T. 6 N., R. 1 E., where at one place it contains 17.4 feet of coal and a 1.3-foot parting near the top. About 1,000 feet from this exposure the coal is 9.4 feet thick, but between the two localities it thins to a minimum of 6 inches. The district extends in a general northerly direction for about 5 miles near Muddy Creek and contains at least two other lenticular coal beds of minable thickness in the Meeteetse formation. The beds dip about 23° eastward.

In the western part of the field, along the limbs of a northwest-trending syncline in the south half of T. 6 N., R. 2 W., the Mesaverde formation contains several coal beds that are lenticular but, at some places, fairly thick. The thickest bed, which is exposed along the northeast side of the syncline, has a maximum thickness of 8.8 feet and contains no partings. The bed is of minable thickness for about three-quarters of a mile along the outcrop, though for most of that distance it is less than 3 feet thick. The dip ranges from 70° SW. to vertical.

In other places in the Muddy Creek field, coal beds locally reach a minable thickness but are thinner than those in the districts just discussed. In 1949, one mine in sec. 29, T. 5 N., R. 1 E., was operating seasonally in a coal bed 5.5 feet thick.

An analysis, on the as-received basis, of coal from the Meeteetse formation in the Muddy Creek field shows 8.1 percent ash, 0.4 percent sulfur, and 9,920 B.t.u.

Pilot Butte field.--The Pilot Butte field (fig. 3, loc. 39) is south of the Muddy Creek field in sec. 13, T. 3 N., R. 1 W., Wind River meridian. The coal is contained in a single bed in a sandstone unit near the top of the Cody shale or near the base of the Mesaverde formation. The bed, known as the Kinnear coal, reaches a maximum thickness of 2.8 feet of clean coal.

Hudson field.--The Hudson field (fig. 3, loc. 40), near the town of Hudson in the southwestern part of the basin, covers parts of four townships: Tps. 33 and 34 N., R. 98 W., and Tps. 1 and 2 S., R. 2 E., Wind River meridian. Three lenticular coal beds of minable thickness are present within an interval of about 45 feet in the Mesaverde formation. The field is limited in extent by younger, non-coal-bearing rocks, which conceal the coal beds at many places. The thickest measured section in the field is about 4 miles north of the town of Hudson, in the Poposia No. 1 mine, where 14.0 feet of clean coal is exposed. Other measured sections in the field generally show less than 5 feet of clean coal. Only one bed in the field appears to be persistent; it extends at minable thickness for more than 3½ miles of outcrop. The rocks generally dip about 13° NE.

The coal in the Hudson field is of sub-bituminous B rank. An analysis, on the as-received basis, of a sample from the C. A. McKinley mine shows 7.6 percent ash, 1.2 percent sulfur, and 9,420 B.t.u.

Alkali Butte field.--The Alkali Butte field (fig. 3, loc. 41) is east of the Hudson field and extends for about 9 miles along the southern border of the basin in T. 2 S., R. 6 E., and T. 34 N., Rs. 94 and 95 W., Wind River meridian. In this field two rather persistent coal beds are exposed in the Mesaverde formation on the northeast and west sides of a northwest-trending anticline; they are, however, concealed locally on those sides, and concealed completely on the south and east sides, by younger, non-coal-bearing rocks. The lower bed, which is exposed mostly in the eastern part of the

field, consists of a minimum of 12 feet of coal and 1 foot of parting. The outcrop of this bed crosses the southern part of T. 34 N., R. 94 W., in a westerly direction, and, with the exception of about a mile, the coal is of minable thickness across the township. The upper bed, which is exposed only in the northern and western parts of the field, reaches a maximum thickness of 16.8 feet of clean coal and for more than 2 miles along the outcrop is at least 10 feet thick.

The rocks in the Alkali Butte field dip 12° to 54° away from the crest of the anticline, but at most localities the dip is less than 30°. The coal in the field is of sub-bituminous rank; an analysis, on the as-received basis, of a slightly weathered sample from the Signor mine shows 5.1 percent ash, 0.61 percent sulfur, and 8,760 B.t.u.

Coal in Tps. 33 and 34 N., R. 96 W.--Logs from several drill holes in the Beaver Creek oil field, Tps. 33 and 34 N., R. 96 W., show coal in much greater quantity than nearby surface exposures indicate. One hole shows a total of 237 feet of coal in 26 beds ranging from 2.5 to more than 10 feet in thickness, all at depths less than 3,000 feet; other holes show smaller but considerable numbers of minable beds. The logs of these holes indicate that at least parts of the Wind River Basin contain much coal under relatively deep cover. The cores show that dips are nearly flat at most places but reach a maximum of 28° on the east flank of the Beaver Creek oil field. No analyses are available, but the rank of the coal is probably the same as that of the coal in the Alkali Butte and Hudson fields. It is possible that some of the material logged as coal in these townships is actually carbonaceous shale, but information is sufficiently reliable to permit inferred reserves to be calculated for this area (table 13).

Powder River field.--The Powder River field (fig. 3, loc. 42), at the eastern end of the Wind River Basin, bears the same name but is not to be confused with the Powder River field in the Powder River Basin. It is in Natrona County except for one small district, mostly in Tps. 34 and 35 N., R. 90 W., that is in Fremont County. The Powder River field is a V-shaped area, about 50 miles long, with the point of the "V" at the southeastern end; it includes about one-third of the total area of the Wind River Basin. In this field the eastern end of the major Wind River syncline is constricted and is identified as the Powder River syncline, which has a minor anticline and syncline on its northeastern limb.

The field contains eight small coal districts, four in the southern limb of the syncline and four in the northern limb. These districts are separated by areas in which no coal of minable thickness occurs or in which the coal-bearing rocks are concealed. The districts in the southern limb of the syncline, from west to east, are the Muskrat Creek, South Fork, Wallace Creek, and Oil City districts; those in the northern limb, also from west to east, are the Waltman, Powder River Station, Efell, and Platte River districts. Most of the coal is in the Mesaverde formation, but the Lewis and Lance unit and the Fort Union formation contain minable coal in the Muskrat Creek district. All the coal beds are lenticular.

The largest district on the southern limb of the basin, the Muskrat Creek district, extends for about 9 miles in T. 34 N., Rs. 89 and 90 W. The longest continuous outcrop in this district, however, is slightly more than a mile in length. The district contains two coal beds that reach a minable thickness.

The South Fork district, east of the Muskrat Creek district in T. 34 N., R. 88 W., contains seven coal beds that in places are of minable thickness but are markedly lenticular. However, the thickest coal exposed in the Powder River field is in the South Fork district, where one bed is 9.8 feet thick and composed of clean coal without partings. About half a mile southeast of this locality the bed contains 3.3 feet of coal without partings.

Maximum thicknesses in other districts in the southern part of the field range from 4.6 to 7.8 feet, and a few of the beds persist at minable thickness for a maximum distance of about 2 miles. The beds dip generally between 20° and 30° NE.

The four districts along the northern limb of the Powder River syncline extend from T. 37 N., R. 87 W., near the village of Arminto, southeast nearly to the North Platte River. The maximum thicknesses of seven minable beds are exposed in both the Waltman and Platte River districts in this part of the Powder River field. The Waltman district contains a coal bed that reaches a maximum thickness of 7.3 feet of coal without partings and crops out for a distance of about a mile. Two other beds in the district reach thicknesses greater than 5 feet. Several coal beds on the northern side of the field are more than 5 feet thick at a few localities but generally extend at minable thickness for less than a mile. The coal beds dip steeply toward the central part of the syncline, the dips ranging from about 50° to overturned.

An analysis, on the as-received basis, of a sample from the Arminto mine in the Waltman district shows 7.8 percent ash, 1.1 percent sulfur, and 8,610 B.t.u.

Reserves and production

As shows in table 13, the estimated original reserves of coal in the Wind River Basin, including measured, indicated, and inferred reserves, total about 875 million tons. The total recorded production of the basin to January 1, 1950, is about 3.5 million tons. Subtracting production and mining losses of about 7 million tons, the reserves remaining in the ground on January 1, 1950, total about 868 million tons, half of which may be regarded as ultimately recoverable.

As all the significant production from the Wind River Basin has been obtained from the Hudson field, it is interesting to note that the original reserves of this field, including measured, indicated, and inferred reserves, total about 59 million tons. Subtracting the production and mining losses of about 7 million tons, the reserves remaining in this field on January 1, 1950, total about 52 million tons, half of which may be regarded as recoverable.

Hanna field

General features

The Hanna field (fig. 3, loc. 28) is a structurally downwarped area of about 750 square miles in Tps. 21-24 N., Rs. 79-86 W., in the northern half of Carbon County, south-central Wyoming. The field is bounded on the north by the Shirley, Freezeout, Seminoe, and

Ferris Mountains; on the west by the Rawlins Hills; and on the south by the Medicine Bow Mountains. To the east, it merges with the Laramie Basin. The field is drained by the Medicine Bow River and several intermittent streams, all tributaries of the North Platte River, which flows in a northerly direction near the western edge of the field. The Union Pacific Railroad crosses the field from east to west, passing through the town of Hanna.

The topography in the central part of the field is of the plains type but is more rugged around the edges. Along the southern side low ridges are prominent, and in T. 21 N., R. 81 W., and northward a prominent ridge, called the Saddleback Hills or Simpson Ridge, extends north-northeast along an anticlinal axis. This ridge separates the largest coal-bearing area, the Hanna Basin on the west, from the smaller Carbon Basin to the east. Another small basin, the Walcott Basin, is southwest of the Hanna Basin.

Coal-bearing formations

The Mesaverde formation of Upper Cretaceous age, which crops out at intervals around the edges of the field, is the oldest coal-bearing formation. Above the Mesaverde are the non-coal-bearing Lewis shale and the coal-bearing Medicine Bow, Ferris, and Hanna formations. The Lewis shale and the Medicine Bow formation are of Upper Cretaceous age. The basal part of the Ferris formation also is considered to be of Upper Cretaceous age, and the main part of the formation is considered to be of Paleocene age. The Hanna formation is of Eocene age. A total of 130 coal beds have been mapped in the four coal-bearing formations. Of this total a third or more may lie at the same stratigraphic position as other numbered beds. The coal is of workable thickness at numerous places in the Hanna field, but as a rule the beds are not persistent for long distances. The highest-rank coal, high volatile C bituminous, occurs in the Mesaverde formation; the thickest and most extensive beds are of sub-bituminous rank and occur in the Ferris and Hanna formations. Throughout the field many of the coal lenses cannot be traced because of poor exposures.

In the following paragraphs the coal in each formation is discussed separately.

Coal in the Mesaverde formation.--The Mesaverde formation, which is 2,200 to 2,700 feet thick, crops out generally as ridges in the border areas of the field, where at places it also constitutes the central part of local anticlines. The formation consists of three members, each composed largely of sandstone and shale, but the middle member differs from the others in its fresh- and brackish-water invertebrate fossils, in its dominantly brown color, and in the large content of carbonaceous material. The coal beds, which occur in the middle member of the formation and, locally, in the upper member, are thin, irregular, and generally impure. At least four of the coal beds are more than 3 feet thick. The maximum thickness of any bed is about 8 feet, as observed in T. 24 N., R. 84 W. The coal generally is of high volatile C bituminous rank. An analysis, on the as-received basis, of coal from the Mesaverde formation in the Wissler mine shows 7.8 percent ash, 1.1 percent sulfur, and 10,290 B.t.u.

Coal in the Medicine Bow formation.--The Medicine Bow formation consists of 4,000 to 6,200 feet of shale and sandstone and numerous beds of coal that occur in a brown sandstone unit in the lower 1,500 feet of the formation. The unit contains at least 15 coal beds that are more than 3 feet thick and attain a maximum thickness of about 11 feet. The beds are irregular in extent; at some places the unit contains no coal, whereas at others it has more than 12 beds. The coal is of sub-bituminous A rank. The average of two analyses, on the as-received basis, of coal from the Medicine Bow formation shows 3.8 percent ash, 0.8 percent sulfur, and 11,050 B.t.u.

Coal in the Ferris formation.--The Ferris formation is about 6,500 feet thick and is composed of shale, sandstone, a basal conglomerate, and numerous thick beds of coal, which occur in the upper 5,400 feet of the formation above the basal conglomerate. A minimum of 20 beds in the formation are more than 3 feet thick, and as a rule the beds are thicker and more extensive than those in the Mesaverde and Medicine Bow formations. Several beds are more than 5 feet thick, and the maximum thickness observed is 23.4 feet of clean coal, which is separated by 10 feet of shale near the middle and by 2 feet of shale near the top, in T. 22 N., R. 83 W. The thickest bed extends at minable thickness for about 7 miles along the outcrop, and, although it is generally separated into benches, at least one bench contains more than 5 feet of clean coal at most places. Others of the more than 18 beds of minable thickness exposed in this township are thinner and less persistent and contain numerous partings. The beds in the general area dip about 10° to 25° NE. The coal is of sub-bituminous rank.

Coal in the Hanna formation.-- The Hanna formation, which unconformably overlies the older rocks, consists of about 7,000 feet of alternating conglomerate, sandstone, and shale and contains numerous beds of coal. At least 30 coal beds reach thicknesses greater than 3 feet, and the maximum thickness of clean coal is more than 30 feet. The thickest bed in the field is the Hanna No. 2, which crops out in the western part of T. 22 N., R. 81 W. At one exposure north of the town of Hanna, this bed contains more than 30 feet of coal without partings but north of the town its outcrop is generally burned. Southwest of the town the Hanna No. 2 bed is about 35 feet thick, including several shale partings each about 1 foot thick; but 2 miles to the south the coal reportedly thins to 12 feet. It dips about 12° to 20° eastward. The coal is of sub-bituminous A rank; an analysis, on the as-received basis, of coal from the Hanna No. 2 bed in the Hanna No. 4 mine shows 5.5 percent ash, 0.5 percent sulfur, and 11,200 B.t.u.

Reserves and production

As shown in table 13, the total estimated original reserves in the Hanna field are 3,917 million tons, including 3,466 million tons of measured and indicated sub-bituminous coal reserves, 378 million tons of inferred sub-bituminous coal reserves, and 73 million tons of indicated and inferred bituminous coal reserves.

The total recorded production from the Hanna field is the fouth-largest in Wyoming, being exceeded only by production from the Rock Springs, Kemmerer, and Sheridan fields. The total production of the Hanna field through 1949 was more than 34 million tons, most of which has been obtained from the Hanna Basin and from the Hanna No. 2 bed. Assuming that losses in mining

have been equal to production, the original reserves in the field have been depleted by 68 million tons to January 1, 1950.

Rock Creek field

The Rock Creek field (fig. 3, loc. 27) covers about 450 square miles in the north-central part of the Laramie Basin, largely in Albany County but partly in Carbon County. The Union Pacific Railroad crosses the northeastern part of the field. The surface of the field is a gently rolling plain, which is covered with gravel over large areas. As a result, outcrops of the coal-bearing rocks are few in number and small in extent. The thickest and best-exposed coal beds are in the northwestern part of the field in T. 20 N., R. 76 W., and T. 19 N., R. 77 W., in the Mesaverde formation and in the younger Hanna formation. In these townships the dips of the strata range from about 8° to 20°, generally to the southeast.

The Mesaverde formation, of Upper Cretaceous age, consists of 1,250 feet of sandstone, sandy shale, carbonaceous shale, and coal. The Pine Ridge sandstone at the top of the Mesaverde is about 80 feet thick in T. 20 N., R. 76 W., and contains at least four coal beds of workable thickness. The thickest coal bed exposed in the Pine Ridge sandstone member is in this township, where the coal attains a maximum thickness of 8 feet. The beds occur at several horizons in the sandstone, but they vary in thickness and probably are not continuous for long distances. At the few mines the thickness ranges from about 4 to 7 feet.

The Hanna formation of Eocene age, which unconformably overlies older formations, consists of sandy shale, sandstone, carbonaceous shale, conglomerate, and coal. One coal bed of minable thickness crops out in places in the western part of T. 19 N., R. 77 W., where it reaches a maximum thickness of 9.5 feet, exclusive of several partings that total 2.2 feet. The coal of the field is of sub-bituminous B rank. The average of three analyses, on the as-received basis, of coal in the northern part of the field shows 12.1 percent ash, 0.9 percent sulfur, and a heat value of 8,843 B.t.u.

Coal is exposed locally in townships south and west of those discussed, but generally the gravel cover prevents determination of the thickness and extent of the beds.

Mining in the Rock Creek field has been confined to small local operations, and production has been small.

Green River region

General features

The Green River region, which covers about 15,400 square miles in southwestern Wyoming, is a roughly triangular area that includes practically all of Sweetwater County and extends east into Carbon County, north into Fremont and Sublette Counties, and west into Lincoln and Uinta Counties. The southern boundary, which follows the Colorado State line, is about 185 miles long; the western side is about 175 miles long. The region is bounded on the north and northeast by the Gros Ventre and Wind River Ranges and the Granite Mountains; on the east by the Rawlins Hills and the Sierra Madre Mountains; and on the west by a series of major thrust faults along which older rocks have moved eastward across the coal-bearing strata at many places.

The western part of the region is drained by the Green River, the southeastern part by the Little Snake River. The Union Pacific Railroad crosses the region in a general westerly direction about 35 to 55 miles north of the Colorado State line, passing through the towns of Rock Springs and Rawlins.

The Green River region is divided by the Rock Springs anticline into two major structural units, the Green River Basin to the west and the Great Divide Basin to the east. The Great Divide Basin in turn contains two subordinate basins: the Red Desert Basin to the north and the Washakie Basin to the south.

The coal-bearing rocks in the Green River region are largely concealed by younger rocks, and very little is known about the total coal reserves. The coal-bearing rocks are exposed, however, at points around the margins of the region and in the Rock Springs anticline in the center of the region, which is the most important coal-producing area. For purposes of discussion, therefore, the region is divided into several fields, as follows: the Kindt Basin field, which lies east of the main part of the region; the Great Divide Basin field in the vicinity of the Red Desert; the Little Snake River field east of the Washakie Basin; the Rock Springs field in the center of the region; and the western part of the region, including the Labarge Ridge field.

The coal beds in the Green River region occur in strata that range in age from Upper Cretaceous to Eocene, and the coal ranges in rank from sub-bituminous C to high volatile C bituminous, the higher rank in general being present in the older rocks.

Description of fields

The coal fields in the Green River region are discussed below, beginning with those on the eastern side.

Kindt Basin field.--The Kindt Basin field (fig. 3, loc. 29), which may be described as an eastward extension of the Green River region proper, covers about 200 square miles, mostly in Tps. 19 and 20 N., Rs. 84-87 W., in west-central Carbon County. The field is immediately south of the Union Pacific Railroad and southeast of the town of Rawlins. The coal-bearing Mesaverde formation of Upper Cretaceous age crops out over most of the field, the limits of its outcrop determining the northern and southern boundaries. Along the eastern side of the basin rocks of Tertiary age conceal the Mesaverde formation. To the west, the Kindt Basin adjoins the Little Snake River field.

The Mesaverde formation ranges in thickness from about 2,700 to 3,600 feet and consists of three members composed mostly of alternating beds of sandstone and shale. The lowest member, about 700 feet thick, contains no coal; the middle and upper members contain coal at irregularly spaced intervals. The coal beds are lenticular and may show at least one shale parting that is variable in thickness. The coal beds, exclusive of partings, are 2.0 to 6.0 feet thick. The coal is of high volatile C bituminous rank. An analysis, on the as-received basis, of a sample from the Dillon mine

shows 8.4 percent ash, 0.5 percent sulfur, and 11,010 B.t.u.

On the north side of the Kindt Basin field the coal beds dip 45° to 75° southward; on the south side the dip is about 11° northward.

Great Divide Basin field.--The area here called the Great Divide Basin field (fig. 3, loc. 30) includes about 1,800 square miles in the northeastern part of the Green River region, north of the Union Pacific Railroad, in Tps. 21-28 N., Rs. 88-95 W. The field was first described as "the eastern part of the Great Divide Basin field," a designation that reflects the old rather than the presently recognized subdivisions of the Green River region.

The field is largely in Sweetwater County but extends northward into Fremont County and eastward into Carbon County. It is bounded on the north by the Granite Mountains, on the east by the Rawlins Hills, and on the south by the Union Pacific Railroad, which follows a minor west-trending anticlinal axis. The structure of the Great Divide Basin field is a broad downwarp overlain by flat-lying younger rocks. The oldest rocks in the basin crop out along the eastern edge of the downwarp; in this area the beds dip generally 25° to 80° westward, and in at least one place are overturned.

The Mesaverde formation, two younger units of approximate Lance and Fort Union age, respectively, and the Wasatch formation contain coal beds of minable thickness in the field. The Mesaverde, which crops out along the eastern edge of the field, consists of about 2,000 feet of strata at the northern end of its outcrop and about 4,600 feet at the southern end. It is composed of alternating beds of sandstone and shale and is divided into three members, the upper two of which are coal bearing. The coal in these two members occurs in three zones: a lower zone at the base of the middle member, a middle zone at the base of the upper member, and an upper zone near the top of the upper member.

The lower coal zone contains four to six irregular beds of impure coal that are poorly exposed but apparently are not of minable thickness. The coal beds in the middle zone are generally thin in the few places where they are exposed, but they are believed to be thicker in the southeastern part of the field, where one bed contains 8.2 feet of clean coal and two 1-inch partings. The upper zone contains a minimum of four thin beds of coal, all of poor quality. Analyses of the coal in the Mesaverde are not available, but it is probably similar in rank to the high volatile C bituminous coal of nearby fields.

A sequence of shale, sandstone, and coal of probable Lance age (the Medicine Bow formation of the Hanna field) crops out in a north-trending belt in the eastern part of the Great Divide Basin field. It is separated from the Mesaverde formation by the Lewis shale, which is 2,000 feet thick in this area. The coal beds occur throughout the sequence and are especially numerous in the southern part of the field. The average thickness of 39 measured sections, located in all but one of the townships where the sequence is exposed, is 6.2 feet of clean coal. The maximum thickness of any bed is 12 feet, and the minimum is 10 inches. Some of the thicker beds are separated into benches by thick shale partings, but most sections show at least one bed of minable thickness free from partings. In T. 25 N., R. 89 W., a measured section of about 1,800 feet of the sequence shows six coal beds more than 2.5 feet thick, the thickest being 6 feet. An analysis, on the as-received basis, of weathered coal from the formation in the northeastern part of the field shows 4.1 percent ash, 0.3 percent sulfur, and 9,023 B.t.u.

Rocks considered to be of Fort Union age (the Ferris formation of the Hanna field) unconformably overlie the formation of probable Lance age in the eastern part of the field and crop out in a belt that trends generally north. This sequence consists of alternating beds of sandstone, shale, conglomerate, and coal. The lower 800 to 1,800 feet is composed of shale and conglomeratic sandstone and contains no coal. Above this lower barren unit coal occurs in two members that are separated by a non-coal-bearing member of soft shale and sandstone. In the southeastern part of the field both coal-bearing members contain workable beds. The lower member contains no coal in the northern part of the field, where it is the only part of the formation exposed. The average thickness of eight measured sections in both members, mostly in the southeastern part of the field, is 4.6 feet of clean coal. The maximum thickness is 20.7 feet.

The Wasatch formation of Eocene age (the Hanna formation of the Hanna field), which is flat lying upon older dipping strata, crops out over a large part of the Great Divide Basin field and includes about 900 to 1,800 feet of sandstone, shale, conglomerate, and coal. The formation includes a basal conglomerate, which is thin in the southern part of the field, where it is comprised of granite pebbles, but thickens northward and becomes coarse. The coal beds are in a zone that overlies this basal member and are confined to the southern and western parts of the field. The average thickness of 12 measured sections is 5.1 feet of clean coal, the maximum being 16.1 feet. At many places along the outcrop the coal is burned.

Little Snake River field.--The Little Snake River field (fig. 3, loc. 31), which is south of the Great Divide Basin field, includes more than 1,500 square miles in parts of Tps. 12-20 N., Rs. 87-95 W. The field is in the southeastern part of the Green River region, southeast of the Red Desert, east of the Washakie Basin, and west of the Sierra Madre. It extends from the Colorado State line on the south to the Union Pacific Railroad on the north. The strata generally dip westward toward the central part of the Green River region at angles ranging from nearly horizontal to as much as 35°.

The Mesaverde formation, of Upper Cretaceous age, and two overlying units of Upper Cretaceous and Tertiary age contain workable coal beds, many of which, especially in the two higher units, are burned at the outcrops. The Mesaverde formation consists of about 2,000 feet of strata, largely sandstone and shale. It crops out in a general north-trending band along the eastern edge of the field and is divided into three members, of which the middle and upper contain coal of minable thickness. At the southern end of the field several sections, probably in the middle member, show workable coal beds that contain 2.8 to 12.2 feet of coal with no partings. The coal beds in the middle member decrease in number and become thinner toward the north, where the coal is of poor quality.

The upper member contains several coal beds in its area of outcrop in the Little Snake River field. In

a measured section in Tps. 17 and 18 N., R. 90 W., the member contains four beds 5 to 11 feet thick. In the southern part of the field three measured sections each show more than 5 feet of clean coal.

The exposures of coal in the Mesaverde formation are not continuous, and the beds are believed to be lenticular; however, where one bed thins another is likely to thicken, and as a result the total thickness of the coal may remain fairly consistent over considerable areas. The coal is of high volatile C bituminous rank. The available analyses of coal in the Mesaverde from this field are of weathered samples; they average, on the as-received basis, 7.0 percent ash, 0.9 percent sulfur, and 10,492 B.t.u.

Rocks of probable Lance or Medicine Bow age, separated from the Mesaverde formation by about 1,600 feet of rocks comprising the Lewis shale, include about 3,500 feet of sandstone and shale and small amounts of coal. The coal beds are poorly exposed; they are covered in many places by wash and generally occur between beds of shale which weathers rapidly. One measured section of a coal bed, which is probably in this sequence, in T. 12 N., R. 90 W., in the southern part of the field, shows 6.5 feet of clean coal. A bed about 5 miles to the north contains only 2 feet of coal, but two beds measured still farther north show a minimum of 5 feet and one shows 8.2 feet. At least some of the coal in the formation is of sub-bituminous B rank. The only available analysis, which is of a sample from the northeastern part of the field, shows on the as-received basis 3.8 percent ash, 0.3 percent sulfur, and 9,722 B.t.u.

A higher sequence of strata in the Little Snake River field "that is equivalent to the Ferris and/or Hanna formations" 4/ includes a maximum of about 8,500 feet of sandstone, shale, clay, and some conglomerate, divided into three members, the lower and upper of which are coal bearing. Sandstone, some of which is conglomeratic, is abundant in the lower and upper members; conglomeratic sandstone and, locally, conglomerate occur at the base of the formation. The non-coal-bearing middle member generally consists of clay shale, sandy clay, and local beds of sandstone. The sequence, which probably contains more coal than any other in the field, crops out extensively in the northern part of the field, but because of overlap by younger rocks the exposed part decreases southward to a narrow band.

The lower member of the sequence, in a section measured in Tps. 17 and 18 N., R. 91 W., includes within an interval of about 160 feet a minimum of three workable coal beds averaging 8.0, 5.0, and 3.5 feet, respectively, in thickness. South of this locality, some coal beds in the lower member are more than 5 feet thick and are possibly continuous for long distances. In the upper member, one zone in a section measured in T. 18 N., R. 92 W., contains within an interval of about 60 feet several layers of shaly coal but only about 3 feet of "good" coal. This member is largely concealed in the western part of the field by younger, non-coal-bearing rocks.

The coal in the sequence ranges in rank from subbituminous C to A. The average of five analyses, on the as-received basis, of weathered samples from the lower member shows 8.3 percent ash, 0.9 percent sulfur, and 8,789 B.t.u.

Rock Springs field.--The Rock Springs field (fig. 3, loc. 32), in Sweetwater County, covers about 3,000 square miles in the central part of the Green River region. Most of the coal in the field is exposed around Baxter Basin, the eroded central part of the Rock Springs anticline. In this basin coal-bearing formations have been mapped in an area that extends northward from T. 15 N. to a large east-west fault exposed in the southern tier of sections in T. 22 N., and westward from R. 102 W. to R. 105 W. The major axis of the anticline trends north; the beds on the west limb dip 10° to 20° W., and those on the east limb 5° to 10° E. Several minor folds, as well as many normal faults that vary in size but generally trend at right angles to the axis of the main structure, occur in the anticline.

The coal-bearing rocks exposed in the Rock Springs field include the Mesaverde group and the Lance, Fort Union, and Wasatch formations (fig. 4). By far the most important coal from a commercial standpoint is that in the Mesaverde group, which is composed of 3,100 to 4,550 feet of sandstone, shale, clay, and coal and is divided, in ascending order, into the Blair, Rock Springs, Ericson, and Almond formations. The Blair formation contains no coal, but the Rock Springs formation, which crops out around the edges of Baxter Basin contains at least 12 coal beds ranging from 2 to 13.8 feet in thickness and many other beds less than 2 feet thick. The beds are fairly persistent, and the average thickness of 40 sections measured along the west and north sides of Baxter Basin is 6.0 feet of clean coal, the maximum being 13.5 feet. Some of the coal beds contain one or more partings, usually of shale. Schultz found that in the Rock Springs formation the total thickness of coal beds more than 2 feet thick in the vicinity of the village of Superior, in T. 21 N., R. 102 W., "is more than 80 feet, and in the vicinity of Rock Springs it is more than 90 feet." 5/ South of Superior, however, the coal beds become thinner, and some of them disappear.

The minable coal beds in the Rock Springs formation are identified by numbers, which, however, are not invariably in sequence. For example, at the west end of the field the minable beds, from the top down, are beds 5, 1, 7½, 7, 9, and 15. The numbers, which go as high as 21, are in order only from 9 down. Coal from these beds generally withstands weathering and is classed as high volatile C bituminous. The average of five analyses from the mines at Rock Springs shows 5.4 percent ash, 0.8 percent sulfur, and 11,320 B.t.u. The sulfur content varies somewhat from bed to bed; six analyses from bed 3 show an average of 1.4 percent, nine analyses from bed 1 show 0.9 percent, and six analyses from bed 11 show 0.7 percent. The other beds are represented only by widely spaced analyses.

The Rock Springs formation is overlain by the non-coal-bearing Ericson sandstone, which is 800 to 1,000 feet thick. The upper formation of the Mesaverde group, the Almond, contains coal in its lower parts. The Almond formation is exposed along the eastern side of Baxter Basin; along the western side all but the lower

[4] Nace, R. L., Summary of the late Cretaceous and early Tertiary stratigraphy of Wyoming: Wyoming Geol. Survey Bull. 26, p. 11, 1936.

[5] Schultz, A. R., The southern part of the Rock Springs coal field, Sweetwater County, Wyo.: U. S. Geological Survey Bull. 381, p. 228, 1910.

part is covered, and to the southwest the entire unit is concealed by younger rocks. Schultz reported that the total thickness of coal beds more than 2 feet thick in this formation is "from 15 to 30 feet." 6/ The average thickness of 40 sections, measured in most of the townships where the formation is exposed, is 4.9 feet of clean coal, the maximum being 7.9 feet. Many of the beds contain only thin or inconspicuous partings, but one bed consists of two workable benches separated by 30 feet of shale. Coal in the Almond formation ranges in rank from sub-bituminous C to B. An analysis, on the as-received basis, shows 3.5 percent ash, 0.6 percent sulfur, and 10,114 B.t.u.

The basal part of the Lance formation is exposed in the northern two-thirds of the eastern side of the Baxter Basin and is separated from the Mesaverde group by the Lewis shale, which is about 750 feet thick. The upper part is concealed by the overlapping Wasatch formation. The visible part of the Lance formation, which is known locally as the Black Buttes coal group, includes 1,500 feet of sandstone, clay, and coal. The basal part of this sequence is massive sandstone, at places more than 100 feet thick, which apparently contains no coal. In the upper part of the sequence 24 sections, which have been measured in three townships in the vicinity of the Black Buttes, in T. 18 N., R. 100 W., show an average thickness of 6.5 feet of clean coal. Several of the coal beds contain no partings; others have one to three thin partings. Two beds are separated into benches by more than 25 feet of sandstone and shale. The thickest coal is 9.2 feet, separated by two shale partings that total about 5 inches.

The coal in the Lance formation is of sub-bituminous B rank. An analysis on the as-received basis shows 3.7 percent ash, 0.4 percent sulfur, and 9,910 B.t.u.

On the east side of the Rock Springs uplift rocks of Fort Union age, locally known as the Black Rock coal group (formerly mapped as Wasatch), are exposed. Older maps show this group on both the east and west sides of the uplift, but recent work has thrown doubt on the correlation. It is also possible that rocks on the west side now mapped as the lower part of the Wasatch may actually be of Fort Union age, but data are insufficient to prove this at the present time. 7/ The rocks of Fort Union age unconformably overlie older rocks and consist of sandstone, shale, conglomerate, and many beds of coal. At the base is a conglomerate, which is about 4 feet thick near Baxter Basin and increases in thickness northward. Above the conglomerate is the coal-bearing sequence of the Black Rock coal group. In the lower half of this sequence some beds attain a thickness of 26 feet, and the average of 42 sections, which represent exposures of the thicker beds in townships nearest Baxter Basin, is 6.0 feet of clean coal. Half the sections show partings ranging in thickness from 1 inch to 2 feet and generally consisting of bone or shale. Part of the coal is burned along the outcrop.

The Wasatch formation extends eastward from the Rock Springs field to the eastern edge of the Great Divide Basin field. It crops out in several places southeast of the Rock Springs area and contains several beds of coal, one of which has been mined in T. 12 N., R. 101 W. The coal in the Wasatch formation is generally ranked as sub-bituminous A. An analysis, on the as-received basis, of an outcrop sample shows 8.5 percent ash, 0.8 percent sulfur, and 10,460 B.t.u.

A relatively small triangular area of about 150 square miles north of the fault that is used as the northern boundary of the Rock Springs field proper and extends northward into the northern part of T. 23 N., R. 104 W., contains coal of the Rock Springs and Almond formations at the outcrops, but sand dunes, which cover much of the area, have made mapping of individual coal beds almost impossible. Reliable drill-hole logs, however, show that in the Rock Springs coal group as many as 18 beds, with a total thickness of more than 50 feet, underlie this area at depths of less than 3,000 feet. Available data indicate that these beds are fairly persistent, but, because of the wide spacing of points of information, the estimated reserves in this area have been classed as inferred.

Western part of the Green River region.--West of the Rock Springs anticline, in the Green River Basin, the coal-bearing rocks are covered by younger rocks except for a few scattered outcrops along the western edge of the basin. The formation names used in this area differ from those used in the eastern part of the region, the nomenclature being that of the Hams Fork region to the west (fig. 4).

The only named field in the region is the Labarge Ridge field (fig. 3, loc. 33). A small area in the Fall River Basin also contains coal of minable thickness. The Labarge Ridge field is in parts of Tps. 26-28 N., Rs. 113 and 114 W., in Lincoln and Sublette Counties. It is bounded on the west by a major thrust fault; to the east, non-coal-bearing Tertiary rocks overlie the coal-bearing rocks unconformably and restrict the area of coal occurrence to two small areas that cover a total of less than 25 square miles. The coal is probably in the Adaville formation of Upper Cretaceous age, which is about 2,800 feet thick and is composed of clay, shale, sandstone, and numerous beds of coal that occur throughout the formation. At several places seven to ten coal beds 1 to 5 feet thick crop out. The average thickness of 12 sections, measured in various parts of the field, is 4.7 feet, and the maximum is 8.3 feet. A partly concealed anticline trends northwest through the field and is the cause of dips that range from 20° to 50°. The coal is of sub-bituminous B rank. An analysis, on the as-received basis, shows 3.0 percent ash, 1.9 percent sulfur, and 9,640 B.t.u.

The Fall River Basin is in the extreme northwestern corner of the Green River region, in Tps. 36-39 N., Rs. 113 and 114 W., Sublette County. The coal crops out in the Evanston formation of Paleocene age. This formation, which overlies older rocks unconformably, consists of about 9,500 feet of shale, clay, and sandstone, and several coal beds. The coal in general is poorly exposed, but a 3.8-foot bed in T. 39 N., R. 114 W., has been mined. The coal ranges from sub-bituminous B to A in rank.

Reserves and production

The total estimated original reserves in the Green River region are 15,956 million tons, including 9,905 million tons of bituminous coal and 6,051 million tons

6/ Op. cit., p. 230.

7/ Brown, R. W., personal communication.

of sub-bituminous coal. (See table 13.) Because the coal-bearing rocks in large areas in the Green River region are concealed by younger rocks, estimates of reserves could not be prepared for much of the region, and the totals reported are incomplete. They are, however, a fair statement of the reserves that can be determined from a consideration of the currently available information. Most of the reserves reported for the region, therefore, are in the Rock Springs field, where the coal-bearing rocks are best exposed and where about half the mining in Wyoming is carried on. In 1949, for example, the field supplied about 54 percent of the total State production.

The total estimated original coal reserves in the Rock Springs field are 12,726 million tons, including 9,878 million tons of bituminous coal and 2,848 million tons of sub-bituminous coal. The total reported production from Sweetwater County to January 1, 1950, nearly all of which was from the Rock Springs field, was more than 178 million tons. Assuming that losses in mining equal the coal produced, the original reserves in the Rock Springs field have been depleted by 356 million tons. The remaining reserves on January 1, 1950, are therefore 12,370 million tons, of which half can be considered to be ultimately recoverable.

Hams Fork region

General features

The Hams Fork region is in the extreme western part of Wyoming, west of the Green River region, and extends southward from southwestern Teton County into Lincoln County, western Sublette County, and the western half of Uinta County. Two branches of the Union Pacific Railroad cross the region, passing westward through the towns of Evanston and Kemmerer, respectively. The northern part of the area is mountainous, with maximum relief of about 5,800 feet. Toward the south, in western Uinta and southwestern Lincoln Counties, non-coal-bearing Tertiary deposits conceal the coal-bearing rocks at many places.

The structure of the Hams Fork region is somewhat complex and includes several northward-trending major folds and associated faults. As a result of these structural features, the coal-bearing rocks are exposed in long, narrow parallel belts. In the northern part of the field, where this relationship is particularly noticeable, the ranges and fields have been named from west to east, as follows: Salt River Range, Greys River coal field, Wyoming Range, McDougal coal field. The Greys River and McDougal coal fields are named for the synclines in which they occur; the Salt River and Wyoming Ranges are in two lines of weakness that occur throughout the region but are less prominent on the surface in the southern part of the region than in the northern sections. Major faults, thrust from the west, are along the eastern sides of both these ranges. One of the faults, the Absaroka, is reported to have in places a throw of more than 20,000 feet. It extends along the eastern side of the Salt River Range, which forms the western boundary of the Greys River field, and continues south along the western edge of the Kemmerer field. Another major fault, the Darby fault, extends along the eastern side of the Wyoming Range and forms the western boundary of the McDougal field.

The coal-bearing formations exposed in the Hams Fork region are the Bear River, Frontier, and Adaville formations of Upper Cretaceous age and the Evanston formation of Paleocene age (fig. 4). Non-coal-bearing rocks comprise the Aspen shale, between the Bear River and the Frontier, and the Hilliard shale, between the Frontier and the Adaville.

The lowest coal-bearing formation, the Bear River, consists of 500 to 5,000 feet of shale, shaly sandstone, shaly limestone, bituminous shale, and thin beds of coal. Several of the beds have been mined, one in particular while the Oregon Short Line Railroad, now a part of the Union Pacific, was under construction; much of the coal was used by the early settlers. However, the coal beds in the Bear River formation have never been mapped. The beds are markedly lenticular and contain many partings. The Bear River is separated from the next highest coal-bearing formation by the Aspen shale, which is 1,200 to 2,000 feet thick.

The Frontier formation, which overlies the Aspen shale, crops out in the Greys River, McDougal, and Kemmerer fields in bands that trend north and generally are not more than 2 miles wide. It consists of 2,200 to 3,800 feet of clay, shale, sandstone, and numerous coal beds, which occur throughout the formation. In the southern half of the region a zone in the upper part of the formation contains a bed of coarse-grained sandstone in which many large oyster shells are found; this bed is known as the Oyster Ridge sandstone member and is a convenient horizon marker.

The non-coal-bearing Hilliard shale, which weathers easily and generally underlies areas of low relief, is 3,000 to 6,800 feet thick and overlies the Frontier formation. The coal-bearing Adaville formation is conformable over the Hilliard and consists of 2,800 to more than 4,000 feet of shale, clay, sandstone, and coal. It is exposed in four basins in the syncline that underlies the Kemmerer coal field. The most extensive basin is about 20 miles long and a maximum of 4 miles wide.

The Evanston formation crops out only in western Uinta County, in parts of Tps. 15, 16, and 17 N., R. 120 W., near the towns of Almy and Evanston. It unconformably overlies older formations and ranges in thickness from a knife edge to more than 1,600 feet. It is composed of coal, shale, and irregular beds of sandstone and conglomeratic sandstone.

Description of fields

For convenience in discussion, the Hams Fork region is divided into four fields: the Kemmerer, Greys River, McDougal, and Evanston fields.

Kemmerer field.--The Kemmerer field (fig. 3, loc. 35) is underlain by a long narrow syncline, known as the Lazeart syncline, that extends northward from near the southern border of Wyoming into T. 29 N., Rs. 115 and 116 W. Most prospecting and mining in the Hams Fork region have been done in this field. Coal is found in both the Frontier and Adaville formations. Most of the mining has been in the Kemmerer coal zone, the highest of three such zones in the Frontier formation. The other coal zones are the Spring Valley, near the base, and the Willow Creek, near the middle of the formation.

