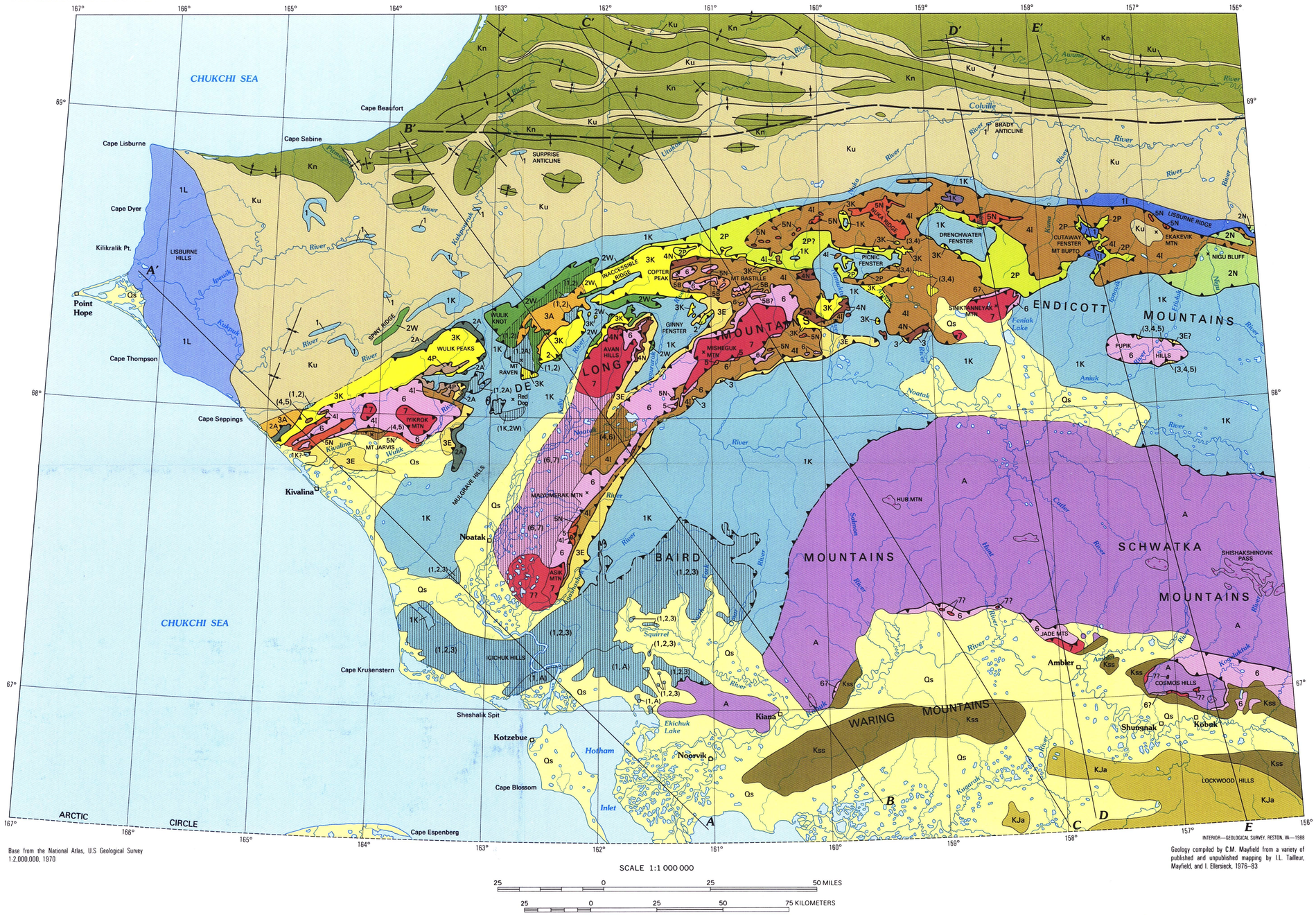
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

PROFESSIONAL PAPER 1399
PLATE 7.1



Base from the National Atlas, U.S. Geological Survey
1:2,000,000, 1970

SCALE 1:1 000 000

25 0 25 50 MILES

25 0 25 50 75 KILOMETERS

Geology compiled by C.M. Mayfield from a variety of published and unpublished mapping by I.L. Tailleur, Mayfield, and I. Ellersieck, 1976–83

INTERIOR—GEOLOGICAL SURVEY, RESTON, VA.—1988

ALLOCHTHON MAP OF THE WESTERN BROOKS RANGE, ALASKA

EXPLANATION

Qs — **Quaternary unconsolidated sediments**

NORTH OF BROOKS RANGE

Cretaceous sandstone and shale deposited during and after the major thrusting event

Ku — **Allochthonous pre-Albian sedimentary rocks and autochthonous Albian and younger sedimentary rocks, undivided**

Kn — **Upper Albian and younger autochthonous rocks of Nanushuk Group**

SOUTH OF BROOKS RANGE

Kss — **Upper and Lower Cretaceous sandstone and shale**

KJa — **Lower Cretaceous and Upper Jurassic(?) andesitic rocks**

ALLOCHTHONS AND SEQUENCES

7 — **Misheguk Mountain allochthon**—Composed of the Misheguk igneous sequence: Mostly peridotite and gabbro, remnants of an ophiolite sheet

6 — **Copter Peak allochthon**—Composed of the Copter igneous sequence: Pillow basalt with subordinate intermediate volcanic rocks, chert, and Devonian limestone. May have formed in continental or oceanic setting

Distinctive coeval sequences of Devonian to Lower Cretaceous sedimentary rocks deposited in a continental setting

- **5** — **Nuka Ridge allochthon**
- **5N** — **Bogie sequence**
- **5B** — **Bastille sequence**
- **4** — **Ipnavik River allochthon**
- **4I** — **Ipnavik sequence**
- **4N** — **Nachralik Pass sequence**
- **4P** — **Puzzle Creek sequence**
- **3** — **Kelly River allochthon**
- **3E** — **Eli sequence**
- **3K** — **Kelly sequence**
- **3A** — **Amphitheatre sequence**
- **2** — **Picnic Creek allochthon**
- **2A** — **Amaruk sequence**
- **2W** — **Wulik sequence**
- **2P** — **Picnic sequence**
- **2N** — **Nigu sequence**
- **1** — **Brooks Range allochthon**
- **1K** — **Key Creek sequence**
- **1I** — **Ivotuk sequence**
- **1L** — **Lisburne Hills sequence**

Allochthon numbers 1–5 without a letter designation mean that the sequence is not conclusively identified. Color on map indicates probable sequence.

Uncertain allochthon and sequence designations are queried; vertical ruled pattern indicates that more than one sequence may be present. For example:

(3,4,5) — Undesignated sequences in allochthons 3, 4, and (or) 5

(1K,2W) — Key Creek sequence of allochthon 1 and (or) Wulik sequence of allochthon 2

SCHWATKA MOUNTAINS PROVINCE

A — **Schwatka sequence**—Partly to completely metamorphosed sedimentary and igneous rocks considered to be autochthonous or parautochthonous. The protolith for these rocks was formed in the Precambrian and Paleozoic. The rocks were regionally metamorphosed during the Cretaceous

Metamorphosed granitic rocks in the Schwatka province

Contact—Dashed where approximately located or inferred

Thrust fault—Dashed where approximately located or inferred. Sawteeth on upper plate

Inferred northern boundary of allochthon 1 in the subsurface

Anticline

Syncline

A A′ — **Line of cross section shown on plate 7.2**