

Explanation

- completely serpentinized ultramafic body (Group I)
- △ partially serpentinized ultramafic body (Group II)
- ultramafic rock (Group III)
- ◊ granitic rocks
- ◊ large ultramafic body

TRUE NORTH

Map of the Eagle quadrangle, Alaska showing the location of ultramafic rocks.

1973

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

BASIC DATA ON THE ULTRAMAFIC ROCKS OF THE EAGLE QUADRANGLE,  
EAST-CENTRAL ALASKA

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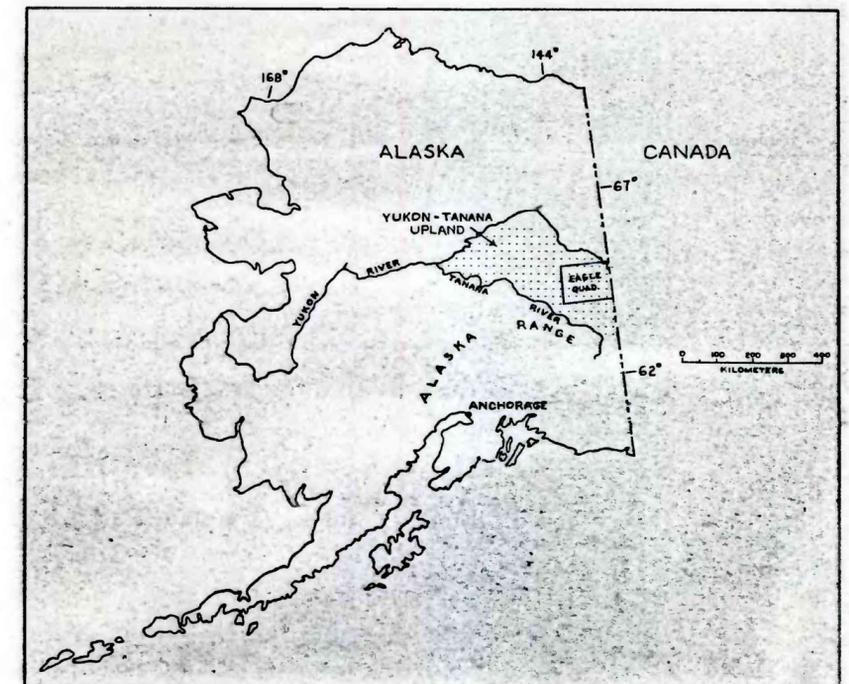
More than 97 separate occurrences of ultramafic rock were found south of the Yukon River in the Eagle quadrangle, east-central Alaska during the course of reconnaissance geologic mapping. The size of outcrops of ultramafic rock ranges from a square meter to 41 square kilometers, but most are small.

The mineralogy and textures of the ultramafic rocks have been determined by field examination and by preliminary study of approximately 150 thin sections and approximately 130 X-ray diffraction traces. Not all exposures have been studied and some have been examined in considerably more detail than others. Rocks from about 62 percent of the outcrops were either X-rayed, sectioned, or both.

For purposes of description, the ultramafic rocks are divided into three groups: (1) those that are completely serpentinized or altered still further to talc, magnesite, and rarely dolomite; (2) those that are partly serpentinized; and (3) several types of hornblendites and pyroxenites. Groups II and III are each further divided into two parts. Groups IIA and IIIA include the largest bodies in each of these groups, and Groups IIB and IIIB include the smallest bodies in each group. The rocks of Group I and II are probably related and differ only in their degree of alteration. They are considered to be alpine-type peridotites and may include dismembered ophiolite. Group III rocks are probably of intrusive origin.

This report consists of an index map (fig. 1), a map showing the location of the ultramafic bodies of the Eagle quadrangle (fig. 2), a table which gives detailed information, particularly on mineralogy, for each of the 97 localities (table 1), a table presenting the results of semiquantitative spectrographic analyses of 96 samples from these localities (table 2), and a table presenting the results of fire assay-spectrographic analyses for platinum-group elements (table 3).

This report is intended to supplement a paper entitled, "Ultramafic rocks in the Eagle quadrangle, east-central Alaska," by Foster and Keith (in prep) which presents this data in less detail but attempts to interpret and relate the data.



Index map of Alaska