The Spring Valley coal zone includes at its type locality in T. 15 N., R. 118 W., at least three beds that contain 3.5 to 8.3 feet of clean coal. About 25 miles north of this locality, in the vicinity of the town of Cumberland, several measured sections show coal beds 1.3 to 6.0 feet thick. In most of the field the Spring Valley zone is concealed by younger deposits. The rank of the coal is high volatile B bituminous; the average of two analyses of samples shows, on the as-received basis, 12.2 percent ash, 0.6 percent sulfur, and 11,670 B.t.u.

The Willow Creek coal zone, which is about 200 feet below the Oyster Ridge sandstone member of the Frontier formation, has been measured in places along both flanks of the Lazeart syncline in an area that extends from T. 22 N. northward into T. 25 N. The thickest bed in the zone, known as the Willow Creek coal, contains 11.2 feet of coal, separated by lower and upper partings that are 1.3 and 2.5 feet thick, respectively, and several thin partings, which total 5 inches in thickness. The rank of the Willow Creek coal ranges from high volatile B to A bituminous. An analysis, on the as-received basis, of a sample from the No. 5 mine shows 5.5 percent ash, 1.0 percent sulfur, and 13,310 B.t.u.

The Kemmerer coal zone in the Frontier formation is above the Oyster Ridge sandstone member. At the Frontier, Diamondville, and Kemmerer mines the main Kemmerer coal bed is 5 to 20 feet thick. At these mines the dip of the beds ranges from about 12° to 16° W. The thickness of the beds in the zone has been measured at places in the area between the south border of T. 15 N., R. 118 W., northward into T. 26 N., R. 116 W. Most of the sections are of beds more than 3 feet thick, and a few are of beds more than 10 feet thick. Information as to the extent and exact stratigraphic location of the coal beds is not available. The number and thickness of partings are variable; some beds contain no partings. The rank of the Kemmerer coal is high volatile B bituminous. An analysis, on the as-received basis, of a sample from the Kemmerer No. 6 mine shows 6.9 percent ash, 0.6 percent sulfur, and 12,880 B.t.u.

The Adaville formation, where exposed near Hodges Pass, about 6 miles west of the town of Hams Fork, includes 29 coal beds that individually are 1.5 to 48 feet thick and in the aggregate are 315 feet thick. One coal bed about 6 miles south of this locality, at the Elkol mine, attains a maximum thickness of 89.6 feet and contains one 2-inch clay parting. Coal beds are present throughout the outcrop area of the formation but have not been mapped. The coal in the Adaville formation is of sub-bituminous B rank.

Greys River field.--The Greys River field (fig. 3, loc. 36), east of the Salt River Range, Lincoln County, contains poorly exposed coal beds in the Frontier formation. The two available sections, which were measured near the north and south ends of the field, respectively, show 3 feet of coal. The dip ranges from about 30° to 80° westward.

McDougal field.--The McDougal field (fig. 3, loc. 37), which is east of the Wyoming Range in Lincoln and Teton Counties, includes coal beds believed to belong to the Frontier formation, but many of the outcrops are concealed. The coal has not been correlated with any coal zones to the south, partly because the only good horizon marker, the Oyster Ridge sandstone member, has not been observed in the area. A few widely spaced sections in townships south of the Snake River show coal beds that range in thickness from 1.2 to 20.0 feet, but most of the beds are less than 5 feet thick. No specific information is available about the area of complex structure west of the Snake River, where the Frontier formation is probably coal bearing.

Several mines are operating in the McDougal field in three different coal beds, which range from 2.5 to 8.3 feet in thickness.

Evanston field.--The Evanston field (fig. 3, loc. 34) is in the vicinity of Almy and Evanston, Uinta County. The Evanston formation, of Paleocene age, contains the Almy bed, which is the thickest and most extensive coal in the field. About 1.5 miles south of Almy it attains its maximum thickness; a section at this point follows:

	Thickness, in feet
Coal	5
Clay and shale	12
Coal	7
Clay	3
Coal and four partings of shale	26
Shale and clay	8
Coal	5

Within 4 miles along the strike from this exposure, the bed contains less than 2.5 feet of coal. Near Almy the dip of the beds is about 10° to 20° eastward. Coal in the Evanston formation ranges in rank from sub-bituminous B to A. An analysis, on the as-received basis, of a sample from the Almy coal bed in the Almy No. 5 mine shows 7.2 percent ash, 0.2 percent sulfur, and 10,450 B.t.u.

Reserves and production

The total original reserves of coal in the Hams Fork region are estimated to be 4,874 million tons, of which 748 million tons is classed as measured, 3,735 million tons as indicated, and 391 million tons as inferred. Approximately two-thirds of the reserves is bituminous coal, and the remainder is sub-bituminous coal. (See table 13.) Some of the bituminous coal in the Kemmerer and Willow Creek coal zones has coking qualities.

The Hams Fork region is second only to the Rock Springs field in total production of coal in Wyoming. The total recorded production from the Hams Fork region prior to January 1, 1950, is about 65 million tons, or 17 percent of the total reported Wyoming production. During 1949, however, production from the Hams Fork region dropped somewhat in proportion to other mining districts in Wyoming, and production during that year amounted to only 5 percent of the total State production.

In addition to the total recorded production from the region of 65 million tons, an equivalent tonnage may be assumed to have been lost in mining. The remaining reserves of the region on January 1, 1950, are, therefore, 4,744 million tons, of which about half may be considered to be ultimately recoverable.

Jackson Hole field

The Jackson Hole field, in Teton County and part of Yellowstone National Park, northwestern Wyoming (fig. 3, loc. 1), is underlain by coal beds of minable thickness over an area of about 700 square miles. In general, the area underlain by coal is bounded on the west by the Teton Range, on the south by the Gros Ventre Range, and on the east and north by overthrusts of older rocks that conceal the coal-bearing formations.

The rocks containing minable coal are of Upper Cretaceous, Paleocene, and Eocene age and for the most part underlie the area extending north from T. 41 N. into Yellowstone National Park and westward from R. 111 W. to R. 114 W. The only specific information available about the coal in this area is contained in four measured stratigraphic sections in T. 41 N., R. 111 W., and T. 42 N., Rs. 111 and 112 W., made by the Geological Survey in 1948.

The Bacon Ridge sandstone of Upper Cretaceous age contains, near its base, 11.2 feet of coal in several closely spaced beds, but only one bed, 3.5 feet thick, is minable. This formation represents the youngest marine unit in the Upper Cretaceous series of northwestern Wyoming and consists of nearly 1,000 feet of sandstone, shale, bentonite, and coal.

The main coal beds in the southern part of the Jackson Hole field are in a coal sequence of Upper Cretaceous age that overlies the Bacon Ridge sandstone. It consists of more than 1,000 feet of sandstone, shale, and coal. In the four measured sections there are 13 coal beds 2.5 to 5 feet thick and five beds 5 to 10 feet thick, the thickest being 8.3 feet.

In several of the measured stratigraphic sections there is a lenticular sandstone and shale sequence, usually more than 2,000 feet thick, overlying the coal sequence; it contains coal at two localities, in T. 42 N., R. 112 W., and T. 42 N., R. 113 W. At the first locality the coal beds are too thin to mine, but in the second, one coal bed is 3.0 feet thick and one is 2.4 feet thick.

Overlying the lenticular sandstone and shale sequence is a white sandstone sequence, which contains coal in only one measured section. This coal is in two beds, 1.5 feet and 1.0 foot thick, respectively, too thin to be minable. The white sandstone sequence in turn is overlain by a conglomeratic sandstone sequence that contains no coal.

The Pinyon formation, of Paleocene age, contains coal in only one of four measured sections. In T. 42 N., R. 112 W., the Pinyon is about 430 feet thick, but coal is present in the lower 50 feet only. This zone, which consists of sandstone, shale, claystone, and coal, contains 12.2 feet of coal but has only three minable beds, 2.8, 4.0, and 2.5 feet thick, respectively.

A higher, unnamed sequence of lower Eocene age contains, in T. 42 N., R. 110 W., a coal bed 63 feet thick, but the coal contains numerous shale partings. This sequence underlies only the southeastern part of the Jackson Hole field.

Coal beds are known to be present in the northern extension of the Jackson Hole field in Yellowstone National Park, but present information indicates that the beds are too thin to be minable.

The strata do not dip more than 45° in any measured section. Analyses of the coal are not available; therefore, the rank has not been determined, although the coal is assumed on the basis of its appearance and weathering properties to be sub-bituminous. An estimate of the coal reserves in the field, based on the few measured stratigraphic sections and reconnaissance traverses across the field, gives a total of 121.49 million tons, all of which is classed as inferred because of the lack of positive data concerning the continuity and character of the coal beds.

Yellowstone National Park

On the slope of Mount Evarts, close to the Yellowstone River in the northern part of Yellowstone National Park, a sequence of carbonaceous shale and coal beds about 40 feet thick is exposed in rocks of Cretaceous age. [8] Some of the coal beds are 10 feet thick but contain much clay and other impurities.

Though described by Holmes [9] as lignite, the actual rank of this coal is probably sub-bituminous. As the beds underlie only a relatively small area and the coal itself is impure, the deposit is of little or no economic value at the present time.

COKING COAL IN WYOMING

Although no coal has been mined in Wyoming in recent years for the purpose of making coke, the Cambria, Rock Springs, and Kemmerer fields contain coal beds that have weak to moderate coking properites. In the past, some of this coal was used to manufacture nonferrous metallurgical coke. None of the Wyoming coals make a satisfactory coke when used alone, however, but must be blended with more strongly coking coals in order to produce an acceptable product. Information available about the coking coal in each field is contained in the following paragraphs.

Cambria field

In the Cambria field certain parts of the Cambria coal bed, presumably areas of greater than average purity, possess good coking qualities and were formerly mined for making coke, which was used in the Black Hills smelters and refineries. However, most of the easily recoverable coal, especially that of coking quality, has been removed from the Cambria field, and it is doubtful if any appreciable tonnage of coking coal can now be recovered from the area.

Rock Springs field

Coal from some of the beds in the Rock Springs field, particularly bed 7, yields a poor grade of coke that is not suitable for metallurgical purposes. The original reserves of bed 7, where the coal is at least 28 inches thick and under no more than 2,000 feet of overburden, are estimated as 899,440,000 tons, of which 335,160,000 tons is classed as measured reserves, 392,650,000 tons as indicated reserves, and 171,630,000 tons as inferred reserves. At depths of 2,000 to 3,000 feet below the surface the bed contains additional indicated reserves of 35,780,000 tons and inferred reserves of 205,710,000 tons. Approximately 107,580,000 tons

[8] Holmes, W. H., Report on the geology of the Yellowstone National Park: U. S. Geol. and Geographical Survey 12th Ann. Rept., pp. 13-14, June 13, 1883.

[9] Idem.

of coal included in the measured reserves of bed 7 had been mined or lost in mining to January 1, 1950.

It seems possible that the coal from bed 7 could be used as a minor constituent in coking-coal blends.

Kemmerer field

During 1942 and 1943, coal in a synclinal belt about 12 miles long, extending north from about 12 miles north of the town of Kemmerer, was the subject of a cooperative survey by the U. S. Geological Survey and the Bureau of Mines to determine the quantity and quality of the coking coal in that area. The investigation showed that the best coking coal in the area is contained in a bed near the middle of the Willow Creek coal zone, which is known locally as the Middle Main bed or the Willow Creek No. 5 coal. The thickness and character of the bed have been proved by drilling and sampling for a distance of about 4½ miles along the east side of the synclinal belt, where the bed, except for two small areas of thin coal, is 4.2 to 4.9 feet thick. The Willow Creek No. 5 coal contains two clay partings 1 to 2 inches thick, lying 7 and 14 inches below the top of the bed, respectively. The roof is a 2-foot clay bed, which is overlain by coal that is generally 1.2 to 2.1 feet thick. The dip of the rocks in the proved area is 28° to 33° W. No faults were found, and the geologic relations on the east limb of the syncline are favorable for mining. On the western limb, however, the dips are at least 45° E., and locally the beds are vertical or overturned. The coal on the western limb is 3.2 to 6.4 feet thick and contains no partings.

In the area proved by drilling, which includes 1,710 acres, or nearly 3 square miles, the estimated original reserves are 15,345,000 tons. South of this area the coal presumably has the same coking qualities, and, in the five townships where the Willow Creek No. 5 bed is 28 to 42 inches thick, the measured and indicated original reserves total 96,640,000 tons to a depth of 2,000 feet. Additional measured and indicated reserves of 47,980,000 tons are present at depths between 2,000 and 3,000 feet.

Coke manufactured from the Middle Main coal alone is unsuitable for blast-furnace use. However, when blended with 50 to 60 percent of coal from Sunnyside, Utah, it provides approximately the same quality of coke as that made entirely from Sunnyside coal. It is believed that treatment of the Middle Main coal to remove the impurities would reduce the amount of Sunnyside coal needed in the blend.

Table 2.--Townships in coal-bearing regions for which reserve estimates are omitted, by counties

Big Horn County

T.49N.,R.94W.	T.53N.,R.94W.	T.52N.,R.95W.	T.50N.,R.96W.	T.54N.,R.96W.	T.52N.,R.97W.
T.50N.,R.94W.	T.49N.,R.95W.	T.53N.,R.95W.	T.51N.,R.96W.	T.49N.,R.97W.	T.53N.,R.97W.
T.51N.,R.94W.	T.50N.,R.95W.	T.54N.,R.95W.	T.52N.,R.96W.	T.50N.,R.97W.	T.54N.,R.97W.
T.52N.,R.94W.	T.51N.,R.95W.	T.49N.,R.96W.	T.53N.,R.96W.	T.51N.,R.97W.	T.55N.,R.97W.

Campbell County

T.56N.,R.74W.	T.58N.,R.74W.	T.57N.,R.75W.	T.58N.,R.75W.	T.56N.,R.76W.	T.57N.,R.76W.
T.57N.,R.74W.	T.56N.,R.75W.				T.58N.,R.76W.

Carbon County

T.18N.,R.84W.	T.19N.,R.87W.	T.16N.,R.89W.	T.13N.,R.90W.	T.16N.,R.91W.	T.14N.,R.93W.
T.19N.,R.84W.	T.20N.,R.87W.	T.17N.,R.89W.	T.15N.,R.90W.	T.13N.,R.92W.	T.15N.,R.93W.
T.20N.,R.84W.	T.21N.,R.87W.	T.18N.,R.89W.	T.16N.,R.90W.	T.14N.,R.92W.	T.16N.,R.93W.
T.20N.,R.85W.	T.14N.,R.88W.	T.19N.,R.89W.	T.20N.,R.90W.	T.12N.,R.93W.	T.17N.,R.93W.
T.20N.,R.86W.	T.19N.,R.88W.	T.24N.,R.89W.	T.12N.,R.91W.	T.13N.,R.93W.	T.18N.,R.93W.
T.12N.,R.87W.	T.15N.,R.89W.				

Fremont County

T.35N.,R.89W.	T.38N.,R.91W.	T.37N.,R.93W.	T.34N.,R.97W.	T.3N., R.3E.	T.3N., R.5E.
T.36N.,R.89W.	T.27N.,R.92W.	T.38N.,R.93W.	T.4N., R.1W.	T.4N., R.3E.	T.4N., R.5E.
T.37N.,R.89W.	T.33N.,R.92W.	T.39N.,R.93W.	T.1N., R.1E.	T.5N., R.3E.	T.5N., R.5E.
T.38N.,R.89W.	T.34N.,R.92W.	T.28N.,R.94W.	T.2N., R.1E.	T.1S., R.3E.	T.1S., R.5E.
T.36N.,R.90W.	T.35N.,R.92W.	T.35N.,R.94W.	T.3N., R.1E.	T.2S., R.3E.	T.2S., R.5E.
T.37N.,R.90W.	T.36N.,R.92W.	T.36N.,R.94W.	T.4N., R.1E.	T.1N., R.4E.	T.1N., R.6E.
T.38N.,R.90W.	T.37N.,R.92W.	T.37N.,R.94W.	T.5N., R.1E.	T.2N., R.4E.	T.2N., R.6E.
T.27N.,R.91W.	T.38N.,R.92W.	T.38N.,R.94W.	T.1N., R.2E.	T.3N., R.4E.	T.3N., R.6E.
T.28N.,R.91W.	T.39N.,R.92W.	T.39N.,R.94W.	T.2N., R.2E.	T.4N., R.4E.	T.4N., R.6E.
T.33N..R.91W.	T.28N.,R.93W.	T.27N.,R.95W.	T.3N., R.2E.	T.5N., R.4E.	T.27N.,R.101W.
T.34N.,R.91W.	T.33N.,R.93W.	T.28N.,R.95W.	T.4N., R.2E.	T.1S., R.4E.	T.27N.,R.102W.
T.35N.,R.91W.	T.34N.,R.93W.	T.33N.,R.95W.	T.5N., R.2E.	T.2S., R.4E.	T.41N.,R.109W.
T.36N.,R.91W.	T.35N.,R.93W.	T.32N.,R.96W.	T.1N., R.3E.	T.1N., R.5E.	T.41N.,R.110W.
T.37N.,R.91W.	T.36N.,R.93W.	T.33N.,R.97W.	T.2N., R.3E.	T.2N., R.5E.	

Hot Springs County

T.46N.,R.97W. T.47N.,R.97W.

Johnson County

T.53N.,R.78W.

Lincoln County

T.21N.,R.111W.	T.21N.,R.112W.	T.21N.,R.113W.	T.22N.,R.114W.	T.38N.,R.116W.	T.36N.,R.117W.
T.22N.,R.111W.	T.22N.,R.112W.	T.22N.,R.113W.	T.23N.,R.114W.	T.22N.,R.117W.	T.37N.,R.117W.
T.23N.,R.111W.	T.23N.,R.112W.	T.23N.,R.113W.	T.24N.,R.114W.	T.30N.,R.117W.	T.38N.,R.117W.
T.24N.,R.111W.	T.24N.,R.112W.	T.24N.,R.113W.	T.27N.,R.116W.	T.32N.,R.117W.	T.19N.,R.118W.
T.25N.,R.111W.	T.25N.,R.112W.	T.25N.,R.113W.	T.28N.,R.116W.	T.33N.,R.117W.	T.20N.,R.118W.
T.26N.,R.111W.	T.26N.,R.112W.	T.19N.,R.114W.	T.29N.,R.116W.	T.34N.,R.117W.	T.19N.,R.119W.
T.19N.,R.112W.	T.19N.,R.113W.	T.20N.,R.114W.	T.30N.,R.116W.	T.35N.,R.117W.	T.20N.,R.119W.
T.20N.,R.112W.	T.20N.,R.113W.	T.21N.,R.114W.	T.33N.,R.116W.		

Natrona County

T.31N.,R.83W.	T.34N.,R.84W.	T.34N.,R.86W.	T.36N.,R.87W.	T.37N.,R.88W.	T.36N.,R.89W.
T.32N.,R.83W.	T.32N.,R.85W.	T.35N.,R.86W.	T.35N.,R.88W.	T.38N.,R.88W.	T.37N.,R.89W.
T.32N.,R.84W.	T.33N.,R.85W.	T.35N.,R.87W.	T.36N.,R.88W.	T.35N.,R.89W.	T.38N.,R.89W.
T.33N.,R.84W.	T.34N.,R.85W.				

Park County

T.48N.,R.98W.	T.52N.,R.98W.	T.49N.,R.99W.	T.53N.,R.99W.	T.53N.,R.100W.	T.54N.,R.101W.
T.49N.,R.98W.	T.53N.,R.98W.	T.50N.,R.99W.	T.54N.,R.99W.	T.54N.,R.100W.	T.55N.,R.101W.
T.50N.,R.98W.	T.54N.,R.98W.	T.51N.,R.99W.	T.55N.,R.99W.	T.55N.,R.100W.	T.56N.,R.101W.
T.51N.,R.98W.	T.55N.,R.98W.	T.52N.,R.99W.			

Sheridan County

T.56N.,R.76W.	T.57N.,R.76W.	T.58N.,R.76W.	T.56N.,R.77W.	T.53N.,R.78W.	T.54N.,R.79W.

Sublette County

T.27N.,R.103W.	T.27N.,R.105W.	T.29N.,R.106W.	T.30N.,R.107W.	T.30N.,R.108W.	T.28N.,R.109W.
T.28N.,R.103W.	T.28N.,R.105W.	T.30N.,R.106W.	T.31N.,R.107W.	T.31N.,R.108W.	T.29N.,R.109W.
T.27N.,R.104W.	T.29N.,R.105W.	T.27N.,R.107W.	T.27N.,R.108W.	T.32N.,R.108W.	T.30N.,R.109W.
T.28N.,R.104W.	T.27N.,R.106W.	T.28N.,R.107W.	T.28N.,R.108W.	T.33N.,R.108W.	T.31N.,R.109W.
T.29N.,R.104W.	T.28N.,R.106W.	T.29N.,R.107W.	T.29N.,R.108W.	T.27N.,R.109W.	T.32N.,R.109W.

Table 2.--Townships in coal-bearing regions for which reserve estimates are omitted, by counties--Continued

Sublette County--Continued

T.33N.,R.109W.	T.31N.,R.110W.	T.31N.,R.111W.	T.31N.,R.112W.	T.31N.,R.113W.	T.33N.,R.114W.
T.34N.,R.109W.	T.32N.,R.110W.	T.32N.,R.111W.	T.32N.,R.112W.	T.32N.,R.113W.	T.34N.,R.114W.
T.35N.,R.109W.	T.33N.,R.110W.	T.33N.,R.111W.	T.33N.,R.112W.	T.33N.,R.113W.	T.35N.,R.114W.
T.36N.,R.109W.	T.34N.,R.110W.	T.34N.,R.111W.	T.34N.,R.112W.	T.34N.,R.113W.	T.36N.,R.114W.
T.37N.,R.109W.	T.35N.,R.110W.	T.35N.,R.111W.	T.35N.,R.112W.	T.35N.,R.113W.	T.37N.,R.114W.
T.38N.,R.109W.	T.36N.,R.110W.	T.36N.,R.111W.	T.36N.,R.112W.	T.36N.,R.113W.	T.38N.,R.114W.
T.39N.,R.109W.	T.37N.,R.110W.	T.37N.,R.111W.	T.37N.,R.112W.	T.37N.,R.113W.	T.29N.,R.115W.
T.27N.,R.110W.	T.27N.,R.111W.	T.27N.,R.112W.	T.38N.,R.112W.	T.38N.,R.113W.	T.30N.,R.115W.
T.28N.,R.110W.	T.28N.,R.111W.	T.28N.,R.112W.	T.28N.,R.113W.	T.30N.,R.114W.	T.31N.,R.115W.
T.29N.,R.110W.	T.29N.,R.111W.	T.29N.,R.112W.	T.29N.,R.113W.	T.31N.,R.114W.	T.34N.,R.115W.
T.30N.,R.110W.	T.30N.,R.111W.	T.30N.,R.112W.	T.30N.,R.113W.	T.32N.,R.114W.	

Sweetwater County

T.22N.,R.90W.	T.24N.,R.95W.	T.19N.,R.98W.	T.24N.,R.102W.	T.21N.,R.107W.	T.13N.,R.110W.
T.23N.,R.90W.	T.25N.,R.95W.	T.20N.,R.98W.	T.25N.,R.102W.	T.22N.,R.107W.	T.14N.,R.110W.
T.24N.,R.90W.	T.26N.,R.95W.	T.21N.,R.98W.	T.26N.,R.102W.	T.23N.,R.107W.	T.15N.,R.110W.
T.25N.,R.90W.	T.12N.,R.96W.	T.22N.,R.98W.	T.12N.,R.103W.	T.24N.,R.107W.	T.16N.,R.110W.
T.22N.,R.91W.	T.13N.,R.96W.	T.23N.,R.98W.	T.24N.,R.103W.	T.25N.,R.107W.	T.17N.,R.110W.
T.23N.,R.91W.	T.14N.,R.96W.	T.24N.,R.98W.	T.25N.,R.103W.	T.26N.,R.107W.	T.18N.,R.110W.
T.24N.,R.91W.	T.15N.,R.96W.	T.25N.,R.98W.	T.26N.,R.103W.	T.12N.,R.108W.	T.19N.,R.110W.
T.25N.,R.91W.	T.16N.,R.96W.	T.12N.,R.99W.	T.12N.,R.104W.	T.13N.,R.108W.	T.20N.,R.110W.
T.26N.,R.91W.	T.17N.,R.96W.	T.13N.,R.99W.	T.24N.,R.104W.	T.14N.,R.108W.	T.21N.,R.110W.
T.22N.,R.92W.	T.18N.,R.96W.	T.14N.,R.99W.	T.25N.,R.104W.	T.15N.,R.108W.	T.22N.,R.110W.
T.23N.,R.92W.	T.19N.,R.96W.	T.15N.,R.99W.	T.26N.,R.104W.	T.16N.,R.108W.	T.23N.,R.110W.
T.24N.,R.92W.	T.20N.,R.96W.	T.16N.,R.99W.	T.12N.,R.105W.	T.17N.,R.108W.	T.24N.,R.110W.
T.25N.,R.92W.	T.21N.,R.96W.	T.17N.,R.99W.	T.13N.,R.105W.	T.18N.,R.108W.	T.25N.,R.110W.
T.26N.,R.92W.	T.22N.,R.96W.	T.18N.,R.99W.	T.14N.,R.105W.	T.19N.,R.108W.	T.26N.,R.110W.
T.23N.,R.93W.	T.23N.,R.96W.	T.19N.,R.99W.	T.23N.,R.105W.	T.20N.,R.108W.	T.13N.,R.111W.
T.24N.,R.93W.	T.24N.,R.96W.	T.22N.,R.99W.	T.24N.,R.105W.	T.21N.,R.108W.	T.14N.,R.111W.
T.25N.,R.93W.	T.25N.,R.96W.	T.23N.,R.99W.	T.25N.,R.105W.	T.22N.,R.108W.	T.15N.,R.111W.
T.12N.,R.94W.	T.26N.,R.96W.	T.24N.,R.99W.	T.26N.,R.105W.	T.23N.,R.108W.	T.16N.,R.111W.
T.13N.,R.94W.	T.12N.,R.97W.	T.25N.,R.99W.	T.12N.,R.106W.	T.24N.,R.108W.	T.17N.,R.111W.
T.14N.,R.94W.	T.13N.,R.97W.	T.26N.,R.99W.	T.13N.,R.106W.	T.25N.,R.108W.	T.18N.,R.111W.
T.15N.,R.94W.	T.14N.,R.97W.	T.12N.,R.100W.	T.14N.,R.106W.	T.26N.,R.108W.	T.19N.,R.111W.
T.16N.,R.94W.	T.15N.,R.97W.	T.13N.,R.100W.	T.15N.,R.106W.	T.12N.,R.109W.	T.20N.,R.111W.
T.17N.,R.94W.	T.16N.,R.97W.	T.14N.,R.100W.	T.20N.,R.106W.	T.13N.,R.109W.	T.21N.,R.111W.
T.18N.,R.94W.	T.17N.,R.97W.	T.15N.,R.100W.	T.21N.,R.106W.	T.14N.,R.109W.	T.22N.,R.111W.
T.19N.,R.94W.	T.18N.,R.97W.	T.16N.,R.100W.	T.22N.,R.106W.	T.15N.,R.109W.	T.23N.,R.111W.
T.24N.,R.94W.	T.19N.,R.97W.	T.22N.,R.100W.	T.23N.,R.106W.	T.16N.,R.109W.	T.24N.,R.111W.
T.25N.,R.94W.	T.20N.,R.97W.	T.23N.,R.100W.	T.24N.,R.106W.	T.17N.,R.109W.	T.25N.,R.111W.
T.26N.,R.94W.	T.21N.,R.97W.	T.24N.,R.100W.	T.25N.,R.106W.	T.18N.,R.109W.	T.26N.,R.111W.
T.12N.,R.95W.	T.22N.,R.97W.	T.25N.,R.100W.	T.26N.,R.106W.	T.19N.,R.109W.	T.12N.,R.112W.
T.13N.,R.95W.	T.23N.,R.97W.	T.26N.,R.100W.	T.12N.,R.107W.	T.20N.,R.109W.	T.13N.,R.112W.
T.14N.,R.95W.	T.24N.,R.97W.	T.12N.,R.101W.	T.13N.,R.107W.	T.21N.,R.109W.	T.14N.,R.112W.
T.15N.,R.95W.	T.25N.,R.97W.	T.13N.,R.101W.	T.14N.,R.107W.	T.22N.,R.109W.	T.15N.,R.112W.
T.16N.,R.95W.	T.12N.,R.98W.	T.23N.,R.101W.	T.15N.,R.107W.	T.23N.,R.109W.	T.16N.,R.112W.
T.17N.,R.95W.	T.13N.,R.98W.	T.24N.,R.101W.	T.16N.,R.107W.	T.24N.,R.109W.	T.17N.,R.112W.
T.18N.,R.95W.	T.14N.,R.98W.	T.25N.,R.101W.	T.17N.,R.107W.	T.25N.,R.109W.	T.18N.,R.112W.
T.19N.,R.95W.	T.15N.,R.98W.	T.26N.,R.101W.	T.18N.,R.107W.	T.26N.,R.109W.	T.19N.,R.112W.
T.20W.,R.95W.	T.16N.,R.98W.	T.12N.,R.102W.	T.19N.,R.107W.	T.12N.,R.110W.	T.20N.,R.112W.
T.21N.,R.95W.	T.17N.,R.98W.	T.13N.,R.102W.	T.20N.,R.107W.		

Teton County

T.41N.,R.110W.	T.44N.,R.111W.	T.39N.,R.113W.	T.45N.,R.114W.	T.39N.,R.116W.	T.40N.,R.117W.
T.42N.,R.110W.	T.45N.,R.111W.	T.43N.,R.113W.	T.38N.,R.115W.	T.40N.,R.116W.	T.40N.,R.118W.
T.43N.,R.110W.	T.43N.,R.112W.	T.44N.,R.114W.	T.40N.,R.115W.	T.39N.,R.117W.	T.41N.,R.118W.
T.43N.,R.111W.	T.45N.,R.112W.				

Uinta County

T.12N.,R.112W.	T.13N.,R.113W.	T.14N.,R.114W.	T.15N.,R.115W.	T.16N.,R.116W.	T.18N.,R.119W.
T.13N.,R.112W.	T.14N.,R.113W.	T.15N.,R.114W.	T.16N.,R.115W.	T.12N.,R.117W.	T.12N.,R.120W.
T.14N.,R.112W.	T.15N.,R.113W.	T.16N.,R.114W.	T.17N.,R.115W.	T.13N.,R.117W.	T.13N.,R.120W.
T.15N.,R.112W.	T.16N.,R.113W.	T.17N.,R.114W.	T.18N.,R.115W.	T.18N.,R.118W.	T.14N.,R.120W.
T.16N.,R.112W.	T.17N.,R.113W.	T.18N.,R.114W.	T.12N.,R.116W.	T.12N.,R.119W.	T.17N.,R.120W.
T.17N.,R.112W.	T.18N.,R.113W.	T.12N.,R.115W.	T.13N.,R.116W.	T.16N.,R.119W.	T.12N.,R.121W.
T.18N.,R.112W.	T.12N.,R.114W.	T.13N.,R.115W.	T.14N.,R.116W.	T.17N.,R.119W.	T.13N.,R.121W.
T.12N.,R.113W.	T.13N.,R.114W.	T.14N.,R.115W.	T.15N.,R.116W.		T.14N.,R.121W.

Washakie County

T.47N.,R.92W.	T.47N.,R.93W.	T.47N.,R.94W.	T.46N.,R.95W.	T.46N.,R.96W.	T.47N.,R.97W.
T.45N.,R.93W.	T.48N.,R.93W.	T.48N.,R.94W.	T.47N.,R.95W.	T.47N.,R.96W.	T.48N.,R.97W.
T.46N.,R.93W.	T.46N.,R.94W.	T.45N.,R.95W.	T.48N.,R.95W.	T.48N.,R.96W.	

Table 3.--Areas included in and omitted from reserve estimates, by counties

County	Total coal-bearing area in square miles	Coal-bearing area included in estimates in square miles	Coal-bearing area omitted from estimates in square miles	Percentage of coal-bearing area omitted from estimates
Albany	389	389	0	0
Big Horn	1,091	309	782	71.68
Campbell	4,669	4,430	239	5.12
Carbon	2,872	1,238	1,634	56.89
Converse	2,928	2,928	0	0
Crook	125	125	0	0
Fremont	2,467	140	2,327	94.32
Goshen	319	319	0	0
Hot Springs	442	377	65	14.71
Johnson	2,466	2,452	14	0.57
Lincoln	1,048	268	780	74.43
Natrona	1,297	655	642	49.50
Niobrara	397	397	0	0
Park	1,301	561	740	56.88
Sheridan	1,659	1,531	128	7.72
Sublette	2,795	1	2,794	99.97
Sweetwater	9,781	1,064	8,717	89.12
Teton	763	7	756	99.08
Uinta	1,305	139	1,166	89.35
Washakie	1,191	622	569	47.78
Weston	684	684	0	0
Yellowstone National Park	66	6	60	90.91
Total	40,055	18,642	21,413	53.46

Table 4.--Measured original reserves of bituminous coal in Wyoming
(in millions of short tons)

Township	0 to 1,000 feet overburden.				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	
Crook County																
T.54N., R.61W.	....	....	.59	.59	....	....	....	....	....	....	....	....	....	....	.59	.59
T.51N., R.64W.	....	.56	....	.56	....	....	....	....	....	....	....	....	....	.56	....	.56
County total	....	.56	.59	1.15	....	....	....	....	....	....	....	....	....	.56	.59	1.15
Lincoln County																
T.22N.,R.115W.	....	....	10.01	10.01	....	....	1.19	1.19	....	....	.47	.47	....	....	11.67	11.67
T.23N.,R.115W.	....	2.56	5.83	8.39	....	.14	.26	.40	....	....	....	....	....	2.70	6.09	8.79
T.24N.,R.115W.	....	2.31	4.11	6.42	....	1.61	2.87	4.48	....	....	....	....	....	3.92	6.98	10.90
T.34N.,R.115W.	....	....	1.41	1.41	....	....	....	....	....	....	....	....	....	....	1.41	1.41
T.19N.,R.116W.	....	2.19	60.55	62.74	....	....	34.27	34.27	....	....	10.06	10.06	....	2.19	104.88	107.07
T.20N.,R.116W.	....	2.65	39.56	42.21	....	.73	19.00	19.73	....	....	1.09	1.09	....	3.38	59.65	63.03
T.21N.,R.116W.	....	....	65.82	65.82	....	....	59.78	59.78	....	....	9.22	9.22	....	....	134.82	134.82
T.22N.,R.116W.	....	....	34.30	34.30	....	....	27.16	27.16	....	....	8.09	8.09	....	....	69.55	69.55
T.23N.,R.116W.	....	4.20	11.53	15.73	....	4.31	7.85	12.16	....	....	....	....	....	8.51	19.38	27.89
T.24N.,R.116W.	....	....	....	....	....	....	.41	.41	....	....	....	....	....	....	.41	.41
T.34N.,R.116W.	....	....	8.07	8.07	....	....	3.31	3.31	....	....	.05	.05	....	....	11.43	11.43
T.35N.,R.116W.	.07	.65	2.76	3.48	.16	.13	....	.29	....	....	....	....	.23	.78	2.76	3.77
T.19N.,R.117W.	....	....	3.28	3.28	....	....	9.49	9.49	....	....	1.16	1.16	....	....	13.93	13.93
County total	.07	14.56	247.23	261.86	.16	6.92	165.59	172.67	....	....	30.14	30.14	.23	21.48	442.96	464.67
Sweetwater County																
T.20N.,R.102W.	.28	.10	....	.38	....	....	....	....	....	....	....	....	.28	.10	....	.38
T.21N.,R.102W.	3.61	25.05	239.83	268.49	....	2.31	14.10	16.41	....	....	....	....	3.61	27.36	253.93	284.90
T.20N.,R.103W.	....	.14	1.28	1.42	....	....	....	....	....	....	....	....	....	.14	1.28	1.42
T.21N.,R.103W.	.98	5.29	123.13	129.40	....	....	....	....	....	....	....	....	.98	5.29	123.13	129.40
T.19N.,R.104W.	2.28	26.13	131.41	159.82	....	....	....	....	....	....	....	....	2.28	26.13	131.41	159.82
T.20N.,R.104W.	5.16	21.71	315.85	342.72	.56	2.35	25.57	28.48	....	....	....	....	5.72	24.06	341.42	371.20
T.21N.,R.104W.	1.70	9.38	65.14	76.22	....	.25	1.06	1.31	....	....	....	....	1.70	9.63	66.20	77.53
T.18N.,R.105W.	....	1.35	95.58	96.93	....	....	.14	.14	....	....	....	....	....	1.35	95.72	97.07
T.19N.,R.105W.	8.97	39.60	191.13	239.70	2.10	4.91	34.74	41.75	....	....	....	....	11.07	44.51	225.87	281.45
T.20N.,R.105W.	1.35	4.14	50.66	56.15	2.04	4.69	65.23	71.96	....	....	....	....	3.39	8.83	115.89	128.11
County total	24.33	132.89	1,214.01	1,371.23	4.70	14.51	140.84	160.05	....	....	....	....	29.03	147.40	1,354.85	1,531.28
Uinta County																
T.18N.,R.116W.	....	....	2.48	2.48	....	....	....	....	....	....	....	....	....	....	2.48	2.48
T.17N.,R.117W.	....	....	4.02	4.02	....	....	4.02	4.02	....	....	....	....	....	....	8.04	8.04
T.18N.,R.117W.	....	1.60	32.23	33.83	....	.41	8.39	8.80	....	....	....	....	....	2.01	40.62	42.63
T.14N.,R.119W.	....	....	.47	.47	....	....	....	....	....	....	....	....	....	....	.47	.47
County total	....	1.60	39.20	40.80	....	.41	12.41	12.82	....	....	....	....	....	2.01	51.61	53.62
Weston County																
T.45N., R.61W.	....	....	.05	.05	....	....	....	....	....	....	....	....	....	....	.05	.05
T.46N., R.61W.	....	....	7.94	7.94	....	....	....	....	....	....	....	....	....	....	7.94	7.94
T.45N., R.62W.	....	....	.53	.53	....	....	....	....	....	....	....	....	....	....	.53	.53
T.46N., R.62W.	....	....	3.36	3.36	....	....	....	....	....	....	....	....	....	....	3.36	3.36
County total	....	....	11.88	11.88	....	....	....	....	....	....	....	....	....	....	11.88	11.88
Total	24.40	149.61	1,512.91	1,686.92	4.86	21.84	318.84	345.54	....	....	30.14	30.14	29.26	171.45	1,861.89	2,062.60

Table 5.--Indicated original reserves of bituminous coal in Wyoming
(in millions of short tons)

