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# CONTRIBUTIONS TO ECONOMIC GEOLOGY

(SHORT PAPERS AND PRELIMINARY REPORTS)

1920

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PART II.—MINERAL FUELS

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DAVID WHITE AND M. R. CAMPBELL

GEOLOGISTS IN CHARGE



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## CONTENTS.

[The letters in parentheses preceding the titles are those used to designate the papers for advance publication.]

	Page.
Introduction.....	vii
(A) Geology of Alamosa Creek valley, Socorro County, N. Mex., with special reference to the occurrence of oil and gas, by D. E. Winchester (published May 12, 1920).....	1
(B) The Upton-Thornton oil field, Wyo., by E. T. Hancock (published Apr. 29, 1920).....	17
(C) The Mule Creek oil field, Wyo., by E. T. Hancock (published July 27, 1920).....	35
(D) Natural-gas resources available to Dallas and other cities of central north Texas, by E. W. Shaw and P. L. Ports (published Nov. 17, 1920).....	55
(E) The Lance Creek oil and gas field, Niobrara County, Wyo., by E. T. Hancock (published Dec. 13, 1920).....	91
(F) Coal in eastern Idaho, by G. R. Mansfield (published Dec. 14, 1920).....	123
(G) Coal in the middle and eastern parts of San Juan County, N. Mex., by C. M. Bauer and J. B. Reeside, jr. (published February 11, 1921).....	155
(H) Character of coal in the Thomas bed near Harrison, W. Va., by M. R. Campbell (published February 18, 1921).....	239
Index.....	243

## ILLUSTRATIONS.

	Page.
PLATE I. A, D Cross Mountain, Socorro County, N. Mex.; B, La Cruz Peak, Socorro County, N. Mex.....	2
II. Cross-bedded sandstone of the "Red Beds" at Ojo de los Chupaderos, in sec. 12, T. 2 N., R. 6 W., Socorro County, N. Mex.....	3
III. A, Pueblo Viejo, Socorro County, N. Mex.; B, Bell Mountain sandstone member of Miguel formation at foot of Bell Mountain, Socorro County, N. Mex.....	8
IV. Datil formation (conglomerate and sandstone) in Alamosa Creek valley, N. Mex.....	9
V. Géologic map of Alamosa Creek valley, Socorro County, N. Mex....	12
VI. Map of Upton Thornton oil field, Wyo.....	18
VII. Geologic map of the Mule Creek oil field, Wyo.....	In pocket.
VIII. Index map showing location of gas pools within 200 miles of Dallas, Tex., geologic structure favorable for gas pools, and distances from Dallas.....	58
IX. Map of Petrolia gas field, Tex., showing water encroachment.....	66

	Page.
PLATE X. Geologic map of the Lance Creek oil and gas field, Wyo.....	In pocket.
XI. Stratigraphic sections in northeastern Wyoming, showing the position of the principal oil and gas sands.....	In pocket.
XII. Sandstone including large reddish-brown concretions near the top of the Fox Hills sandstone, east side of Buck Creek valley, sec. 33, T. 37 N., R. 63 W., Wyo.....	104
XIII. A, B, Discharge of oil into a dammed-up gulch at the Ohio Oil Co.'s discovery well in the NW. $\frac{1}{4}$ sec. 36, T. 36 N., R. 65 W., Lance Creek field, Wyo.....	120
XIV. General geologic map of eastern Idaho.....	124
XV. Geologic map of the Horseshoe and Pine Creek districts and Teton Basin, Idaho.....	138
XVI. General map of the San Juan County coal field, N. Mex.....	156
XVII. The plateau surface viewed northwestward across the valley of Chaco River, N. Mex., south of Hunter Wash.....	158
XVIII. A, Characteristic topography and vegetation of the highest part of the San Juan coal field, N. Mex.; B, Exposure of Puerco and Torrejon formation making badlands $1\frac{1}{2}$ miles above Ojo Alamo Store, N. Mex.....	160
XIX. A, Part of the Mesaverde group in the gap cut through the Great Hogback by Chaco River, N. Mex.; B, The Menefee formation in the Great Hogback, 5 miles north of San Juan River, N. Mex.....	162
XX. A, Coal bed at location 140, on San Juan River half a mile southwest of Fruitland, N. Mex.; B, Characteristic weathering of variable sandstone of the Fruitland formation, Meyers Creek, N. Mex.....	166
XXI. Part of the Fruitland formation near Hunter's store, in T. 24 N., R. 13 W., N. Mex.....	168
XXII. Columnar sections of the Fruitland formation.....	170
XXIII. Map of T. 30 N., R. 16 W., N. Mex., showing outcrops of coal beds in Menefee formation.....	192
XXIV. Sections of coal beds of the Menefee formation in T. 30 N., R. 16 W., N. Mex.....	194
XXV. Map of the district near La Plata River, N. Mex.....	200
XXVI. Sections of coal beds of the Fruitland formation in northern San Juan County, N. Mex.....	202
XXVII. Map of the district between Barker Arroyo and Youngs Reservoir, N. Mex.....	204
XXVIII. Map of the district between Youngs Reservoir and San Juan River, N. Mex.....	206
XXIX. Map of central part of San Juan County coal field, N. Mex.....	208
XXX. Sections of coal beds of the Fruitland formation in central San Juan County, N. Mex.....	210
XXXI. Map of the district on Hunter Wash and Coal Creek, N. Mex.....	222
XXXII. Sections of coal beds of the Fruitland formation in southern San Juan County, N. Mex.....	224
XXXIII. Map of the district between Black Lake Canyon and Splitlip Flat, N. Mex.....	230
XXXIV. Map of the district between Meyers Creek and Alamo Arroyo, N. Mex.....	232

