



MAP SHOWING COAL FIELDS AND DISTRIBUTION OF COAL-BEARING ROCKS
IN THE EASTERN PART OF SOUTHERN ALASKA

EXPLANATORY NOTE

INTRODUCTION AND METHODOLOGY
This table provides brief summaries and objective descriptions of the coal fields in the eastern part of southern Alaska. The table and accompanying map are part of the Regional Mineral Assessment Program for southern Alaska. A companion publication (Holloway, 1977) describes the coal fields in the western part of southern Alaska. Together, they represent the results of a literature search by the author, utilizing publications from Federal, State, and other sources. By far the most comprehensive of these is the summary by Barnes (1967) of the coal resources of Alaska.

A deliberate attempt was made to avoid interpretative or subjective statements in the compilation of the table. In many instances, however, discrepancies exist between the various reports. In these cases, the most recent or best-documented figures, or those which appeared to have been derived according to a methodology commensurate with U.S. Geological Survey guidelines were chosen. Avertitt (1961) and Barnes (1967) discuss these guidelines in detail.

EXPLANATION OF TABLE HEADINGS
COAL FIELD AND DISTRICT -- Names used to designate coal fields are those which are most commonly used in the literature. This is also true for the most part of names used for districts, although in some cases a name was used which does not have as wide a currency, for example, "Kenai Offshore". In these cases the term "district" is not appended.

GEOLOGIC AGE OF COAL-BEARING ROCKS -- All known coal fields in the eastern part of southern Alaska are found in rocks of Tertiary age.

AREA UNDERLAIN BY COAL-BEARING ROCKS -- Detailed explanations of the criteria used in U.S. Geological Survey resource estimates to calculate the area extent of coal beds are given by Avertitt (1961). Briefly, the area extent of coal-bearing rocks is inferred from information from outcrops, mines, prospects, and drill holes.

OVERBURDEN -- Coal-bearing rocks throughout much of the area of eastern southern Alaska's coal fields are buried by a cover of younger rocks or surficial deposits ranging from a few tens of feet to several thousand feet in thickness. It is standard practice in coal resource estimates of the U.S. Geological Survey to report the resource data in the following three categories, according to the thickness of overburden in feet: 0-1,000; 1,000-2,000; 2,000-5,000. It was decided not to convert these intervals, to their metric equivalents. The footnote at the end of the table gives further information and factors for conversion to the metric system.

ESTIMATED ORIGINAL RESOURCES -- "Original resources" refers to coal in the ground prior to the beginning of mining operations. This figure is essentially a constant and provides a base figure from which resources remaining at any given time may be determined. Under this heading, resources for each coal field have been classified according to the relative abundance of information and the reliability of data concerning the amount of coal within each of the overburden categories. U.S. Geological Survey usage defines these subcategories as follows: "measured resources" are those for which tonnage is computed from dimensions revealed at closely spaced points of observation and measurement, such as outcrops, trenches, mine workings, and drill holes; "indicated resources" are those for which tonnage is computed partly from specific measurements and partly from production based on geologic evidence; "inferred resources" are based on broad knowledge of the geologic character of the bed or region, with only a few measurements of bed thickness. Where no other data were available, resource estimates which were reported in the literature as "hypothetical" or "speculative" were utilized, but were not included in the grand total of coal resources for the region as a whole.

RANK -- The standard classification of coals by rank in the series from lignite to anthracite is that established by the American Society for Testing and Materials (1965), and is based upon limits of fixed carbon, volatile matter, and calorific value. These limits are related to the degree of metamorphism, or progressive alteration of the deposit. Proximal analyses are not available for some coal basins, and rank may be based on subjective interpretation.

COMMENTS -- Additional information, including geologic setting, number and thickness of coal beds, and production.

REFERENCES -- Cites sources of information for the table and map. A list of references cited in the table and used in the compilation of the map is given below.

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COAL FIELD AND DISTRICT	GEOLOGIC AGE OF COAL-BEARING ROCKS	AREA UNDERLAIN BY COAL-BEARING ROCKS (SQ. MI.)	OVERBURDEN (FEET)	ESTIMATED ORIGINAL RESOURCES (BIL. TONS)			RANK	COMMENTS	REFERENCES
				MEASURED	INDICATED	INFERRED			
NENANA COAL FIELD									
New Creek District	T1a and T1b	30	0-1,000	0.0	0.0	12.3	subbituminous	Coal-bearing group comprises the Subukha, Healy, and Healy Creek basins, which unconformably overlie the Nenana Group. Total thickness of coal-bearing rocks is 100 to 150 feet. Estimated resources are based on thickness of coal-bearing rocks and on thickness of overburden. The present map and accompanying map show the distribution of coal-bearing rocks in the area. The only currently productive mine in the area is the Healy Creek mine, which produces about 100,000 tons of coal annually. Estimated resources are based on thickness of coal-bearing rocks and on thickness of overburden. The present map and accompanying map show the distribution of coal-bearing rocks in the area.	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