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	
Carbon County																
T.21N., R.79W.	....	....	17.19	17.19	....	....	2.91	2.91	....	....	....	....	....	....	20.10	20.10
T.21N., R.80W.	2.39	1.65	1.42	5.46	3.73	3.42	.20	7.35	6.38	3.95	....	10.33	12.50	9.02	1.62	23.14
T.22N., R.80W.	.67	1.23	.17	2.07	.92	1.88	....	2.80	1.93	1.91	....	3.84	3.52	5.02	.17	8.71
T.24N., R.83W.	.37	.16	.81	1.34	.51	.19	.51	1.21	.55	.23	....	.78	1.43	.58	1.32	3.33
T.25N., R.83W.	.16	.03	....	.18	.02	....	....	.02	....	....	....	....	.17	.03	....	.20
T.21N., R.84W.	1.12	....	....	1.12	....	....	....	....	....	....	....	....	1.12	....	....	1.12
T.22N., R.84W.	.10	.31	....	.41	....	....	....	....	....	....	....	....	.10	.31	....	.41
T.24N., R.84W.	1.21	2.76	.04	4.01	.86	1.96	....	2.82	.84	1.54	....	2.38	2.91	6.26	.04	9.21
T.21N., R.85W.	.18	....	....	.18	....	....	....	....	....	....	....	....	.18	....	....	.18
T.22N., R.85W.	.38	....	....	.38	....	....	....	....	....	....	....	....	.38	....	....	.38
T.17N., R.90W.	....	1.81	8.05	9.86	....	....	....	....	....	....	....	....	....	1.81	8.05	9.86
T.18N., R.90W.	....	1.09	....	1.09	....	....	....	....	....	....	....	....	....	1.09	....	1.09
T.19N., R.90W.	....	....	2.49	2.49	....	....	....	....	....	....	....	....	....	....	2.49	2.49
County total	6.57	9.04	30.17	45.78	6.04	7.45	3.62	17.11	9.70	7.63	....	17.33	22.31	24.12	33.79	80.22
Lincoln County																
T.21N., R.115W.	....	9.06	26.66	35.72	....	8.32	20.95	29.27	....	7.13	14.88	22.01	....	24.51	62.49	87.00
T.22N., R.115W.	....	10.84	14.29	25.13	....	9.50	5.59	15.09	....	5.05	3.47	8.52	....	25.39	23.35	48.74
T.23N., R.115W.	....	....	.27	.27	....	....	....	....	....	....	....	....	....	....	.27	.27
T.24N., R.115W.	....	3.81	6.64	10.45	....	.88	3.38	4.26	....	.17	.44	.61	....	4.86	10.46	15.32
T.25N., R.115W.	....	....	29.53	29.53	....	....	28.17	28.17	....	....	22.21	22.21	....	....	79.91	79.91
T.26N., R.115W.	....	....	8.89	8.89	....	....	....	....	....	....	....	....	....	....	8.89	8.89
T.34N., R.115W.	....	....	4.80	4.80	....	....	1.44	1.44	....	....	....	....	....	....	6.24	6.24
T.19N., R.116W.	7.70	.44	39.01	47.15	7.00	....	64.69	71.69	5.51	....	63.48	68.99	20.21	.44	167.18	187.83
T.20N., R.116W.	....	7.06	27.09	34.15	....	9.86	47.31	57.17	....	9.18	61.28	70.46	....	26.10	135.68	161.78
T.21N., R.116W.	....	....	15.61	15.61	....	.76	20.15	20.91	....	2.27	67.97	70.24	....	3.03	103.73	106.76
T.22N., R.116W.	....	....	3.95	3.95	....	1.45	27.22	28.67	....	6.36	48.00	54.36	....	7.81	79.17	86.98
T.23N., R.116W.	....	.03	31.93	31.96	....	1.67	40.93	42.60	....	6.18	48.95	55.13	....	7.88	121.81	129.69
T.24N., R.116W.	....	2.36	1.71	4.07	....	6.54	5.65	12.19	....	10.35	10.16	20.51	....	19.25	17.52	36.77
T.25N., R.116W.	....	....	....	....	....	....	....	....	....	....	1.08	1.08	....	....	1.08	1.08
T.26N., R.116W.	....	....	27.67	27.67	....	....	33.27	33.27	....	....	7.91	7.91	....	....	68.85	68.85
T.34N., R.116W.	.15	.80	2.62	3.57	.19	1.17	11.51	12.87	.47	.52	14.79	15.78	.81	2.49	28.92	32.22
T.35N., R.116W.	.14	.03	18.07	18.24	.75	.64	16.45	17.84	.04	.01	15.13	15.18	.93	.68	49.65	51.26
T.19N., R.117W.	....	....	.93	.93	.53	....	6.39	6.92	2.19	1.44	27.27	30.90	2.72	1.44	34.59	38.75
County total	7.99	34.43	259.67	302.09	8.47	40.79	333.10	382.36	8.21	48.66	407.02	463.89	24.67	123.88	999.79	1,148.34
Park County																
T.58N., R.99W.	2.60	1.88	.15	4.63	.82	.92	....	1.74	.22	.06	....	.28	3.64	2.86	.15	6.65
T.58N., R.100W.	1.67	5.32	.91	7.90	1.38	1.89	....	3.27	.08	....	....	.08	3.13	7.21	.91	11.25
County total	4.27	7.20	1.06	12.53	2.20	2.81	....	5.01	.30	.06	....	.36	6.77	10.07	1.06	17.90

Table 5.--Indicated original reserves of bituminous coal in Wyoming
(in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	
Sweetwater County																
T.20N.,R.101W.	16.62	.59	.43	17.64	2.61	....	....	2.61	....	....	....	....	19.23	.59	.43	20.25
T.21N.,R.101W.	5.65	1.20	2.35	9.20	1.31	.91	6.18	8.40	....	....	....	....	6.96	2.11	8.53	17.60
T.20N.,R.102W.	46.22	17.58	31.29	95.09	.81	....	2.00	2.81	....	....	....	....	47.03	17.58	33.29	97.90
T.21N.,R.102W.	35.75	135.95	190.16	361.86	8.32	74.57	108.33	191.22	....	.54	....	.54	44.07	211.06	298.49	553.62
T.22N.,R.102W.	....	.35	7.43	7.78	....	....	.65	.65	....	....	....	....	....	.35	8.08	8.43
T.20N.,R.103W.	1.57	1.09	.47	3.13	....	....	....	....	....	....	....	....	1.57	1.09	.47	3.13
T.21N.,R.103W.	10.75	46.14	304.80	361.69	....	.01	4.39	4.40	....	....	....	....	10.75	46.15	309.19	366.09
T.22N.,R.103W.	13.45	35.29	198.05	246.79	....	....	.36	.36	....	....	....	....	13.45	35.29	198.41	247.15
T.17N.,R.104W.	1.76	.10	....	1.86	....	....	....	....	....	....	....	....	1.76	.10	....	1.86
T.18N.,R.104W.	6.14	6.46	.78	13.38	....	....	....	....	....	....	....	....	6.14	6.46	.78	13.38
T.19N.,R.104W.	33.04	46.31	66.41	145.76	3.39	2.49	2.17	8.05	....	....	....	....	36.43	48.80	68.58	153.81
T.20N.,R.104W.	12.43	26.81	124.13	163.37	.27	2.33	8.38	10.98	....	....	....	....	12.70	29.14	132.51	174.35
T.21N.,R.104W.	38.92	39.53	224.11	302.56	17.14	18.69	106.16	141.99	1.86	.15	7.80	9.81	57.92	58.37	338.07	454.36
T.22N.,R.104W.	18.24	13.38	7.50	39.12	.12	.16	....	.28	....	....	....	....	18.36	13.54	7.50	39.40
T.16N.,R.105W.	11.86	.53	....	12.39	....	....	....	....	....	....	....	....	11.86	.53	....	12.39
T.17N.,R.105W.	46.15	50.04	60.70	156.89	1.29	.11	....	1.40	....	....	....	....	47.44	50.15	60.70	158.29
T.18N.,R.105W.	60.10	111.94	183.73	355.77	7.09	29.29	72.81	109.19	....	.03	....	.03	67.19	141.26	256.54	464.99
T.19N.,R.105W.	44.72	55.30	30.62	130.64	46.48	80.63	168.46	295.57	8.60	10.12	42.36	61.08	99.80	146.05	241.44	487.29
T.20N.,R.105W.	6.10	17.01	17.34	40.45	24.37	57.08	224.26	305.71	16.28	16.25	106.15	138.68	46.75	90.34	347.75	484.84
County Total	409.47	605.60	1,450.30	2,465.37	113.20	266.27	704.15	1,083.62	26.74	27.09	156.31	210.14	549.41	898.96	2,310.76	3,759.13
Uinta County																
T.18N.,R.116W.	4.28	....	26.87	31.15	.18	....	9.16	9.34	....	....	....	....	4.46	....	36.03	40.49
T.16N.,R.117W.	.33	.58	45.03	45.94	....	.29	38.18	38.47	....	....	31.04	31.04	.33	.87	114.25	115.45
T.17N.,R.117W.	6.06	....	63.26	69.32	5.87	....	61.88	67.75	5.78	....	68.60	74.38	17.71	....	193.74	211.45
T.18N.,R.117W.	3.24	....	41.24	44.48	6.74	....	85.94	92.68	7.01	....	101.54	108.55	16.99	....	228.72	245.71
T.14N.,R.118W.	....	....	45.80	45.80	....	....	35.39	35.39	....	....	32.54	32.54	....	....	113.73	113.73
T.15N.,R.118W.	.57	1.55	77.87	79.99	.57	1.55	82.10	84.22	.48	1.55	83.43	85.46	1.62	4.65	243.40	249.67
T.16N.,R.118W.	....	....	19.82	19.82	.32	.71	28.68	29.71	.48	.99	41.33	42.80	.80	1.70	89.83	92.33
T.17N.,R.118W.	....	....	2.80	2.80	....	....	2.80	2.80	....	....	2.80	2.80	....	....	8.40	8.40
T.13N.,R.119W.	....	9.91	35.49	45.40	....	9.91	34.58	44.49	....	9.76	30.14	39.90	....	29.58	100.21	129.79
T.14N.,R.119W.	....	2.04	81.37	83.41	....	2.26	87.46	89.72	....	2.61	88.83	91.44	....	6.91	257.66	264.57
T.15N.,R.119W.	....	.27	....	.27	....	.27	....	.27	....	....	....	....	....	.54	....	.54
County Total	14.48	14.35	439.55	468.38	13.68	14.99	466.17	494.84	13.75	14.91	480.25	508.91	41.91	44.25	1,385.97	1,472.13
Weston County																
T.45N., R.61W.	....	.40	....	.40	....	....	....	....	....	....	....	....	....	.40	....	.40
T.46N., R.61W.	3.29	3.66	....	6.95	....	....	....	....	....	....	....	....	3.29	3.66	....	6.95
T.46N., R.62W.	....	2.66	....	2.66	....	....	....	....	....	....	....	....	....	2.66	....	2.66
T.47N., R.62W.	....	2.23	....	2.23	....	....	....	....	....	....	....	....	....	2.23	....	2.23
T.48N., R.62W.	....	1.19	....	1.19	....	....	....	....	....	....	....	....	....	1.19	....	1.19
County total	3.29	10.14	....	13.43	....	....	....	....	....	....	....	....	3.29	10.14	....	13.43
Total	446.07	680.76	2,180.75	3,307.58	143.59	332.31	1,507.04	1,982.94	58.70	98.35	1,043.58	1,200.63	648.36	1,111.42	4,731.37	6,491.15

Table 6.--Inferred original reserves of bituminous coal in Wyoming
(in millions of short tons)

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	
Carbon County																
T.21N., R.77W.	....	....	.75	.75	....	....	....	....	....	....	....	....	....	....	.75	.75
T.21N., R.78W.	....	....	2.49	2.49	....	....	....	....	....	....	....	....	....	....	2.49	2.49
T.22N., R.79W.	....	1.38	....	1.38	....	.15	....	.15	....	....	....	....	....	1.53	....	1.53
T.19N., R.85W.	1.10	.34	1.13	2.57	....	....	....	....	....	....	....	....	1.10	.34	1.13	2.57
T.19N., R.86W.	.17	....	.68	.85	....	....	....	....	....	....	....	....	.17	....	.68	.85
T.25N., R.86W.	....	....	1.89	1.89	....	....	....	....	....	....	....	....	....	....	1.89	1.89
T.13N., R.87W.	....	.33	....	.33	....	....	....	....	....	....	....	....	....	.33	....	.33
T.12N., R.88W.	....	....	.91	.91	....	....	....	....	....	....	....	....	....	....	.91	.91
T.13N., R.88W.	....	.33	....	.33	....	....	....	....	....	....	....	....	....	.33	....	.33
T.12N., R.89W.	....	....	4.88	4.88	....	....	....	....	....	....	....	....	....	....	4.88	4.88
T.13N., R.89W.	....	.33	....	.33	....	....	....	....	....	....	....	....	....	.33	....	.33
T.14N., R.89W.	....	.68	2.03	2.71	....	....	....	....	....	....	....	....	....	.68	2.03	2.71
T.14N., R.90W.	....	....	.45	.45	....	....	....	....	....	....	....	....	....	....	.45	.45
County total	1.27	3.39	15.21	19.87	....	.15	....	.15	....	....	....	....	1.27	3.54	15.21	20.02
Lincoln County																
T.25N.,R.115W.	....	....	....	....	....	....	....	....	....	....	4.33	4.33	....	....	4.33	4.33
T.37N.,R.115W.	....	.62	2.79	3.41	....	....	....	....	....	....	....	....	....	.62	2.79	3.41
T.25N.,R.116W.	....	....	....	....	....	....	....	....	....	....	3.52	3.52	....	....	3.52	3.52
T.26N.,R.116W.	....	....	....	....	....	....	.33	.33	....	....	26.35	26.35	....	....	26.68	26.68
T.36N.,R.116W.	....	....	.68	.68	....	....	....	....	....	....	....	....	....	....	.68	.68
T.37N.,R.116W.	....	.74	4.06	4.80	....	....	....	....	....	....	....	....	....	.74	4.06	4.80
T.19N.,R.117W.	....	....	4.86	4.86	....	....	4.32	4.32	....	....	3.78	3.78	....	....	12.96	12.96
T.31N.,R.117W.	....	.34	....	.34	....	....	....	....	....	....	....	....	....	.34	....	.34
T.36N.,R.118W.	....	.34	....	.34	....	....	....	....	....	....	....	....	....	.34	....	.34
County total	....	2.04	12.39	14.43	....	....	4.65	4.65	....	....	37.98	37.98	....	2.04	55.02	57.06
Sublette County																
T.32N.,R.115W.	....	.64	....	.64	....	....	....	....	....	....	....	....	....	.64	....	.64
T.33N.,R.115W.	.23	....	.73	.96	....	....	....	....	....	....	....	....	.23	....	.73	.96
County total	.23	.64	.73	1.60	....	....	....	....	....	....	....	....	.23	.64	.73	1.60

Table 6.--Inferred original reserves of bituminous coal in Wyoming
(in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	
Sweetwater County																
T.20N.,R.101W.	2.18	....	....	2.18	12.62	.43	....	13.05	....	....	....	....	14.80	.43	....	15.23
T.21N.,R.101W.	1.03	2.72	....	3.75	72.86	28.77	35.40	137.03	65.56	19.36	....	84.92	139.45	50.85	35.40	225.70
T.22N.,R.101W.	....	....	....	....	.90	.34	....	1.24	24.81	3.99	....	28.80	25.71	4.33	....	30.04
T.20N.,R.102W.	2.11	.10	....	2.21	2.83	.27	1.16	4.26	....	....	....	....	4.94	.37	1.16	6.47
T.21N.,R.102W.	10.58	22.72	19.59	52.89	29.26	103.39	63.22	195.87	11.30	10.68	....	21.98	51.14	136.79	82.81	270.74
T.22N.,R.102W.	.04	9.11	27.26	36.41	35.97	149.79	89.51	275.27	30.80	82.26	252.45	365.51	66.81	241.16	369.22	677.19
T.23N.,R.102W.	....	....	....	....	....	....	....	....	....	4.86	27.54	32.40	....	4.86	27.54	32.40
T.21N.,R.103W.	....	7.72	3.21	10.93	.08	.14	2.23	2.45	....	....	....	....	.08	7.86	5.44	13.38
T.22N.,R.103W.	6.83	22.47	380.48	409.78	5.11	23.29	210.09	238.49	....	3.24	18.36	21.60	11.94	49.00	608.93	669.87
T.23N.,R.103W.	....	....	....	....	....	....	177.84	177.84	....	73.71	425.88	499.59	....	73.71	603.72	677.43
T.21N.,R.104W.	.09	....	....	.09	10.92	13.08	36.65	60.65	23.40	20.50	77.74	121.64	34.41	33.58	114.39	182.38
T.22N.,R.104W.	1.46	....	126.52	127.98	1.47	1.96	244.23	247.66	.48	44.64	252.51	297.63	3.41	46.60	623.26	673.27
T.23N.,R.104W.	....	....	....	....	....	....	18.72	18.72	....	24.30	137.70	162.00	....	24.30	156.42	180.72
T.16N.,R.105W.	2.10	.06	....	2.16	8.29	....	....	8.29	....	....	....	....	10.39	.06	....	10.45
T.17N.,R.105W.	2.36	7.82	4.13	14.31	31.68	17.71	2.66	52.05	.38	....	....	.38	34.42	25.53	6.79	66.74
T.18N.,R.105W.	8.58	.79	3.94	13.31	23.08	46.97	64.31	134.36	4.44	18.49	28.54	51.47	36.10	66.25	96.79	199.14
T.19N.,R.105W.	6.62	....	....	6.62	23.56	16.28	3.34	43.18	60.21	63.30	117.54	241.05	90.39	79.58	120.88	290.85
T.20N.,R.105W.	....	....	....	....	9.36	16.78	13.59	39.73	41.94	49.99	110.48	202.41	51.30	66.77	124.07	242.14
T.21N.,R.105W.	....	....	....	....	....	....	....	....	1.18	5.53	5.27	11.98	1.18	5.53	5.27	11.98
T.22N.,R.105W.	....	....	....	....	....	....	....	....	.08	....	....	.08	.08	....	....	.08
T.17N.,R.106W.	....	....	....	....	3.95	1.40	....	5.35	3.12	....	....	3.12	7.07	1.40	....	8.47
T.18N.,R.106W.	....	....	....	....	4.12	5.02	....	9.14	22.57	22.82	35.87	81.26	26.69	27.84	35.87	90.40
T.19N.,R.106W.	....	....	....	....	....	....	....	....	4.21	.74	7.61	12.56	4.21	.74	7.61	12.56
County total	43.98	73.51	565.13	682.62	276.06	425.62	962.95	1,664.63	294.48	448.41	1,497.49	2,240.38	614.52	947.54	3,025.57	4,587.63
Teton County																
T.38N.,R.116W.	.26	....	....	.26	....	....	....	....	....	....	....	....	.26	....	....	.26
Weston County																
T.45N., R.61W.	2.11	....	....	2.11	....	....	....	....	....	....	....	....	2.11	....	....	2.11
T.45N., R.62W.	4.92	3.32	....	8.24	....	....	....	....	....	....	....	....	4.92	3.32	....	8.24
T.46N., R.62W.	4.28	....	....	4.28	....	....	....	....	....	....	....	....	4.28	....	....	4.28
County total	11.31	3.32	....	14.63	....	....	....	....	....	....	....	....	11.31	3.32	....	14.63
Total	57.05	82.90	593.46	733.41	276.06	425.77	967.60	1,669.43	294.48	448.41	1,535.47	2,278.36	627.59	957.08	3,096.53	4,681.20

Table 7.--Measured original reserves of sub-bituminous coal in Wyoming
(in millions of short tons)

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Campbell County																
T.50N., R.71W.	.....	....	153.67	153.67	....	....	....	....	....	....	....	....	....	.....	153.67	153.67
T.51N., R.71W.	....	....	20.36	20.36	....	....	....	....	....	....	....	....	....	....	20.36	20.36
T.50N., R.72W.	....	....	13.88	13.88	....	....	....	....	....	....	....	....	....	....	13.88	13.88
T.51N., R.72W.	....	....	609.91	609.91	....	....	....	....	....	....	....	....	....	....	609.91	609.91
T.52N., R.72W.	....	....	32.60	32.60	....	....	....	....	....	....	....	....	....	....	32.60	32.60
County total	....	....	830.42	830.42	....	....	....	....	....	....	....	....	....	....	830.42	830.42
Carbon County																
T.20N., R.80W.	....	....	.74	.74	....	....	....	....	....	....	....	....	....	....	.74	.74
T.21N., R.80W.	.35	.99	2.57	3.91	....	....	....	....	....	....	....	....	.35	.99	2.57	3.91
T.22N., R.81W.	....	4.98	24.36	29.34	....	....	....	....	....	....	....	....	....	4.98	24.36	29.34
T.23N., R.81W.	....	....	.79	.79	....	....	....	....	....	....	....	....	....	....	.79	.79
T.22N., R.88W.	....	1.50	16.44	17.94	....	....	....	....	....	....	....	....	....	1.50	16.44	17.94
County total	.35	7.47	44.90	52.72	....	....	....	....	....	....	....	....	.35	7.47	44.90	52.72
Converse County																
T.33N., R.73W.	.40	....	....	.40	....	....	....	....	....	....	....	....	.40	....	....	.40
T.34N., R.74W.	.51	....	....	.51	....	....	....	....	....	....	....	....	.51	....	....	.51
T.35N., R.74W.	.51	.68	....	1.19	....	....	....	....	....	....	....	....	.51	.68	....	1.19
T.36N., R.75W.	....	....	1.00	1.00	....	....	....	....	....	....	....	....	....	....	1.00	1.00
T.34N., R.77W.	.33	....	....	.33	....	....	....	....	....	....	....	....	.33	....	....	.33
County total	1.75	.68	1.00	3.43	....	....	....	....	....	....	....	....	1.75	.68	1.00	3.43
Fremont County																
T.33N., R.98W.	1.02	1.39	9.29	11.70	....	1.39	.89	2.28	....	....	....	....	1.02	2.78	10.18	13.98
T.34N., R.98W.	.88	1.39	1.78	4.05	....	2.79	.89	3.68	....	....	....	....	.88	4.18	2.67	7.73
County total	1.90	2.78	11.07	15.75	....	4.18	1.78	5.96	....	....	....	....	1.90	6.96	12.85	21.71
Hot Springs County																
T.44N., R.94W.	1.65	.07	....	1.72	....	....	....	....	....	....	....	....	1.65	.07	....	1.72
T.44N., R.95W.	2.24	15.96	1.95	20.15	....	.89	....	.89	....	....	....	....	2.24	16.85	1.95	21.04
T.44N., R.96W.	....	1.08	....	1.08	....	....	....	....	....	....	....	....	....	1.08	....	1.08
County total	3.89	17.11	1.95	22.95	....	.89	....	.89	....	....	....	....	3.89	18.00	1.95	23.84
Lincoln County																
T.21N.,R.116W.	....	....	88.17	88.17	....	....	....	....	.....	....	....	....	....	....	88.17	88.17
T.20N.,R.117W.	....	....	141.27	141.27	....	....	....	....	....	....	....	....	....	....	141.27	141.27
County total	....	....	229.44	229.44	....	....	....	....	....	....	....	....	....	....	229.44	229.44
Sheridan County																
T.56N., R.84W.	....	2.72	....	2.72	....	....	....	....	....	....	....	....	....	2.72	....	2.72
T.57N., R.84W.	....	40.20	245.22	285.42	....	....	....	....	....	....	....	....	....	40.20	245.22	285.42
T.57N., R.85W.	....	....	108.23	108.23	....	....	....	....	....	....	....	....	....	....	108.23	108.23
T.58N., R.85W.	....	....	1.44	1.44	....	....	....	....	....	....	....	....	....	....	1.44	1.44
County total	....	42.92	354.89	397.81	....	....	....	....	....	....	....	....	....	42.92	354.89	397.81
Total	7.89	70.96	1,473.67	1,552.52	....	5.07	1.78	6.85	....	....	....	....	7.89	76.03	1,475.45	1,559.37

Table 8.--Indicated original reserves of sub-bituminous coal in Wyoming
(in millions of short tons)

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Albany County																
T.20N., R.76W.	49.31	22.32	....	71.63	27.62	16.09	....	43.71	15.89	12.90	....	28.79	92.82	51.31	....	144.13
T.19N., R.77W.	4.20	32.46	....	36.66	4.30	13.17	....	17.47	.75	....	....	.75	9.25	45.63	....	54.88
T.20N., R.77W.	2.14	26.66	....	28.80	1.80	19.75	....	21.55	1.50	3.25	....	4.75	5.44	49.66	....	55.10
County total	55.65	81.44	....	137.09	33.72	49.01	....	82.73	18.14	16.15	.....	34.29	107.51	146.60	....	254.11
Big Horn County																
T.50N., R.92W.	2.83	2.30	....	5.13	....	....	....	....	....	....	....	....	2.83	2.30	....	5.13
T.50N., R.95W.	6.55	.44	....	6.99	1.92	....	....	1.92	....	....	....	....	8.47	.44	....	8.91
County total	9.38	2.74	....	12.12	1.92	....	....	1.92	....	....	....	....	11.30	2.74	....	14.04
Campbell County																
T.41N., R.69W.	37.44	6.55	15.09	59.08	....	....	....	....	....	....	....	....	37.44	6.55	15.09	59.08
T.42N., R.69W.	25.75	15.39	26.77	67.91	....	....	....	....	....	....	....	....	25.75	15.39	26.77	67.91
T.43N., R.69W.	3.98	....	....	3.98	....	....	....	....	....	....	....	....	3.98	....	....	3.98
T.44N., R.69W.	51.77	....	....	51.77	....	....	....	....	....	....	....	....	51.77	....	....	51.77
T.45N., R.69W.	35.32	....	68.15	103.47	....	....	....	....	....	....	....	....	35.32	....	68.15	103.47
T.46N., R.69W.	....	....	88.10	88.10	....	....	....	....	....	....	....	....	....	....	88.10	88.10
T.47N., R.69W.	4.51	....	.97	5.48	....	....	....	....	....	....	....	....	4.51	....	.97	5.48
T.48N., R.69W.	.95	....	....	.95	....	....	....	....	....	....	....	....	.95	....	....	.95
T.41N., R.70W.	....	....	206.56	206.56	....	....	....	....	....	....	....	....	....	....	206.56	206.56
T.42N., R.70W.	....	....	233.11	233.11	....	....	....	....	....	....	....	....	....	....	233.11	233.11
T.44N., R.70W.	1.98	....	134.87	136.85	....	....	....	....	....	....	....	....	1.98	....	134.87	136.85
T.45N., R.70W.	3.58	....	246.92	250.50	....	....	....	....	....	....	....	....	3.58	....	246.92	250.50
T.46N., R.70W.	....	....	277.76	277.76	....	....	....	....	....	....	....	....	....	....	277.76	277.76
T.47N., R.70W.	.82	1.99	....	2.81	....	....	....	....	....	....	....	....	.82	1.99	....	2.81
T.48N., R.70W.	1.26	35.79	14.67	51.72	....	....	....	....	....	....	....	....	1.26	35.79	14.67	51.72
T.49N., R.70W.	4.18	9.85	46.95	60.98	....	....	....	....	....	....	....	....	4.18	9.85	46.95	60.98
T.50N., R.70W.	.40	....	....	.40	....	....	....	....	....	....	....	....	.40	....	....	.40
T.41N., R.71W.	.66	....	235.50	236.16	....	....	....	....	....	....	....	....	.66	....	235.50	236.16
T.45N., R.71W.	11.68	19.91	....	31.59	....	....	....	....	....	....	....	....	11.68	19.91	....	31.59
T.46N., R.71W.	....	1.33	42.48	43.81	....	....	....	....	....	....	....	....	....	1.33	42.48	43.81
T.48N., R.71W.	.88	131.26	.82	132.96	....	....	....	....	....	....	....	....	.88	131.26	.82	132.96
T.49N., R.71W.	21.68	43.51	414.17	479.36	....	....	....	....	....	....	....	....	21.68	43.51	414.17	479.36
T.50N., R.71W.	....	54.45	1,215.65	1,270.10	....	....	....	....	....	....	....	....	....	54.45	1,215.65	1,270.10
T.51N., R.71W.	....	....	147.51	147.51	....	....	....	....	....	....	....	....	....	....	147.51	147.51
T.52N., R.71W.	....	1.75	....	1.75	....	....	....	....	....	....	....	....	....	1.75	....	1.75
T.53N., R.71W.	43.45	26.91	....	70.36	....	....	....	....	....	....	....	....	43.45	26.91	....	70.36
T.55N., R.71W.	8.86	....	....	8.86	....	....	....	....	....	....	....	....	8.86	....	....	8.86
T.56N., R.71W.	25.35	3.77	52.02	81.14	....	....	....	....	....	....	....	....	25.35	3.77	52.02	81.14
T.57N., R.71W.	.51	.40	4.53	5.44	....	....	....	....	....	....	....	....	.51	.40	4.53	5.44
T.58N., R.71W.	....	6.50	15.25	21.75	....	....	....	....	....	....	....	....	....	6.50	15.25	21.75
T.41N., R.72W.	3.98	14.56	....	18.54	....	....	....	....	....	....	....	....	3.98	14.56	....	18.54
T.42N., R.72W.	....	16.53	....	16.53	....	....	....	....	....	....	....	....	....	16.53	....	16.53
T.43N., R.72W.	....	30.32	145.26	175.58	....	....	....	....	....	....	....	....	....	30.32	145.26	175.58
T.44N., R.72W.	21.77	46.84	77.00	145.61	....	....	....	....	....	....	....	....	21.77	46.84	77.00	145.61
T.45N., R.72W.	85.19	49.41	68.34	202.94	....	....	....	....	....	....	....	....	85.19	49.41	68.34	202.94

T.46N., R.72W.	38.68	94.91	4.65	138.24	....	....	....	....	....	....	....	....	38.68	94.91	4.65	138.24
T.47N., R.72W.	9.29	52.97	35.25	97.51	....	....	....	....	....	....	....	....	9.29	52.97	35.25	97.51
T.48N., R.72W.	....	....	184.48	184.48	....	....	....	....	....	....	....	....	....	....	184.48	184.48
T.49N., R.72W.	....	....	222.60	222.60	....	....	....	....	....	....	....	....	....	....	222.60	222.60
T.50N., R.72W.	....	41.98	566.20	608.18	....	....	....	....	....	....	....	....	....	41.98	566.20	608.18
T.51N., R.72W.	....	....	926.16	926.16	....	....	....	....	....	....	....	....	....	....	926.16	926.16
T.52N., R.72W.	1.70	37.04	241.11	279.85	....	....	....	....	....	....	....	....	1.70	37.04	241.11	279.85
T.53N., R.72W.	5.87	28.26	137.40	171.53	....	....	....	....	....	....	....	....	5.87	28.26	137.40	171.53
T.54N., R.72W.	....	....	7.91	7.91	....	....	....	....	....	....	....	....	....	....	7.91	7.91
T.55N., R.72W.	28.70	90.73	18.20	137.63	....	....	....	....	....	....	....	....	28.70	90.73	18.20	137.63
T.56N., R.72W.	116.32	224.14	92.40	432.86	....	....	....	....	....	....	....	....	116.32	224.14	92.40	432.86
T.57N., R.72W.	124.60	187.90	2.50	315.00	....	....	....	....	....	....	....	....	124.60	187.90	2.50	315.00
T.58N., R.72W.	45.10	92.80	3.30	141.20	....	....	....	....	....	....	....	....	45.10	92.80	3.30	141.20
T.41N., R.73W.	1.12	....	....	1.12	....	....	....	....	....	....	....	....	1.12	....	....	1.12
T.42N., R.73W.	....	143.24	....	143.24	....	....	....	....	....	....	....	....	....	143.24	....	143.24
T.43N., R.73W.	56.52	45.54	21.75	123.81	....	....	....	....	....	....	....	....	56.52	45.54	21.75	123.81
T.44N., R.73W.	50.08	142.62	20.66	213.36	....	....	....	....	....	....	....	....	50.08	142.62	20.66	213.36
T.45N., R.73W.	86.38	33.39	149.80	269.57	....	....	....	....	....	....	....	....	86.38	33.39	149.80	269.57
T.46N., R.73W.	5.37	106.37	....	111.74	....	....	....	....	....	....	....	....	5.37	106.37	....	111.74
T.47N., R.73W.	....	75.11	....	75.11	....	....	....	....	....	....	....	....	....	75.11	....	75.11
T.48N., R.73W.	....	4.42	88.77	93.19	....	....	....	....	....	....	....	....	....	4.42	88.77	93.19
T.49N., R.73W.	....	....	22.10	22.10	....	....	....	....	....	....	....	....	....	....	22.10	22.10
T.50N., R.73W.	....	54.40	334.90	389.30	....	....	....	....	....	....	....	....	....	54.40	334.90	389.30
T.51N., R.73W.	....	....	59.10	59.10	....	....	....	....	....	....	....	....	....	....	59.10	59.10
T.53N., R.73W.	56.70	45.35	248.57	350.60	....	....	....	....	....	....	....	....	56.70	45.35	248.57	350.60
T.54N., R.73W.	1.34	21.00	125.25	147.59	....	....	....	....	....	....	....	....	1.34	21.00	125.25	147.59
T.55N., R.73W.	16.92	11.62	155.42	183.96	....	....	....	....	....	....	....	....	16.92	11.62	155.42	183.96
T.56N., R.73W.	....	64.60	329.70	394.30	....	....	....	....	....	....	....	....	....	64.60	329.70	394.30
T.57N., R.73W.	20.10	258.80	11.30	290.20	....	....	....	....	....	....	....	....	20.10	258.80	11.30	290.20
T.58N., R.73W.	7.60	184.13	30.20	221.93	....	....	....	....	....	....	....	....	7.60	184.13	30.20	221.93
T.41N., R.74W.	3.05	....	....	3.05	....	....	....	....	....	....	....	....	3.05	....	....	3.05
T.42N., R.74W.	24.03	56.71	....	80.74	....	....	....	....	....	....	....	....	24.03	56.71	....	80.74
T.43N., R.74W.	16.52	....	....	16.52	....	....	....	....	....	....	....	....	16.52	....	....	16.52
T.44N., R.74W.	3.96	37.95	....	41.91	....	....	....	....	....	....	....	....	3.96	37.95	....	41.91
T.45N., R.74W.	40.60	10.32	....	50.92	....	....	....	....	....	....	....	....	40.60	10.32	....	50.92
T.46N., R.74W.	22.84	6.88	....	29.72	....	....	....	....	....	....	....	....	22.84	6.88	....	29.72
T.47N., R.74W.	15.63	8.98	2.75	27.36	....	....	....	....	....	....	....	....	15.63	8.98	2.75	27.36
T.53N., R.74W.	133.71	39.61	360.04	533.36	....	....	....	....	....	....	....	....	133.71	39.61	360.04	533.36
T.54N., R.74W.	108.36	50.37	134.89	293.62	....	....	....	....	....	....	....	....	108.36	50.37	134.89	293.62
T.55N., R.74W.	85.02	78.02	11.13	174.17	....	....	....	....	....	....	....	....	85.02	78.02	11.13	174.17
T.46N., R.75W.	14.14	42.50	....	56.64	....	....	....	....	....	....	....	....	14.14	42.50	....	56.64
T.52N., R.75W.	....	4.92	530.73	535.65	....	....	....	....	....	....	....	....	....	4.92	530.73	535.65
T.53N., R.75W.	53.89	1.59	545.98	601.46	....	....	....	....	....	....	....	....	53.89	1.59	545.98	601.46
T.54N., R.75W.	37.71	42.11	241.68	321.50	....	....	....	....	....	....	....	....	37.71	42.11	241.68	321.50
T.55N., R.75W.	57.99	134.99	15.12	208.10	....	....	....	....	....	....	....	....	57.99	134.99	15.12	208.10
T.45N., R.76W.	3.30	....	....	3.30	....	....	....	....	....	....	....	....	3.30	....	....	3.30
T.46N., R.76W.	64.21	....	....	64.21	....	....	....	....	....	....	....	....	64.21	....	....	64.21
T.52N., R.76W.	....	90.87	109.29	200.16	....	....	....	....	....	....	....	....	....	90.87	109.29	200.16
T.53N., R.76W.	....	130.38	....	130.38	....	....	....	....	....	....	....	....	....	130.38	....	130.38
T.54N., R.76W.	....	6.80	28.12	34.92	....	....	....	....	....	....	....	....	....	6.80	28.12	34.92
T.55N., R.76W.	15.62	90.83	....	106.45	....	....	....	....	....	....	....	....	15.62	90.83	....	106.45
County total	1,768.92	3,392.15	9,797.86	14,958.93	....	....	....	....	....	....	....	....	1,768.92	3,392.15	9,797.86	14,958.93

Table 8.--Indicated original reserves of sub-bituminous coal in Wyoming
(in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Carbon County																
T.19N., R.77W.	....	3.13	.67	3.80	....	....	....	....	....	....	....	....	....	3.13	.67	3.80
T.20N., R.79W.	1.67	....	....	1.67	....	....	....	....	....	....	....	....	1.67	...	.....	1.67
T.21N., R.79W.	18.13	39.85	5.47	63.45	.41	13.38	....	13.79	....	....	....	....	18.54	53.23	5.47	77.24
T.20N., R.80W.	5.48	5.07	8.19	18.74	....	....	....	....	....	....	....	....	5.48	5.07	8.19	18.74
T.21N., R.80W.	90.24	42.75	40.22	173.21	1.25	28.04	8.52	37.81	.36	5.44	....	5.80	91.85	76.23	48.74	216.82
T.22N., R.80W.	15.05	18.23	.60	33.88	12.98	4.33	....	17.31	13.55	.61	....	14.16	41.58	23.17	.60	65.35
T.23N., R.80W.	51.13	88.17	....	139.30	30.70	32.45	....	63.15	14.64	16.72	....	31.36	96.47	137.34	....	233.81
T.24N., R.80W.	.49	....	....	.49	....	....	....	.....	....	....	....	....	.49	....	....	.49
T.21N., R.81W.	3.43	....	....	3.43	3.33	....	....	3.33	3.29	....	....	3.29	10.05	....	....	10.05
T.22N., R.81W.	60.88	94.61	276.10	431.59	20.30	33.11	23.71	77.12	16.77	23.15	6.16	46.08	97.95	150.87	305.97	554.79
T.23N., R.81W.	88.18	131.39	117.98	337.55	54.97	64.58	84.99	204.54	23.83	20.84	44.12	88.79	166.98	216.81	247.09	630.88
T.24N., R.81W.	7.63	5.02	....	12.65	....	....	....	....	....	....	....	....	7.63	5.02	....	12.65
T.21N., R.82W.	3.95	1.53	.46	5.94	.68	....	....	.68	.07	....	....	.07	4.70	1.53	.46	6.69
T.22N., R.82W.	58.73	98.24	49.28	206.25	42.34	61.31	38.43	142.08	28.24	37.66	17.29	83.19	129.31	197.21	105.00	431.52
T.23N., R.82W.	11,58	13.52	.65	25.75	3.16	4.43	....	7.59	....	.82	....	.82	14.74	18.77	.65	34.16
T.24N., R.82W.	5.91	5.75	....	11.66	5.16	3.68	....	8.84	4.14	2.90	....	7.04	15.21	12.33	....	27.54
T.21N., R.83W.	.71	....	....	.71	.15	....	....	.15	....	....	....	....	.86	....	....	.86
T.22N., R.83W.	50.52	128.34	14.73	193.59	18.39	82.85	.54	101.78	11.36	60.39	....	71.75	80.27	271.58	15.27	367.12
T.23N., R.83W.	99.37	41.30	16.87	157.54	28.73	37.77	7.92	74.42	14.42	.40	....	14.82	142.52	79.47	24.79	246.78
T.24N., R.83W.	45.09	65.52	8.19	118.80	17.87	12.69	....	30.56	17.20	5.31	....	22.51	80.16	83.52	8.19	171.87
T.21N., R.84W.	.60	....	....	.60	....	....	....	....	....	....	....	....	.60	....	....	.60
T.22N., R.84W.	4.69	5.91	7.01	17.61	1.79	1.38	....	3.17	.50	....	....	.50	6.98	7.29	7.01	21.28
T.23N., R.84W.	26.94	63.07	129.74	219.75	19.63	10.64	.13	30.40	1.10	....	....	1.10	47.67	73.71	129.87	251.25
T.24N., R.84W.	9.59	5.76	....	15.35	6.54	.92	....	7.46	6.44	.23	....	6.67	22.57	6.91	....	29.48
T.22N., R.85W.	.50	....	....	.50	....	....	....	....	....	....	....	....	.50	....	....	.50
T.23N., R.85W.	.70	....	....	.70	....	....	....	....	....	....	....	....	.70	....	....	.70
T.20N., R.88W.	....	6.28	....	6.28	....	....	....	....	....	....	....	....	....	6.28	....	6.28
T.21N., R.88W.	3.45	27.49	....	30.94	5.67	2.63	....	8.30	5.86	4.02	....	9.88	14.98	34.14	....	49.12
T.20N., R.89W.	....	94.44	....	94.44	....	....	....	....	....	....	....	....	....	94.44	....	94.44
T.21N., R.89W.	10.31	45.90	....	56.21	4.00	31.89	....	35.89	.90	4.69	....	5.59	15.21	82.48	....	97.69
T.22N., R.89W.	.45	.98	....	1.43	.28	.51	....	.79	.21	.32	....	.53	.94	1.81	....	2.75
T.17N., R.91W.	....	13.46	....	13.46	....	....	....	....	....	....	....	....	....	13.46	....	13.46
T.18N., R.91W.	11.78	132.95	....	144.73	....	....	....	....	....	....	....	....	11.78	132.95	....	144.73
T.19N., R.91W.	....	61.99	....	61.99	....	....	....	....	....	....	....	....	....	61.99	....	61.99
T.18N., R.92W.	....	4.85	....	4.85	....	....	....	....	....	....	....	....	....	4.85	....	4.85
T.19N., R.92W.	....	109.86	100.27	210.13	....	....	....	....	....	....	....	....	....	109.86	100.27	210.13
County total	687.18	1,355.36	776.43	2,818.97	278.33	426.59	164.24	869.16	162.88	183.50	67.57	413.95	1,128.39	1,965.45	1,008.24	4,102.08
Converse County																
T.33N., R.67W.	1.38	....	....	1.38	....	....	....	....	....	....	....	....	1.38	....	....	1.38
T.34N., R.67W.	22.62	....	....	22.62	....	....	....	....	....	....	....	....	22.62	....	....	22.62
T.35N., R.67W.	52.38	....	....	52.38	....	....	....	....	....	....	....	....	52.38	....	....	52.38
T.36N., R.67W.	9.99	....	....	9.99	....	....	....	....	....	....	....	....	9.99	....	....	9.99
T.38N., R.67W.	1.37	9.78	....	11.15	....	....	....	....	....	....	....	....	1.37	9.78	....	11.15
T.39N., R.67W.	8.75	.92	....	9.67	....	....	....	....	....	....	....	....	8.75	.92	....	9.67
T.40N., R.67W.	.25	....	....	.25	....	....	....	....	....	....	....	....	.25	....	....	.25
T.41N., R.67W.	5.93	....	....	5.93	....	....	....	....	....	....	....	....	5.93	....	....	5.93
T.32N., R.68W.	2.86	....	1.57	4.43	....	....	....	....	....	....	....	....	2.86	....	1.57	4.43
T.33N., R.68W.	8.19	.28	....	8.47	....	....	....	....	....	....	....	....	8.19	.28	....	8.47