# CONTENTS.

V

	Page.
FIGURE 1. Log of well at Cambria, Wyo.....	20
2. Map showing cities and towns in north Texas using natural gas....	61
3. Curve showing decline in rock pressure, number of wells in line, and number on test in Petrolia gas field, Tex.....	65
4. Curve showing decline in open flow and total production in Petro- lia gas field, Tex .....	65
5. Curve showing decline in rock pressure in the Fox gas field, Okla..	73
6. Curve showing decline in rock pressure in the Walter gas field, Okla.....	75
7. Curve showing decline in rock pressure in the Loco gas field, Okla.....	77
8. Curve showing decline in rock pressure in the Duncan gas field, Okla.....	78
9. Curve showing production of gas by Lone Star Gas Co.....	87
10. Curve showing monthly sales of gas by Lone Star Gas Co.....	87
11. Curve showing domestic and industrial consumption of gas at Fort Worth, Tex.....	88
12. Geologic structure sections of parts of the Horseshoe, Teton Basin, and Continental Divide districts, Idaho .....	130
13. Geologic map of part of the Continental Divide district, on Cotton- wood Creek, in unsurveyed T. 14 N., Rs. 38 and 39 E., Idaho..	132
14. Coal sections in the Pine Creek and Teton Basin districts and at Cottonwood Creek in the Continental Divide district, Idaho....	135

## INSERT.

	Page.
Carboniferous and later formations in eastern Idaho.....	128



# CONTRIBUTIONS TO ECONOMIC GEOLOGY, 1920.

## PART II. MINERAL FUELS.

DAVID WHITE and M. R. CAMPBELL, *Geologists in charge.*

### INTRODUCTION.

The Survey's "Contributions to economic geology" have been published annually since 1902. In 1906 the increase in the number of papers coming under this classification made it necessary to divide the contributions into two parts, one including papers on metals and nonmetals except fuels and the other including papers on mineral fuels. In 1915 the year included in the title was changed from the year in which the field-work reported in these papers was done to the year of publication, and in consequence there was no volume entitled "Contributions to economic geology, 1914." The subjoined table gives a summary of these bulletins.

*United States Geological Survey "Contributions to economic geology."*

Date in title.	Date of publication. <sup>a</sup>	Bulletin No.	Date in title.	Date of publication. <sup>a</sup>	Bulletin No.
1902.....	1903	213	1912, Part I.....	1914	540
1903.....	1904	225	Part II.....	1914	541
1904.....	1905	260	1913, Part I.....	1915	580
1905.....	1906	285	Part II.....	1915	581
1906, Part I.....	1907	315	1915, Part I.....	1916	620
Part II.....	1907	316	Part II.....	1916	621
1907, Part I.....	1908	340	1916, Part I.....	1917	640
Part II.....	1909	341	Part II.....	1917	641
1908, Part I.....	1909	380	1917, Part I.....	1918	660
Part II.....	1910	381	Part II.....	1918	661
1909, Part I.....	1910	430	1918, Part I.....	1919	690
Part II.....	1911	431	Part II.....	1919	691
1910, Part I.....	1911	470	1919, Part I.....	1920	710
Part II.....	1912	471	Part II.....	1920	711
1911, Part I.....	1913	530	1920, Part I.....	1921	715
Part II.....	1913	531	Part II.....	1921	716

<sup>a</sup> The date given is that of the complete volume; beginning with Bulletin 285, the papers have been issued as advance chapters as soon as they were ready.

As the subtitle indicates, most of the papers in these volumes are of three classes—(1) short papers describing as thoroughly as conditions will permit areas or deposits on which no other report is

likely to be prepared; (2) brief notes on mining districts or economic deposits whose examination has been merely incidental to other work; and (3) preliminary reports on economic investigations the results of which are to be published later in more detailed form.

Although these papers set forth mainly the practical results of economic investigations they include brief theoretical discussions and summary statements of conclusions if these appear to require prompt publication.