DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

U. S. GEOLOGICAL SURVEY
OPEN FILE REPORT
OF 77-166C

MAP SHOWING KNOWN MINERAL DEPOSITS OF THE BROOKS RANGE, ALASKA

Compiled by Donald Grybeck

1977

Base map from the National Atlas of the United States of America, U. S. Geological Survey, 1970

Albers Equal Area Projection

SCALE 1:1,000,000

10 0 20 40 60 80 100 MILES
10 0 50 100 150 KILOMETERS

AREA OF THIS REPORT

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey standards and nomenclature.

GENERAL REFERENCES

Barnes, F. F., 1962, Coal resources of Alaska: U.S. Geol. Survey Bull. 1242-B, p. B1-B36.

Berg, H. C. and Cobb, E. H., 1967, Metalliferous lode deposits of Alaska: U.S. Geol. Survey Bull. 1246, 254 p.

Cobb, E. H., 1972a, Metallic mineral resources map of the Survey Pass quadrangle, Alaska: U.S. Geol. Survey Misc. Field Studies Map MF-382, 1 sheet, scale 1:250,000.

_____1972b, Metallic mineral resources map of the Baird Mountains quadrangle, Alaska: U.S. Geol. Survey Misc. Field Studies Map MF-386, 1 sheet, scale 1:250,000.

_____1972c, Metallic mineral resources map of the Bettles quadrangle, Alaska: U.S. Geol. Survey Misc. Field Studies Map MF-387, 1 sheet, scale 1:250,000.

_____1972d, Metallic mineral resources map of the Coleen quadrangle, Alaska: U.S. Geol. Survey Misc. Field Studies Map MF-482, 1 sheet, scale 1:250,000.

_____1972e, Metallic mineral resources map of the DeLong Mountains quadrangle, Alaska: U.S. Geol. Survey Misc. Field Studies Map MF-484, 1 sheet, scale 1:250,000.

_____1972f, Metallic mineral resources map of the Selawik quadrangle, Alaska: U.S. Geol. Survey Misc. Field Studies Map MF-486, scale 1:250,000.

_____1972g, Metallic mineral resources map of the Shungnak quadrangle, Alaska: U.S. Geol. Survey Misc. Field Studies Map MF-488, 1 sheet, scale 1:250,000.

_____1972h, Metallic mineral resources map of the Ambler River quadrangle, Alaska: U.S. Geol. Survey Misc. Field Studies Map MF-484, 1 sheet, scale 1:250,000.

_____1972i, Metallic mineral resources map of the Chandalar quadrangle, Alaska: U.S. Geol. Survey Misc. Field Studies Map MF-483, 1 sheet, scale 1:250,000.

_____1972j, Metallic mineral resources map of the Hughes quadrangle, Alaska: U.S. Geol. Survey Misc. Field Studies Map MF-458, 1 sheet, scale 1:250,000.

_____1972k, Metallic mineral resources map of the Mount Michelson quadrangle, Alaska: U.S. Geol. Survey Misc. Field Studies Map MF-462, 1 sheet, scale 1:250,000.

_____1972l, Metallic mineral resources map of the Wiseman quadrangle, Alaska: U.S. Geol. Survey Misc. Field Studies Map MF-469, 1 sheet, scale 1:250,000.

_____1973, Placer deposits of Alaska: U.S. Geol. Survey Bull. 1374, 213 p.

_____1975a, Summary of references on mineral occurrences (other than mineral fuels and construction materials) in five quadrangles in west-central Alaska (Hughes, Ketzebuer, Meloy1ata, Selawik, Shungnak): U.S. Geol. Survey open-file rept. 75-627.

_____1975b, Summary of references to mineral occurrences (other than mineral fuels and construction materials) in northern Alaska: U.S. Geol. Survey open-file rept. 75-628.

_____1976, Summary of references to mineral occurrences (other than mineral fuels and construction materials) in the Chandalar and Wiseman quadrangles, Alaska: U.S. Geol. Survey open-file rept. 76-342, 205 p.

Note: Also see references to specific deposits, table 1, in accompanying text.

EXPLANATION OF SYMBOLS

Numbers near deposit symbols refer to table 1 in accompanying text. Deposits tabulated by U.S. Geological Survey 1:250,000 scale topographic quadrangles outlined on map.

Chief commodity or commodities of interest shown adjacent to the symbols.

LODE DEPOSITS

Size of Deposit: Small[1]	Large[2]	
▽	▼	Strata-bound, massive sulfide deposits
△	▲	Strata-bound, disseminated sulfide deposits; includes Mississippi Valley type deposits and replacement bodies in carbonate rocks
◇	◆	Stockworks, pipes, and deposits of irregular or indefinite shape; includes porphyries and ore minerals disseminated in felsic igneous rocks
○	●	Deposits in veins and shear zones and breccia fillings
□	■	Magnetic deposits; mainly sulfides and oxides in mafic and ultramafic igneous rocks
◊	◆	Skarn, tactite and contact metamorphic deposits
◇	◆	Pegmatites and greisen
ⓘ		Miscellaneous deposits including industrial minerals

[1] Production less than $1,000,000 or comparable reserves or identified resources. With rare exceptions, however, the deposits have no recorded production and their resource potential is largely speculative. Metal values reflect prices as of January 1, 1977.

[2] Production greater than $1,000,000 or comparable reserves or identified resources. Metal values reflect prices as of January 1, 1977.

PLACER DEPOSITS

x	Gold (and byproduct silver) production between $1,000 and $1,000,000 (or comparable nonmonetary value). These placers are not tabulated in table 1.
X	Gold (and byproduct silver) production between $1,000 and 1,000,000 ounces ($1,000 and 10,000 ounces).
X	Gold (and byproduct silver) production greater than 1,000,000 ounces ($10,000 ounces).

Note: Most placers also carry varying amounts of a wide variety of heavy minerals; see Cobb (1972j) for details.

NON-METALLIC DEPOSITS

Coal — Local occurrence of coal (after Barnes, 1962)

Outline of area containing one or more subeconomic coal beds (after Barnes, 1962)

Outline of area with significant occurrences of industrial minerals. Sand and gravel not included.

MISCELLANEOUS

Boundary of Brooks Range Regional Mineral Assessment Program (BRAMAP) as used in this study.

Outline of area reserved under sec. 17(d)(2) of the Alaska Native Claims Settlement Act. Withdrawn for study of the mineral resources potential of the Department of the Interior, Dec. 16, 1971. Compiled from maps prepared by the U.S. Bureau of Land Management, November 1973 and March 1974.

1. Gates of the Arctic National Park
2. Kobuk Killuk National Monument
3. Cape Krusenstern National Monument
4. Noatak National Monument Additions
5. Selawik National Wildlife Refuge
6. Noatak National Arctic Range

Approximate route of Alaska pipeline