T.34N., R.68W.	22.58	.64	....	23.22	....	....	....	....	....	....	....	....	22.58	.64	....	23.22
T.35N., R.68W.	12.43	....	....	12.43	....	....	....	....	....	....	....	....	12.43	....	....	12.43
T.36N., R.68W.	25.04	....	....	25.04	....	....	....	....	....	....	....	....	25.04	....	....	25.04
T.37N., R.68W.	38.11	8.41	....	46.52	....	....	....	....	....	....	....	....	38.11	8.41	....	46.52
T.38N., R.68W.	71.71	154.60	....	226.31	....	....	....	....	....	....	....	....	71.71	154.60	....	226.31
T.39N., R.68W.	116.88	56.22	2.21	175.31	....	....	....	....	....	....	....	....	116.88	56.22	2.21	175.31
T.40N., R.68W.	4.83	....	....	4.83	....	....	....	....	....	....	....	....	4.83	....	....	4.83
T.41N., R.68W.	2.52	....	....	2.52	....	....	....	....	....	....	....	....	2.52	....	....	2.52
T.32N., R.69W.	8.60	....	....	8.60	....	....	....	....	....	....	....	....	8.60	....	....	8.60
T.36N., R.69W.	30.03	....	....	30.03	....	....	....	....	....	....	....	....	30.03	....	....	30.03
T.37N., R.69W.	63.64	....	....	63.64	....	....	....	....	....	....	....	....	63.64	....	....	63.64
T.38N., R.69W.	17.46	....	....	17.46	....	....	....	....	....	....	....	....	17.46	....	....	17.46
T.39N., R.69W.	57.61	26.48	....	84.09	....	....	....	....	....	....	....	....	57.61	26.48	....	84.09
T.40N., R.69W.	38.24	13.05	....	51.29	....	....	....	....	....	....	....	....	38.24	13.05	....	51.29
T.41N., R.69W.	4.12	....	....	4.12	....	....	....	....	....	....	....	....	4.12	....	....	4.12
T.36N., R.70W.	1.55	....	....	1.55	....	....	....	....	....	....	....	....	1.55	....	....	1.55
T.40N., R.70W.	37.04	38.83	5.75	81.62	....	....	....	....	....	....	....	....	37.04	38.83	5.75	81.62
T.41N., R.70W.	1.59	....	4.43	6.02	....	....	....	....	....	....	....	....	1.59	....	4.43	6.02
T.39N., R.71W.	....	13.28	39.83	53.11	....	....	....	....	....	....	....	....	....	13.28	39.83	53.11
T.40N., R.71W.	5.04	....	418.96	424.00	....	....	....	....	....	....	....	....	5.04	....	418.96	424.00
T.41N., R.71W.	2.26	....	229.42	231.68	....	....	....	....	....	....	....	....	2.26	....	229.42	231.68
T.32N., R.72W.	1.52	....	....	1.52	....	....	....	....	....	....	....	....	1.52	....	....	1.52
T.33N., R.72W.	.08	....	....	.08	....	....	....	....	....	....	....	....	.08	....	....	.08
T.37N., R.72W.	.28	....	....	.28	....	....	....	....	....	....	....	....	.28	....	....	.28
T.38N., R.72W.	1.96	....	....	1.96	....	....	....	....	....	....	....	....	1.96	....	....	1.96
T.39N., R.72W.	....	7.30	....	7.30	....	....	....	....	....	....	....	....	....	7.30	....	7.30
T.40N., R.72W.	1.33	30.53	88.95	120.81	....	....	....	....	....	....	....	....	1.33	30.53	88.95	120.81
T.41N., R.72W.	....	....	34.52	34.52	....	....	....	....	....	....	....	....	....	....	34.52	34.52
T.33N., R.73W.	17.08	1.81	....	18.89	13.75	....	....	13.75	4.84	....	....	4.84	35.67	1.81	....	37.48
T.38N., R.73W.	1.17	.60	....	1.77	....	....	....	....	....	....	....	....	1.17	.60	....	1.77
T.39N., R.73W.	26.42	14.27	....	40.69	....	....	....	....	....	....	....	....	26.42	14.27	....	40.69
T.40N., R.73W.	14.34	18.11	....	32.45	....	....	....	....	....	....	....	....	14.34	18.11	....	32.45
T.35N., R.74W.	2.73	2.38	....	5.11	....	....	....	....	....	....	....	....	2.73	2.38	....	5.11
T.36N., R.74W.	....	2.76	....	2.76	....	....	....	....	....	....	....	....	....	2.76	....	2.76
T.37N., R.74W.	16.90	57.29	.74	74.93	....	....	....	....	....	....	....	....	16.90	57.29	.74	74.93
T.38N., R.74W.	6.15	47.76	....	53.91	....	....	....	....	....	....	....	....	6.15	47.76	....	53.91
T.39N., R.74W.	25.89	16.74	....	42.63	....	....	....	....	....	....	....	....	25.89	16.74	....	42.63
T.40N., R.74W.	9.29	....	....	9.29	....	....	....	....	....	....	....	....	9.29	....	....	9.29
T.33N., R.75W.	1.88	1.55	....	3.43	.68	....	....	.68	.47	....	....	.47	3.03	1.55	....	4.58
T.34N., R.75W.	.85	1.21	....	2.06	....	....	....	....	....	....	....	....	.85	1.21	....	2.06
T.35N., R.75W.	13.57	71.44	....	85.01	....	....	....	....	....	....	....	....	13.57	71.44	....	85.01
T.36N., R.75W.	15.76	79.19	3.44	98.39	....	....	....	....	....	....	....	....	15.76	79.19	3.44	98.39
T.37N., R.75W.	2.08	72.15	....	74.23	....	....	....	....	....	....	....	....	2.08	72.15	....	74.23
T.38N., R.75W.	.40	50.66	....	51.06	....	....	....	....	....	....	....	....	.40	50.66	....	51.06
T.34N., R.76W.	6.89	.03	....	6.92	3.92	....	....	3.92	3.40	....	....	3.40	14.21	.03	....	14.24
T.36N., R.76W.	1.00	.12	....	1.12	....	....	....	....	....	....	....	....	1.00	.12	....	1.12
T.38N., R.76W.	3.70	6.31	....	10.01	....	....	....	....	....	....	....	....	3.70	6.31	....	10.01
T.39N., R.76W.	7.04	....	....	7.04	....	....	....	....	....	....	....	....	7.04	....	....	7.04
T.40N., R.76W.	.10	....	....	.10	....	....	....	....	....	....	....	....	.10	....	....	.10
T.34N., R.77W.	5.91	....	....	5.91	1.87	....	....	1.87	.69	....	....	.69	8.47	....	....	8.47
T.39N., R.77W.	12.30	....	....	12.30	....	....	....	....	....	....	....	....	12.30	....	....	12.30
T.40N., R.77W.	2.49	....	....	2.49	....	....	....	....	....	....	....	....	2.49	....	....	2.49
County total	874.11	804.70	829.82	2,508.63	20.22	....	....	20.22	9.40	....	....	9.40	903.73	804.70	829.82	2,538.25

Crook County

T.49N., R.68W.	8.64	....	....	8.64	....	....	....	....	....	....	....	....	8.64	....	....	8.64

Table 8.--Indicated original reserves of sub-bituminous coal in Wyoming
(in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Fremont County																
T.34N., R.89W.	1.25	....	....	1.25	....	....	....	....	....	....	....	....	1.25	....	....	1.25
T.34N., R.90W.	2.45	.19	....	2.64	.20	....	....	.20	....	....	....	....	2.65	.19	....	2.84
T.35N., R.90W.	2.69	....	....	2.69	2.94	....	....	2.94	....	....	....	....	5.63	....	....	5.63
T.34N., R.94W.	9.98	5.63	....	15.61	12.77	1.13	....	13.90	11.10	....	....	11.10	33.85	6.76	....	40.61
T.34N., R.95W.	4.62	1.79	5.38	11.79	1.98	1.93	2.31	6.22	2.01	.26	....	2.27	8.61	3.98	7.69	20.28
T.33N., R.96W.	....	....	....	....	32.45	27.11	45.96	105.52	20.91	12.24	69.44	102.59	53.36	39.35	115.40	208.11
T.33N., R.98W.	6.01	.99	....	7.00	5.26	1.67	....	6.93	2.48	....	....	2.48	13.75	2.66	....	16.41
T.34N., R.98W.	3.03	.56	....	3.59	3.21	2.79	....	6.00	5.70	.56	....	6.26	11.94	3.91	....	15.85
T. 3N., R. 1W.	.36	....	....	.36	....	....	....	....	....	....	....	....	.36	....	....	.36
T. 5N., R. 1W.	....	.92	....	.92	....	.46	....	.46	....	....	....	....	....	1.38	....	1.38
T. 6N., R. 2W.	4.02	4.08	....	8.10	2.73	3.81	....	6.54	1.40	1.73	....	3.13	8.15	9.62	....	17.77
T. 6N., R. 1E.	3.20	12.25	....	15.45	....	....	....	....	....	....	....	....	3.20	12.25	....	15.45
T. 6N., R. 2E.	3.99	....	....	3.99	1.17	....	....	1.17	....	....	....	....	5.16	....	....	5.16
T. 1S., R. 2E.	1.37	....	....	1.37	....	....	....	....	....	....	....	....	1.37	....	....	1.37
T. 2S., R. 2E.	3.63	....	....	3.63	....	....	....	....	....	....	....	....	3.63	....	....	3.63
T. 6N., R. 3E.	2.74	....	....	2.74	....	....	....	....	....	....	....	....	2.74	....	....	2.74
T. 1S., R. 6E.	....	....	....	....	.95	....	....	.95	4.83	....	....	4.83	5.78	....	....	5.78
T. 2S., R. 6E.	3.47	6.18	....	9.65	6.29	.37	....	6.66	2.75	....	....	2.75	12.51	6.55	....	19.06
County total	52.81	32.59	5.38	90.78	69.95	39.27	48.27	157.49	51.18	14.79	69.44	135.41	173.94	86.65	123.09	383.68
Hot Springs County																
T.44N., R.94W.	8.70	.02	....	8.72	4.13	.18	....	4.31	2.84	.01	....	2.85	15.67	.21	....	15.88
T.44N., R.95W.	19.19	11.23	....	30.42	.62	13.21	....	13.83	.09	9.66	....	9.75	19.90	34.10	....	54.00
T.45N., R.95W.	.03	....	....	.03	1.74	.02	....	1.76	1.51	.33	....	1.84	3.28	.35	....	3.63
T.44N., R.96W.	14.02	3.62	....	17.64	2.83	....	....	2.83	....	....	....	....	16.85	3.62	....	20.47
T.45N., R.96W.	.34	....	....	.34	....	....	....	....	....	....	....	....	.34	....	....	.34
T.44N., R.97W.	6.11	.76	....	6.87	3.05	....	....	3.05	....	....	....	....	9.16	.76	....	9.92
T.45N., R.97W.	15.22	4.90	....	20.12	4.16	.62	....	4.78	.29	....	....	.29	19.67	5.52	....	25.19
T.44N., R.98W.	13.47	3.00	....	16.47	5.75	1.29	....	7.04	.90	....	....	.90	20.12	4.29	....	24.41
T.45N., R.98W.	6.93	....	....	6.93	....	....	....	....	....	....	....	....	6.93	....	....	6.93
T.46N., R.98W.	18.37	1.41	....	19.78	3.35	....	....	3.35	2.49	....	....	2.49	24.21	1.41	....	25.62
T.47N., R.98W.	.24	....	....	.24	....	....	....	....	....	....	....	....	.24	....	....	.24
T.44N., R.99W.	9.23	....	....	9.23	.13	....	....	.13	....	....	....	....	9.36	....	....	9.36
T.45N., R.99W.	2.63	.12	....	2.75	....	....	....	....	....	....	....	....	2.63	.12	....	2.75
T.46N., R.99W.	9.05	5.89	15.15	30.09	....	....	....	....	....	....	....	....	9.05	5.89	15.15	30.09
T.47N., R.99W.	1.50	....	....	1.50	....	....	....	....	....	....	....	....	1.50	....	....	1.50
T.46N.,R.100W.	....	.66	....	.66	....	....	....	....	....	....	....	....	....	.66	....	.66
County total	125.03	31.61	15.15	171.79	25.76	15.32	....	41.08	8.12	10.00	....	18.12	158.91	56.93	15.15	230.99
Johnson County																
T.46N., R.76W.	11.19	....	....	11.19	....	....	....	....	....	....	....	....	11.19	....	....	11.19
T.52N., R.76W.	....	40.44	95.33	135.77	....	....	....	....	....	....	....	....	....	40.44	95.33	135.77
T.53N., R.76W.	....	52.20	....	52.20	....	....	....	....	....	....	....	....	....	52.20	....	52.20
T.41N., R.77W.	3.08	.06	....	3.14	....	....	....	....	....	....	....	....	3.08	.06	....	3.14
T.42N., R.77W.	27.16	13.67	112.37	153.20	....	....	....	....	....	....	....	....	27.16	13.67	112.37	153.20
T.43N., R.77W.	.77	....	....	.77	....	....	....	....	....	....	....	....	.77	....	....	.77
T.50N., R.77W.	12.76	128.36	....	141.12	....	....	....	....	....	....	....	....	12.76	128.36	....	141.12
T.51N., R.77W.	36.72	87.23	....	123.95	....	....	....	....	....	....	....	....	36.72	87.23	....	123.95
T.52N., R.77W.	20.08	52.00	163.87	235.95	....	....	....	....	....	....	....	....	20.08	52.00	163.87	235.96
T.53N., R.77W.	11.33	18.96	13.00	43.29	....	....	....	....	....	....	....	....	11.33	18.96	13.00	43.29

T.42N., R.76W.	9.57	12.24	39.74	61.55	....	....	....	....	....	....	....	....	9.57	12.24	39.74	61.55
T.43N., R.76W.	61.60	6.84	....	68.44	....	....	....	....	....	....	....	....	61.60	6.84	....	68.44
T.50N., R.76W.	19.94	3.05	....	22.99	....	....	....	....	....	....	....	....	19.94	3.05	....	22.99
T.51N., R.76W.	5.03	3.19	....	8.22	....	....	....	....	....	....	....	....	5.03	3.19	....	8.22
T.52N., R.76W.	3.96	....	....	3.96	....	....	....	....	....	....	....	....	3.96	....	....	3.96
T.43N., R.79W.	32.77	19.17	....	51.94	....	....	....	....	....	....	....	....	32.77	19.17	....	51.94
T.49N., R.79W.	9.62	17.19	....	26.81	....	....	....	....	....	....	....	....	9.62	17.19	....	26.81
T.50N., R.79W.	28.99	39.34	8.23	76.56	....	....	....	....	....	....	....	....	28.99	39.34	8.23	76.56
T.51N., R.79W.	3.09	2.43	....	5.52	....	....	....	....	....	....	....	....	3.09	2.43	....	5.52
T.43N., R.80W.	3.57	2.79	....	6.36	....	....	....	....	....	....	....	....	3.57	2.79	....	6.36
T.44N., R.80W.	18.79	3.00	....	21.79	....	....	....	....	....	....	....	....	18.79	3.00	....	21.79
T.52N., R.80W.	1.41	....	....	1.41	....	....	....	....	....	....	....	....	1.41	....	....	1.41
T.44N., R.81W.	26.41	6.51	....	32.92	....	....	....	....	....	....	....	....	26.41	6.51	....	32.92
T.46N., R.81W.	10.79	....	....	10.79	....	....	....	....	....	....	....	....	10.79	....	....	10.79
T.47N., R.81W.	30.51	2.56	....	33.07	....	....	....	....	....	....	....	....	30.51	2.56	....	33.07
T.50N., R.81W.	2.48	....	....	2.48	....	....	....	....	....	....	....	....	2.48	....	....	2.48
T.51N., R.81W.	45.81	35.35	285.13	366.29	....	....	....	....	....	....	....	....	45.81	35.35	285.13	366.29
T.52N., R.81W.	45.81	19.28	362.61	427.70	....	....	....	....	....	....	....	....	45.81	19.28	362.61	427.70
T.51N., R.82W.	19.34	3.13	137.34	159.81	....	....	....	....	....	....	....	....	19.34	3.13	137.34	159.81
T.52N., R.82W.	3.39	2.40	418.07	423.86	....	....	....	....	....	....	....	....	3.39	2.40	418.07	423.86
T.53N., R.82W.	.28	.54	....	.82	....	....	....	....	....	....	....	....	.28	.54	....	.82
T.52N., R.83W.	3.27	6.36	9.80	19.43	....	....	....	....	....	....	....	....	3.27	6.36	9.80	19.43
County total	509.52	578.29	1,645.49	2,733.30	....	....	....	....	....	....	....	....	509.52	578.29	1,645.49	2,733.30

Lincoln County

T.25N.,R.115W.	3.19	....	....	3.19	....	....	....	....	....	....	....	....	3.19	....	....	3.19
T.21N.,R.116W.	....	69.78	38.60	108.38	....	4.62	....	4.62	....	....	....	....	....	74.40	38.60	113.00
T.22N.,R.116W.	....	19.52	....	19.52	....	3.18	....	3.18	....	....	....	....	....	22.70	....	22.70
T.24N.,R.116W.	31.69	....	....	31.69	19.15	....	....	19.15	....	....	....	....	50.84	....	....	50.84
T.25N.,R.116W.	25.76	....	....	25.76	16.64	....	....	16.64	....	....	....	....	42.40	....	....	42.40
T.19N.,R.117W.	....	....	121.71	121.71	....	....	44.39	44.39	....	....	....	....	....	....	166.10	166.10
T.20N.,R.117W.	....	....	271.84	271.84	....	....	52.10	52.10	....	....	....	....	....	....	323.94	323.94
T.21N.,R.117W.	....	7.99	4.42	12.41	....	50.44	....	50.44	....	....	....	....	....	58.43	4.42	62.85
County total	60.64	97.29	436.57	594.50	35.79	58.24	96.49	190.52	....	....	....	....	96.43	155.53	533.06	785.02

Natrona County

T.36N., R.77W.	.24	....	....	.24	....	....	....	....	....	....	....	....	.24	....	....	.24
T.39N., R.77W.	.65	....	....	.65	....	....	....	....	....	....	....	....	.65	....	....	.65
T.36N., R.78W.	5.82	....	....	5.82	....	....	....	....	....	....	....	....	5.82	....	....	5.82
T.37N., R.78W.	5.21	6.75	....	11.96	....	....	....	....	....	....	....	....	5.21	6.75	....	11.96
T.38N., R.78W.	....	.91	....	.91	....	....	....	....	....	....	....	....	....	.91	....	.91
T.36N., R.79W.	5.96	.15	....	6.11	....	....	....	....	....	....	....	....	5.96	.15	....	6.11
T.31N., R.82W.	2.32	.19	....	2.51	.34	....	....	.34	....	....	....	....	2.66	.19	....	2.85
T.32N., R.82W.	.27	.39	....	.66	.24	....	....	.24	....	....	....	....	.51	.39	....	.90
T.33N., R.82W.	.03	....	....	.03	....	....	....	....	....	....	....	....	.03	....	....	.03
T.33N., R.83W.	2.72	3.89	....	6.61	2.03	3.67	....	5.70	1.00	3.53	....	4.53	5.75	11.09	....	16.84
T.36N., R.84W.	1.83	....	....	1.83	1.39	....	....	1.39	.68	....	....	.68	3.90	....	....	3.90
T.35N., R.85W.	14.15	2.65	....	16.80	11.09	.25	....	11.34	7.59	....	....	7.59	32.83	2.90	....	35.73
T.36N., R.85W.	3.78	3.91	....	7.69	2.76	2.47	....	5.23	1.83	1.14	....	2.97	8.37	7.52	....	15.89
T.33N., R.86W.	4.39	.12	....	4.51	.51	....	....	.51	....	....	....	....	4.90	.12	....	5.02
T.36N., R.86W.	9.18	2.94	....	12.12	8.26	2.17	....	10.43	4.98	.99	....	5.97	22.42	6.10	....	28.52
T.37N., R.86W.	....	8.33	....	8.33	....	7.14	....	7.14	....	3.57	....	3.57	....	19.04	....	19.04
T.33N., R.87W.	5.51	2.66	....	8.17	5.84	....	....	5.84	3.16	....	....	3.16	14.51	2.66	....	17.17
T.34N., R.87W.	.02	....	....	.02	.74	....	....	.74	1.66	....	....	1.66	2.42	....	....	2.42
T.37N., R.87W.	2.74	....	....	2.74	2.35	....	....	2.35	1.17	....	....	1.17	6.26	....	....	6.26
T.34N., R.88W.	4.90	1.70	....	6.60	3.52	....	....	3.52	2.45	....	....	2.45	10.87	1.70	....	12.57
County total	69.72	34.59	....	104.31	39.07	15.70	....	54.77	24.52	9.23	....	33.75	133.31	89.52	....	192.83

Table 8.--Indicated original reserves of sub-bituminous coal in Wyoming
(in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Niobrara County																
T.40N., R.66W.	.56	....	....	.56	....	....	....	....	....	....	....	....	.56	....	....	.56
T.34N., R.67W.	12.53	....	....	12.53	....	....	....	....	....	....	....	....	12.53	....	....	12.53
T.41N., R.67W.	1.22	....	....	1.22	....	....	....	....	....	....	....	....	1.22	....	....	1.22
County total	14.31	....	....	14.31	....	....	....	....	....	....	....	....	14.31	....	....	14.31
Park County																
T.56N., R.98W.	3.19	....	....	3.19	....	....	....	....	....	....	....	....	3.19	....	....	3.19
T.48N., R.99W.	3.48	.18	....	3.66	2.23	....	....	2.23	.32	....	....	.32	6.03	.18	....	6.21
T.56N., R.99W.	21.03	....	....	21.03	....	....	....	....	....	....	....	....	21.03	....	....	21.03
T.57N., R.99W.	2.97	....	....	2.97	....	....	....	....	....	....	....	....	2.97	....	....	2.97
T.47N.,R.100W.	9.35	.48	....	9.83	3.07	....	....	3.07	....	....	....	....	12.42	.48	....	12.90
T.48N.,R.100W.	3.53	.39	....	3.92	....	....	....	....	....	....	....	....	3.53	.39	....	3.92
T.49N.,R.100W.	3.18	....	....	3.18	....	....	....	....	....	....	....	....	3.18	....	....	3.18
T.51N.,R.100W.	4.08	....	....	4.08	3.21	....	....	3.21	.90	....	....	.90	8.19	....	....	8.19
T.47N.,R.101W.	19.65	16.67	....	36.32	10.96	1.44	....	12.40	....	....	....	....	30.61	18.11	....	48.72
T.48N.,R.101W.	5.29	.22	....	5.51	3.95	....	....	3.95	....	....	....	....	9.24	.22	....	9.46
T.49N.,R.101W.	1.69	.48	....	2.17	....	....	....	....	....	....	....	....	1.69	.48	....	2.17
T.50N.,R.101W.	4.93	....	....	4.93	1.38	....	....	1.38	1.10	....	....	1.10	7.41	....	....	7.41
T.51N.,R.101W.	2.17	.26	....	2.43	.88	....	....	.88	.01	....	....	.01	3.06	.26	....	3.32
T.52N.,R.101W.	.59	....	....	.59	.27	....	....	.27	....	....	....	....	.86	....	....	.86
T.53N.,R.101W.	1.48	....	....	1.48	1.29	....	....	1.29	.88	....	....	.88	3.65	....	....	3.65
T.47N.,R.102W.	4.86	1.96	....	6.82	....	....	....	....	....	....	....	....	4.86	1.96	....	6.82
T.48N.,R.102W.	2.19	....	....	2.19	.30	....	....	.30	....	....	....	....	2.49	....	....	2.49
T.50N.,R.102W.	....	.41	....	.41	....	....	....	....	....	....	....	....	....	.41	....	.41
County total	93.66	21.05	....	114.71	27.54	1.44	....	28.98	3.21	....	....	3.21	124.41	22.49	....	146.90
Sheridan County																
T.53N., R.76W.	....	23.62	....	23.62	....	....	....	....	....	....	....	....	....	23.62	....	23.62
T.54N., R.76W.	1.87	131.22	....	133.09	....	....	....	....	....	....	....	....	1.87	131.22	....	133.09
T.55N., R.76W.	25.49	133.77	....	159.26	....	....	....	....	....	....	....	....	25.49	133.77	....	159.26
T.53N., R.77W.	2.57	....	....	2.57	....	....	....	....	....	....	....	....	2.57	....	....	2.57
T.54N., R.77W.	....	212.75	....	212.75	....	....	....	....	....	....	....	....	....	212.75	....	212.75
T.55N., R.77W.	75.38	285.59	....	360.97	....	....	....	....	....	....	....	....	75.38	285.59	....	360.97
T.54N., R.78W.	....	21.01	....	21.01	....	....	....	....	....	....	....	....	....	21.01	....	21.01
T.55N., R.78W.	14.78	202.62	....	217.40	....	....	....	....	....	....	....	....	14.78	202.62	....	217.40
T.56N., R.82W.	....	....	19.14	19.14	....	....	....	....	....	....	....	....	....	....	19.14	19.14
T.57N., R.83W.	1.73	12.23	288.94	302.90	....	....	....	....	....	....	....	....	1.73	12.23	288.94	302.90
T.58N., R.83W.	....	....	166.54	166.54	....	....	....	....	....	....	....	....	....	....	166.54	166.54
T.55N., R.84W.	....	18.58	6.76	25.34	....	....	....	....	....	....	....	....	....	18.58	6.76	25.34
T.56N., R.84W.	51.59	103.20	47.78	202.57	....	....	....	....	....	....	....	....	51.59	103.20	47.78	202.57
T.57N., R.84W.	20.76	130.33	747.58	898.67	....	....	....	....	....	....	....	....	20.76	130.33	747.58	898.67
T.58N., R.84W.	6.25	18.06	183.80	208.11	....	....	....	....	....	....	....	....	6.25	18.06	183.80	208.11
T.55N., R.85W.	....	12.15	79.66	91.81	....	....	....	....	....	....	....	....	....	12.15	79.66	91.81
T.56N., R.85W.	....	112.76	56.87	169.63	....	....	....	....	....	....	....	....	....	112.76	56.87	169.63
T.57N., R.85W.	.44	51.70	125.88	178.02	....	....	....	....	....	....	....	....	.44	51.70	125.88	178.02
T.58N., R.85W.	3.82	11.78	54.72	70.32	....	....	....	....	....	....	....	....	3.82	11.78	54.72	70.32
County total	204.68	1,481.37	1,777.67	3,463.72	....	....	....	....	....	....	....	....	204.68	1,481.37	1,777.67	3,463.72

Sweetwater County

T.20N., R.90W.	....	29.91	....	29.91	....	....	....	....	....	....	....	....	....	29.91	....	29.91
T.21N., R.90W.	....	65.63	....	65.63	....	....	....	....	....	....	....	....	....	65.63	....	65.63
T.20N., R.91W.	....	264.14	16.64	280.78	....	....	....	....	....	....	....	....	....	264.14	16.64	280.78
T.21N., R.91W.	....	19.73	....	19.73	....	....	....	....	....	....	....	....	....	19.73	....	19.73
T.20N., R.92W.	....	122.76	124.32	247.08	....	....	....	....	....	....	....	....	....	122.76	124.32	247.08
T.21N., R.92W.	1.88	....	....	1.88	....	....	....	....	....	....	....	....	1.88	....	....	1.88
T.20N., R.93W.	....	67.85	....	67.85	....	....	....	....	....	....	....	....	....	67.85	....	67.85
T.21N., R.93W.	107.92	....	....	107.92	....	....	....	....	....	....	....	....	107.92	....	....	107.92
T.22N., R.93W.	.92	16.96	....	17.88	....	....	....	....	....	....	....	....	.92	16.96	....	17.88
T.21N., R.94W.	79.33	....	....	79.33	....	....	....	....	....	....	....	....	79.33	....	....	79.33
T.22N., R.94W.	44.60	58.60	67.82	171.02	....	....	....	....	....	....	....	....	44.60	58.60	67.82	171.02
T.23N., R.94W.	....	53.45	....	53.45	....	....	....	....	....	....	....	....	....	53.45	....	53.45
T.22N., R.95W.	4.51	56.31	....	60.82	....	....	....	....	....	....	....	....	4.51	56.31	....	60.82
T.23N., R.95W.	....	5.38	....	5.38	....	....	....	....	....	....	....	....	....	5.38	....	5.38
T.20N., R.99W.	10.02	....	....	10.02	....	....	....	....	....	....	....	....	10.02	....	....	10.02
T.21N., R.99W.	1.96	....	....	1.96	....	....	....	....	....	....	....	....	1.96	....	....	1.96
T.17N.,R.100W.	42.79	9.26	....	52.05	....	....	....	....	....	....	....	....	42.79	9.26	....	52.05
T.18N.,R.100W.	12.64	25.15	....	37.79	....	....	....	....	....	....	....	....	12.64	25.15	....	37.79
T.19N.,R.100W.	1.98	25.77	....	27.75	....	....	....	....	....	....	....	....	1.98	25.77	....	27.75
T.20N.,R.100W.	71.66	9.10	....	80.76	....	....	....	....	....	....	....	....	71.66	9.10	....	80.76
T.21N.,R.100W.	42.50	7.41	4.25	54.16	....	....	....	....	....	....	....	....	42.50	7.41	4.25	54.16
T.15N.,R.101W.	.41	....	....	.41	.81	....	....	.81	....	....	....	....	1.22	....	....	1.22
T.16N.,R.101W.	54.05	15.48	....	69.53	24.69	4.96	....	29.65	....	....	....	....	78.74	20.44	....	99.18
T.17N.,R.101W.	75.35	4.58	....	79.93	.05	....	....	.05	....	....	....	....	75.40	4.58	....	79.98
T.18N.,R.101W.	51.22	19.16	....	70.38	....	....	....	....	....	....	....	....	51.22	19.16	....	70.38
T.19N.,R.101W.	6.10	....	....	6.10	....	....	....	....	....	....	....	....	6.10	....	....	6.10
T.20N.,R.101W.	44.25	4.33	....	48.58	2.83	....	....	2.83	....	....	....	....	47.08	4.33	....	51.41
T.21N.,R.101W.	5.01	....	....	5.01	.96	....	....	.96	....	....	....	....	5.97	....	....	5.97
T.14N.,R.102W.	33.41	8.82	....	42.23	.15	....	....	.15	....	....	....	....	33.56	8.82	....	42.38
T.15N.,R.102W.	157.99	....	....	157.99	1.85	....	....	1.85	....	....	....	....	159.84	....	....	159.84
T.16N.,R.102W.	236.05	51.38	....	287.43	31.89	....	....	31.89	....	....	....	....	267.94	51.38	....	319.32
T.17N.,R.102W.	1.23	....	....	1.23	....	....	....	....	....	....	....	....	1.23	....	....	1.23
T.13N.,R.103W.	3.97	14.52	....	18.49	20.90	9.44	....	30.34	....	....	....	....	24.87	23.96	....	48.83
T.14N.,R.103W.	83.71	121.82	....	205.53	12.11	.83	....	12.94	....	....	....	....	95.82	122.65	....	218.47
T.15N.,R.103W.	.26	....	....	.26	....	....	....	....	....	....	....	....	.26	....	....	.26
T.22N.,R.103W.	.19	....	....	.19	....	....	....	....	....	....	....	....	.19	....	....	.19
T.13N.,R.104W.	1.21	....	....	1.21	1.13	....	....	1.13	....	....	....	....	2.34	....	....	2.34
T.14N.,R.104W.	15.41	7.01	....	22.42	2.30	....	....	2.30	....	....	....	....	17.71	7.01	....	24.72
T.21N.,R.104W.	....	4.30	....	4.30	....	....	....	....	....	....	....	....	....	4.30	....	4.30
T.22N.,R.104W.	23.44	13.13	....	36.57	2.94	14.25	....	17.19	....	....	....	....	26.38	27.38	....	53.76
T.15N.,R.105W.	8.51	....	....	8.51	.89	....	....	.89	....	....	....	....	9.40	....	....	9.40
T.16N.,R.105W.	120.33	6.80	....	127.13	17.50	....	....	17.50	....	....	....	....	137.83	6.80		144.63
T.17N.,R.105W.	67.96	9.81	....	77.77	5.99	....	....	5.99	....	....	....	....	73.95	9.81	....	83.76
T.18N.,R.105W.	112.03	6.50	....	118.53	23.49	....	....	23.49	....	....	....	....	135.52	6.50		142.02
T.19N.,R.105W.	73.73	....	....	73.73	6.36	....	....	6.36	....	....	....	....	80.09	....	....	80.09
T.20N.,R.105W.	82.65	....	....	82.65	16.53	....	....	16.53	....	....	....	....	99.18	....	....	99.18
T.16N.,R.106W.	1.00	....	....	1.00	2.94	....	....	2.94	....	....	....	....	3.94	....	....	3.94
T.17N.,R.106W.	11.31	....	....	11.31	8.12	....	....	8.12	....	....	....	....	19.43	....	....	19.43
T.18N.,R.106W.	....	....	....	....	.91	....	....	.91	....	....	....	....	.91	....	....	.91
County total	1,693.49	1,125.05	213.03	3,031.57	185.34	29.48	....	214.82	....	....	....	....	1,878.83	1,154.53	213.03	3,246.39

Uinta County

T.15N.,R.118W.	....	24.87	....	24.87	....	....	....	....	....	....	....	....	....	24.87	....	24.87
T.16N.,R.118W.	....	5.70	....	5.70	....	....	....	....	....	....	....	....	....	5.70	....	5.70
T.15N.,R.120W.	2.29	22.63	13.74	38.66	.21	21.68	11.91	33.80	....	19.85	4.58	24.43	2.50	64.16	30.23	96.89
T.16N.,R.120W.	10.73	20.31	50.69	81.73	7.42	23.50	42.69	73.61	.52	16.26	30.24	47.02	18.67	60.07	123.62	202.36
County total	13.02	73.51	64.43	150.96	7.63	45.18	54.60	107.41	.52	36.11	34.82	71.45	21.17	154.80	153.85	329.82

Table 8.--Indicated original reserves of sub-bituminous coal in Wyoming
(in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Washakie County																
T.44N., R.90W.	5.89	....	....	5.89	4.58	....	....	4.58	....	....	....	....	10.47	....	....	10.47
T.44N., R.91W.	11.24	11.68	....	22.92	.67	....	....	.67	....	....	....	....	11.91	11.68	....	23.59
T.44N., R.92W.	3.14	....	....	3.14	....	....	....	....	....	....	....	....	3.14	....	....	3.14
County total	20.27	11.68	....	31.95	5.25	....	....	5.25	....	....	....	....	25.52	11.68	....	37.20
Weston County																
T.41N., R.67W.	2.95	....	....	2.95	....	....	....	....	....	....	....	....	2.95	....	....	2.95
T.42N., R.67W.	5.69	....	....	5.69	....	....	....	....	....	....	....	....	5.69	....	....	5.69
T.43N., R.67W.	29.06	....	....	29.06	....	....	....	....	....	....	....	....	29.06	....	....	29.06
T.44N., R.67W.	29.21	....	....	29.21	....	....	....	....	....	....	....	....	29.21	....	....	29.21
T.45N., R.67W.	26.57	4.06	....	30.63	....	....	....	....	....	....	....	....	26.57	4.06	....	30.63
T.46N., R.67W.	7.81	2.78	....	10.59	....	....	....	....	....	....	....	....	7.81	2.78	....	10.59
T.48N., R.67W.	3.32	....	....	3.32	....	....	....	....	....	....	....	....	3.32	....	....	3.32
T.41N., R.68W.	24.90	4.26	....	29.16	....	....	....	....	....	....	....	....	24.90	4.26	....	29.16
T.42N., R.68W.	28.22	23.25	....	51.47	....	....	....	....	....	....	....	....	28.22	23.25	....	51.47
T.43N., R.68W.	27.42	....	....	27.42	....	....	....	....	....	....	....	....	27.42	....	....	27.42
T.44N., R.68W.	....	1.24	....	1.24	....	....	....	....	....	....	....	....	....	1.24	....	1.24
T.45N., R.68W.	26.56	.72	....	27.28	....	....	....	....	....	....	....	....	26.56	.72	....	27.28
T.46N., R.68W.	8.56	....	....	8.56	....	....	....	....	....	....	....	....	8.56	....	....	8.56
T.47N., R.68W.	3.59	....	....	3.59	....	....	....	....	....	....	....	....	3.59	....	....	3.59
T.48N., R.68W.	10.70	....	....	10.70	....	....	....	....	....	....	....	....	10.70	....	....	10.70
County total	234.56	36.31	....	270.87	....	....	....	....	....	....	....	....	234.56	36.31	....	270.87
Total	6,503.92	9,151.40	15,561.83	31,217.15	737.66	673.09	363.60	1,774.35	281.54	266.21	171.83	719.58	7,523.12	10,090.70	16,097.26	33,711.08

Table 9.--Inferred original reserves of sub-bituminous coal in Wyoming
(in millions of short tons)

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Albany County																
T.20N., R.75W.	1.77	....	....	1.77	....	....	....	....	....	....	....	....	1.77	....	....	1.77
T.20N., R.76W.	....	....	....	....	....	....	....	....	10.90	.61	....	11.51	10.90	.61	....	11.51
T.16N., R.77W.	1.77	....	....	1.77	....	....	....	....	....	....	....	....	1.77	....	....	1.77
T.17N., R.77W.	1.33	2.66	....	3.99	....	....	....	....	....	....	....	....	1.33	2.66	....	3.99
T.18N., R.77W.	....	2.26	1.77	4.03	....	2.26	1.77	4.03	....	2.40	1.88	4.28	....	6.92	5.42	12.34
T.19N., R.77W.	....	....	....	....	2.10	1.27	....	3.37	4.73	....	....	4.73	6.83	1.27	....	8.10
County total	4.87	4.92	1.77	11.56	2.10	3.53	1.77	7.40	15.63	3.01	1.88	20.52	22.60	11.46	5.42	39.48
Big Horn County																
T.50N., R.92W.	.14	....	....	.14	....	....	....	....	....	....	....	....	.14	....	....	.14
T.49N., R.93W.	....	....	....	....	.89	....	....	.89	2.21	....	....	2.21	3.10	....	....	3.10
T.55N., R.96W.	.62	....	....	.62	....	....	....	....	....	....	....	....	.62	....	....	.62
County total	.76	....	....	.76	.89	....	....	.89	2.21	....	....	2.21	3.86	....	....	3.86
Campbell County																
T.41N., R.69W.	33.98	....	....	33.98	....	....	....	....	....	....	....	....	33.98	....	....	33.98
T.42N., R.69W.	20.31	....	....	20.31	....	....	....	....	....	....	....	....	20.31	....	....	20.31
T.44N., R.69W.	27.08	....	....	27.08	....	....	....	....	....	....	....	....	27.08	....	....	27.08
T.45N., R.69W.	36.51	....	....	36.51	....	....	....	....	....	....	....	....	36.51	....	....	36.51
T.42N., R.70W.	....	....	204.97	204.97	....	....	....	....	....	....	....	....	....	....	204.97	204.97
T.43N., R.70W.	....	....	339.84	339.84	....	....	....	....	....	....	....	....	....	....	339.84	339.84
T.44N., R.70W.	....	....	166.20	166.20	....	....	....	....	....	....	....	....	....	....	166.20	166.20
T.45N., R.70W.	....	....	139.65	139.65	....	....	....	....	....	....	....	....	....	....	139.65	139.65
T.46N., R.70W.	....	....	19.56	19.56	....	....	....	....	....	....	....	....	....	....	19.56	19.56
T.41N., R.71W.	....	....	297.37	297.37	....	....	....	....	....	....	....	....	....	....	297.37	297.37
T.42N., R.71W.	....	....	484.27	484.27	....	....	....	....	....	....	....	....	....	....	484.27	484.27
T.43N., R.71W.	....	....	485.33	485.33	....	....	....	....	....	....	....	....	....	....	485.33	485.33
T.44N., R.71W.	....	....	485.33	485.33	....	....	....	....	....	....	....	....	....	....	485.33	485.33
T.45N., R.71W.	1.33	....	486.93	488.26	....	....	....	....	....	....	....	....	1.33	....	486.93	488.26
T.46N., R.71W.	....	....	441.79	441.79	....	....	....	....	....	....	....	....	....	....	441.79	441.79
T.47N., R.71W.	....	....	352.89	352.89	....	....	....	....	....	....	....	....	....	....	352.89	352.89
T.48N., R.71W.	15.63	117.95	....	133.58	....	....	....	....	....	....	....	....	15.63	117.95	....	133.58
T.49N., R.71W.	79.08	31.26	421.52	531.86	....	....	....	....	....	....	....	....	79.08	31.26	421.52	531.86
T.50N., R.71W.	15.29	22.09	22.66	60.04	....	....	....	....	....	....	....	....	15.29	22.09	22.66	60.04
T.51N., R.71W.	33.10	....	....	33.10	....	....	....	....	....	....	....	....	33.10	....	....	33.10
T.52N., R.71W.	5.10	....	....	5.10	....	....	....	....	....	....	....	....	5.10	....	....	5.10
T.41N., R.72W.	....	....	428.52	428.52	....	....	....	....	....	....	....	....	....	....	428.52	428.52
T.42N., R.72W.	....	....	484.27	484.27	....	....	....	....	....	....	....	....	....	....	484.27	484.27
T.43N., R.72W.	37.35	....	488.52	525.87	....	....	....	....	....	....	....	....	37.35	....	488.52	525.87
T.44N., R.72W.	107.83	....	525.25	633.08	....	....	....	....	....	....	....	....	107.83	....	525.25	633.08
T.45N., R.72W.	63.55	....	515.28	578.83	....	....	....	....	....	....	....	....	63.55	....	515.28	578.83
T.46N., R.72W.	4.65	4.78	483.21	492.64	....	....	....	....	....	....	....	....	4.65	4.78	483.21	492.64
T.47N., R.72W.	....	60.73	382.32	443.05	....	....	....	....	....	....	....	....	....	60.73	382.32	443.05
T.48N., R.72W.	....	309.42	17.33	326.75	....	....	....	....	....	....	....	....	....	309.42	17.33	326.75
T.49N., R.72W.	78.09	22.26	961.60	1,061.95	....	....	....	....	....	....	....	....	78.09	22.26	961.60	1,061.95
T.50N., R.72W.	34.32	85.38	2,129.68	2,249.38	....	....	....	....	....	....	....	....	34.32	85.38	2,129.68	2,249.38
T.51N., R.72W.	126.25	....	258.06	384.31	....	....	....	....	....	....	....	....	126.25	....	258.06	384.31
T.52N., R.72W.	91.76	20.47	163.12	275.35	....	....	....	....	....	....	....	....	91.76	20.47	163.12	275.35
T.53N., R.72W.	11.32	2.71	....	14.03	....	....	....	....	....	....	....	....	11.32	2.71	....	14.03
T.55N., R.72W.	5.90	73.52	....	79.42	....	....	....	....	....	....	....	....	5.90	73.52	....	79.42

