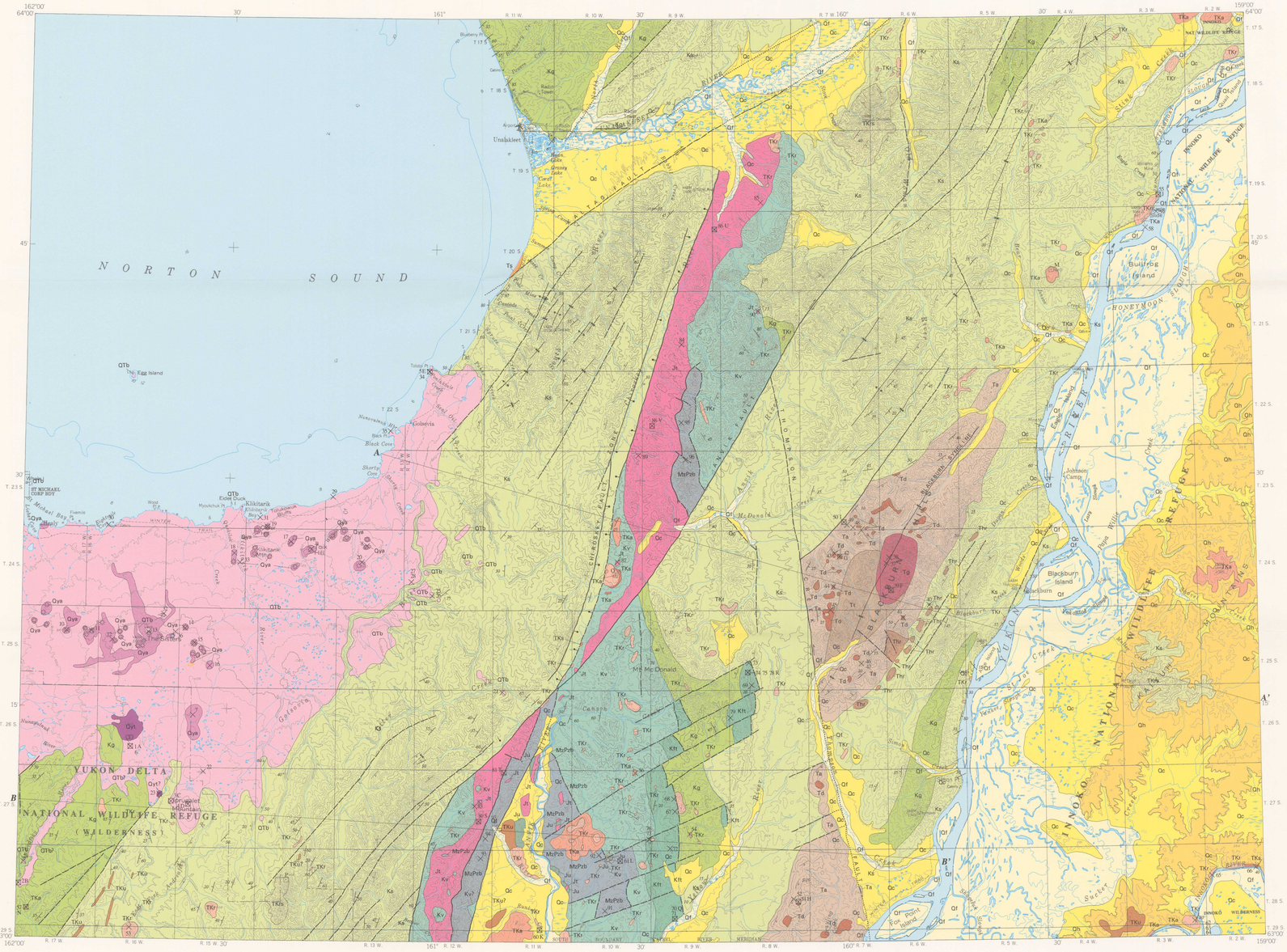
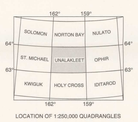
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

MISCELLANEOUS INVESTIGATIONS SERIES
MAP I–2559
Pamphlet accompanies map



Base from U.S. Geological Survey, 1952
Universal Transverse Mercator projection
Slightly offset (double-line) water boundaries result from scanning and vectorizing misaligned drainage layers



