UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

BIBLIOGRAPHY OF GEOLOGIC LITERATURE ON THE
KILLIK RIVER AND CHANDLER LAKE QUADRANGLES AND PARTS OF NEIGHBORING
QUADRANGLES, NORTH-CENTRAL BROOKS RANGE, ALASKA

by

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This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature.
A keen interest exists in the lands north of 68° north latitude between the National Petroleum Reserve in Alaska and the Arctic National Wildlife Range (fig. 1). Political actions together with the natural resource potential of these lands, known as the Central Arctic Management Area (fig. 1) generates the interest. The area of this report, Killik River and Chandler Lake U.S. Geological Survey quadrangles, encompasses over 10,000 square miles within the Central Arctic Management Area (fig. 1).

Activity in response to various provisions of the Alaska Native Claims Settlement Act of 1971 and the Alaska National Interest Lands Conservation Act of 1980 is ongoing in and adjacent to the Killik River and Chandler Lake quadrangles. This activity includes land selections and land trades involving Alaska Native corporations, agencies of the Federal Government, and the State of Alaska. Exploration activity, most notably for oil and gas, demonstrates the interest of private industry in the area; the outcome of land distribution will affect their future exploration efforts.

The natural resource potential of lands in the two quadrangles has prompted exploration efforts and undoubtedly has been a consideration in land transactions. During the last calendar year, both quadrangles were the sites of exploratory drilling for oil and gas. Exploration continues in the National Petroleum Reserve in Alaska within and west of the Killik River quadrangle. The area encompassed by this report has metallic mineral potential: the Killik River quadrangle circumscribes rocks similar in rock type and age to rocks that host recently discovered world-class massive-sulfide deposits in the western Brooks Range.

This report is both a survey of and a guide to the geologic literature on the Killik River and Chandler Lake quadrangles. It consists of a comprehensive bibliography of publications relevant to the two quadrangles and an index to the principal subject discussed in each article.

The literature search for this report is comprehensive but not exhaustive. Articles published after January, 1982 do not appear in the report. Bibliographic research does not extend to such potential sources of geologic information as trade journals, such as the "Oil and Gas Journal" and "World Oil," or Dissertation Abstracts.

The report consists of a bibliography, a subject index, and an index guide. The bibliography consists of 210 references to articles relevant to the geology of the Killik River and Chandler Lake quadrangles, arranged in alphabetical order by author and year of publication. The index classifies the references in the bibliography into subject categories arranged alphabetically by author and date of publication. The index guide allows the reader to quickly scan the subject indexing scheme.

References to area-specific, regional, and topical articles appear in the bibliography. Most articles discuss an area within the two quadrangles or a larger area that includes all or part of the two quadrangles. Some area-specific articles do not refer to the two quadrangles but include information on rocks that occur in the two quadrangles, e.g. type sections.
Figure 1. Map of Arctic Alaska showing locations of the Central Arctic Management Area and the Killik and Chandler Lake quadrangles.
for formations. In addition, some regional and topical articles that do not specifically mention the two quadrangles but include especially relevant information appear in the bibliography.

The bibliography is the result of a survey of a variety of sources. Many references to area-specific articles, mostly articles in major journals and published between 1961 and January 1982, come from GEOREF, a commercial computer bibliographic system for geologic literature. Published bibliographies of geologic literature on the North Slope provide references to area-specific, regional, and general articles. U.S. Geological Survey mineral commodity map compilations and bibliographies of mineral occurrences provide references to reports on known mineral occurrences. A complete listing of U.S. Geological Survey publications, especially open-file reports and articles or reports in other mediums that generally do not get wide circulation comes from the Alaskan Technical Data Unit in Menlo Park, California, and the Public Inquiries Office in Anchorage, Alaska, both of the U.S. Geological Survey. Another important source of references, especially references to non-area-specific articles, is the literature reviewed by the compilers for relevance to the geology of the two quadrangles.

The index is a simple/single-subject index. Each reference appears as a citation under only one subject heading. Major subject headings appear in alphabetical order, subordinate subject headings appear in alphabetical order under the major headings, and citations appear in alphabetical order by author and year of publication under each subject heading.

Assignment of citations in the subject index to a particular subject category relies heavily on examination of the actual article. The compilers cite the references under a particular subject category based on: (1) the subject discussed in the article; (2) the distribution of emphasis among subjects in the case of multiple subjects; and, (3) the relevancy of the subjects to the geology of the Killik River and Chandler Lake quadrangles.

Assignment of citations is arbitrary in some cases. This requires the reader to scan listings under related subjects to be sure of identifying all articles on a particular subject in the bibliography. Articles that discuss a single subject or clearly emphasize a particular subject straightforwardly appear under a clearly appropriate subject heading, but citations to articles that discuss a variety or range of subjects with equal emphasis may not appear where a reader interested in a particular subject would first look in the index. In the case of a variety of subjects, the citation may be placed seemingly arbitrarily in a related subject category. In the case of a range of subjects, the article may be cited in a more general category than the one in which the reader is looking.

An index guide accompanies the index to help overcome the shortcomings of the single-subject index. The index guide allows the reader to easily scan the listing categories in the index. By efficiently comparing all of the subject categories, the reader is better able to identify categories that may contain citations of articles of interest.
This report is the most comprehensive survey available of the geologic literature available on the Killik River and Chandler Lake quadrangles; although an interim report, it should be helpful to those interested in the geology and resource potential of the two quadrangles.
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