Table 9.--Inferred original reserves of sub-bituminous coal in Wyoming
(in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Campbell County--Continued																
T.56N., R.72W.	54.70	94.97	....	149.67	....	....	....	....	....	....	....	....	54.70	94.97	....	149.67
T.57N., R.72W.	4.80	....	....	4.80	....	....	....	....	....	....	....	....	4.80	....	....	4.80
T.58N., R.72W.	7.00	....	....	7.00	....	....	....	....	....	....	....	....	7.00	....	....	7.00
T.41N., R.73W.	....	38.17	313.82	351.99	....	....	....	....	....	....	....	....	....	38.17	313.82	351.99
T.42N., R.73W.	....	56.95	484.27	541.22	....	....	....	....	....	....	....	....	....	56.95	484.27	541.22
T.43N., R.73W.	25.45	213.43	494.26	733.14	....	....	....	....	....	....	....	....	25.45	213.43	494.26	733.14
T.44N., R.73W.	45.35	80.14	625.23	750.72	....	....	....	....	....	....	....	....	45.35	80.14	625.23	750.72
T.45N., R.73W.	.65	26.72	502.81	530.18	....	....	....	....	....	....	....	....	.65	26.72	502.81	530.18
T.46N., R.73W.	....	243.95	401.82	645.77	....	....	....	....	....	....	....	....	....	243.95	401.82	645.77
T.47N., R.73W.	....	494.47	64.17	558.64	....	....	....	....	....	....	....	....	....	494.47	64.17	558.64
T.48N., R.73W.	....	382.15	418.90	801.05	....	....	....	....	....	....	....	....	....	382.15	418.90	801.05
T.49N., R.73W.	3.98	77.82	1,142.89	1,224.69	....	....	....	....	....	....	....	....	3.98	77.82	1,142.89	1,224.69
T.50N., R.73W.	47.79	....	1,178.88	1,226.67	....	....	....	....	....	....	....	....	47.79	....	1,178.88	1,226.67
T.51N., R.73W.	57.77	....	1,055.38	1,113.15	....	....	....	....	....	....	....	....	57.77	....	1,055.38	1,113.15
T.52N., R.73W.	15.63	....	726.11	741.74	....	....	....	....	....	....	....	....	15.63	....	726.11	741.74
T.53N., R.73W.	....	....	246.15	246.15	....	....	....	....	....	....	....	....	....	....	246.15	246.15
T.54N., R.73W.	....	....	246.15	246.15	....	....	....	....	....	....	....	....	....	....	246.15	246.15
T.55N., R.73W.	....	65.42	237.34	302.76	....	....	....	....	....	....	....	....	....	65.42	237.34	302.76
T.56N., R.73W.	18.20	132.41	....	150.61	....	....	....	....	....	....	....	....	18.20	132.41	....	150.61
T.57N., R.73W.	63.20	49.00	....	112.20	....	....	....	....	....	....	....	....	63.20	49.00	....	112.20
T.58N., R.73W.	39.81	7.70	....	47.51	....	....	....	....	....	....	....	....	39.81	7.70	....	47.51
T.41N., R.74W.	11.95	205.10	....	217.05	....	....	....	....	....	....	....	....	11.95	205.10	....	217.05
T.42N., R.74W.	5.18	304.93	102.48	412.59	....	....	....	....	....	....	....	....	5.18	304.93	102.48	412.59
T.43N., R.74W.	....	325.91	140.29	466.20	....	110.10	88.63	198.73	....	....	....	....	....	436.01	228.92	664.93
T.44N., R.74W.	....	225.26	24.47	249.73	....	151.23	217.50	368.73	....	....	....	....	....	376.49	241.97	618.46
T.45N., R.74W.	....	255.62	33.71	289.33	....	202.37	106.03	308.40	....	....	....	....	....	457.99	139.74	597.73
T.46N., R.74W.	....	360.57	4.76	365.33	....	215.12	....	215.12	....	....	....	....	....	575.69	4.76	580.45
T.47N., R.74W.	....	415.29	....	415.29	....	190.99	....	190.99	....	....	....	....	....	606.28	....	606.28
T.48N., R.74W.	....	349.40	108.32	457.72	....	191.16	....	191.16	....	....	....	....	....	540.56	108.32	648.88
T.49N., R.74W.	....	106.20	817.03	923.23	....	84.96	....	84.96	....	....	....	....	....	191.16	817.03	1,008.19
T.50N., R.74W.	....	11.50	1,186.28	1,197.78	....	....	....	....	....	....	....	....	....	11.50	1,186.28	1,197.78
T.51N., R.74W.	....	....	1,230.51	1,230.51	....	....	....	....	....	....	....	....	....	....	1,230.51	1,230.51
T.52N., R.74W.	....	....	1,244.50	1,244.50	....	....	....	....	....	....	....	....	....	....	1,244.50	1,244.50
T.53N., R.74W.	93.91	....	467.85	561.76	....	....	....	....	....	....	....	....	93.91	....	467.85	561.76
T.54N., R.74W.	40.41	....	488.56	528.97	....	....	....	....	....	....	....	....	40.41	....	488.56	528.97
T.55N., R.74W.	5.07	40.04	399.25	444.36	....	....	....	....	....	....	....	....	5.07	40.04	399.25	444.36
T.41N., R.75W.	....	....	....	....	89.21	....	....	89.21	....	....	....	....	89.21	....	....	89.21
T.42N., R.75W.	31.86	....	....	31.86	21.24	196.47	....	217.71	6.37	21.24	....	27.61	59.47	217.71	....	277.18
T.43N., R.75W.	70.69	77.72	....	148.41	....	169.26	....	169.26	....	132.54	....	132.54	70.69	379.52	....	450.21
T.44N., R.75W.	26.04	200.97	....	227.01	....	201.53	....	201.53	....	102.30	....	102.30	26.04	504.80	....	530.84
T.45N., R.75W.	....	273.23	....	273.23	....	305.86	....	305.86	....	....	....	....	....	579.09	....	579.09
T.46N., R.75W.	....	189.74	....	189.74	....	293.73	....	293.73	....	....	....	....	....	483.47	....	483.47
T.47N., R.75W.	....	313.29	....	313.29	....	313.29	....	313.29	....	....	....	....	....	626.58	....	626.58
T.48N., R.75W.	....	198.24	....	198.24	....	297.36	....	297.36	....	....	....	....	....	495.60	....	495.60
T.49N., R.75W.	....	193.28	240.72	434.00	....	307.98	....	307.98	....	....	....	....	....	501.26	240.72	741.98
T.50N., R.75W.	....	275.04	843.94	1,118.98	....	....	....	....	....	....	....	....	....	275.04	843.94	1,118.98
T.51N., R.75W.	....	180.20	1,149.74	1,329.94	....	....	....	....	....	....	....	....	....	180.20	1,149.74	1,329.94
T.52N., R.75W.	....	....	618.67	618.67	....	....	....	....	....	....	....	....	....	....	618.67	618.67
T.53N., R.75W.	140.32	....	430.05	570.37	....	....	....	....	....	....	....	....	140.32	....	430.05	570.37
T.54N., R.75W.	131.30	73.45	333.64	538.39	....	....	....	....	....	....	....	....	131.30	73.45	333.64	538.39

T.55N., R.75W.	63.35	66.01	38.63	167.99	....	....	....	....	....	....	....	....	63.35	66.01	38.63	167.99
T.41N., R.76W.	....	....	....	....	21.24	....	....	21.24	....	....	....	....	21.24	....	....	21.24
T.42N., R.76W.	....	....	....	....	57.35	....	....	57.35	36.11	10.62	....	46.73	93.46	10.62	....	104.08
T.43N., R.76W.	15.32	....	....	15.32	....	....	....	....	26.92	164.48	....	191.40	42.24	164.48	....	206.72
T.44N., R.76W.	65.97	....	....	65.97	....	19.71	....	19.71	....	207.98	....	207.98	65.97	227.69	....	293.66
T.45N., R.76W.	63.59	15.18	....	78.77	....	210.36	....	210.36	....	1.70	....	1.70	63.59	227.24	....	290.83
T.46N., R.76W.	3.77	....	....	3.77	....	212.40	....	212.40	....	....	....	....	3.77	212.40	....	216.17
T.47N., R.76W.	29.74	74.34	....	104.08	....	212.40	....	212.40	....	....	....	....	29.74	286.74	....	316.48
T.48N., R.76W.	....	123.90	....	123.90	....	212.40	....	212.40	....	....	....	....	....	336.30	....	336.30
T.49N., R.76W.	....	188.33	....	188.33	....	212.40	....	212.40	....	....	....	....	....	400.73	....	400.73
T.50N., R.76W.	....	356.12	96.29	452.41	....	....	....	....	....	....	....	....	....	356.12	96.29	452.41
T.51N., R.76W.	....	296.30	445.33	741.63	....	....	....	....	....	....	....	....	....	296.30	445.33	741.63
T.52N., R.76W.	....	162.10	146.50	308.60	....	....	....	....	....	....	....	....	....	162.10	146.50	308.60
T.53N., R.76W.	....	154.03	40.78	194.81	....	....	....	....	....	....	....	....	....	154.03	40.78	194.81
T.54N., R.76W.	25.20	90.06	....	115.26	....	....	....	....	....	....	....	....	25.20	90.06	....	115.26
County total	2,036.43	8,815.22	29,955.95	40,807.60	189.04	4,311.08	412.16	4,912.28	69.40	640.86	....	710.26	2,294.87	13,767.16	30,368.11	46,430.14

Carbon County

T.17N., R.77W.	1.33	2.65	....	3.98	....	....	....	....	....	....	....	....	1.33	2.65	....	3.98
T.19N., R.78W.	....	2.66	....	2.66	....	....	....	....	....	....	....	....	....	2.66	....	2.66
T.20N., R.78W.	1.15	....	....	1.15	....	....	....	....	....	....	....	....	1.15	....	....	1.15
T.21N., R.79W.	....	....	....	....	.45	4.67	....	5.12	....	....	....	....	.45	4.67	....	5.12
T.21N., R.80W.	....	....	....	....	....	9.58	....	9.58	1.19	18.72	....	19.91	1.19	28.30	....	29.49
T.23N., R.80W.	....	....	....	....	1.24	....	....	1.24	4.10	5.71	....	9.81	5.34	5.71	....	11.05
T.22N., R.81W.	6.81	7.13	16.82	30.76	2.49	....	....	2.49	5.40	4.21	....	9.61	14.70	11.34	16.82	42.86
T.23N., R.81W.	....	....	8.41	8.41	4.29	.54	9.06	13.89	21.46	25.71	22.46	69.63	25.75	26.25	39.93	91.93
T.24N., R.81W.	....	....	....	....	....	....	....	....	.09	....	....	.09	.09	....	....	.09
T.22N., R.82W.	....	4.31	....	4.31	3.67	....	....	3.67	5.18	....	....	5.18	8.85	4.31	....	13.16
T.23N., R.82W.	....	....	....	....	15.97	.74	....	16.71	8.71	9.54	....	18.25	24.68	10.28	....	34.96
T.22N., R.83W.	.94	5.89	....	6.83	1.19	6.15	....	7.34	.94	1.91	....	2.85	3.07	13.95	....	17.02
T.23N., R.83W.	....	....	....	....	9.78	33.02	.80	43.60	28.25	51.77	....	80.02	38.03	84.79	.80	123.62
T.22N., R.84W.	....	3.14	4.99	8.13	....	....	....	....	....	....	....	....	....	3.14	4.99	8.13
T.23N., R.84W.	....	....	.40	.40	....	....	.13	.13	....	....	....	....	....	....	.53	.53
T.21N., R.89W.	1.08	....	....	1.08	....	....	....	....	....	....	....	....	1.08	....	....	1.08
T.22N., R.89W.	1.34	....	....	1.34	....	....	....	....	....	....	....	....	1.34	....	....	1.34
T.23N., R.89W.	.38	....	....	.38	....	....	....	....	....	....	....	....	.38	....	....	.38
T.25N., R.89W.	4.43	6.07	1.34	11.84	....	....	....	....	....	....	....	....	4.43	6.07	1.34	11.84
T.26N., R.89W.	....	.67	....	.67	....	....	....	....	....	....	....	....	....	.67	....	.67
T.27N., R.89W.	....	6.61	3.12	9.73	....	....	....	....	....	....	....	....	....	6.61	3.12	9.73
T.12N., R.90W.	....	.73	....	.73	....	....	....	....	....	....	....	....	....	.73	....	.73
T.18N., R.90W.	....	....	2.23	2.23	....	....	....	....	....	....	....	....	....	....	2.23	2.23
T.13N., R.91W.	.36	.67	1.34	2.37	....	....	....	....	....	....	....	....	.36	.67	1.34	2.37
T.14N., R.91W.	.30	....	....	.30	....	....	....	....	....	....	....	....	.30	....	....	.30
T.15N., R.91W.	.90	....	....	.90	....	....	....	....	....	....	....	....	.90	....	....	.90
T.18N., R.91W.	....	65.37	....	65.37	....	....	....	....	....	....	....	....	....	65.37	....	65.37
T.19N., R.91W.	....	22.84	....	22.84	....	....	....	....	....	....	....	....	....	22.84	....	22.84
T.12N., R.92W.	1.77	....	....	1.77	10.40	1.33	....	11.73	....	....	....	....	12.17	1.33	....	13.50
T.15N., R.92W.	....	.76	....	.76	....	....	....	....	....	....	....	....	....	.76	....	.76
T.16N., R.92W.	....	.67	3.23	3.90	....	....	....	....	....	....	....	....	....	.67	3.23	3.90
T.17N., R.92W.	....	1.12	....	1.12	....	....	....	....	....	....	....	....	....	1.12	....	1.12
T.18N., R.92W.	1.33	37.44	....	38.77	....	....	....	....	....	....	....	....	1.33	37.44	....	38.77
T.19N., R.92W.	....	38.67	5.04	43.71	....	51.12	....	51.12	....	....	....	....	....	89.79	5.04	94.83
T.19N., R.93W.	.47	1.45	....	1.92	....	24.71	....	24.71	....	3.44	....	3.44	.47	29.60	....	30.07
County total	22.59	208.86	46.92	278.36	49.48	131.86	9.99	191.33	75.32	121.01	22.46	218.79	147.39	461.72	79.37	688.48

Table 9.--Inferred original reserves of sub-bituminous coal in Wyoming
(in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Converse County																
T.37N., R.68W.	.13	....	....	.13	....	....	....	....	....	....	....	....	.13	....	....	.13
T.38N., R.68W.	28.61	23.40	....	52.01	....	....	....	....	....	....	....	....	28.61	23.40	....	52.01
T.39N., R.68W.	52.63	....	....	52.63	....	....	....	....	....	....	....	....	52.63	....	....	52.63
T.36N., R.69W.	2.76	....	....	2.76	....	....	....	....	....	....	....	....	2.76	....	....	2.76
T.37N., R.69W.	91.46	....	....	91.46	....	....	....	....	....	....	....	....	91.46	....	....	91.46
T.38N., R.69W.	119.10	....	....	119.10	....	....	....	....	....	....	....	....	119.10	....	....	119.10
T.39N., R.69W.	55.09	....	....	55.09	....	....	....	....	....	....	....	....	55.09	....	....	55.09
T.40N., R.69W.	2.92	....	....	2.92	....	....	....	....	....	....	....	....	2.92	....	....	2.92
T.36N., R.70W.	7.76	....	....	7.76	....	....	....	....	....	....	....	....	7.76	....	....	7.76
T.37N., R.70W.	34.52	....	....	34.52	....	....	....	....	....	....	....	....	34.52	....	....	34.52
T.40N., R.71W.	....	....	72.22	72.22	....	....	....	....	....	....	....	....	....	....	72.22	72.22
T.40N., R.72W.	2.66	27.88	321.52	352.06	....	....	....	....	....	....	....	....	2.66	27.88	321.52	352.06
T.41N., R.72W.	....	....	140.72	140.72	....	....	....	....	....	....	....	....	....	....	140.72	140.72
T.40N., R.73W.	27.75	128.84	39.85	196.44	....	....	....	....	....	....	....	....	27.75	128.84	39.85	196.44
T.41N., R.73W.	....	34.07	51.11	85.18	....	....	....	....	....	....	....	....	....	34.07	51.11	85.18
T.35N., R.74W.	10.76	1.08	....	11.84	7.23	....	....	7.23	....	....	....	....	17.99	1.08	....	19.07
T.36N., R.74W.	....	31.80	....	31.80	3.77	....	....	3.77	....	....	....	....	3.77	31.80	....	35.57
T.37N., R.74W.	....	12.72	....	12.72	....	....	....	....	....	....	....	....	....	12.72	....	12.72
T.38N., R.74W.	....	5.50	....	5.50	....	....	....	....	....	....	....	....	....	5.50	....	5.50
T.39N., R.74W.	15.00	....	....	15.00	....	....	....	....	....	....	....	....	15.00	....	....	15.00
T.40N., R.74W.	55.75	10.95	....	66.70	....	....	....	....	....	....	....	....	55.75	10.95	.....	66.70
T.41N., R.74W.	23.90	28.54	....	52.44	....	....	....	....	....	....	....	....	23.90	28.54	.....	52.44
T.35N., R.75W.	1.16	23.59	....	24.75	.18	....	....	.18	....	....	....	....	1.34	23.59	....	24.93
T.36N., R.75W.	18.86	18.85	....	37.71	5.99	....	....	5.99	....	....	....	....	24.85	18.85	....	43.70
T.38N., R.75W.	....	50.42	....	50.42	....	....	....	....	....	....	....	....	....	50.42	....	50.42
T.41N., R.75W.	....	....	....	....	21.24	....	....	21.24	....	....	....	....	21.24	....	....	21.24
County total	550.82	397.64	625.42	1,573.88	38.41	....	....	38.41	....	....	....	....	589.23	397.64	625.42	1,612.29
Fremont County																
T.27N., R.90W.	....	.67	....	.67	....	....	....	....	....	....	....	....	....	.67	....	.67
T.28N., R.90W.	1.56	....	....	1.56	....	....	....	....	....	....	....	....	1.56	....	....	1.56
T.27N., R.93W.	....	....	....	....	3.32	2.21	....	5.53	7.52	5.75	2.88	16.15	10.84	7.96	2.88	21.68
T.27N., R.94W.	1.33	....	....	1.33	....	....	....	....	....	....	....	....	1.33	....	....	1.33
T.34N., R.94W.	....	....	....	....	....	....	....	....	3.36	....	....	3.36	3.36	....	....	3.36
T.33N., R.96W.	....	....	....	....	....	....	....	....	48.36	33.48	122.63	204.47	48.36	33.48	122.63	204.47
T.34N., R.96W.	....	....	....	....	....	....	....	....	19.58	10.54	64.77	94.89	19.58	10.54	64.77	94.89
T. 1S., R. 6E.	....	....	....	....	....	....	....	....	.41	....	....	.41	.41	....	....	.41
County total	2.89	.67	....	3.56	3.32	2.21	....	5.53	79.23	49.77	190.28	319.28	85.44	52.65	190.28	328.37
Hot Springs County																
T.44N., R.93W.	.23	....	....	.23	....	....	....	....	....	....	....	....	.23	....	....	.23
T.44N., R.94W.	....	....	....	....	....	....	....	....	.13	....	....	.13	.13	....	....	.13
T.44N., R.95W.	.56	....	....	.56	....	....	....	....	....	....	....	....	.56	....	....	.56
T.45N., R.95W.	....	....	....	....	....	....	....	....	.40	....	....	.40	.40	....	....	.40
T.46N.,R.100W.	3.17	....	....	3.17	1.76	....	....	1.76	....	....	....	....	4.93	....	....	4.93
County total	3.96	....	....	3.96	1.76	....	....	1.76	.53	....	....	.53	6.25	....	....	6.25

Johnson County

T.42N., R.76W.	....	....	....	....	23.36	....	....	23.36	....	....	....	....	23.36	....	....	23.36
T.43N., R.76W.	....	....	....	....	....	....	....	....	23.38	12.24	....	35.62	23.38	12.24	....	35.62
T.44N., R.76W.	1.18	....	....	1.18	....	....	....	....	....	78.16	....	78.16	1.18	78.16	....	79.34
T.45N., R.76W.	29.45	....	....	29.45	....	84.96	....	84.96	....	7.47	....	7.47	29.45	92.43	....	121.88
T.46N., R.76W.	20.62	....	....	20.62	....	93.46	....	93.46	....	....	....	....	20.62	93.46	....	114.08
T.47N., R.76W.	37.17	7.08	....	44.25	....	90.27	....	90.27	....	....	....	....	37.17	97.35	....	134.52
T.48N., R.76W.	8.85	57.53	....	66.38	....	95.58	....	95.58	....	....	....	....	8.85	153.11	....	161.96
T.49N., R.76W.	....	113.99	....	113.99	....	106.20	....	106.20	....	....	....	....	....	220.19	....	220.19
T.50N., R.76W.	....	205.32	....	205.32	....	....	....	....	....	....	....	....	....	205.32	....	205.32
T.51N., R.76W.	....	145.85	156.47	302.32	....	....	....	....	....	....	....	....	....	145.85	156.47	302.32
T.52N., R.76W.	....	145.53	79.01	224.54	....	....	....	....	....	....	....	....	....	145.53	79.01	224.54
T.53N., R.76W.	....	77.39	....	77.39	....	....	....	....	....	....	....	....	....	77.39	....	77.39
T.42N., R.77W.	....	....	....	....	51.56	4.14	2.71	58.41	....	....	....	....	51.56	4.14	2.71	58.41
T.43N., R.77W.	....	....	....	....	114.76	....	....	114.76	34.47	....	....	34.47	149.23	....	....	149.23
T.44N., R.77W.	....	....	....	....	23.36	....	....	23.36	55.22	106.20	....	161.42	78.58	106.20	....	184.78
T.45N., R.77W.	7.08	....	....	7.08	10.62	196.47	....	207.09	6.37	63.72	....	70.09	24.07	260.19	....	284.26
T.46N., R.77W.	35.40	....	....	35.40	....	302.67	....	302.67	....	....	....	....	35.40	302.67	....	338.07
T.47N., R.77W.	49.56	....	....	49.56	....	313.29	....	313.29	....	....	....	....	49.56	313.29	....	362.85
T.48N., R.77W.	51.33	....	....	51.33	....	313.29	....	313.29	....	....	....	....	51.33	313.29	....	364.62
T.49N., R.77W.	33.12	14.87	....	47.99	....	318.60	....	318.60	....	....	....	....	33.12	333.47	....	366.59
T.50N., R.77W.	22.51	287.80	....	310.31	....	....	....	....	....	....	....	....	22.51	287.80	....	310.31
T.51N., R.77W.	6.42	326.58	13.48	346.48	....	....	....	....	....	....	....	....	6.42	326.58	13.48	346.48
T.52N., R.77W.	54.68	175.79	4.84	235.31	....	....	....	....	....	....	....	....	54.68	175.79	4.84	235.31
T.53N., R.77W.	48.26	14.36	....	62.62	....	....	....	....	....	....	....	....	48.26	14.36	....	62.62
T.42N., R.78W.	....	....	....	....	112.44	....	....	112.44	....	....	....	....	112.44	....	....	112.44
T.44N., R.78W.	....	....	....	....	66.20	....	....	66.20	....	....	....	....	66.20	....	....	66.20
T.45N., R.78W.	....	....	....	....	112.57	....	....	112.57	....	....	....	....	112.57	....	....	112.57
T.46N., R.78W.	....	....	....	....	93.46	58.41	....	151.87	....	....	....	....	93.46	58.41	....	151.87
T.47N., R.78W.	....	....	....	....	67.97	127.44	....	195.41	....	....	....	....	67.97	127.44	....	195.41
T.48N., R.78W.	....	....	....	....	57.35	159.30	....	216.65	....	....	....	....	57.35	159.30	....	216.65
T.49N., R.78W.	5.78	....	....	5.78	63.72	127.44	....	191.16	....	....	....	....	69.50	127.44	....	196.94
T.50N., R.78W.	117.76	67.16	....	184.92	....	....	....	....	....	....	....	....	117.76	67.16	....	184.92
T.51N., R.78W.	109.80	6.78	....	116.58	....	....	....	....	....	....	....	....	109.80	6.78	....	116.58
T.52N., R.78W.	45.03	....	....	45.03	....	....	....	....	....	....	....	....	45.03	....	....	45.03
T.43N., R.79W.	....	....	....	....	12.17	....	....	12.17	....	....	....	....	12.17	....	....	12.17
T.46N., R.79W.	....	....	....	....	31.86	....	....	31.86	....	....	....	....	31.86	....	....	31.86
T.47N., R.79W.	....	....	....	....	46.73	....	....	46.73	....	....	....	....	46.73	....	....	46.73
T.48N., R.79W.	....	....	....	....	55.22	....	....	55.22	....	....	....	....	55.22	....	....	55.22
T.49N., R.79W.	52.01	....	....	52.01	35.40	....	....	35.40	....	....	....	....	87.41	....	....	87.41
T.50N., R.79W.	44.67	....	....	44.67	....	....	....	....	....	....	....	....	44.67	....	....	44.67
T.51N., R.79W.	44.35	....	....	44.35	....	....	....	....	....	....	....	....	44.35	....	....	44.35
T.52N., R.79W.	....	4.08	72.05	76.13	....	....	....	....	....	....	....	....	....	4.08	72.05	76.13
T.53N., R.79W.	7.65	....	30.59	38.24	....	....	....	....	....	....	....	....	7.65	....	30.59	38.24
T.44N., R.80W.	2.77	....	....	2.77	....	....	....	....	....	....	....	....	2.77	....	....	2.77
T.48N., R.80W.	7.88	23.01	....	30.89	....	....	....	....	....	....	....	....	7.88	23.01	....	30.89
T.49N., R.80W.	15.80	11.78	....	27.58	....	....	....	....	....	....	....	....	15.80	11.78	....	27.58
T.50N., R.80W.	....	139.80	....	139.80	....	....	....	....	....	....	....	....	....	139.80	....	139.80
T.51N., R.80W.	....	12.69	141.42	154.11	....	....	....	....	....	....	....	....	....	12.69	141.42	154.11
T.52N., R.80W.	....	....	249.31	249.31	....	....	....	....	....	....	....	....	....	....	249.31	249.31
T.53N., R.80W.	....	....	27.69	27.69	....	....	....	....	....	....	....	....	....	....	27.69	27.69
T.50N., R.81W.	2.80	159.55	....	162.35	....	....	....	....	....	....	....	....	2.80	159.55	....	162.35
T.51N., R.81W.	3.36	....	....	3.36	....	....	....	....	....	....	....	....	3.36	....	....	3.36
T.53N., R.81W.	....	....	98.83	98.83	....	....	....	....	....	....	....	....	....	....	98.83	98.83
T.53N., R.82W.	....	9.91	163.80	173.71	....	....	....	....	....	....	....	....	....	9.91	163.80	173.71
County total	865.29	2,006.85	1,037.49	3,909.63	978.75	2,391.52	2.71	3,372.98	119.44	267.79	....	387.23	1,963.48	4,666.16	1,040.20	7,669.84

Table 9.--Inferred original reserves of sub-bituminous coal in Wyoming
(in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Lincoln County																
T.26N.,R.113W.	.34	.68	....	1.02	....	....	....	....	....	....	....	....	.34	.68	....	1.02
T.24N.,R.116W.	....	....	....	....	10.49	....	....	10.49	20.06	....	....	20.06	30.55	....	....	30.55
T.25N.,R.116W.	....	....	....	....	8.21	....	....	8.21	15.05	....	....	15.05	23.26	....	....	23.26
T.19N.,R.117W.	....	....	....	....	....	....	8.33	8.33	....	....	....	....	....	....	8.33	8.33
T.20N.,R.117W.	....	....	....	....	....	....	60.22	60.22	....	....	....	....	....	....	60.22	60.22
T.21N.,R.117W.	....	....	....	....	....	16.81	....	16.81	....	....	....	....	....	16.81	....	16.81
County total	.34	.68	....	1.02	18.70	16.81	68.55	104.06	35.11	....	....	35.11	54.15	17.49	68.55	140.19
Natrona County																
T.33N., R.78W.	.05	....	....	.05	....	....	....	....	....	....	....	....	.05	....	....	.05
Park County																
T.56N., R.98W.	.67	....	....	.67	....	....	....	....	....	....	....	....	.67	....	....	.67
T.56N., R.99W.	3.82	....	....	3.82	4.78	....	....	4.78	....	....	....	....	8.60	....	....	8.60
T.58N., R.99W.	.67	....	....	.67	....	....	....	....	....	....	....	....	.67	....	....	.67
T.51N.,R.100W.	.13	....	....	.13	....	....	....	....	....	....	....	....	.13	....	....	.13
T.52N.,R.100W.	.13	....	....	.13	....	....	....	....	....	....	....	....	.13	....	....	.13
*T.56N.,R.100W.	....	....	....	....	....	2.88	....	2.88	1.77	....	....	1.77	1.77	2.88	....	4.65
T.50N.,R.101W.	....	....	....	....	1.24	....	....	1.24	1.09	....	....	1.09	2.33	....	....	2.33
T.51N.,R.101W.	3.67	....	....	3.67	.72	....	....	.72	....	....	....	....	4.39	....	....	4.39
T.52N.,R.101W.	1.83	....	....	1.83	7.07	....	....	7.07	13.61	....	....	13.61	22.51	....	....	22.51
T.50N.,R.102W.	1.70	....	....	1.70	2.36	....	....	2.36	1.55	....	....	1.55	5.61	....	....	5.61
County total	12.62	....	....	12.62	16.17	2.88	....	19.05	18.02	....	....	18.02	46.81	2.88	....	49.69
Sheridan County																
T.53N., R.76W.	12.51	46.13	....	58.64	....	....	....	....	....	....	....	....	12.51	46.13	....	58.64
T.54N., R.76W.	38.67	5.18	....	43.85	....	....	....	....	....	....	....	....	38.67	5.18	....	43.85
T.53N., R.77W.	32.96	....	....	32.96	....	....	....	....	....	....	....	....	32.96	....	....	32.96
T.54N., R.77W.	7.48	....	....	7.48	....	....	....	....	....	....	....	....	7.48	....	....	7.48
T.57N., R.77W.	21.07	....	....	21.07	....	....	....	....	....	....	....	....	21.07	....	....	21.07
T.58N., R.77W.	40.27	....	....	40.27	....	....	....	....	....	....	....	....	40.27	....	....	40.27
T.56N., R.78W.	18.01	....	....	18.01	....	....	....	....	....	....	....	....	18.01	....	....	18.01
T.57N., R.78W.	117.42	....	....	117.42	35.41	....	....	35.41	....	....	....	....	152.83	....	....	152.83
T.58N., R.78W.	84.18	....	....	84.18	56.92	....	....	56.92	....	....	....	....	141.10	....	....	141.10
T.53N., R.79W.	.34	....	1.36	1.70	....	....	....	....	....	....	....	....	.34	....	1.36	1.70
T.55N., R.79W.	....	....	2.44	2.44	....	....	....	....	....	....	....	....	....	....	2.44	2.44
T.56N., R.79W.	102.15	....	5.56	107.71	16.00	....	....	16.00	....	....	....	....	118.15	....	5.56	123.71
T.57N., R.79W.	225.55	117.17	17.08	359.80	115.78	....	....	115.78	....	....	....	....	341.33	117.17	17.08	475.58
T.58N., R.79W.	109.43	133.22	155.64	398.29	32.49	....	....	32.49	....	....	....	....	141.92	133.22	155.64	430.78
T.53N., R.80W.	....	....	3.40	3.40	....	....	....	....	....	....	....	....	....	....	3.40	3.40
T.54N., R.80W.	4.21	78.11	26.67	108.99	....	....	....	....	....	....	....	....	4.21	78.11	26.67	108.99
T.55N., R.80W.	24.01	146.70	.68	171.39	....	....	....	....	....	....	....	....	24.01	146.70	.68	171.39
T.56N., R.80W.	244.67	108.93	2.04	355.64	49.95	....	....	49.95	21.89	....	....	21.89	316.51	108.93	2.04	427.48
T.57N., R.80W.	253.83	140.69	284.23	678.75	124.11	....	....	124.11	....	....	....	....	377.94	140.69	284.23	802.86
T.58N., R.80W.	128.36	27.02	291.88	447.26	60.97	....	....	60.97	....	....	....	....	189.33	27.02	291.88	508.23
T.53N., R.81W.	2.72	....	81.16	83.88	....	....	....	....	....	....	....	....	2.72	....	81.16	83.88
T.54N., R.81W.	1.50	229.72	....	231.22	....	....	....	....	....	....	....	....	1.50	229.72	....	231.22
T.55N., R.81W.	83.47	146.07	....	229.54	....	....	....	....	....	....	....	....	83.47	146.07	....	229.54
T.56N., R.81W.	243.08	314.89	13.69	571.66	39.09	101.58	....	140.67	64.78	....	....	64.78	346.95	416.47	13.69	777.11
T.57N., R.81W.	249.78	11.97	522.44	784.19	127.95	219.40	....	347.35	....	....	....	....	377.73	231.37	522.44	1,131.54

* Possibly bituminous coal.

T.58N., R.81W.	92.55	95.34	275.25	463.14	63.52	89.13	....	152.65	....	....	....	....	156.07	184.47	275.25	615.79
T.53N., R.82W.	....	95.39	....	95.39	....	....	....	....	....	....	....	....	....	95.39	....	95.39
T.54N., R.82W.	37.38	44.41	....	81.79	....	....	....	....	....	....	....	....	37.38	44.41	....	81.79
T.55N., R.82W.	87.92	82.63	....	170.55	....	147.26	....	147.26	....	....	....	....	87.92	229.89	....	317.81
T.56N., R.82W.	241.55	237.72	84.08	563.35	90.87	331.05	....	421.92	19.60	....	....	19.60	352.02	568.77	84.08	1,004.87
T.57N., R.82W.	249.30	8.88	540.87	799.05	124.11	323.53	....	447.64	....	....	....	....	373.41	332.41	540.87	1,246.69
T.58N., R.82W.	91.97	164.68	243.28	499.93	42.62	92.62	....	135.24	....	....	....	....	134.59	257.30	243.28	635.17
T.53N., R.83W.	....	....	14.39	14.39	....	....	....	....	....	....	....	....	....	....	14.39	14.39
T.54N., R.83W.	7.38	30.06	....	37.44	....	....	....	....	....	....	....	....	7.38	30.06	....	37.44
T.55N., R.83W.	54.60	80.37	....	134.97	....	256.47	....	256.47	....	....	....	....	54.60	336.84	....	391.44
T.56N., R.83W.	197.08	199.87	45.65	442.60	103.38	315.64	....	419.02	1.22	....	....	1.22	301.68	515.51	45.65	862.84
T.57N., R.83W.	255.94	201.13	421.62	878.69	41.46	48.68	3.12	93.26	....	....	....	....	297.40	249.81	424.74	971.95
T.58N., R.83W.	65.49	29.34	221.19	316.02	....	....	....	....	....	....	....	....	65.49	29.34	221.19	316.02
T.55N., R.84W.	7.61	259.18	....	266.79	....	5.44	....	5.44	....	....	....	....	7.61	264.62	....	272.23
T.56N., R.84W.	141.64	335.26	25.77	502.67	10.09	11.87	....	21.96	....	....	....	....	151.73	347.13	25.77	524.63
T.57N., R.84W.	31.10	92.41	26.51	150.02	....	....	....	....	....	....	....	....	31.10	92.41	26.51	150.02
T.58N., R.84W.	20.05	46.14	131.07	197.26	....	....	....	....	....	....	....	....	20.05	46.14	131.07	197.26
T.56N., R.85W.	5.26	81.24	....	86.50	....	....	....	....	....	....	....	....	5.26	81.24	....	86.50
T.57N., R.85W.	....	47.07	....	47.07	....	....	....	....	....	....	....	....	....	47.07	....	47.07
T.58N., R.85W.	6.88	....	....	6.88	....	....	....	....	....	....	....	....	6.88	....	....	6.88
T.58N., R.86W.	6.94	....	....	6.94	....	....	....	....	....	....	....	....	6.94	....	....	6.94
County total	3,646.31	3,636.92	3,437.95	10,721.18	1,134.72	1,942.67	3.12	3,080.51	107.49	....	....	107.49	4,888.52	5,579.59	3,441.07	13,909.18

Sublette County

T.27N.,R.113W.	1.19	.93	....	2.12	....	....	....	....	....	....	....	....	1.19	.93	....	2.12
T.28N.,R.114W.	1.31	1.78	....	3.09	....	....	....	....	....	....	....	....	1.31	1.78	....	3.09
County total	2.50	2.71	....	5.21	....	....	....	....	....	....	....	....	2.50	2.71	....	5.21

Sweetwater County

T.21N., R.90W.	....	32.57	9.96	42.53	....	29.76	....	29.76	....	....	....	....	....	62.33	9.96	72.29
T.26N., R.90W.	2.71	1.01	2.39	6.11	....	....	....	....	....	....	....	....	2.71	1.01	2.39	6.11
T.20N., R.91W.	....	30.69	....	30.69	....	13.67	....	13.67	....	....	....	....	....	44.36	....	44.36
T.21N., R.91W.	....	49.75	....	49.75	....	278.59	....	278.59	....	15.12	....	15.12	....	343.46	....	343.46
T.20N., R.92W.	....	70.50	18.11	88.61	....	260.67	....	260.67	....	20.49	....	20.49	....	351.66	18.11	369.77
T.21N., R.92W.	....	....	....	....	....	25.92	....	25.92	....	45.65	....	45.65	....	71.57	....	71.57
T.20N., R.93W.	....	....	....	....	....	17.44	....	17.44	....	32.17	....	32.17	....	49.61	....	49.61
T.26N., R.93W.	....	....	....	....	....	....	....	....	3.57	....	....	3.57	3.57	....	....	3.57
T.20N., R.94W.	7.75	....	3.32	11.07	....	1.55	....	1.55	....	....	....	....	7.75	1.55	3.32	12.62
T.18N., R.98W.	2.21	1.77	....	3.98	6.64	3.98	....	10.62	7.97	2.88	3.76	14.61	16.82	8.63	3.76	29.21
T.20N., R.99W.	1.69	....	....	1.69	....	....	....	....	....	....	....	....	1.69	....	....	1.69
T.21N., R.99W.	9.39	....	....	9.39	....	....	....	....	....	....	....	....	9.39	....	....	9.39
T.17N.,R.100W.	7.60	....	....	7.60	....	....	....	....	....	....	....	....	7.60	....	....	7.60
T.21N.,R.100W.	.81	....	....	.81	.20	....	....	.20	....	....	....	....	1.01	....	....	1.01
T.14N.,R.101W.	....	....	....	....	4.30	....	....	4.30	.04	....	....	.04	4.34	....	....	4.34
T.15N.,R.101W.	1.89	....	....	1.89	16.42	....	....	16.42	46.40	....	....	46.40	64.71	....	....	64.71
T.16N.,R.101W.	....	....	....	....	48.69	....	....	48.69	59.93	....	....	59.93	108.62	....	....	108.62
T.17N.,R.101W.	66.36	....	....	66.36	....	....	....	....	....	....	....	....	66.36	....	....	66.36
T.18N.,R.101W.	1.98	....	....	1.98	....	....	....	....	....	....	....	....	1.98	....	....	1.98
T.20N.,R.101W.	....	....	....	....	3.95	....	....	3.95	....	....	....	....	3.95	....	....	3.95
T.21N.,R.101W.	....	....	....	....	1.64	....	....	1.64	....	....	....	....	1.64	....	....	1.64
T.14N.,R.102W.	1.53	....	....	1.53	5.49	....	....	5.49	....	....	....	....	7.02	....	....	7.02
T.15N.,R.102W.	9.41	....	....	9.41	88.60	....	....	88.60	3.83	....	....	3.83	101.84	....	....	101.84
T.16N.,R.102W.	.22	....	....	.22	58.22	....	....	58.22	11.25	....	....	11.25	69.69	....	....	69.69
T.13N.,R.103W.	....	....	....	....	13.09	....	....	13.09	.28	....	....	.28	13.37	....	....	13.37
T.14N.,R.103W.	....	....	....	....	1.92	....	....	1.92	....	....	....	....	1.92	....	....	1.92
T.13N.,R.104W.	....	....	....	....	.03	....	....	.03	....	....	....	....	.03	....	....	.03
T.15N.,R.105W.	....	....	....	....	.20	....	....	.20	.03	....	....	.03	.23	....	....	.23
T.16N.,R.105W.	.33	....	....	.33	25.68	....	....	25.68	12.13	....	....	12.13	38.14	....	....	38.14
T.17N.,R.105W.	....	....	....	....	2.67	....	....	2.67	....	....	....	....	2.67	....	....	2.67