LOCATION OF 1:250,000 QUADRANGLES

SCALE 1:250 000

CONTOUR INTERVAL 200 FEET

DEPTH CURVES IN FEET–DATUM IS MEAN LOWER LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
1952 MAGNETIC DECLINATION AT SOUTH EDGE OF SHEET VARIES FROM 19°30' TO 21° EAST

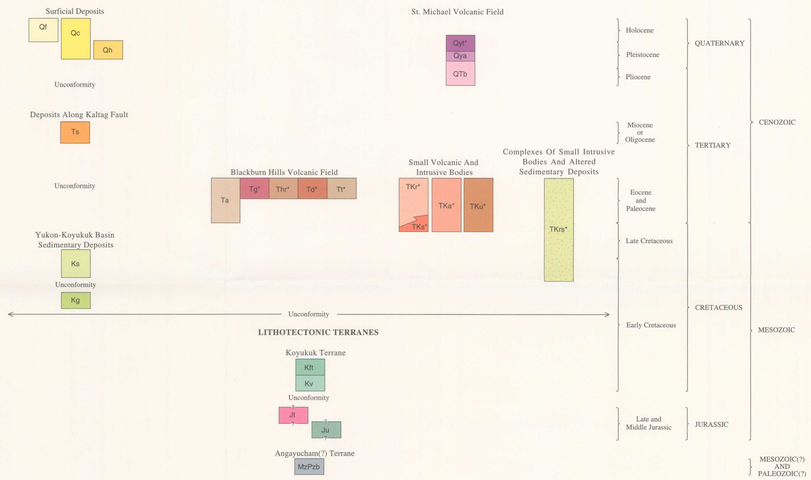
AREA OF MAP

Geology mapped by W.W. Patton, Jr., 1956, 1958, 1962, 1966, 1980–81, 1986; E.J. Moll-Stalcup, 1980–81, 1986; J.M. Hoare, 1960–62, 1966; W.H. Condon, 1961–62, 1966; R.S. Bickel, 1956; I.L. Tailleur, 1958; Bond Taber, 1958; A.R. Tagg, 1982; R.J. Monroe, 1982; T.P. Miller, 1986; and J.M. Murphy, 1986
Edited by Julia Thomas; prepared by Karen Wheeler
Manuscript approved for publication August 1, 1995

CORRELATION OF MAP UNITS

[*See DESCRIPTION OF MAP UNITS in accompanying pamphlet for specific age assignments.]

OVERLAP ASSEMBLAGES



LITHOTECTONIC TERRANES

LIST OF MAP UNITS

[See pamphlet for DESCRIPTION OF MAP UNITS]

OVERLAP ASSEMBLAGES

Surficial Deposits

- Qf — **Flood-plain deposits (Holocene)**
- Qc — **Fluvial, colluvial, and eolian terrace and slope deposits, undivided (Holocene and Pleistocene)**
- Qh — **High-level eolian and colluvial deposits (Pleistocene)**

St. Michael Volcanic Field

- Qyt — **Younger tholeiitic basalt cones and flows (Holocene? and Pleistocene)**
- Qya — **Younger alkalic basalt cones and flows (Pleistocene)**
- QTb — **Older basalt flows (Pleistocene and Pliocene)**

Deposits Along Kaltag Fault

- Ts — **Clay shale and coal (Miocene or Oligocene)**

Blackburn Hills Volcanic Field

- Ta — **Andesite and basalt flows (Eocene and Paleocene)**
- Tg — **Granite (Eocene or Paleocene)**
- Thr — **Hypabyssal rhyolite (Eocene or Paleocene)**
- Td — **Rhyolite domes and flows (Eocene or Paleocene)**
- Tt — **Tuff and tuff breccia (Eocene or Paleocene)**

Small Volcanic And Intrusive Bodies

- TKr — **Rhyolite and dacite (early Tertiary and Late Cretaceous)**
- TKs — **Tuff, sandstone, conglomerate, and shale (early Tertiary and Late Cretaceous)**
- TKa — **Andesite and basalt (early Tertiary and Late Cretaceous)**
- TKu — **Rhyolite, dacite, andesite, and basalt, undivided (early Tertiary and Late Cretaceous)**