--Inferred original reserves of sub-bituminous coal in Wyoming
(in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1.000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Sweetwater County--Continued																
T.18N.,R.105W.	....	....	....	....	18.07	....	....	18.07	....	....	....	....	18.07	....	.....	18.07
T.19N.,R.105W.	....	....	....	....	8.74	....	....	8.74	1.65	....	....	1.65	10.39	....	....	10.39
T.20N.,R.105W.	....	....	....	....	24.50	....	....	24.50	6.20	....	....	6.20	30.70	....	....	30.70
T.18N.,R.106W.	....	....	....	....	24.67	....	....	24.67	48.93	....	....	48.93	73.60	....	....	73.60
T.17N.,R.106W.	....	....	....	....	37.53	....	....	37.53	37.76	....	....	37.76	75.29	....	....	75.29
T.18N.,R.106W.	....	....	....	....	29.15	....	....	29.15	38.30	....	....	38.30	67.45	....	....	67.45
T.12N.,R.111W.	.32	....	....	.32	....	....	....	....	....	....	....	....	.32	....	....	.32
County total	114.20	186.29	33.78	334.27	420.40	631.58	....	1,051.98	278.27	116.31	3.76	398.34	812.87	934.18	37.54	1,784.59
Teton County**																
T.41N.,R.111W.	9.95	11.99	....	21.94	....	....	....	....	....	....	....	....	9.95	11.99	....	21.94
T.42N.,R.111W.	24.25	....	9.42	33.67	....	....	....	....	....	....	....	....	24.25	....	9.42	33.67
T.42N.,R.112W.	18.26	4.44	....	22.70	....	....	....	....	....	....	....	....	18.26	4.44	....	22.70
T.44N.,R.112W.	3.55	7.11	....	10.66	....	....	....	....	....	....	....	....	3.55	7.11	....	10.66
T.46N.,R.112W.	4.80	6.66	....	11.46	....	....	....	....	....	....	....	....	4.80	6.66	....	11.46
T.42N.,R.113W.	3.11	....	....	3.11	....	....	....	....	....	....	....	....	3.11	....	....	3.11
T.44N.,R.113W.	7.11	7.29	....	14.40	....	....	....	....	....	....	....	....	7.11	7.29	....	14.40
T.45N.,R.113W.	3.55	....	....	3.55	....	....	....	....	....	....	....	....	3.55	....	....	3.55
T.39N.,R.114W.	.42	....	....	.42	....	....	....	....	....	....	....	....	.42	....	....	.42
County total	75.00	37.49	9.42	121.91	....	....	....	....	....	....	....	....	75.00	37.49	9.42	121.91
Uinta County																
T.17N.,R.117W.	....	29.31	....	29.31	....	.71	....	.71	....	....	....	....	....	30.02	....	30.02
T.16N.,R.116W.	....	79.83	....	79.83	....	28.43	....	28.43	....	....	....	....	....	108.26	....	108.26
T.17N.,R.116W.	....	14.44	....	14.44	....	25.49	....	25.49	....	....	....	....	....	39.93	....	39.93
T.16N.,R.120W.	....	....	....	....	....	.53	....	.53	....	14.67	....	14.67	....	15.20	....	15.20
County total	....	123.58	....	123.58	....	55.16	....	55.16	....	14.67	....	14.67	....	193.41	....	193.41
Washakie County																
T.45N., R.89W.	.62	....	....	.62	....	....	....	....	....	....	....	....	.62	....	....	.62
T.46N., R.89W.	....	.29	....	.29	....	....	....	....	....	....	....	....	....	.29	....	.29
T.47N., R.90W.	.16	.40	....	.56	....	....	....	....	....	....	....	....	.16	.40	....	.56
T.48N., R.91W.	.17	....	....	.17	....	....	....	....	....	....	....	....	.17	....	....	.17
T.46N., R.91W.	....	....	....	....	.89	....	....	.89	4.43	....	....	4.43	5.32	....	....	5.32
T.45N., R.92W.	1.11	....	....	1.11	.89	....	....	.89	.89	....	....	.89	2.89	....	....	2.89
T.46N., R.92W.	....	....	....	....	7.52	3.10	....	10.62	1.11	....	....	1.11	8.63	3.10	....	11.73
T.48N., R.92W.	3.54	5.97	....	9.51	7.97	6.64	....	14.61	3.10	2.21	....	5.31	14.61	14.82	....	29.43
County total	5.60	6.66	....	12.26	17.27	9.74	....	27.01	9.53	2.21	....	11.74	32.40	18.61	....	51.01
Weston County																
T.44N., R.67W.	2.99	....	....	2.99	....	....	....	....	....	....	....	....	2.99	....	....	2.99
T.43N., R.68W.	5.18	....	....	5.18	....	....	....	....	....	....	....	....	5.18	....	....	5.18
T.44N., R.68W.	6.33	....	....	6.33	....	....	....	....	....	....	....	....	6.33	....	....	6.33
County total	14.50	....	....	14.50	....	....	....	....	....	....	....	....	14.50	....	....	14.50
Total	7,358.73	15,428.48	35,148.70	57,935.91	2,871.01	9,499.04	498.30	12,868.35	810.18	1,215.63	218.38	2,244.19	11,039.92	26,143.15	35,865.38	73,048.45

**Coal in Teton County is at depths of 0 to 2,000 feet.

Table 10.--Original reserves, in all categories, of bituminous coal in Wyoming
(in millions of short tons)

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	
Carbon County																
T.21N., R.77W.	....	....	.75	.75	....	....	....	....	....	....	....	....	....	....	.75	.75
T.21N., R.78W.	....	....	2.49	2.49	....	....	....	....	....	....	....	....	....	....	2.49	2.49
*T.21N., R.79W.	....	....	17.19	17.19	....	....	2.91	2.91	....	....	....	....	....	....	20.10	20.10
T.22N., R.79W.	....	1.38	....	1.38	....	.15	....	.15	....	....	....	....	....	1.53	....	1.53
*T.21N., R.80W.	2.39	1.65	1.42	5.46	3.73	3.42	.20	7.35	6.38	3.95	....	10.33	12.50	9.02	1.62	23.14
*T.22N., R.80W.	.67	1.23	.17	2.07	.92	1.88	....	2.80	1.93	1.91	....	3.84	3.52	5.02	.17	8.71
*T.24N., R.83W.	.37	.16	.81	1.34	.51	.19	.51	1.21	.55	.23	....	.78	1.43	.58	1.32	3.33
T.25N., R.83W.	.15	.03	....	.18	.02	....	....	.02	....	....	....	....	.17	.03	....	.20
*T.21N., R.84W.	1.12	....	....	1.12	....	....	....	....	....	....	....	....	1.12	....	....	1.12
*T.22N., R.84W.	.10	.31	....	.41	....	....	....	....	....	....	....	....	.10	.31	....	.41
*T.24N., R.84W.	1.21	2.76	.04	4.01	.86	1.96	....	2.82	.84	1.54	....	2.38	2.91	6.26	.04	9.21
T.19N., R.85W.	1.10	.34	1.13	2.57	....	....	....	....	....	....	....	....	1.10	.34	1.13	2.57
T.21N., R.85W.	.18	....	....	.18	....	....	....	....	....	....	....	....	.18	....	....	.18
*T.22N., R.85W.	.38	....	....	.38	....	....	....	....	....	....	....	....	.38	....	....	.38
T.19N., R.86W.	.17	....	.68	.85	....	....	....	....	....	....	....	....	.17	....	.68	.85
T.25N., R.86W.	....	....	1.89	1.89	....	....	....	....	....	....	....	....	....	....	1.89	1.89
T.13N., R.87W.	....	.33	....	.33	....	....	....	....	....	....	....	....	....	.33	....	.33
T.12N., R.88W.	....	....	.91	.91	....	....	....	....	....	....	....	....	....	....	.91	.91
T.13N., R.88W.	....	.33	....	.33	....	....	....	....	....	....	....	....	....	.33	....	.33
T.12N., R.89W.	....	....	4.88	4.88	....	....	....	....	....	....	....	....	....	....	4.88	4.88
T.13N., R.89W.	....	.33	....	.33	....	....	....	....	....	....	....	....	....	.33	....	.33
T.14N., R.89W.	....	.68	2.03	2.71	....	....	....	....	....	....	....	....	....	.68	2.03	2.71
T.14N., R.90W.	....	....	.45	.45	....	....	....	....	....	....	....	....	....	....	.45	.45
T.17N., R.90W.	....	1.81	8.05	9.86	....	....	....	....	....	....	....	....	....	1.81	8.05	9.86
*T.18N., R.90W.	....	1.09	....	1.09	....	....	....	....	....	....	....	....	....	1.09	....	1.09
T.19N., R.90W.	....	....	2.49	2.49	....	....	....	....	....	....	....	....	....	....	2.49	2.49
County total	7.84	12.43	45.38	65.65	6.04	7.60	3.62	17.26	9.70	7.63	....	17.33	23.58	27.66	49.00	100.24
Crook County																
T.64N., R.61W.	....	....	.59	.59	....	....	....	....	....	....	....	....	....	....	.59	.59
T.51N., R.64W.	....	.56	....	.56	....	....	....	....	....	....	....	....	....	.56	....	.56
County total	....	.56	.59	1.15	....	....	....	....	....	....	....	....	....	.56	.59	1.15
Lincoln County																
T.21N., R.115W.	....	9.06	26.66	35.72	....	8.32	20.95	29.27	....	7.13	14.88	22.01	....	24.51	62.49	87.00
T.22N., R.115W.	....	10.84	24.30	35.14	....	9.50	6.78	16.28	....	5.05	3.94	8.99	....	25.39	35.02	60.41
T.23N., R.115W.	....	2.56	6.10	8.66	....	.14	.26	.40	....	....	....	....	....	2.70	6.36	9.06
T.24N., R.115W.	....	6.12	10.75	16.87	....	2.49	6.25	8.74	....	.17	.44	.61	....	8.78	17.44	26.22
*T.25N., R.115W.	....	....	29.53	29.53	....	....	28.17	28.17	....	....	26.54	26.54	....	....	84.24	84.24
T.26N., R.115W.	....	....	8.89	8.89	....	....	....	....	....	....	....	....	....	....	8.89	8.89
T.34N., R.115W.	....	....	6.21	6.21	....	....	1.44	1.44	....	....	....	....	....	....	7.65	7.65
T.37N., R.115W.	....	.62	2.79	3.41	....	....	....	....	....	....	....	....	....	0.62	2.79	3.41
T.19N., R.116W.	7.70	2.63	99.56	109.89	7.00	....	98.96	105.96	5.51	....	73.54	79.05	20.21	2.63	272.06	294.90
T.20N., R.116W.	....	9.71	66.65	76.36	....	10.59	66.31	76.90	....	9.18	62.37	71.55	....	29.48	195.33	224.81

* This township also contains sub-bituminous coal.

Table 10.--Original reserves, in all categories, of bituminous coal in Wyoming (in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	Total	In beds 14 to 28 inches thick	In beds 28 to 42 inches thick	In beds more than 42 inches thick	
Lincoln County--Continued																
*T.21N.,R.116W.	....	....	81.43	81.43	....	.76	79.93	80.69	....	2.27	77.19	79.46	....	3.03	238.55	241.58
*T.22N.,R.116W.	....	....	38.25	38.25	....	1.45	54.38	55.83	....	6.36	56.09	62.45	....	7.81	148.72	156.53
T.23N.,R.116W.	....	4.23	43.46	47.69	....	5.98	48.78	54.76	....	6.18	48.95	55.13	....	16.39	141.19	157.58
*T.24N.,R.116W.	....	2.36	1.71	4.07	....	6.54	6.06	12.60	....	10.35	10.16	20.51	....	19.25	17.93	37.18
*T.25N.,R.116W.	....	....	....	....	....	....	....	....	....	....	4.60	4.60	....	....	4.60	4.60
T.26N.,R.116W.	....	....	27.67	27.67	....	....	33.60	33.60	....	....	34.26	34.26	....	....	95.53	95.53
T.34N.,R.116W.	.15	.80	10.69	11.64	.19	1.17	14.82	16.18	.47	.52	14.84	15.83	.81	2.49	40.35	43.65
T.35N.,R.116W.	.21	.68	20.83	21.72	.91	.77	16.45	18.13	.04	.01	15.18	15.18	1.16	1.46	52.41	55.03
T.36N.,R.116W.	....	....	.68	.68	....	....	....	....	....	....	....	....	....	....	.68	.68
T.37N.,R.116W.	....	.74	4.06	4.80	....	....	....	....	....	....	....	....	....	.74	4.06	4.80
*T.19N.,R.117W.	....	....	9.07	9.07	.53	....	20.20	20.73	2.19	1.44	32.21	35.84	2.72	1.44	61.48	65.64
T.31N.,R.117W.	....	.34	....	.34	....	....	....	....	....	....	....	....	....	.34	....	.34
T.36N.,R.118W.	....	.34	....	.34	....	....	....	....	....	....	....	....	....	.34	....	.34
County total	8.06	51.03	519.29	578.38	8.63	47.71	503.34	559.68	8.21	48.66	475.14	532.01	24.90	147.40	1,497.77	1,670.07
Park County																
*T.58N., R.99W.	2.60	1.88	.15	4.63	.82	.92	....	1.74	.22	.06	....	.28	3.64	2.86	.15	6.65
T.58N.,R.100W.	1.67	5.32	.91	7.90	1.38	1.89	....	3.27	.08	....	....	.08	3.13	7.21	.91	11.25
County total	4.27	7.20	1.06	12.53	2.20	2.81	....	5.01	.30	.06	....	.36	6.77	10.07	1.06	17.90
Sublette County																
T.32N.,R.115W.	....	.64	....	.64	....	....	....	....	....	....	....	....	....	.64	....	.64
T.33N.,R.115W.	.23	....	.73	.96	....	....	....	....	....	....	....	....	.23	....	.73	.96
County total	.23	.64	.73	1.60	....	....	....	....	....	....	....	....	.23	.64	.73	1.60
Sweetwater County																
*T.20N.,R.101W.	18.80	.59	.43	19.82	15.23	.43	....	15.66	....	....	....	....	34.03	1.02	.43	35.48
*T.21N.,R.101W.	6.68	3.92	2.35	12.95	74.17	29.68	41.58	146.43	65.56	19.36	....	84.92	146.41	52.96	43.93	243.30
T.22N.,R.101W.	....	....	....	....	.90	.34	....	1.24	24.81	3.99	....	28.80	25.71	4.33	....	30.04
T.20N.,R.102W.	48.61	17.78	31.29	97.68	3.64	.27	3.16	7.07	....	....	....	....	52.25	18.05	34.45	104.75
T.21N.,R.102W.	49.94	183.72	449.58	683.24	37.58	180.27	185.65	403.50	11.30	11.22	....	22.52	98.82	375.21	635.23	1,109.26
T.22N.,R.102W.	.04	9.46	34.69	44.19	35.97	149.79	90.16	275.92	30.80	82.26	252.45	365.51	66.81	241.51	377.30	685.62
T.23N.,R.102W.	....	....	....	....	....	....	....	....	....	4.86	27.54	32.40	....	4.86	27.54	32.40
T.20N.,R.103W.	1.57	1.23	1.75	4.55	....	....	....	....	....	....	....	....	1.57	1.23	1.75	4.55
T.21N.,R.103W.	11.73	59.15	431.14	502.02	.08	.15	6.62	6.85	....	....	....	....	11.81	59.30	437.76	508.87
*T.22N.,R.103W.	20.28	57.76	578.53	656.57	5.11	23.29	210.45	238.85	....	3.24	18.36	21.60	25.39	84.29	807.34	917.02
T.23N.,R.103W.	....	....	....	....	....	....	177.84	177.84	....	73.71	425.88	499.59	....	73.71	603.72	677.43
T.17N.,R.104W.	1.76	.10	....	1.86	....	....	....	....	....	....	....	....	1.76	.10	....	1.86
T.18N.,R.104W.	6.14	6.46	.78	13.38	....	....	....	....	....	....	....	....	6.14	6.46	.78	13.38
T.19N.,R.104W.	35.32	72.44	197.82	305.58	3.39	2.49	2.17	8.05	....	....	....	....	38.71	74.93	199.99	313.65
T.20N.,R.104W.	17.59	48.52	439.98	506.09	.83	4.68	33.95	39.46	....	....	....	....	18.42	53.20	473.93	545.55

* This township also contains sub-bituminous coal.

*T.21N.,R.104W.	40.71	48.91	289.87	378.87	28.06	32.02	143.87	203.95	25.26	20.65	85.54	131.45	94.03	101.58	518.66	714.27
*T.22N.,R.104W.	19.70	13.38	134.02	167.10	1.59	2.12	244.23	247.94	.48	44.64	252.51	297.63	21.77	60.14	630.76	712.67
T.23N.,R.104W.	....	....	....	....	....	....	18.72	18.72	....	24.30	137.70	162.00	....	24.30	156.42	180.72
*T.16N.,R.105W.	13.96	.59	....	14.55	8.29	....	....	8.29	....	....	....	....	22.25	.59	....	22.84
*T.17N.,R.105W.	48.51	57.86	64.83	171.20	32.97	17.82	2.66	53.45	.38	....	....	.38	81.86	75.68	67.49	225.03
*T.18N.,R.105W.	68.68	114.08	283.25	466.01	30.17	76.26	137.26	243.69	4.44	18.52	28.54	51.50	103.29	208.86	449.05	761.20
*T.19N.,R.105W.	60.31	94.90	221.75	376.96	72.14	101.82	206.54	380.50	68.81	73.42	159.90	302.13	201.26	270.14	588.19	1,059.59
*T.20N.,R.105W.	7.45	21.15	68.00	96.60	35.77	78.55	303.08	417.40	58.22	66.24	216.63	341.09	101.44	165.94	587.71	855.09
T.21N.,R.105W.	....	....	....	....	....	....	....	....	1.18	5.53	5.27	11.98	1.18	5.53	5.27	11.98
T.22N.,R.105W.	....	....	....	....	....	....	....	....	.08	....	....	.08	.08	....	....	.08
*T.17N.,R.106W.	....	....	....	....	3.95	1.40	....	5.35	3.12	....	....	3.12	7.07	1.40	....	8.47
*T.18N.,R.106W.	....	....	....	....	4.12	5.02	....	9.14	22.57	22.82	35.87	81.26	26.69	27.84	35.87	90.40
T.19N.,R.106W.	....	....	....	....	....	....	....	....	4.21	.74	7.61	12.56	4.21	.74	7.61	12.56
County total	477.78	812.00	3,229.44	4,519.22	393.96	706.40	1,807.94	2,908.30	321.22	475.50	1,653.80	2,450.52	1,192.96	1,993.90	6,691.18	9,878.04

Teton County

T.38N.,R.116W.	.26	....	....	.26	....	....	....	....	....	....	....	....	.26	....	....	.26

Uinta County

T.18N.,R.116W.	4.28	....	29.35	33.63	.18	....	9.16	9.34	....	....	....	....	4.46	....	38.51	42.97
T.16N.,R.117W.	.33	.58	45.03	45.94	....	.29	38.18	38.47	....	....	31.04	31.04	.33	.87	114.25	115.45
*T.17N.,R.117W.	6.06	....	67.28	73.34	5.87	....	65.90	71.77	5.78	....	68.60	74.38	17.71	....	201.78	219.49
T.18N.,R.117W.	3.24	1.60	73.47	78.31	6.74	.41	94.33	101.48	7.01	....	101.54	108.55	16.99	2.01	269.34	288.34
T.14N.,R.118W.	....	....	45.80	45.80	....	....	35.39	35.39	....	....	32.54	32.54	....	....	113.73	113.73
*T.15N.,R.118W.	.57	1.55	77.87	79.99	.57	1.55	82.10	84.22	.48	1.55	83.43	85.46	1.62	4.65	243.40	249.67
*T.16N.,R.118W.	....	....	19.82	19.82	.32	.71	28.68	29.71	.48	.99	41.33	42.80	.80	1.70	89.83	92.33
*T.17N.,R.118W.	....	....	2.80	2.80	....	....	2.80	2.80	....	....	2.80	2.80	....	....	8.40	8.40
T.13N.,R.119W.	....	9.91	35.49	45.40	....	9.91	34.58	44.49	....	9.76	30.14	39.90	....	29.58	100.21	129.79
T.14N.,R.119W.	....	2.04	81.84	83.88	....	2.26	87.46	89.72	....	2.61	88.83	91.44	....	6.91	258.13	265.04
T.15N.,R.119W.	....	.27	....	.27	....	.27	....	.27	....	....	....	....	....	.54	....	.54
County total	14.48	15.95	478.75	509.18	13.68	15.40	478.58	507.66	13.75	14.91	480.25	508.91	41.91	46.26	1,437.58	1,525.75

Weston County

T.45N., R.61W.	2.11	.40	.05	2.56	....	....	....	....	....	....	....	....	2.11	.40	.05	2.56
T.46N., R.61W.	3.29	3.66	7.94	14.89	....	....	....	....	....	....	....	....	3.29	3.66	7.94	14.89
T.45N., R.62W.	4.92	3.32	.53	8.77	....	....	....	....	....	....	....	....	4.92	3.32	.53	8.77
T.46N., R.62W.	4.28	2.66	3.36	10.30	....	....	....	....	....	....	....	....	4.28	2.66	3.36	10.30
T.47N., R.62W.	....	2.23	....	2.23	....	....	....	....	....	....	....	....	....	2.23	....	2.23
T.48N., R.62W.	....	1.19	....	1.19	....	....	....	....	....	....	....	....	....	1.19	....	1.19
County total	14.60	13.46	11.88	39.94	....	....	....	....	....	....	....	....	14.60	13.46	11.88	39.94
Total	527.52	913.27	4,287.12	5,727.91	424.51	779.92	2,793.48	3,997.91	353.18	546.76	2,609.19	3,509.13	1,305.21	2,239.96	9,689.79	13,234.96

* This township also contains sub-bituminous coal.

Table 11.--Original reserves, in all categories, of sub-bituminous coal in Wyoming
(in millions of short tons)

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Albany County																
T.20N., R.75W.	1.77	....	....	1.77	....	....	....	....	....	....	....	....	1.77	....	....	1.77
T.20N., R.76W.	49.31	22.32	....	71.63	27.62	16.09	....	43.71	26.79	13.51	....	40.30	103.72	51.92	....	155.64
T.16N., R.77W.	1.77	....	....	1.77	....	....	....	....	....	....	....	....	1.77	....	....	1.77
T.17N., R.77W.	1.33	2.66	....	3.99	....	....	....	....	....	....	....	....	1.33	2.66	....	3.99
T.18N., R.77W.	....	2.26	1.77	4.03	....	2.26	1.77	4.03	....	2.40	1.88	4.28	....	6.92	5.42	12.34
T.19N., R.77W.	4.20	32.46	....	36.66	6.40	14.44	....	20.84	5.48	....	....	5.48	16.08	46.90	....	62.98
T.20N., R.77W.	2.14	26.66	....	28.80	1.80	19.75	....	21.55	1.50	3.25	....	4.75	5.44	49.66	....	55.10
County total	60.52	86.36	1.77	148.65	35.82	52.54	1.77	90.13	33.77	19.16	1.88	54.81	130.11	158.06	5.42	293.59
Big Horn County																
T.50N., R.92W.	2.97	2.30	....	5.27	....	....	....	....	....	....	....	....	2.97	2.30	....	5.27
T.49N., R.93W.	....	....	....	....	.89	....	....	.89	2.21	....	....	2.21	3.10	....	....	3.10
T.50N., R.93W.	6.55	.44	....	6.99	1.92	....	....	1.92	....	....	....	....	8.47	.44	....	8.91
T.55N., R.96W.	.62	....	....	.62	....	....	....	....	....	....	....	....	.62	....	....	.62
County total	10.14	2.74	....	12.88	2.81	....	....	2.81	2.21	....	....	2.21	15.16	2.74	....	17.90
Campbell County																
T.41N., R.69W.	71.42	6.55	15.09	93.06	....	....	....	....	....	....	....	....	71.42	6.55	15.09	93.06
T.42N., R.69W.	46.06	15.39	26.77	88.22	....	....	....	....	....	....	....	....	46.06	15.39	26.77	88.22
T.43N., R.69W.	3.98	....	....	3.98	....	....	....	....	....	....	....	....	3.98	....	....	3.98
T.44N., R.69W.	78.85	....	....	78.85	....	....	....	....	....	....	....	....	78.85	....	....	78.85
T.45N., R.69W.	71.83	....	68.15	139.98	....	....	....	....	....	....	....	....	71.83	....	68.15	139.98
T.46N., R.69W.	....	....	88.10	88.10	....	....	....	....	....	....	....	....	....	....	88.10	88.10
T.47N., R.69W.	4.51	....	.97	5.48	....	....	....	....	....	....	....	....	4.51	....	.97	5.48
T.48N., R.69W.	.95	....	....	.95	....	....	....	....	....	....	....	....	.95	....	....	.95
T.41N., R.70W.	....	....	206.56	206.56	....	....	....	....	....	....	....	....	....	....	206.56	206.56
T.42N., R.70W.	....	....	438.08	438.08	....	....	....	....	....	....	....	....	....	....	438.08	438.08
T.43N., R.70W.	....	....	339.84	339.84	....	....	....	....	....	....	....	....	....	....	339.84	339.84
T.44N., R.70W.	1.98	....	301.07	303.05	....	....	....	....	....	....	....	....	1.98	....	301.07	303.05
T.45N., R.70W.	3.58	....	386.57	390.15	....	....	....	....	....	....	....	....	3.58	....	386.57	390.15
T.46N., R.70W.	....	....	297.32	297.32	....	....	....	....	....	....	....	....	....	....	297.32	297.32
T.47N., R.70W.	.82	1.99	....	2.81	....	....	....	....	....	....	....	....	.82	1.99	....	2.81
T.48N., R.70W.	1.26	35.79	14.67	51.72	....	....	....	....	....	....	....	....	1.26	35.79	14.67	51.72
T.49N., R.70W.	4.18	9.85	46.95	60.98	....	....	....	....	....	....	....	....	4.18	9.85	46.95	60.98
T.50N., R.70W.	.40	....	....	.40	....	....	....	....	....	....	....	....	.40	....	....	.40
T.41N., R.71W.	.66	....	532.87	533.53	....	....	....	....	....	....	....	....	.66	....	532.87	533.53
T.42N., R.71W.	....	....	484.27	484.27	....	....	....	....	....	....	....	....	....	....	484.27	484.27
T.43N., R.71W.	....	....	485.33	485.33	....	....	....	....	....	....	....	....	....	....	485.33	485.33
T.44N., R.71W.	....	....	485.33	485.33	....	....	....	....	....	....	....	....	....	....	485.33	485.33
T.45N., R.71W.	13.01	19.91	486.93	519.85	....	....	....	....	....	....	....	....	13.01	19.91	486.93	519.85
T.46N., R.71W.	....	1.33	484.27	485.60	....	....	....	....	....	....	....	....	....	1.33	484.27	485.60
T.47N., R.71W.	....	....	352.89	352.89	....	....	....	....	....	....	....	....	....	....	352.89	352.89
T.48N., R.71W.	16.51	249.21	.82	266.54	....	....	....	....	....	....	....	....	16.51	249.21	.82	266.54
T.49N., R.71W.	100.76	74.77	835.69	1,011.22	....	....	....	....	....	....	....	....	100.76	74.77	835.69	1,011.22
T.50N., R.71W.	15.29	76.54	1,391.98	1,483.81	....	....	....	....	....	....	....	....	15.29	76.54	1,391.98	1,483.81
T.51N., R.71W.	33.10	....	167.87	200.97	....	....	....	....	....	....	....	....	33.10	....	167.87	200.97
T.52N., R.71W.	5.10	1.75	....	6.85	....	....	....	....	....	....	....	....	5.10	1.75	....	6.85

T.53N., R.71W.	43.45	26.91	....	70.36	....	....	....	....	....	....	....	....	43.45	26.91	....	70.36
T.55N., R.71W.	8.86	....	....	8.86	....	....	....	....	....	....	....	....	8.86	....	....	8.86
T.56N., R.71W.	25.35	3.77	52.02	81.14	....	....	....	....	....	....	....	....	25.35	3.77	52.02	81.14
T.57N., R.71W.	.51	.40	4.53	5.44	....	....	.....	....	....	....	....	....	.51	.40	4.53	5.44
T.58N., R.71W.	....	6.50	15.25	21.75	....	....	....	....	....	....	....	....	....	6.50	15.25	21.75
T.41N., R.72W.	3.98	14.56	428.52	447.06	....	....	....	....	....	....	....	....	3.98	14.56	428.52	447.06
T.42N., R.72W.	....	16.53	484.27	500.80	....	....	....	....	....	....	....	....	....	16.53	484.27	500.80
T.43N., R.72W.	37.35	30.32	633.78	701.45	....	....	....	....	....	....	....	....	37.35	30.32	633.78	701.45
T.44N., R.72W.	129.60	46.84	602.25	778.69	....	....	....	....	....	....	....	....	129.60	46.84	602.25	778.69
T.45N., T.72W.	148.74	49.41	583.62	781.77	....	....	....	....	....	....	....	....	148.74	49.41	583.62	781.77
T.46N., R.72W.	43.33	99.69	487.86	630.88	....	....	....	....	....	....	....	....	43.33	99.69	487.86	630.88
T.47N., R.72W.	9.29	113.70	417.57	540.56	....	....	....	....	....	....	....	....	9.29	113.70	417.57	540.56
T.48N., R.72W.	....	309.42	201.81	511.23	....	....	....	....	....	....	....	....	....	309.42	201.81	511.23
T.49N., R.72W.	78.09	22.26	1,184.20	1,284.55	....	....	....	....	....	....	....	....	78.09	22.26	1,184.20	1,284.55
T.50N., R.72W.	34.32	127.36	2,709.76	2,871.44	....	....	....	....	....	....	....	....	34.32	127.36	2,709.76	2,871.44
T.51N., R.72W.	126.25	....	1,794.13	1,920.38	....	....	....	....	....	....	....	....	126.25	....	1,794.13	1,920.38
T.52N., R.72W.	93.46	57.51	436.83	587.80	....	....	....	....	....	....	....	....	93.46	57.51	436.83	587.80
T.53N., R.72W.	17.19	30.97	137.40	185.56	....	....	....	....	....	....	....	....	17.19	30.97	137.40	185.56
T.54N., R.72W.	....	....	7.91	7.91	....	.....	....	....	....	....	....	....	....	....	7.91	7.91
T.55N., R.72W.	34.60	164.25	18.20	217.05	....	....	....	....	....	....	....	....	34.60	164.25	18.20	217.05
T.56N., R.72W.	171.02	319.11	92.40	582.53	....	....	....	....	....	....	....	....	171.02	319.11	92.40	582.53
T.57N., R.72W.	129.40	187.90	2.50	319.80	....	....	....	....	....	....	....	....	129.40	187.90	2.50	319.80
T.58N., R.72W.	52.10	92.80	3.30	148.20	....	....	....	....	....	....	....	....	52.10	92.80	3.30	148.20
T.41N., R.73W.	1.12	38.17	313.82	353.11	....	....	....	....	....	....	....	....	1.12	38.17	313.82	353.11
T.42N., R.73W.	....	200.19	484.27	684.46	....	....	....	....	....	....	....	....	....	200.19	484.27	684.46
T.43N., R.73W.	81.97	258.97	516.01	856.95	....	....	....	....	....	....	....	....	81.97	258.97	516.01	856.95
T.44N., R.73W.	95.43	222.76	645.89	964.08	....	....	....	....	....	....	....	....	95.43	222.76	645.89	964.08
T.45N., R.73W.	87.03	60.11	652.61	799.75	....	....	....	....	....	....	....	....	87.03	60.11	652.61	799.75
T.46N., R.73W.	5.37	350.32	401.82	757.51	....	....	....	....	....	....	....	....	5.37	350.32	401.82	757.51
T.47N., R.73W.	....	569.58	64.17	633.75	....	....	....	....	....	....	....	....	....	569.58	64.17	633.75
T.48N., R.73W.	....	386.57	507.67	894.24	....	....	....	....	....	....	....	....	....	386.57	507.67	894.24
T.49N., R.73W.	3.98	77.82	1,164.99	1,246.79	....	....	....	....	....	....	....	....	3.98	77.82	1,164.99	1,246.79
T.50N., R.73W.	47.79	54.40	1,513.78	1,615.97	....	....	....	....	....	....	....	....	47.79	54.40	1,513.78	1,615.97
T.51N., R.73W.	57.77	....	1,114.48	1,172.25	....	....	....	....	....	....	....	....	57.77	....	1,114.48	1,172.25
T.52N., R.73W.	15.63	....	726.11	741.74	....	....	....	....	....	....	....	....	15.63	....	726.11	741.74
T.53N., R.73W.	56.70	45.33	494.72	596.75	....	....	....	....	....	....	....	....	56.70	45.33	494.72	596.75
T.54N., R.73W.	1.34	21.00	371.40	393.74	....	....	....	....	....	....	....	....	1.34	21.00	371.40	393.74
T.55N., R.73W.	16.92	77.04	392.76	486.72	....	....	....	....	....	....	....	....	16.92	77.04	392.76	486.72
T.56N., R.73W.	18.20	197.01	329.70	544.91	....	....	....	....	....	....	....	....	18.20	197.01	329.70	544.91
T.57N., R.73W.	83.30	307.80	11.30	402.40	....	....	....	....	....	....	....	....	83.30	307.80	11.30	402.40
T.58N., R.73W.	47.41	191.83	30.20	269.44	....	....	....	....	....	....	....	....	47.41	191.83	30.20	269.44
T.41N., R.74W.	15.00	205.10	....	220.10	....	....	....	....	....	....	....	....	15.00	205.10	....	220.10
T.42N., R.74W.	29.21	361.64	102.48	493.33	....	....	....	....	....	....	....	....	29.21	361.64	102.48	493.33
T.43N., R.74W.	16.52	325.91	140.29	482.72	....	110.10	88.63	198.73	....	....	....	....	16.52	436.01	228.92	681.45
T.44N., R.74W.	3.96	263.21	24.47	291.64	....	151.23	217.50	368.73	....	....	....	....	3.96	414.44	241.97	660.37
T.45N., R.74W.	40.60	265.94	33.71	340.25	....	202.37	106.03	308.40	....	....	....	....	40.60	468.31	139.74	648.65
T.46N., R.74W.	22.84	367.45	4.76	395.05	....	215.12	....	215.12	....	....	....	....	22.84	582.57	4.76	610.17
T.47N., R.74W.	15.63	424.27	2.75	442.65	....	190.99	....	190.99	....	....	....	....	15.63	615.26	2.75	633.64
T.48N., R.74W.	....	349.40	108.32	457.72	....	191.16	....	191.16	....	....	....	....	....	540.56	108.32	648.88
T.49N., R.74W.	....	106.20	817.03	923.23	....	84.96	....	84.96	....	....	....	....	....	191.16	817.03	1,008.19
T.50N., R.74W.	....	11.50	1,186.28	1,197.78	....	....	....	....	.....	....	....	....	....	11.50	1,186.28	1,197.78
T.51N., R.74W.	....	....	1,230.51	1,230.51	....	....	....	....	....	....	....	....	....	....	1,230.51	1,230.51
T.52N., R.74W.	....	....	1,244.50	1,244.50	....	....	....	....	....	....	....	....	....	....	1,244.50	1,244.50
T.53N., R.74W.	227.62	39.61	827.89	1,095.12	....	....	....	....	....	....	....	....	227.62	39.61	827.89	1,095.12
T.54N., R.74W.	148.77	50.37	623.45	822.59	....	....	....	....	....	....	....	....	148.77	50.37	623.45	822.59
T.55N., R.74W.	90.09	118.06	410.38	618.53	....	....	....	....	....	....	....	....	90.09	118.06	410.38	618.53
T.41N., R.75W.	....	....	....	....	89.21	....	....	89.21	....	....	....	....	89.21	....	....	89.21
T.42N., R.75W.	31.86	....	....	31.86	21.24	196.47	....	217.71	6.37	21.24	....	27.61	59.47	217.71	....	277.18
T.43N., R.75W.	70.69	77.72	....	148.41	....	169.26	....	169.26	....	132.54	....	132.54	70.69	379.52	....	450.21
T.44N., R.75W.	26.04	200.97	....	227.01	....	201.53	....	201.53	....	102.30	....	102.30	26.04	504.80	....	530.84

Table 11.--Original reserves, in all categories, of sub-bituminous coal in Wyoming (in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Campbell County--Continued																
T.45N., R.75W.	....	273.23	....	273.23	....	305.86	....	305.86	....	....	....	....	....	579.09	....	579.09
T.46N., R.75W.	14.14	232.24	....	246.38	....	293.73	....	293.73	....	....	....	....	14.14	525.97	....	540.11
T.47N., R.75W.	....	313.29	....	313.29	....	313.29	....	313.29	....	....	....	....	....	626.58	....	626.58
T.48N., R.75W.	....	198.24	....	198.24	....	297.36	....	297.36	....	....	....	....	....	495.60	....	495.60
T.49N., R.75W.	....	193.28	240.72	434.00	....	307.98	....	307.98	....	....	....	....	....	501.26	240.72	741.98
T.50N., R.75W.	....	275.04	843.94	1,118.98	....	....	....	....	....	....	....	....	....	275.04	843.94	1,118.98
T.51N., R.75W.	....	180.20	1,149.74	1,329.94	....	....	....	....	....	....	....	....	....	180.20	1,149.74	1,329.94
T.52N., R.75W.	....	4.92	1,149.40	1,154.32	....	....	....	....	....	....	....	....	....	4.92	1,149.40	1,154.32
T.53N., R.75W.	194.21	1.59	976.03	1,171.83	....	....	....	....	....	....	....	....	194.21	1.59	976.03	1,171.83
T.54N., R.75W.	169.01	115.56	575.32	859.89	....	....	....	....	....	....	....	....	169.01	115.56	575.32	859.89
T.55N., R.75W.	121.34	201.00	53.75	376.09	....	....	....	....	....	....	....	....	121.34	201.00	53.75	376.09
T.41N., R.76W.	....	....	....	....	21.24	....	....	21.24	....	....	....	....	21.24	....	....	21.24
T.42N., R.76W.	....	....	....	....	57.35	....	....	57.35	36.11	10.62	....	46.73	93.46	10.62	....	104.08
T.43N., R.76W.	15.32	....	....	15.32	....	....	....	....	26.92	164.48	....	191.40	42.24	164.48	....	206.72
T.44N., R.76W.	65.97	....	....	65.97	....	19.71	....	19.71	....	207.98	....	207.98	65.97	227.69	....	293.66
T.45N., R.76W.	66.89	15.18	.....	82.07	....	210.36	....	210.36	....	1.70	....	1.70	66.89	227.24	....	294.13
T.46N., R.76W.	67.98	....	....	67.98	....	212.40	....	212.40	....	....	....	....	67.98	212.40	....	280.38
T.47N., R.76W.	29.74	74.34	....	104.08	....	212.40	....	212.40	....	....	....	....	29.74	286.74	....	316.48
T.48N., R.76W.	....	123.90	....	123.90	....	212.40	....	212.40	....	....	....	....	....	336.30	....	336.30
T.49N., R.76W.	....	188.33	....	188.33	....	212.40	....	212.40	....	....	....	....	....	400.73	....	400.73
T.50N., R.76W.	....	356.12	96.29	452.41	....	....	....	....	....	....	....	....	....	356.12	96.29	452.41
T.51N., R.76W.	....	296.30	445.33	741.63	....	....	....	....	....	....	....	....	....	296.30	445.33	741.63
T.52N., R.76W.	....	252.97	255.79	508.76	....	....	....	....	....	....	....	....	....	252.97	255.79	508.76
T.53N., R.76W.	....	284.41	40.78	325.19	....	....	....	....	....	....	....	....	....	284.41	40.78	325.19
T.54N., R.76W.	25.20	96.86	28.12	150.18	....	....	....	....	....	....	....	....	25.20	96.86	28.12	150.18
T.55N., R.76W.	15.62	90.83	....	106.45	....	....	....	....	....	....	....	....	15.62	90.83	....	106.45
County total	3,805.35	12,207.37	40,584.23	56,596.95	189.04	4,311.08	412.16	4,912.28	69.40	640.86	....	710.26	4,063.79	17,159.31	40,996.39	62,219.49
Carbon County																
T.17N., R.77W.	1.33	2.65	....	3.98	....	....	....	....	....	....	....	....	1.33	2.65	....	3.98
T.19N., R.77W.	....	3.13	.67	3.80	....	....	....	....	....	....	....	....	....	3.13	.67	3.80
T.19N., R.78W.	....	2.66	....	2.66	....	....	....	....	....	....	....	....	....	2.66	....	2.66
T.20N., R.78W.	1.15	....	....	1.15	....	....	....	....	....	....	....	....	1.15	....	....	1.15
T.20N., R.79W.	1.67	....	....	1.67	....	....	....	....	....	....	....	....	1.67	....	....	1.67
*T.21N., R.79W.	18.13	39.85	5.47	63.45	.86	18.05	....	18.91	....	.....	....	....	18.99	57.90	5.47	82.36
T.20N., R.80W.	5.48	5.07	8.93	19.48	....	....	....	....	....	....	....	....	5.48	5.07	8.93	19.48
*T.21N., R.80W.	90.59	43.74	42.79	177.12	1.25	37.62	8.52	47.39	1.55	24.16	....	25.71	93.39	105.52	51.31	250.22
*T.22N., R.80W.	15.05	18.23	.60	33.88	12.98	4.33	....	17.31	13.55	.61	....	14.16	41.58	23.17	.60	65.35
T.23N., R.80W.	51.13	88.17	....	139.30	31.94	32.45	....	64.39	18.74	22.43	....	41.17	101.81	143.05	....	244.86
T.24N., R.80W.	.49	....	....	.49	....	....	....	....	....	....	....	....	.49	....	....	.49
T.21N., R.81W.	3.43	....	....	3.43	3.33	....	....	3.33	3.29	....	....	3.29	10.05	....	....	10.05
T.22N., R.81W.	67.69	106.72	317.28	491.69	22.79	33.11	23.71	79.61	22.17	27.36	6.16	55.69	112.65	167.19	347.15	626.99
T.23N., R.81W.	88.18	131.39	127.18	346.75	59.26	65.12	94.05	218.43	45.29	46.55	66.58	158.42	192.73	243.06	287.81	723.60
T.24N., R.81W.	7.63	5.02	....	12.65	....	....	....	....	.09	....	....	.09	7.72	5.02	....	12.74
T.21N., R.82W.	3.95	1.53	.46	5.94	.68	....	....	.68	.07	....	....	.07	4.70	1.53	.46	6.69
T.22N., R.82W.	58.73	104.05	65.72	228.50	46.01	61.31	38.43	145.75	33.42	37.66	17.29	88.37	138.16	203.02	121.44	462.62
T.23N., R.82W.	11.58	13.52	.65	25.75	19.13	5.17	....	24.30	8.71	10.36	....	19.07	39.42	29.05	.65	69.12
T.24N., R.82W.	5.91	5.75	....	11.66	5.16	3.68	....	8.84	4.14	2.90	....	7.04	15.21	12.33	....	27.54
T.21N., R.83W.	.71	....	....	.71	.15	....	....	.15	....	....	....	....	.86	....	....	.86

* This township also contains bituminous coal.

T.22N., R.83W.	51.46	134.23	14.73	200.42	19.58	89.00	.54	109.12	12.30	62.30	....	74.60	83.34	285.53	15.27	384.14
T.23N., R.83W.	99.37	41.30	16.87	157.54	38.51	70.79	8.72	118.02	42.67	52.17	....	94.84	180.55	164.26	25.59	370.40
*T.24N., R.83W.	45.09	65.52	8.19	118.80	17.87	12.69	....	30.56	17.20	5.31	....	22.51	80.16	83.52	8.19	171.87
*T.21N., R.84W.	.60	....	....	.60	....	....	....	....	....	....	....	....	.60	....	....	.60
*T.22N., R.84W.	4.69	9.05	12.00	25.74	1.79	1.38	....	3.17	.50	....	....	.50	6.98	10.43	12.00	29.41
T.23N., R.84W.	26.94	63.07	130.14	220.15	19.63	10.64	.26	30.53	1.10	....	....	1.10	47.67	77.71	130.40	251.78
*T.24N., R.84W.	9.59	5.76	....	15.35	6.54	.92	....	7.46	6.44	.23	....	6.67	22.57	6.91	....	29.48
*T.22N., R.85W.	.50	....	....	.50	....	....	....	....	....	....	....	....	.50	....	....	.50
T.23N., R.85W.	.70	....	....	.70	....	....	....	....	....	....	....	....	.70	....	....	.70
T.20N., R.88W.	....	6.28	....	6.28	....	....	....	....	....	....	....	....	....	6.28	....	6.28
T.21N., R.88W.	3.45	27.49	....	30.94	5.67	2.63	....	8.30	5.86	4.02	....	9.88	14.98	34.14	....	49.12
T.20N., R.89W.	....	94.44	....	94.44	....	....	....	....	....	....	....	....	....	94.44	....	94.44
T.21N., R.89W.	11.39	45.90	....	57.29	4.00	31.89	....	35.89	.90	4.69	....	5.59	16.29	82.48	....	98.77
T.22N., R.89W.	1.79	.98	....	2.77	.28	.51	....	.79	.21	.32	....	.53	2.28	1.81	....	4.09
T.23N., R.89W.	.38	....	....	.38	....	....	....	....	....	....	....	....	.38	....	....	.38
T.25N., R.89W.	4.43	6.07	1.34	11.84	....	....	....	....	....	....	....	....	4.43	6.07	1.34	11.84
T.26N., R.89W.	....	.67	....	.67	....	....	....	....	....	....	....	....	....	.67	....	.67
T.27N., R.89W.	....	6.61	3.12	9.73	....	....	....	....	....	....	....	....	....	6.61	3.12	9.73
T.12N., R.90W.	....	.73	....	.73	....	....	....	....	....	....	....	....	....	.73	....	.73
*T.18N., R.90W.	....	....	2.23	2.23	....	....	....	....	....	....	....	....	....	....	2.23	2.23
T.13N., R.91W.	.36	.67	1.34	2.37	....	....	....	....	....	....	....	....	.36	.67	1.34	2.37
T.14N., R.91W.	.30	....	....	.30	....	....	....	....	....	....	....	....	.30	....	....	.30
T.15N., R.91W.	.90	....	....	.90	....	....	....	....	....	....	....	....	.90	....	....	.90
T.17N., R.91W.	....	13.46	....	13.46	....	....	....	....	....	....	....	....	....	13.46	....	13.46
T.18N., R.91W.	11.78	198.32	....	210.10	....	....	....	....	....	....	....	....	11.78	198.32	....	210.10
T.19N., R.91W.	....	84.83	....	84.83	....	....	....	....	....	....	....	....	....	84.83	....	84.83
T.12N., R.92W.	1.77	....	....	1.77	10.40	1.33	....	11.73	....	....	....	....	12.17	1.33	....	13.50
T.15N., R.92W.	....	.76	....	.76	....	....	....	....	....	....	....	....	....	.76	....	.76
T.16N., R.92W.	....	.67	3.23	3.90	....	....	....	....	....	....	....	....	....	.67	3.23	3.90
T.17N., R.92W.	....	1.12	....	1.12	....	....	....	....	....	....	....	....	....	1.12	....	1.12
T.18N., R.92W.	1.33	42.29	....	43.62	....	....	....	....	....	....	....	....	1.33	42.29	....	43.62
T.19N., R.92W.	....	148.53	105.31	253.84	....	51.12	....	51.12	....	....	....	....	....	199.65	105.31	304.96
T.19N., R.93W.	.47	1.45	....	1.92	....	24.71	....	24.71	....	3.44	....	3.44	.47	29.60	....	30.07
County total	710.12	1,571.68	868.25	3,150.05	327.81	558.45	174.23	1,060.49	238.20	304.51	90.03	632.74	1,276.13	2,434.64	1,132.51	4,843.28

Converse County

T.33N., R.67W.	1.38	....	....	1.38	....	....	....	....	....	....	....	....	1.38	....	....	1.38
T.34N., R.67W.	22.62	....	....	22.62	....	....	....	....	....	....	....	....	22.62	....	....	22.62
T.35N., R.67W.	52.38	....	....	52.38	....	....	....	....	....	....	....	....	52.38	....	....	52.38
T.36N., R.67W.	9.99	....	....	9.99	....	....	....	....	....	....	....	....	9.99	....	....	9.99
T.38N., R.67W.	1.37	9.78	....	11.15	....	....	....	....	....	....	....	....	1.37	9.78	....	11.15
T.39N., R.67W.	8.75	.92	....	9.67	....	....	....	....	....	....	....	....	8.75	.92	....	9.67
T.40N., R.67W.	.25	....	....	.25	....	....	....	....	....	....	....	....	.25	....	....	.25
T.41N., R.67W.	5.93	....	....	5.93	....	....	....	....	....	....	....	....	5.93	....	....	5.93
T.32N., R.68W.	2.86	....	1.57	4.43	....	....	....	....	....	....	....	....	2.86	....	1.57	4.43
T.33N., R.68W.	8.19	.28	....	8.47	....	....	....	....	....	....	....	....	8.19	.28	....	8.47
T.34N., R.68W.	22.58	.64	....	23.22	....	....	....	....	....	....	....	....	22.58	.64	....	23.22
T.35N., R.68W.	12.43	....	....	12.43	....	....	....	....	....	....	....	....	12.43	....	....	12.43
T.36N., R.68W.	25.04	....	....	25.04	....	....	....	....	....	....	....	....	25.04	....	....	25.04
T.37N., R.68W.	38.24	8.41	....	46.65	....	....	....	....	....	....	....	....	38.24	8.41	....	46.65
T.38N., R.68W.	100.32	178.00	....	278.32	....	....	....	....	....	....	....	....	100.32	178.00	....	278.32
T.39N., R.68W.	169.51	56.22	2.21	227.94	....	....	....	....	....	....	....	....	169.51	56.22	2.21	227.94
T.40N., R.68W.	4.83	....	....	4.83	....	....	....	....	....	....	....	....	4.83	....	....	4.83
T.41N., R.68W.	2.52	....	....	2.52	....	....	....	....	....	....	....	....	2.52	....	....	2.52
T.32N., R.69W.	8.60	....	....	8.60	....	....	....	....	....	....	....	....	8.60	....	....	8.60
T.36N., R.69W.	32.79	....	....	32.79	....	....	....	....	....	....	....	....	32.79	....	....	32.79

* This township also contains bituminous coal.

Table 11.--Original reserves, in all categories, of sub-bituminous coal in Wyoming (in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
								Converse County--Continued								
T.37N., R.69W.	155.10	....	....	155.10	....	....	....	....	....	....	....	....	155.10	....	....	155.10
T.38N., R.69W.	136.56	....	....	136.56	....	....	....	....	....	....	....	....	136.56	....	....	136.56
T.39N., R.69W.	112.70	26.48	....	139.18	....	....	....	....	....	....	....	....	112.70	26.48	....	139.18
T.40N., R.69W.	41.16	13.05	....	54.21	....	....	....	....	....	....	....	....	41.16	13.05	....	54.21
T.41N., R.69W.	4.12	....	....	4.12	....	....	....	....	....	....	....	....	4.12	....	....	4.12
T.36N., R.70W.	9.31	....	....	9.31	....	....	....	....	....	....	....	....	9.31	....	....	9.31
T.37N., R.70W.	34.52	....	....	34.52	....	....	....	....	....	....	....	....	34.52	....	....	34.52
T.40N., R.70W.	37.04	38.83	5.75	81.62	....	....	....	....	....	....	....	....	37.04	38.83	5.75	81.62
T.41N., R.70W.	1.59	....	4.43	6.02	....	....	....	....	....	....	....	....	1.59	....	4.43	6.02
T.39N., R.71W.	....	13.28	39.83	53.11	....	....	....	....	....	....	....	....	....	13.28	39.83	53.11
T.40N., R.71W.	5.04	....	491.18	496.22	....	....	....	....	....	....	....	....	5.04	....	491.18	496.22
T.41N., R.71W.	2.26	....	229.42	231.68	....	....	....	....	....	....	....	....	2.26	....	229.42	231.68
T.32N., R.72W.	1.52	....	....	1.52	....	....	....	....	....	....	....	....	1.52	....	....	1.52
T.35N., R.72W.	.08	....	....	.08	....	....	....	....	....	....	....	....	.08	....	....	.08
T.37N., R.72W.	.28	....	....	.28	....	....	....	....	....	....	....	....	.28	....	....	.28
T.38N., R.72W.	1.96	....	....	1.96	....	....	....	....	....	....	....	....	1.96	....	....	1.96
T.39N., R.72W.	....	7.30	....	7.30	....	....	....	....	....	....	....	....	....	7.30	....	7.30
T.40N., R.72W.	3.99	58.41	410.47	472.87	....	....	....	....	....	....	....	....	3.99	58.41	410.47	472.87
T.41N., R.72W.	....	....	175.24	175.24	....	....	....	....	....	....	....	....	....	....	175.24	175.24
T.35N., R.73W.	17.48	1.81	....	19.29	13.75	....	....	13.75	4.84	....	....	4.84	36.07	1.81	....	37.88
T.38N., R.73W.	1.17	.60	....	1.77	....	....	....	....	....	....	....	....	1.17	.60	....	1.77
T.39N., R.73W.	26.42	14.27	....	40.69	....	....	....	....	....	....	....	....	26.42	14.27	....	40.69
T.40N., R.73W.	42.09	146.95	39.85	228.89	....	....	....	....	....	....	....	....	42.09	146.95	39.85	228.89
T.41N., R.73W.	....	34.07	51.11	85.18	....	....	....	....	....	....	....	....	....	34.07	51.11	85.18
T.34N., R.74W.	.51	....	....	.51	....	....	....	....	....	....	....	....	.51	....	....	.51
T.35N., R.74W.	14.00	4.14	....	18.14	7.23	....	....	7.23	....	....	....	....	21.23	4.14	....	25.37
T.36N., R.74W.	....	34.56	....	34.56	3.77	....	....	3.77	....	....	....	....	3.77	34.56	....	38.33
T.37N., R.74W.	16.90	70.01	.74	87.65	....	....	....	....	....	....	....	....	16.90	70.01	.74	87.65
T.38N., R.74W.	6.15	53.26	....	59.41	....	....	....	....	....	....	....	....	6.15	53.26	....	59.41
T.39N., R.74W.	40.89	16.74	....	57.63	....	....	....	....	....	....	....	....	40.89	16.74	....	57.63
T.40N., R.74W.	65.04	10.95	....	75.99	....	....	....	....	....	....	....	....	65.04	10.95	....	75.99
T.41N., R.74W.	23.90	28.54	....	52.44	....	....	....	....	....	....	....	....	23.90	28.54	....	52.44
T.33N., R.75W.	1.88	1.55	....	3.43	.68	....	....	.68	.47	....	....	.47	3.03	1.55	....	4.58
T.34N., R.75W.	.85	1.21	....	2.06	....	....	....	....	....	....	....	....	.85	1.21	....	2.06
T.35N., R.75W.	14.73	95.03	....	109.76	.18	....	....	.18	....	....	....	....	14.91	95.03	....	109.94
T.36N., R.75W.	34.62	98.04	4.44	137.10	5.99	....	....	5.99	....	....	....	....	40.61	98.04	4.44	143.09
T.37N., R.75W.	2.08	72.15	....	74.23	....	....	....	....	....	....	....	....	2.08	72.15	....	74.23
T.38N., R.75W.	.40	101.08	....	101.48	....	....	....	....	....	....	....	....	.40	101.08	....	101.48
T.41N., R.75W.	....	....	....	....	21.24	....	....	21.24	....	....	....	....	21.24	....	....	21.24
T.34N., R.76W.	6.89	.03	....	6.92	3.92	....	....	3.92	3.40	....	....	3.40	14.21	.03	....	14.24
T.36N., R.76W.	1.00	.12	....	1.12	....	....	....	....	....	....	....	....	1.00	.12	....	1.12
T.38N., R.76W.	3.70	6.31	....	10.01	....	....	....	....	....	....	....	....	3.70	6.31	....	10.01
T.39N., R.76W.	7.04	....	....	7.04	....	....	....	....	....	....	....	....	7.04	....	....	7.04
T.40N., R.76W.	.10	....	....	.10	....	....	....	....	....	....	....	....	.10	....	....	.10
T.34N., R.77W.	6.24	....	....	6.24	1.87	....	....	1.87	.69	....	....	.69	8.80	....	....	8.80
T.39N., R.77W.	12.30	....	....	12.30	....	....	....	....	....	....	....	....	12.30	....	....	12.30
T.40N., R.77W.	2.49	....	....	2.49	....	....	....	....	....	....	....	....	2.49	....	....	2.49
County total	1,426.68	1,203.02	1,456.24	4,085.94	58.63	....	....	58.63	9.40	....	....	9.40	1,494.71	1,203.02	1,456.24	4,153.97

Crook County

T.49N., R.68W.	8.64	....	....	8.64	....	....	....	....	....	....	....	....	8.64	....	....	8.64

Fremont County

T.34N., R.89W.	1.25	....	....	1.25	....	....	....	....	....	....	....	....	1.25	....	....	1.25
T.27N., R.90W.	....	.67	....	.67	....	....	....	....	....	....	....	....	....	.67	....	.67
T.28N., R.90W.	1.56	....	....	1.56	....	....	....	....	....	....	....	....	1.56	....	....	1.56
T.34N., R.90W.	2.45	.19	....	2.64	.20	....	....	.20	....	....	....	....	2.65	.19	....	2.84
T.35N., R.90W.	2.69	....	....	2.69	2.94	....	....	2.94	....	....	....	....	5.63	....	....	5.63
T.27N., R.93W.	....	....	....	....	3.32	2.21	....	5.53	7.52	5.75	2.88	16.15	10.84	7.96	2.88	21.68
T.27N., R.94W.	1.33	....	....	1.33	....	....	....	....	....	....	....	....	1.33	....	....	1.33
T.34N., R.94W.	9.98	5.63	....	15.61	12.77	1.13	....	13.90	14.46	....	....	14.46	37.21	6.76	....	43.97
T.34N., R.95W.	4.62	1.79	5.38	11.79	1.98	1.93	2.31	6.22	2.01	.26	....	2.27	8.61	3.98	7.69	20.28
T.35N., R.96W.	....	....	....	....	32.45	27.11	45.96	105.52	69.27	45.72	192.07	307.06	101.72	72.83	238.03	412.58
T.34N., R.96W.	....	....	....	....	....	....	....	....	19.58	10.54	64.77	94.89	19.58	10.54	64.77	94.89
T.35N., R.96W.	7.03	2.38	9.29	18.70	5.26	3.06	.89	9.21	2.48	....	....	2.48	14.77	5.44	10.18	30.39
T.34N., R.98W.	3.91	1.95	1.78	7.64	3.21	5.58	.89	9.68	5.70	.56	....	6.26	12.82	8.09	2.67	23.58
T.3N., R.1W.	.36	....	....	.36	....	....	....	....	....	....	....	....	.36	....	....	.36
T.5N., R.1W.	....	.92	....	.92	....	.46	....	.46	....	....	....	....	....	1.38	....	1.38
T.6N., R.2W.	4.02	4.08	....	8.10	2.73	3.81	....	6.54	1.40	1.73	....	3.13	8.15	9.62	....	17.77
T.6N., R.1E.	3.20	12.25	....	15.45	....	....	....	....	....	....	....	....	3.20	12.25	....	15.45
T.6N., R.2E.	3.99	....	....	3.99	1.17	....	....	1.17	....	....	....	....	5.16	....	....	5.16
T.1S., R.2E.	1.37	....	....	1.37	....	....	....	....	....	....	....	....	1.37	....	....	1.37
T.2S., R.2E.	3.63	....	....	3.63	....	....	....	....	....	....	....	....	3.63	....	....	3.63
T.6N., R.3E.	2.74	....	....	2.74	....	....	....	....	....	....	....	....	2.74	....	....	2.74
T.1S., R.6E.	....	....	....	....	.95	....	....	.95	5.24	....	....	5.24	6.19	....	....	6.19
T.2S., R.6E.	3.47	6.18	....	9.65	6.29	.37	....	6.66	2.75	....	....	2.75	12.51	6.55	....	19.06
County total	57.80	36.04	16.45	110.09	73.27	45.66	50.05	168.98	130.41	64.56	259.72	454.69	261.28	146.26	326.22	733.76

Hot Springs County

T.44N., R.93W.	.23	....	....	.23	....	....	....	....	....	....	....	....	.23	....	....	.23
T.44N., R.94W.	10.35	.09	....	10.44	4.13	.18	....	4.31	2.97	.01	....	2.98	17.45	.28	....	17.73
T.44N., R.95W.	21.99	27.19	1.95	51.13	.62	14.10	....	14.72	.09	9.66	....	9.75	22.70	50.95	1.95	75.60
T.45N., R.95W.	.03	....	....	.03	1.74	.02	....	1.76	1.91	.33	....	2.24	3.68	.35	....	4.03
T.44N., R.96W.	14.02	4.70	....	18.72	2.83	....	....	2.83	....	....	....	....	16.85	4.70	....	21.55
T.45N., R.96W.	.34	....	....	.34	....	....	....	....	....	....	....	....	.34	....	....	.34
T.44N., R.97W.	6.11	.76	....	6.87	3.05	....	....	3.05	....	....	....	....	9.16	.76	....	9.92
T.45N., R.97W.	15.22	4.90	....	20.12	4.16	.62	....	4.78	.29	....	....	.29	19.67	5.52	....	25.19
T.44N., R.98W.	13.47	3.00	....	16.47	5.75	1.29	....	7.04	.90	....	....	.90	20.12	4.29	....	24.41
T.45N., R.98W.	6.93	....	....	6.93	....	....	....	....	....	....	....	....	6.93	....	....	6.93
T.46N., R.98W.	18.37	1.41	....	19.78	3.35	....	....	3.35	2.49	....	....	2.49	24.21	1.41	....	25.62
T.47N., R.98W.	.24	....	....	.24	....	....	....	....	....	....	....	....	.24	....	....	.24
T.44N., R.99W.	9.23	....	....	9.23	.13	....	....	.13	....	....	....	....	9.36	....	....	9.36
T.45N., R.99W.	2.63	.12	....	2.75	....	....	....	....	....	....	....	....	2.63	.12	....	2.75
T.46N., R.99W.	9.05	5.89	15.15	30.09	....	....	....	....	....	....	....	....	9.05	5.89	15.15	30.09
T.47N., R.99W.	1.50	....	....	1.50	....	....	....	....	....	....	....	....	1.50	....	....	1.50
T.46N., R.100W.	3.17	.66	....	3.83	1.76	....	....	1.76	....	....	....	....	4.93	.66	....	5.59
County total	132.88	48.72	17.10	198.70	27.52	16.21	....	43.73	8.65	10.00	....	18.65	169.05	74.93	17.10	261.08

Johnson County

T.42N., R.76W.	....	....	....	....	23.36	....	....	23.36	....	....	....	....	23.36	....	....	23.36
T.43N., R.76W.	....	....	....	....	....	....	....	....	23.38	12.24	....	35.62	23.38	12.24	....	35.62
T.44N., R.76W.	1.18	....	....	1.18	....	....	....	....	....	78.16	....	78.16	1.18	78.16	....	79.34
T.45N., R.76W.	29.45	....	....	29.45	....	84.96	....	84.96	....	7.47	....	7.47	29.45	92.43	....	121.88
T.46N., R.76W.	31.81	....	....	31.81	....	93.46	....	93.46	....	....	....	....	31.81	93.46	....	125.27

Table 11.--Original reserves, in all categories, of sub-bituminous coal in Wyoming (in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
								Johnson County--Continued								
T.47N., R.76W.	37.17	7.08	....	44.25	....	90.27	....	90.27	....	....	....	....	37.17	97.35	....	134.52
T.48N., R.76W.	8.85	57.53	....	66.38	....	95.58	....	95.58	....	....	....	....	8.85	153.11	....	161.96
T.49N., R.76W.	....	113.99	....	113.99	....	106.20	....	106.20	....	....	....	....	....	220.19	....	220.19
T.50N., R.76W.	....	205.32	....	205.32	....	....	....	....	....	....	....	....	....	205.32	....	205.32
T.51N., R.76W.	....	145.85	156.47	302.32	....	....	....	....	....	....	....	....	....	145.85	156.47	302.32
T.52N., R.76W.	....	185.97	174.34	360.31	....	....	....	....	....	....	....	....	....	185.97	174.34	360.31
T.53N., R.76W.	....	129.59	....	129.59	....	....	....	....	....	....	....	....	....	129.59	....	129.59
T.41N., R.77W.	3.08	.06	....	3.14	....	....	....	....	....	....	....	....	3.08	.06	....	3.14
T.42N., R.77W.	27.16	13.67	112.37	153.20	51.56	4.14	2.71	58.41	....	....	....	....	78.72	17.81	115.08	211.61
T.43N., R.77W.	.77	....	....	.77	114.76	....	....	114.76	34.47	....	....	34.47	150.00	....	....	150.00
T.44N., R.77W.	....	....	....	....	23.36	....	....	23.36	55.22	106.20	....	161.42	78.58	106.20	....	184.78
T.45N., R.77W.	7.08	....	....	7.08	10.62	196.47	....	207.09	6.37	63.72	....	70.09	24.07	260.19	....	284.26
T.46N., R.77W.	35.40	....	....	35.40	....	302.67	....	302.67	....	....	....	....	35.40	302.67	....	338.07
T.47N., R.77W.	49.56	....	....	49.56	....	313.29	....	313.29	....	....	....	....	49.56	313.29	....	362.85
T.48N., R.77W.	51.33	....	....	51.33	....	313.29	....	313.29	....	....	....	....	51.33	313.29	....	364.62
T.49N., R.77W.	33.12	14.87	....	47.99	....	318.60	....	318.60	....	....	....	....	33.12	333.47	....	366.59
T.50N., R.77W.	35.27	416.16	....	451.43	....	....	....	....	....	....	....	....	35.27	416.16	....	451.43
T.51N., R.77W.	43.14	413.81	13.48	470.43	....	....	....	....	....	....	....	....	43.14	413.81	13.48	470.43
T.52N., R.77W.	74.76	227.79	168.71	471.26	....	....	....	....	....	....	....	....	74.76	227.79	168.71	471.26
T.53N., R.77W.	59.59	33.32	13.00	105.91	....	....	....	....	....	....	....	....	59.59	33.32	13.00	105.91
T.42N., R.78W.	9.57	12.24	39.74	61.55	....	....	....	....	....	....	....	....	9.57	12.24	39.74	61.55
T.43N., R.78W.	61.60	6.84	....	68.44	112.44	....	....	112.44	....	....	....	....	174.04	6.84	....	180.88
T.44N., R.78W.	....	....	....	....	66.20	....	....	66.20	....	....	....	....	66.20	....	....	66.20
T.45N., R.78W.	....	....	....	....	112.57	....	....	112.57	....	....	....	....	112.57	....	....	112.57
T.46N., R.78W.	....	....	....	....	93.46	58.41	....	151.87	....	....	....	....	93.46	58.41	....	151.87
T.47N., R.78W.	....	....	....	....	67.97	127.44	....	195.41	....	....	....	....	67.97	127.44	....	195.41
T.48N., R.78W.	....	....	....	....	57.35	159.30	....	216.65	....	....	....	....	57.35	159.30	....	216.65
T.49N., R.78W.	5.78	....	....	5.78	63.72	127.44	....	191.16	....	....	....	....	69.50	127.44	....	196.94
T.50N., R.78W.	137.70	70.21	....	207.91	....	....	....	....	....	....	....	....	137.70	70.21	....	207.91
T.51N., R.78W.	114.83	9.97	....	124.80	....	....	....	....	....	....	....	....	114.83	9.97	....	124.80
T.52N., R.78W.	48.99	....	....	48.99	....	....	....	....	....	....	....	....	48.99	....	....	48.99
T.43N., R.79W.	32.77	19.17	....	51.94	12.17	....	....	12.17	....	....	....	....	44.94	19.17	....	64.11
T.46N., R.79W.	....	....	....	....	31.86	....	....	31.86	....	....	....	....	31.86	....	....	31.86
T.47N., R.79W.	....	....	....	....	46.73	....	....	46.73	....	....	....	....	46.73	....	....	46.73
T.48N., R.79W.	....	....	....	....	55.22	....	....	55.22	....	....	....	....	55.22	....	....	55.22
T.49N., R.79W.	61.63	17.19	....	78.82	35.40	....	....	35.40	....	....	....	....	97.03	17.19	....	114.22
T.50N., R.79W.	73.66	39.34	8.23	121.23	....	....	....	....	....	....	....	....	73.66	39.34	8.23	121.23
T.51N., R.79W.	47.44	2.43	....	49.87	....	....	....	....	....	....	....	....	47.44	2.43	....	49.87
T.52N., R.79W.	....	4.08	72.05	76.13	....	....	....	....	....	....	....	....	....	4.08	72.05	76.13
T.53N., R.79W.	7.65	....	30.59	38.24	....	....	....	....	....	....	....	....	7.65	....	30.59	38.24
T.43N., R.80W.	3.57	2.79	....	6.36	....	....	....	....	....	....	....	....	3.57	2.79	....	6.36
T.44N., R.80W.	21.56	3.00	....	24.56	....	....	....	....	....	....	....	....	21.56	3.00	....	24.56
T.48N., R.80W.	7.88	23.01	....	30.89	....	....	....	....	....	....	....	....	7.88	23.01	....	30.89
T.49N., R.80W.	15.80	11.78	....	27.58	....	....	....	....	....	....	....	....	15.80	11.78	....	27.58
T.50N., R.80W.	....	139.80	....	139.80	....	....	....	....	....	....	....	....	....	139.80	....	139.80
T.51N., R.80W.	....	12.69	141.42	154.11	....	....	....	....	....	....	....	....	....	12.69	141.42	154.11
T.52N., R.80W.	1.41	....	249.31	250.72	....	....	....	....	....	....	....	....	1.41	....	249.31	250.72
T.53N., R.80W.	....	....	27.69	27.69	....	....	....	....	....	....	....	....	....	....	27.69	27.69
T.44N., R.81W.	26.41	6.51	....	32.92	....	....	....	....	....	....	....	....	26.41	6.51	....	32.92
T.46N., R.81W.	10.79	....	....	10.79	....	....	....	....	....	....	....	....	10.79	....	....	10.79

T.47N., R.81W.	30.51	2.56	....	33.07	....	....	....	....	....	....	....	....	30.51	2.56	....	33.07
T.50N., R.81W.	5.28	159.55	....	164.83	....	....	....	....	....	....	....	....	5.28	159.55	....	164.83
T.51N., R.81W.	49.17	35.35	285.13	369.65	....	....	....	....	....	....	....	....	49.17	35.35	285.13	369.65
T.52N., R.81W.	45.81	19.28	362.61	427.70	....	....	....	....	....	....	....	....	45.81	19.28	362.61	427.70
T.53N., R.81W.	....	....	98.83	98.83	....	....	....	....	....	....	....	....	....	....	98.83	98.83
T.51N., R.82W.	19.34	3.13	137.34	159.81	....	....	....	....	....	....	....	....	19.34	3.13	137.34	159.81
T.52N., R.82W.	3.39	2.40	418.07	423.86	....	....	....	....	....	....	....	....	3.39	2.40	418.07	423.86
T.53N., R.82W.	.28	10.45	163.80	174.53	....	....	....	....	....	....	....	....	.28	10.45	163.80	174.53
T.52N., R.83W.	3.27	6.36	9.80	19.43	....	....	....	....	....	....	....	....	3.27	6.36	9.80	19.43
County total	1,374.81	2,585.14	2,682.98	6,642.93	978.75	2,391.52	2.71	3,372.98	119.44	267.79	....	387.23	2,473.00	5,244.45	2,685.69	10,403.14

Lincoln County

T.26N.,R.113W.	.34	.68	....	1.02	....	....	....	....	....	....	....	....	.34	.68	....	1.02
*T.25N.,R.115W.	3.19	....	....	3.19	....	....	....	....	....	....	....	....	3.19	....	....	3.19
*T.21N.,R.116W.	....	69.78	126.77	196.55	....	4.62	....	4.62	....	....	....	....	....	74.40	126.77	201.17
*T.22N.,R.116W.	....	19.52	....	19.52	....	3.18	....	3.18	....	....	....	....	....	22.70	....	22.70
*T.24N.,R.116W.	31.69	....	....	31.69	29.64	....	....	29.64	20.06	....	....	20.06	81.39	....	....	81.39
*T.25N.,R.116W.	25.76	....	....	25.76	24.85	....	....	24.85	15.05	....	....	15.05	65.66	....	....	65.66
*T.19N.,R.117W.	....	....	121.71	121.71	....	....	52.72	52.72	....	....	....	....	....	....	174.43	174.43
T.20N.,R.117W.	....	....	413.11	413.11	....	....	112.32	112.32	....	....	....	....	....	....	525.43	525.43
T.21N.,R.117W.	....	7.99	4.42	12.41	....	67.25	....	67.25	....	....	....	....	....	75.24	4.42	79.66
County total	60.98	97.97	666.01	824.96	54.49	75.05	165.04	394.58	35.11	....	....	35.11	150.58	173.02	831.05	1,154.65

Natrona County

T.36N., R.77W.	.24	....	....	.24	....	....	....	....	....	....	....	....	.24	....	....	.24
T.39N., R.77W.	.65	....	....	.65	....	....	....	....	....	....	....	....	.65	....	....	.65
T.35N., R.78W.	.05	....	....	.05	....	....	....	....	....	....	....	....	.05	....	....	.05
T.36N., R.78W.	5.82	....	....	5.82	....	....	....	....	....	....	....	....	5.82	....	....	5.82
T.37N., R.78W.	5.21	6.75	....	11.96	....	....	....	....	....	....	....	....	5.21	6.75	....	11.96
T.38N., R.78W.	....	.91	....	.91	....	....	....	....	....	....	....	....	....	.91	....	.91
T.36N., R.79W.	5.96	.15	....	6.11	....	....	....	....	....	....	....	....	5.96	.15	....	6.11
T.31N., R.82W.	2.32	.19	....	2.51	.34	....	....	.34	....	....	....	....	2.66	.19	....	2.85
T.32N., R.82W.	.27	.39	....	.66	.24	....	....	.24	....	....	....	....	.51	.39	....	.90
T.33N., R.82W.	.03	....	....	.03	....	....	....	....	....	....	....	....	.03	....	....	.03
T.33N., R.83W.	2.72	3.89	....	6.61	2.03	3.67	....	5.70	1.00	3.53	....	4.53	5.75	11.09	....	16.84
T.35N., R.84W.	1.85	....	....	1.85	1.39	....	....	1.39	.68	....	....	.68	3.90	....	....	3.90
T.35N., R.85W.	14.15	2.65	....	16.80	11.09	.25	....	11.34	7.59	....	....	7.59	32.83	2.90	....	35.73
T.34N., R.85W.	3.78	3.91	....	7.69	2.76	2.47	....	5.23	1.83	1.14	....	2.97	8.37	7.52	....	15.89
T.33N., R.86W.	4.39	.12	....	4.51	.51	....	....	.51	....	....	....	....	4.90	.12	....	5.02
T.36N., R.86W.	9.18	2.94	....	12.12	8.26	2.17	....	10.43	4.98	.99	....	5.97	22.42	6.10	....	28.52
T.37N., R.86W.	....	8.33	....	8.33	....	7.14	....	7.14	....	3.57	....	3.57	....	19.04	....	19.04
T.33N., R.87W.	5.51	2.66	....	8.17	5.84	....	....	5.84	3.16	....	....	3.16	14.51	2.66	....	17.17
T.34N., R.87W.	.02	....	....	.02	.74	....	....	.74	1.66	....	....	1.66	2.42	....	....	2.42
T.37N., R.87W.	2.74	....	....	2.74	2.35	....	....	2.35	1.17	....	....	1.17	6.26	....	....	6.26
T.34N., R.88W.	4.90	1.70	....	6.60	3.52	....	....	3.52	2.45	....	....	2.45	10.87	1.70	....	12.57
County total	69.77	34.59	....	104.36	39.07	15.70	....	54.77	24.52	9.23	....	33.75	133.36	59.52	....	192.88

Niobrara County

T.40N., R.66W.	.56	....	....	.56	....	....	....	....	....	....	....	....	.56	....	....	.56
T.34N., R.67W.	12.53	....	....	12.53	....	....	....	....	....	....	....	....	12.53	....	....	12.53
T.41N., R.67W.	1.22	....	....	1.22	....	....	....	....	....	....	....	....	1.22	....	....	1.22
County total	14.31	....	....	14.31	....	....	....	....	....	....	....	....	14.31	....	....	14.31

* This township also contains bituminous coal.