Complexes Of Small Intrusive Bodies And Altered Sedimentary Deposits

- TKrs — **Rhyolite and dacite (early Tertiary and Late Cretaceous) and sandstone, shale, and conglomerate deltaic deposits, (Late and Early Cretaceous), undivided**

Yukon-Koyukuk Basin Sedimentary Deposits

- Ks — **Sandstone, shale, and conglomerate deltaic deposits (Late and Early Cretaceous)**
- Kg — **Volcaniclastic graywacke and mudstone turbidites (Early Cretaceous)**

LITHOTECTONIC TERRANES

Koyukuk Terrane

- Kft — **Shoshonitic flows and tuffs (Early Cretaceous)**
- Kv — **Andesitic volcaniclastic rocks (Early Cretaceous)**
- Jt — **Trondhjemite and tonalite (Late and Middle Jurassic)**
- Ju — **Ultramafic-mafic complexes (Late and Middle Jurassic)**

Angayucham(?) Terrane

- MzPzb — **Altered basalt and diabase (Mesozoic? and Paleozoic?)**

Contact—Approximate, inferred, or uncertain

Fault—Dashed where inferred or approximately located; dotted where concealed. Bar and ball on downthrown side; half arrows indicate direction of relative movement

Folds

Anticline

Syncline

Strike and dip of beds—May include overturned beds

Inclined

Vertical

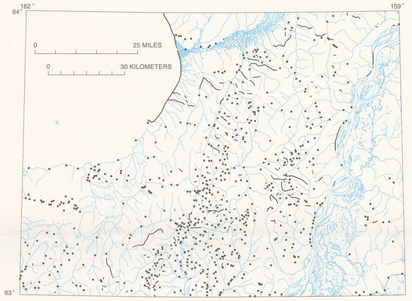
Based on photo-interpretation or distant observation—Direction only

Cinder cone

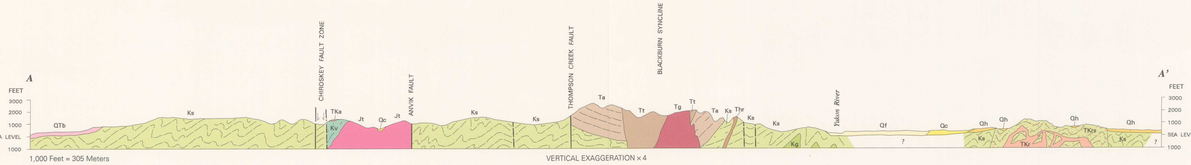
Sample locality

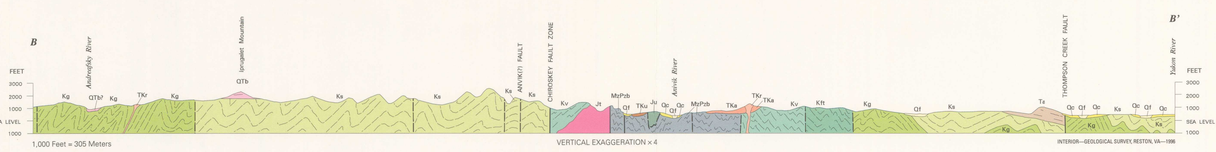
Chemical analysis—Number refers to tables 2 to 8 in accompanying pamphlet

Potassium-argon age data—Letter refers to table 1 in accompanying pamphlet



MAP OF THE UNALAKLEET QUADRANGLE SHOWING LOCATION OF FIELD OBSERVATION POINTS (DOTS) AND CONTINUOUS FOOT TRAVERSES (LINES). GEOLOGY EXTENDED BETWEEN FIELD STATIONS BY AERIAL RECONNAISSANCE AND BY INTERPRETATION OF AERIAL PHOTOGRAPHS. SURFICIAL DEPOSITS MAPPED ALMOST ENTIRELY FROM AERIAL PHOTOGRAPHS.





INTERIOR—GEOLOGICAL SURVEY, RESTON, VA—1996

GEOLOGIC MAP OF THE UNALAKLEET QUADRANGLE, WEST-CENTRAL ALASKA

by
W.W. Patton, Jr. and E.J. Moll-Stalcup

1996

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