Table 11.--Original reserves, in all categories, of sub-bituminous coal in Wyoming (in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Park County																
T.56N., R.98W.	3.86	....	....	3.86	....	....	....	....	....	....	....	....	3.86	....	....	3.86
T.48N., R.99W.	3.48	.18	....	3.66	2.23	....	....	2.23	.32	....	....	.32	6.03	.18	....	6.21
T.56N., R.99W.	24.85	....	....	24.85	4.78	....	....	4.78	....	....	....	....	29.63	....	....	29.63
T.57N., R.99W.	2.97	....	....	2.97	....	....	....	....	....	....	....	....	2.97	....	....	2.97
*T.58N., R.99W.	.67	....	....	.67	....	....	....	....	....	....	....	....	.67	....	....	.67
T.47N.,R.100W.	9.35	.48	....	9.83	3.07	....	....	3.07	....	....	....	....	12.42	.48	....	12.90
T.48N.,R.100W.	3.53	.39	....	3.92	....	....	....	....	....	....	....	....	3.53	.39	....	3.92
T.49N.,R.100W.	3.18	....	....	3.18	....	....	....	....	....	....	....	....	3.18	....	....	3.18
T.51N.,R.100W.	4.21	....	....	4.21	3.21	....	....	3.21	.90	....	....	.90	8.32	....	....	8.32
T.52N.,R.100W.	.13	....	....	.13	....	....	....	....	....	....	....	....	.13	....	....	.13
T.47N.,R.101W.	19.65	16.67	....	36.32	10.96	1.44	....	12.40	....	....	....	....	30.61	18.11	....	48.72
T.48N.,R.101W.	5.29	.22	....	5.51	3.95	....	....	3.95	....	....	....	....	9.24	.22	....	9.46
T.49N.,R.101W.	1.69	.48	....	2.17	....	....	....	....	....	....	....	....	1.69	.48	....	2.17
T.50N.,R.101W.	4.93	....	....	4.93	2.62	....	....	2.62	2.19	....	....	2.19	9.74	....	....	9.74
T.51N.,R.101W.	5.84	.26	....	6.10	1.60	....	....	1.60	.01	....	....	.01	7.45	.26	....	7.71
T.52N.,R.101W.	2.42	....	....	2.42	7.34	....	....	7.34	13.61	....	....	13.61	23.37	....	....	23.37
T.53N.,R.101W.	1.48	....	....	1.48	1.29	....	....	1.29	.88	....	....	.88	3.65	....	....	3.65
T.47N.,R.102W.	4.86	1.96	....	6.82	....	....	....	....	....	....	....	....	4.86	1.96	....	6.82
T.48N.,R.102W.	2.19	....	....	2.19	.30	....	....	.30	....	....	....	....	2.49	....	....	2.49
T.50N.,R.102W.	1.70	.41	....	2.11	2.36	....	....	2.36	1.55	....	....	1.55	5.61	.41	....	6.02
**T.56N.,R.100W.	....	....	....	....	....	2.88	....	2.88	1.77	....	....	1.77	1.77	2.88	....	4.65
County total	106.28	21.05	....	127.33	43.71	4.32	....	48.03	21.23	....	....	21.23	171.22	25.37	....	196.59
Sheridan County																
T.55N., R.76W.	12.51	69.75	....	82.26	....	....	....	....	....	....	....	....	12.51	69.75	....	82.26
T.54N., R.76W.	40.54	136.40	....	176.94	....	....	....	....	....	....	....	....	40.54	136.40	....	176.94
T.56N., R.76W.	25.49	133.77	....	159.26	....	....	....	....	....	....	....	....	25.49	133.77	....	159.26
T.55N., R.77W.	35.53	....	....	35.53	....	....	....	....	....	....	....	....	35.53	....	....	35.53
T.54N., R.77W.	7.48	212.75	....	220.23	....	....	....	....	....	....	....	....	7.48	212.75	....	220.23
T.55N., R.77W.	75.38	285.59	....	360.97	....	....	....	....	....	....	....	....	75.38	285.59	....	360.97
T.57N., R.77W.	21.07	....	....	21.07	....	....	....	....	....	....	....	....	21.07	....	....	21.07
T.58N., R.77W.	40.27	....	....	40.27	....	....	....	....	....	....	....	....	40.27	....	....	40.27
T.54N., R.78W.	....	21.01	....	21.01	....	....	....	....	....	....	....	....	....	21.01	....	21.01
T.55N., R.78W.	14.78	202.62	....	217.40	....	....	....	....	....	....	....	....	14.78	202.62	....	217.40
T.56N., R.78W.	18.01	....	....	18.01	....	....	....	....	....	....	....	....	18.01	....	....	18.01
T.57N., R.78W.	117.42	....	....	117.42	35.41	....	....	35.41	....	....	....	....	152.83	....	....	152.83
T.58N., R.78W.	84.18	....	....	84.18	56.92	....	....	56.92	....	....	....	....	141.10	....	....	141.10
T.53N., R.79W.	.34	....	1.36	1.70	....	....	....	....	....	....	....	....	.34	....	1.36	1.70
T.55N., R.79W.	....	....	2.44	2.44	....	....	....	....	....	....	....	....	....	....	2.44	2.44
T.56N., R.79W.	102.15	....	5.56	107.71	16.00	....	....	16.00	....	....	....	....	118.15	....	5.56	123.71
T.57N., R.79W.	225.55	117.17	17.08	359.80	115.78	....	....	115.78	....	....	....	....	341.33	117.17	17.08	475.58
T.58N., R.79W.	109.43	133.22	155.64	398.29	32.49	....	....	32.49	....	....	....	....	141.92	133.22	155.64	430.78
T.53N., R.80W.	....	....	3.40	3.40	....	....	....	....	....	....	....	....	....	....	3.40	3.40
T.54N., R.80W.	4.21	78.11	26.67	108.99	....	....	....	....	....	....	....	....	4.21	78.11	26.67	108.99
T.55N., R.80W.	24.01	146.70	.68	171.39	....	....	....	....	....	....	....	....	24.01	146.70	.68	171.39
T.56N., R.80W.	244.67	108.93	2.04	355.64	49.95	....	....	49.95	21.89	....	....	21.89	316.51	108.93	2.04	427.48
T.57N., R.80W.	253.83	140.69	284.23	678.75	124.11	....	....	124.11	....	....	....	....	377.94	140.69	284.23	802.86
T.58N., R.80W.	128.36	27.02	291.88	447.26	60.97	....	....	60.97	....	....	....	....	189.33	27.02	291.88	508.23
T.53N., R.81W.	2.72	....	81.16	83.88	....	....	....	....	....	....	....	....	2.72	....	81.16	83.88

T.54N., R.81W.	1.50	229.72	....	231.22	....	....	....	....	....	....	....	....	1.50	229.72	....	231.22
T.55N., R.81W.	83.47	146.07	....	229.54	....	....	....	....	....	....	....	....	83.47	146.07	....	229.54
T.56N., R.81W.	243.08	314.89	13.69	571.66	39.09	101.58	....	140.67	64.78	....	....	64.78	346.95	416.47	13.69	777.11
T.57N., R.81W.	249.78	11.97	522.44	784.19	127.95	219.40	....	347.35	....	....	....	....	377.73	231.37	522.44	1,131.54
T.58N., R.81W.	92.55	95.34	275.25	463.14	63.52	89.13	....	152.65	....	....	....	....	156.07	184.47	275.25	615.79
T.53N., R.82W.	....	95.39	....	95.39	....	....	....	....	....	....	....	....	....	95.39	....	95.39
T.54N., R.82W.	37.38	44.41	....	81.79	....	....	....	....	....	....	....	....	37.38	44.41	....	81.79
T.55N., R.82W.	87.92	82.63	....	170.55	....	147.26	....	147.26	....	....	....	....	87.92	229.89	....	317.81
T.56N., R.82W.	241.55	237.72	84.08	563.35	90.87	331.05	....	421.92	19.60	....	....	19.60	352.02	568.77	84.08	1,004.87
T.57N., R.82W.	249.30	8.88	540.87	799.05	124.11	323.53	....	447.64	....	....	....	....	373.41	332.41	540.87	1,246.69
T.58N., R.82W.	91.97	164.68	262.42	519.07	42.62	92.62	....	135.24	....	....	....	....	134.59	257.30	262.42	654.31
T.53N., R.83W.	....	....	14.39	14.39	....	....	....	....	....	....	....	....	....	....	14.39	14.39
T.54N., R.83W.	7.38	30.06	....	37.44	....	....	....	....	....	....	....	....	7.38	30.06	....	37.44
T.55N., R.83W.	54.60	80.37	....	134.97	....	256.47	....	256.47	....	....	....	....	54.60	336.84	....	391.44
T.56N., R.83W.	197.08	199.87	45.65	442.60	103.38	315.64	....	419.02	1.22	....	....	1.22	301.68	515.51	45.65	862.84
T.57N., R.83W.	257.67	213.36	710.56	1,181.59	41.46	48.68	3.12	93.26	....	....	....	....	299.13	262.04	713.68	1,274.85
T.58N., R.83W.	65.49	29.34	387.73	482.56	....	....	....	....	....	....	....	....	65.49	29.34	387.73	482.56
T.55N., R.84W.	7.61	277.76	6.76	292.13	....	5.44	....	5.44	....	....	....	....	7.61	283.20	6.76	297.57
T.56N., R.84W.	193.23	441.18	73.55	707.96	10.09	11.87	....	21.96	....	....	....	....	203.32	453.05	73.55	729.92
T.57N., R.84W.	51.86	262.94	1,019.31	1,334.11	....	....	....	....	....	....	....	....	51.86	262.94	1,019.31	1,334.11
T.58N., R.84W.	26.30	64.20	314.87	405.37	....	....	....	....	....	....	....	....	26.30	64.20	314.87	405.37
T.55N., R.85W.	....	12.15	79.66	91.81	....	....	....	....	....	....	....	....	....	12.15	79.66	91.81
T.56N., R.85W.	5.26	194.00	56.87	256.13	....	....	....	....	....	....	....	....	5.26	194.00	56.87	256.13
T.57N., R.85W.	.44	98.77	234.11	333.32	....	....	....	....	....	....	....	....	.44	98.77	234.11	333.32
T.58N., R.85W.	10.70	11.78	56.16	78.64	....	....	....	....	....	....	....	....	10.70	11.78	56.16	78.64
T.58N., R.86W.	6.94	....	....	6.94	....	....	....	....	....	....	....	....	6.94	....	....	6.94
County total	3,860.99	5,161.21	5,570.51	14,582.71	1,134.72	1,942.67	3.12	3,080.51	107.49	....	....	107.49	5,093.20	7,103.88	5,573.63	17,770.71

Sublette County

T.27N.,R.113W.	1.19	.93	....	2.12	....	....	....	....	....	....	....	....	1.19	.93	....	2.12
T.28N.,R.114W.	1.31	1.78	....	3.09	....	....	....	....	....	....	....	....	1.31	1.78	....	3.09
County total	2.50	2.71	....	5.21	....	....	....	....	....	....	....	....	2.50	2.71	....	5.21

Sweetwater County

T.20N., R.90W.	....	29.91	....	29.91	....	....	....	....	....	....	....	....	....	29.91	....	29.91
T.21N., R.90W.	....	98.20	9.96	108.16	....	29.76	....	29.76	....	....	....	....	....	127.96	9.96	137.92
T.26N., R.90W.	2.71	1.01	2.39	6.11	....	....	....	....	....	....	....	....	2.71	1.01	2.39	6.11
T.20N., R.91W.	....	294.83	16.64	311.47	....	13.67	....	13.67	....	....	....	....	....	308.50	16.64	325.14
T.21N., R.91W.	....	69.48	....	69.48	....	278.59	....	278.59	....	15.12	....	15.12	....	363.19	....	363.19
T.20N., R.92W.	....	193.26	142.43	335.69	....	260.67	....	260.67	....	20.49	....	20.49	....	474.42	142.43	616.85
T.21N., R.92W.	1.88	....	....	1.88	....	25.92	....	25.92	....	45.65	....	45.65	1.88	71.57	....	73.45
T.20N., R.93W.	....	67.85	....	67.85	....	17.44	....	17.44	....	32.17	....	32.17	....	117.46	....	117.46
T.21N., R.93W.	107.92	....	....	107.92	....	....	....	....	....	....	....	....	107.92	....	....	107.92
T.22N., R.93W.	.92	16.96	....	17.88	....	....	....	....	....	....	....	....	.92	16.96	....	17.88
T.26N., R.93W.	....	....	....	....	....	....	....	....	3.57	....	....	3.57	3.57	....	....	3.57
T.20N., R.94W.	7.75	....	3.32	11.07	....	1.55	....	1.55	....	....	....	....	7.75	1.55	3.32	12.62
T.21N., R.94W.	79.33	....	....	79.33	....	....	....	....	....	....	....	....	79.33	....	....	79.33
T.22N., R.94W.	44.60	58.60	67.82	171.02	....	....	....	....	....	....	....	....	44.60	58.60	67.82	171.02
T.23N., R.94W.	....	53.45	....	53.45	....	....	....	....	....	....	....	....	....	53.45	....	53.45
T.22N., R.95W.	4.51	56.31	....	60.82	....	....	....	....	....	....	....	....	4.51	56.31	....	60.82
T.23N., R.95W.	....	5.38	....	5.38	....	....	....	....	....	....	....	....	....	5.38	....	5.38
T.18N., R.98W.	2.21	1.77	....	3.98	6.64	3.98	....	10.62	7.97	2.88	3.76	14.61	16.82	8.63	3.76	29.21
T.20N., R.99W.	11.71	....	....	11.71	....	....	....	....	....	....	....	....	11.71	....	....	11.71
T.21N., R.99W.	11.35	....	....	11.35	....	....	....	....	....	....	....	....	11.35	....	....	11.35

* This township also contains bituminous coal.

**Possibly bituminous coal.

Table 11.--Original reserves, in all categories, of sub-bituminous coal in Wyoming (in millions of short tons)--Continued

Township	0 to 1,000 feet overburden				1,000 to 2,000 feet overburden				2,000 to 3,000 feet overburden				Total in all overburden categories			Township total
	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	Total	In beds 2 1/2 to 5 feet thick	In beds 5 to 10 feet thick	In beds more than 10 feet thick	
Sweetwater County--Continued																
T.17N.,R.100W.	50.39	9.26	....	59.65	....	....	....	....	....	....	....	....	50.39	9.26	....	59.65
T.18N.,R.100W.	12.64	25.15	....	37.79	....	....	....	....	....	....	....	....	12.64	25.15	....	37.79
T.19N.,R.100W.	1.98	25.77	....	27.75	....	....	....	....	....	....	....	....	1.98	25.77	....	27.75
T.20N.,R.100W.	71.66	9.10	....	80.76	....	....	....	....	....	....	....	....	71.66	9.10	....	80.76
T.21N.,R.100W.	43.51	7.41	4.25	54.97	.20	....	....	.20	....	....	....	....	43.51	7.41	4.25	55.17
T.14N.,R.101W.	....	....	....	....	4.30	....	....	4.30	.04	....	....	.04	4.34	....	....	4.34
T.15N.,R.101W.	2.30	....	....	2.30	17.23	....	....	17.23	46.40	....	....	46.40	65.93	....	....	65.93
T.16N.,R.101W.	54.05	15.48	....	69.53	73.38	4.96	....	78.34	59.93	....	....	59.93	187.36	20.44	....	207.80
T.17N.,R.101W.	141.71	4.58	....	146.29	.05	....	....	.05	....	....	....	....	141.76	4.58	....	146.34
T.18N.,R.101W.	53.20	19.16	....	72.36	....	....	....	....	....	....	....	....	53.20	19.16	....	72.36
T.19N.,R.101W.	6.10	....	....	6.10	....	....	....	....	....	....	....	....	6.10	....	....	6.10
*T.20N.,R.101W.	44.25	4.33	....	48.58	6.78	....	....	6.78	....	....	....	....	51.03	4.33	....	55.36
*T.21N.,R.101W.	5.01	....	....	5.01	2.60	....	....	2.60	....	....	....	....	7.61	....	....	7.61
T.14N.,R.102W.	34.94	8.82	....	43.76	5.64	....	....	5.64	....	....	....	....	40.58	8.82	....	49.40
T.15N.,R.102W.	167.40	....	....	167.40	90.45	....	....	90.45	3.83	....	....	3.83	261.68	....	....	261.68
T.16N.,R.102W.	236.27	51.38	....	287.65	90.11	....	....	90.11	11.25	....	....	11.25	337.63	51.38	....	389.01
T.17N.,R.102W.	1.23	....	....	1.23	....	....	....	....	....	....	....	....	1.23	....	....	1.23
T.13N.,R.103W.	3.97	14.52	....	18.49	33.99	9.44	....	43.43	.28	....	....	.28	38.24	23.96	....	62.20
T.14N.,R.103W.	83.71	121.82	....	205.53	14.03	.83	....	14.86	....	....	....	....	97.74	122.65	....	220.39
T.15N.,R.103W.	.26	....	....	.26	....	....	....	....	....	....	....	....	.26	....	....	.26
*T.22N.,R.103W.	.19	....	....	.19	....	....	....	....	....	....	....	....	.19	....	....	.19
T.13N.,R.104W.	1.21	....	....	1.21	1.16	....	....	1.16	....	....	....	....	2.37	....	....	2.37
T.14N.,R.104W.	15.41	7.01	....	22.42	2.30	....	....	2.30	....	....	....	....	17.71	7.01	....	24.72
*T.21N.,R.104W.	....	4.30	....	4.30	....	....	....	....	....	....	....	....	....	4.30	....	4.30
*T.22N.,R.104W.	23.44	13.13	....	36.57	2.94	14.25	....	17.19	....	....	....	....	26.38	27.38	....	53.76
T.15N.,R.105W.	8.51	....	....	8.51	1.09	....	....	1.09	.03	....	....	.03	9.63	....	....	9.63
*T.16N.,R.105W.	120.66	6.80	....	127.46	43.18	....	....	43.18	12.13	....	....	12.13	175.97	6.80	....	182.77
*T.17N.,R.105W.	67.96	9.81	....	77.77	8.66	....	....	8.66	....	....	....	....	76.62	9.81	....	86.43
*T.18N.,R.105W.	112.03	6.50	....	118.53	41.56	....	....	41.56	....	....	....	....	153.59	6.50	....	160.09
*T.19N.,R.105W.	73.73	....	....	73.73	15.10	....	....	15.10	1.65	....	....	1.65	90.48	....	....	90.48
*T.20N.,R.105W.	82.65	....	....	82.65	41.03	....	....	41.03	6.20	....	....	6.20	129.88	....	....	129.88
T.16N.,R.106W.	1.00	....	....	1.00	27.61	....	....	27.61	48.93	....	....	48.93	77.54	....	....	77.54
*T.17N.,R.106W.	11.31	....	....	11.31	45.65	....	....	45.65	37.76	....	....	37.76	94.72	....	....	94.72
*T.18N.,R.106W.	....	....	....	....	30.06	....	....	30.06	38.30	....	....	38.30	68.36	....	....	68.36
T.12N.,R.111W.	.32	....	....	.32	....	....	....	....	....	....	....	....	.32	....	....	.32
County total	1,807.69	1,311.34	246.81	3,365.84	605.74	661.06	....	1,266.80	278.27	116.31	3.76	398.34	2,691.70	2,088.71	250.57	5,030.98
Teton County* **																
T.41N.,R.111W.	9.95	11.99	....	21.94	....	....	....	....	....	....	....	....	9.95	11.99	....	21.94
T.42N.,R.111W.	24.25	....	9.42	33.67	....	....	....	....	....	....	....	....	24.25	....	9.42	33.67
T.42N.,R.112W.	18.26	4.44	....	22.70	....	....	....	....	....	....	....	....	18.26	4.44	....	22.70
T.44N.,R.112W.	3.55	7.11	....	10.66	....	....	....	....	....	....	....	....	3.55	7.11	....	10.66
T.46N.,R.112W.	4.80	6.66	....	11.46	....	....	....	....	....	....	....	....	4.80	6.66	....	11.46
T.42N.,R.113W.	3.11	....	....	3.11	....	....	....	....	....	....	....	....	3.11	....	....	3.11
T.44N.,R.113W.	7.11	7.29	....	14.40	....	....	....	....	....	....	....	....	7.11	7.29	....	14.40
T.45N.,R.113W.	3.55	....	....	3.55	....	....	....	....	....	....	....	....	3.55	....	....	3.55
T.39N.,R.114W.	.42	....	....	.42	....	....	....	....	....	....	....	....	.42	....	....	.42
County total	75.00	37.49	9.42	121.91	....	....	....	....	....	....	....	....	75.00	37.49	9.42	121.91

Uinta County

*T.17N.,R.117W.	....	29.31	....	29.31	....	.71	....	.71	....	....	....	....	....	30.02	....	30.02
*T.15N.,R.118W.	....	24.87	....	24.87	....	....	....	....	....	....	....	....	....	24.87	....	24.87
*T.16N.,R.118W.	....	85.53	....	85.53	....	28.43	....	28.43	....	....	....	....	....	113.96	....	113.96
*T.17N.,R.118W.	....	14.44	....	14.44	....	25.49	....	25.49	....	....	....	....	....	39.93	....	39.93
T.15N.,R.120W.	2.29	22.63	13.74	38.66	.21	21.68	11.91	33.80	....	19.85	4.58	24.43	2.50	64.16	30.23	96.89
T.16N.,R.120W.	10.73	20.31	50.69	81.73	7.42	24.03	42.69	74.14	.52	30.93	30.24	61.69	18.67	75.27	123.62	217.56
County total	13.02	197.09	64.43	274.54	7.63	100.34	54.60	162.57	.52	50.78	34.82	86.12	21.17	348.21	153.85	523.23

Washakie County

T.45N., R.88W.	.62	....	....	.62	....	....	....	....	....	....	....	....	.62	....	....	.62
T.46N., R.88W.	....	.29	....	.29	....	....	....	....	....	....	....	....	....	.29	....	.29
T.44N., R.90W.	5.89	....	....	5.89	4.58	....	....	4.58	....	....	....	....	10.47	....	....	10.47
T.47N., R.90W.	.16	.40	....	.56	....	....	....	....	....	....	....	....	.16	.40	....	.56
T.44N., R.91W.	11.24	11.68	....	22.92	.67	....	....	.67	....	....	....	....	11.91	11.68	.....	23.59
T.46N., R.91W.	....	....	....	....	.89	....	....	.89	4.43	....	....	4.43	5.32	....	....	5.32
T.48N., R.91W.	.17	....	....	.17	....	....	....	....	....	....	....	....	.17	....	....	.17
T.44N., R.92W.	3.14	....	....	3.14	....	....	....	....	....	....	....	....	3.14	....	....	3.14
T.46N., R.92W.	1.11	....	....	1.11	.89	....	....	.89	.89	....	....	.89	2.89	....	....	2.89
T.46N., R.93W.	....	....	....	....	7.52	3.10	....	10.62	1.11	....	....	1.11	8.63	3.10	....	11.73
T.48N., R.92W.	3.54	5.97	....	9.51	7.97	6.64	....	14.61	3.10	2.21	....	5.31	14.61	14.82	....	29.43
County total	25.87	18.34	....	44.21	22.52	9.74	....	32.26	9.53	2.21	....	11.74	57.92	30.29	....	88.21

Weston County

T.41N., R.67W.	2.95	....	....	2.95	....	....	....	....	....	....	....	....	2.95	....	....	2.95
T.42N., R.67W.	5.69	....	....	5.69	....	....	....	....	....	....	....	....	5.69	....	....	5.69
T.43N., R.67W.	29.06	....	....	29.06	....	....	....	....	....	....	....	....	29.06	....	....	29.06
T.44N., R.67W.	32.20	....	....	32.20	....	....	....	....	....	....	....	....	32.20	....	....	32.20
T.45N., R.67W.	26.57	4.06	....	30.63	....	....	....	....	....	....	....	....	26.57	4.06	....	30.63
T.46N., R.67W.	7.81	2.78	....	10.59	....	....	....	....	....	....	....	....	7.81	2.78	....	10.59
T.48N., R.67W.	3.32	....	....	3.32	....	....	....	....	....	....	....	....	3.32	....	....	3.32
T.41N., R.68W.	24.90	4.26	....	29.16	....	....	....	....	....	....	....	....	24.90	4.26	....	29.16
T.42N., R.68W.	28.22	23.25	....	51.47	....	....	....	....	....	....	....	....	28.22	23.25	....	51.47
T.43N., R.68W.	32.60	....	....	32.60	....	....	....	....	....	....	....	....	32.60	....	....	32.60
T.44N., R.68W.	6.33	1.24	....	7.57	....	....	....	....	....	....	....	....	6.33	1.24	....	7.57
T.45N., R.68W.	26.56	.72	....	27.28	....	....	....	....	....	....	....	....	26.56	.72	....	27.28
T.46N., R.68W.	8.56	....	....	8.56	....	....	....	....	....	....	....	....	8.56	....	....	8.56
T.47N., R.68W.	3.59	....	....	3.59	....	....	....	....	....	....	....	....	3.59	....	....	3.59
T.48N., R.68W.	10.70	....	....	10.70	....	....	....	....	....	....	....	....	10.70	....	....	10.70
County total	249.06	36.31	....	285.37	....	....	....	....	....	....	....	....	249.06	36.31	....	285.37

Total	13,882.71	24,650.84	52,184.20	90,717.75	3,516.21	10,177.20	863.68	14,557.09	1,172.01	1,481.84	390.21	3,044.06	18,570.93	36,309.88	53,438.09	108,318.90

* This township also contains bituminous coal.

**Coal in Teton County is at depths of 0 to 2,000 feet.

Table 12.--Estimated original coal reserves in Wyoming, by counties
(in millions of short tons)

County	Bituminous				Sub-bituminous				Total in all ranks and categories
	Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	
Albany.....	....	....	....	....	....	254.11	39.48	293.59	293.59
Big Horn.....	....	....	....	....	....	14.04	3.86	17.90	17.90
Campbell.....	....	....	....	....	830.42	14,958.93	46,430.14	62,219.49	62,219.49
Carbon.....	....	80.22	20.02	100.24	52.72	4,102.08	688.48	4,843.28	4,943.52
Converse.....	....	....	....	....	3.43	2,538.25	1,612.29	4,153.97	4,153.97
Crook.....	1.15	....	....	1.15	....	8.64	....	8.64	9.79
Fremont.....	....	....	....	....	21.71	383.68	328.37	733.76	733.76
Hot Springs..	....	....	....	....	23.84	230.99	6.25	261.08	261.08
Johnson.....	....	....	....	....	....	2,733.30	7,669.84	10,403.14	10,403.14
Lincoln.....	464.67	1,148.34	57.06	1,670.07	229.44	785.02	140.19	1,154.65	2,824.72
Natrona.....	....	....	....	....	....	192.83	.05	192.88	192.88
Niobrara.....	....	....	....	....	....	14.31	....	14.31	14.31
Park.....	....	17.90	....	17.90	....	146.90	49.69	196.59	214.49
Sheridan.....	....	....	....	....	397.81	3,463.72	13,909.18	17,770.71	17,770.71
Sublette.....	....	....	1.60	1.60	....	....	5.21	5.21	6.81
Sweetwater...	1,531.28	3,759.13	4,587.63	9,878.04	....	3,246.39	1,784.59	5,030.98	14,909.02
Teton.....	....	....	.26	.26	....	....	121.91	121.91	122.17
Uinta.....	53.62	1,472.13	....	1,525.75	....	329.82	193.41	523.23	2,048.98
Washakie.....	....	....	....	....	....	37.20	51.01	88.21	88.21
Weston.....	11.88	13.43	14.63	39.94	....	270.87	14.50	285.37	325.31
Total.....	2,062.60	6,491.15	4,681.20	13,234.95	1,559.37	33,711.08	73,048.45	108,318.90	121,553.85

Table 13.--Estimated original coal reserves in Wyoming, by regions and fields (in millions of short tons)

Field	Bituminous				Sub-bituminous				Total in all ranks and categories
	Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	
Black Hills region									
Cambria	11.88	10.01	14.63	36.52	....	....	....	....	36.52
Skull Creek	....	3.42	....	3.42	....	....	....	....	3.42
Sundance	.56	....	....	.56	....	....	....	....	.56
Aladdin	.59	....	....	.59	....	....	....	....	.59
Total	13.03	13.43	14.63	41.09	....	....	....	....	41.09
Powder River Basin									
Sheridan	....	....	....	....	397.81	2,333.05	13,567.49	16,298.35	16,298.35
Powder River	....	....	....	....	830.42	7,539.14	17,196.61	25,566.17	25,566.17
Spotted Horse	....	....	....	....	....	2,325.23	3,541.48	5,866.71	5,866.71
Little Powder River	....	....	....	....	....	2,789.24	630.66	3,419.90	3,419.90
Gillette	....	....	....	....	....	4,526.41	10,238.35	14,764.76	14,764.76
Pumpkin Buttes	....	....	....	....	....	1,125.06	11,546.13	12,671.19	12,671.19
Dry Cheyenne	....	....	....	....	....	132.85	18.22	151.07	151.07
Lost Spring	....	....	....	....	....	577.75	307.74	885.49	885.49
Glenrock	....	....	....	....	3.43	272.99	123.32	399.74	399.74
Sussex	....	....	....	....	....	585.02	233.44	818.46	818.46
Buffalo	....	....	....	....	....	1,401.80	1,380.76	2,782.56	2,782.56
Barber	....	....	....	....	....	405.17	1,134.72	1,539.89	1,539.89
Central part of basin	....	....	....	....	....	....	9,717.08	9,717.08	9,717.08
Total	....	....	....	....	1,231.66	24,013.71	69,636.00	94,881.37	94,881.37
Bighorn Basin									
Silvertip	....	17.90	....	17.90	....	....	4.65	4.65	22.55
Garland	....	....	....	....	....	27.19	10.56	37.75	37.75
Basin	....	....	....	....	....	14.04	3.24	17.28	17.28
Southeastern	....	....	....	....	....	37.20	51.24	88.44	88.44
Gebo	....	....	....	....	23.84	129.43	1.09	154.36	154.36
Grass Creek	....	....	....	....	....	99.82	4.93	104.75	104.75
Meeteetse	....	....	....	....	....	97.61	....	97.61	97.61
Oregon Basin	....	....	....	....	....	23.84	35.10	58.94	58.94
Total	....	17.90	....	17.90	23.84	429.13	110.81	563.78	581.68
Wind River Basin									
Muddy Creek	....	....	....	....	....	42.50	....	42.50	42.50
Pilot Butte	....	....	....	....	....	.36	....	.36	.36
Hudson	....	....	....	....	21.71	37.26	....	58.97	58.97
Alkali Butte	....	....	....	....	....	85.73	3.77	89.50	89.50
Ts. 33-34 N., R.96W.	....	....	....	....	....	208.11	299.36	507.47	507.47
Powder River	....	....	....	....	....	176.86	....	176.86	176.86
Total	....	....	....	....	21.71	550.82	303.13	875.66	875.66
Hanna field									
Total	....	66.78	6.66	73.44	52.72	3,412.84	377.96	3,843.52	3,916.96
Rock Creek field									
Total	....	....	....	....	....	257.91	47.27	305.18	305.18
Green River region									
Kindt Basin	....	....	3.42	3.42	....	....	....	....	3.42
Great Divide Basin	....	....	....	....	....	732.60	547.28	1,279.88	1,279.88
Little Snake River	....	13.44	9.94	23.38	....	1,161.50	754.05	1,915.55	1,938.93
Rock Springs	1,531.28	3,759.13	4,587.63	9,878.04	....	2,037.73	810.91	2,848.64	12,726.68
Western part of region	....	....	....	....	....	....	6.97	6.97	6.97
Total	1,531.28	3,772.57	4,600.99	9,904.84	....	3,931.83	2,119.21	6,051.04	15,955.88
Hams Fork region									
Kemmerer	501.68	2,530.75	47.49	3,079.92	229.44	815.59	317.38	1,362.41	4,442.33
Grays River	....	....	.68	.68	....	....	....	....	.68
McDougal	16.61	89.72	10.75	117.08	....	....	....	....	117.08
Evanston	....	....	....	....	....	299.25	15.20	314.45	314.45
Total	518.29	2,620.47	58.92	3,197.68	229.44	1,114.84	332.58	1,676.86	4,874.54
Jackson Hole field									
Total	....	....	....	....	....	....	121.49	121.49	121.49
Grand total	2,062.60	6,491.15	4,681.20	13,234.95	1,559.37	33,711.08	73,048.45	108,318.90	121,553.85

Table 14.--Selected list of coal mines in Wyoming

Name of mine	Owner or operator	County	Location		
			sec.	T.	R.
Sheridan field					
Monarch	Sheridan-Wyoming Coal Co.	Sheridan	20	57N.	84W.
Armstrong	Custer Coal Co.	Sheridan	28	57N.	84W.
Big Horn	Big Horn Coal Co.	Sheridan	36	58N.	85W.
Storm King mines	Storm King Coal Co.	Sheridan	2	55N.	85W.
Powder River field					
Wild Horse	Frank Korp	Sheridan	24	54N.	77W.
Wyodak	Wyodak Coal & Mfg. Co.	Campbell	28	50N.	71W.
Gillette field					
Antelope	Best Coal Co.	Converse	35	41N.	71W.
East Antelope	Hazel Niemcyk	Converse	35	41N.	71W.
Buffalo field					
Clear Creek	Clear Creek Coal Co.	Johnson	29	51N.	81W.
Gebo field					
Hi-Line	Ben F. Goe	Hot Springs	30	44N.	96W.
Valley	Haverlock and MacCallum	Hot Springs	21	44N.	95W.
Osborne	Emanuel Vlastos	Hot Springs	16	44N.	95W.
Roncco	Roncco Coal Co.	Hot Springs	17	44N.	95W.
Miller	Sheridan-Wyoming Coal Co.	Hot Springs	7	44N.	95W.
Burnell mines	Burnell Coal Co.	Hot Springs	8-9	44N.	95W.
Hudson field					
Williams	Victor Frappert	Fremont	10	33N.	98W.
George	Ben George	Fremont	3	33N.	98W.
Hanna field					
Nugget	Nugget Coal Co.	Carbon	10	22N.	81W.
Hanna 4A	Union Pacific Coal Co.	Carbon	9	22N.	81W.
Hanna 2	Monolith Portland Midwest Co.	Carbon	8	22N.	81W.
Garey	Elk Mountain Coal Co.	Carbon	32	21N.	80W.

Name of mine	Owner or operator	County	Location		
			sec.	T.	R.
Little Snake River field					
Pioneer	Pioneer Coal Co.	Carbon	8	12N.	89W.
Rock Springs field					
"D" mine	Union Pacific Coal Co.	Sweetwater	19	21N.	102W.
Premier	Rock Springs Fuel Co.	Sweetwater	20	21N.	102W.
Kleen Fyre	Rock Springs Fuel Co.	Sweetwater	27	21N.	102W.
D. O. Clark	Union Pacific Coal Co.	Sweetwater	24	21N.	103W.
Winton 7 1/2	Union Pacific Coal Co.	Sweetwater	34	21N.	104W.
Winton 1	Union Pacific Coal Co.	Sweetwater	5	20N.	104W.
No. 9 mine	Colony Coal Co.	Sweetwater	17	20N.	104W.
Stansbury	Union Pacific Coal Co.	Sweetwater	19	20N.	104W.
Reliance 1 and 7	Union Pacific Coal Co.	Sweetwater	31	20N.	104W.
Rock Springs No. 8	Union Pacific Coal Co.	Sweetwater	19	19N.	104W.
Swanson	Swanson Mining Co.	Sweetwater	20	19N.	104W.
Peacock	Colony Coal Co.	Sweetwater	11	18N.	105W.*
Sweetwater No. 2	Gunn-Quealy Coal Co.	Sweetwater	15	18N.	105W.
Rainbow	Gunn-Quealy Coal Co.	Sweetwater	34	18N.	105W.*
Kemmerer field					
Junction	A. C. Bell	Uinta	8	15N.	118W.
Kendall	Jake Zuroski and John Urbania	Uinta	18	16N.	117W.
Brilliant No. 8	Kemmerer Coal Co.	Lincoln	18	19N.	116W.
Service	Dan Shickich	Lincoln	4	19N.	116W.
Elkol	Kemmerer Coal Co.	Lincoln	11	20N.	117W.
Twin Creeks	Mike Mecca	Lincoln	7	21N.	116W.
McDougal field					
Cottonwood	H. B. Kleinstick	Sublette	4	33N.	115W.
Blind Bull	Blind Bull Coal Co.	Lincoln	1	34N.	116W.

*Location approximate.

SELECTED BIBLIOGRAPHY

The following bibliography lists only publications that contain detailed information about Wyoming coal resources. Most of these publications contain maps showing outcrops of the coal beds, structure of the coal-bearing rocks, detailed measured sections of the coal beds, and related information. The publications are listed in numerical order according to the following classification: (1) U. S. Geological Survey reports (bulletins, geologic folios, professional papers, annual reports, preliminary maps and charts, and water-supply papers) and (2) miscellaneous publications.

The publications of the U. S. Geological Survey marked by an asterisk (*) are out of print. The bulletins not so marked were obtainable on January 1, 1950, from the Superintendent of Documents, Washington 25, D. C., at the prices indicated. The preliminary maps and charts are obtainable from the Distribution Section, U. S. Geological Survey, Denver Federal Center, Denver, Colorado. The maps and charts are also available for over-the-counter sale (not by mail) from the U. S. Geological Survey, Room 1210, General Services Administration Building, Washington, D. C. All the publications listed are available for consultation in most large public and university libraries and frequently are obtainable from dealers in second-hand scientific books. In Wyoming, many of the publications should be available at the University of Wyoming Library, Laramie; the Wyoming State Library, Cheyenne; and the Natrona County Public Library, Casper. An index to the publications in the bibliography is given on succeeding pages.

U. S. Geological Survey publications

Bulletins

*119. A geologic reconnaissance in northwest Wyoming, by G. H. Eldridge, 72 pp., 4 pls., 1894.

*225. Coal of the Bighorn Basin in northwest Wyoming, by C. A. Fish[illegible] pp. 345-364, 1903.

*260. The coal of the Black Hills, Wyo., by N. H. Darton, pp. 429-43[illegible], 1905.

*285f. Mineral resources of the Bighorn Mountain region, [Wyo.], by N. H. Darton, pp. 303-310; Mineral resources of the Bighorn Basin, [Wyo.], by C. A. Fisher, pp. 311-315; Coal and oil in southern Uinta County, Wyo., by A. C. Veatch, pp. 331-353, pls. x-xii, 1906.

*316d. Coal fields in a portion of central Uinta County, Wyo., by A. R. Schultz, pp. 212-241, pl. xiii; The Lander coal field, Wyo., by E. G. Woodruff, pp. 242-243; Coal fields of east-central Carbon County, Wyo., by A. C. Veatch, pp. 244-260, pl. xiv; Coal of Laramie Basin, Wyo., by C. E. Siebenthal, pp. 261-263, 1907.

*341b. The Sheridan coal field, Wyo., by J. A. Taff, pp. 123-150, pl. viii; The Glenrock coal field, Wyo., by E. W. Shaw, pp. 151-164, pl. ix; Coal fields of the northeast side of Bighorn Basin, Wyo., and of Bridger, Mont., by C. W. Washburne, pp. 165-199, pl. x; Coal fields of the southwest side of the Bighorn Basin, Wyo., by E. G. Woodruff, pp. 200-219, pl. xi; The eastern part of the Great Divide Basin coal field, Wyo., by E. E. Smith, pp. 220-242, pl. xii; The western part of the Little Snake River coal field, Wyo., by M. W. Ball, pp. 243-255, pl. xiii; The northern part of the Rock Springs coal field, Sweetwater County, Wyo., by A. R. Schultz, pp. 256-282, pls. xiv-xv, 1909.

*341c. Coal fields of northwestern Colorado and northeastern Utah, by H. S. Gale, pp. 283-315, pls. xvi-xx, 1909.

*364. Geology and mineral resources of the Laramie Basin, Wyo. (a preliminary report), by N. H. Darton and C. E. Siebenthal, 81 pp., 8 pls., 1909.

*381b. The Powder River coal field, Wyo., adjacent to the Burlington Railroad, by R. W. Stone and C. T. Lupton, pp. 115-136, pl. viii; The Buffalo coal field, Wyo., by H. S. Gale and C. H. Wegemann, pp. 137-169, pls. ix-xi; The coal field in the southeastern part of the Bighorn Basin, Wyo., by E. G. Woodruff, pp. 170-185, pl. xii; The eastern part of the Little Snake River coal field, Wyo., by M. W. Ball and Eugene Stebinger, pp. 186-213, pl. xiii; The southern part of the Rock Springs coal field, Sweetwater County, Wyo., by A. R. Schultz, pp. 214-281, pls. xiv-xv; Weathering of coal in the arid region of the Green River Basin, Sweetwater County, Wyo., by A. R. Schultz, pp. 282-296, 1910.

*471f. The Little Powder River coal field, Campbell County, Wyo., by J. A. Davis, pp. 423-440, pls. xxxi-xxxiv; The Sussex coal field, Johnson, Natrona, and Converse Counties, Wyo., by C. H. Wegemann, pp. 441-471, pls. xxxv-xliii; The Lost Spring coal field, Converse County, Wyo., by D. E. Winchester, pp. 471-515, pls. xliv-xlviii, 1912.

*471g. Coal fields of the Wind River region, Fremont and Natrona Counties, Wyo., by E. G. Woodruff and D. E. Winchester, pp. 516-564, pls. xlix-lvii, 1912.

*471j. Miscellaneous analyses of coal samples from various fields of the United States, pp. 629-655, 1912.

*499. Coal near the Black Hills, Wyo.-S. Dak., by R. W. Stone, 66 pp., 7 pls., 1912.

*531i. The Barber coal field, Johnson County, Wyo., by C. H. Wegemann, pp. 263-284, pls. xvii-xix, 1913.

*531m. Miscellaneous analyses of coal samples from various fields of the United States, pp. 331-355, 1913.

*541k. Analyses of coal samples from various fields of the United States, by M. R. Campbell, pp. 491-526, 1914.

*543. Geology and geography of a portion of Lincoln County, Wyo., by A. R. Schultz, 141 pp., 11 pls., 1914.

*680. A geologic reconnaissance for phosphate and coal in southeastern Idaho and western Wyoming, by A. R. Schultz, 84 pp., 2 pls., 1918.

*796a. The Gillette coal field, northeastern Wyoming, by C. E. Dobbin and V. H. Barnett, pp. 1-50, pls. 1-10; The Minturn district and the northwestern part of the Gillette field, by W. T. Thom, Jr., pp. 50-64, pls. 11-13, 1928.

*804. Geology and coal and oil resources of the Hanna and Carbon Basins, Carbon County, Wyo., by C. E. Dobbin, C. F. Bowen, and H. W. Hoots, vi, 88 pp., 27 pls., 1929.

U. S. Geological Survey publications--Continued.

Bulletins--Continued.

806a. The Pumpkin Buttes coal field, Wyo., by C. H. Wegemann, R. W. Howell, and C. E. Dobbin, pp. 1-14, pls. 1-5, 1929. 10¢.

*806d. Geology of the Rock Creek oil field and adjacent areas, Carbon and Albany Counties, Wyo., by C. E. Dobbin, H. W. Hoots, C. H. Dane, and E. T. Hancock, pp. 131-153, pls. 36-43, 1929.

921b. Geology and oil and coal resources of the region south of Cody, Park County, Wyo., by W. G. Pierce and D. A. Andrews, pp. i-v, 99-180, pls. 11-24, 1941. $1.

Geologic folios

*107. Newcastle, Wyo.-S. Dak., by N. H. Darton, 9, [1] pp., 1 sheet of illus., 5 maps, 1904.

*127. Sundance, Wyo.-S. Dak., by N. H. Darton, 12, [1] pp., 1 sheet of illus., 5 maps, 1905.

*128. Aladdin, Wyo.-S. Dak.-Mont., by N. H. Darton and C. C. O'Harra, 8, [1] pp., 4 maps, 1905.

*141. Bald Mountain-Dayton, Wyo., by N. H. Darton and R. D. Salisbury, 15, [1] pp., 2 sheets of illus., 7 maps, 1906.

*142. Cloud Peak-Fort McKinney, Wyo., by N. H. Darton and R. D. Salisbury, 16, [1] pp., 2 sheets of illus., 7 maps, 1906.

*150. Devils Tower, Wyo., by N. H. Darton and C. C. O'Harra, 10 pp., 4 maps, 1907.

*173. Laramie-Sherman, Wyo., by N. H. Darton, Eliot Blackwelder, and C. E. Siebenthal, 18 pp., 1 sheet of illus., 7 maps, 1910.

Professional papers

*51. Geology of the Bighorn Mountains, by N. H. Darton, 129 pp., 47 pls., 1906.

*53. Geology and water resources of the Bighorn Basin, Wyo., by C. A. Fisher, 72 pp., 16 pls., 1906.

*56. Geography and geology of a portion of southwestern Wyoming, with special reference to coal and oil, by A. C. Veatch, 178 pp., 26 pls., 1907.

*65. Geology and water resources of the northern portion of the Black Hills and adjoining regions in South Dakota and Wyoming, by N. H. Darton, 105 pp., 24 pls., 1909.

*145. Geology and oil and coal resources of the Oregon Basin, Meeteetse, and Grass Creek Basin quadrangles, Wyo., by D. F. Hewett, iv, 107 pp., 32 pls., 1926.

Annual reports

*A 22 III. (a) The coal fields of the United States, by C. W. Hayes: 22d Ann. Rept., pt. 3, pp. 7-24, pl. i, 1901.

*A 22 III. (j) The Rocky Mountain coal fields, by L. S. Storrs: 22d Ann. Rept., pt. 3, pp. 415-471, pls. xxix-xxx, 1901.

Preliminary maps and charts

M 1. Willow Creek coal area, Lincoln County, Wyo., by D. A. Andrews: Coal Inv. Preliminary Map (scale, 1 inch = 4,000 feet), 1944. 50¢.

C 27. The Tertiary stratigraphy of the Jackson Hole area, northwestern Wyoming, by J. D. Love: Oil and Gas Inv. Preliminary Chart 27, 1947. 60¢.

Water-supply papers

*W 70. Geology and water resources of the Patrick and Goshen Hole quadrangles, in eastern Wyoming and western Nebraska, by G. I. Adams: Water-Supply Paper 70, 50 pp., 11 pls., 1902.

Miscellaneous publications

T 484. Analyses of Wyoming coals: U. S. Bureau of Mines Tech. Paper 484, 154 pp., 1931.

U 40. Stratigraphic sections of Jurassic and Cretaceous rocks in the Jackson Hole area, northwestern Wyoming, by J. D. Love, D. C. Duncan, H. R. Bergquist, and R. K. Hose: Wyoming Geol. Survey Bull. 40, 48 pp., 1949.

INDEX TO BIBLIOGRAPHY

This index refers to the preceding bibliography. The abbreviations used for publications of the U. S. Geological Survey are as follows: A, Annual Report; B, Bulletin; C, Oil and Gas Investigations Preliminary Chart; GF, Geologic Folio; M, Preliminary Map; P, Professional Paper; W, Water-Supply Paper. Other abbreviations used are: T, Technical Paper, U. S. Bureau of Mines; and U, Bulletin, Wyoming Geological Survey.

Interior--Duplicating Section, Washington, D. C. 82001