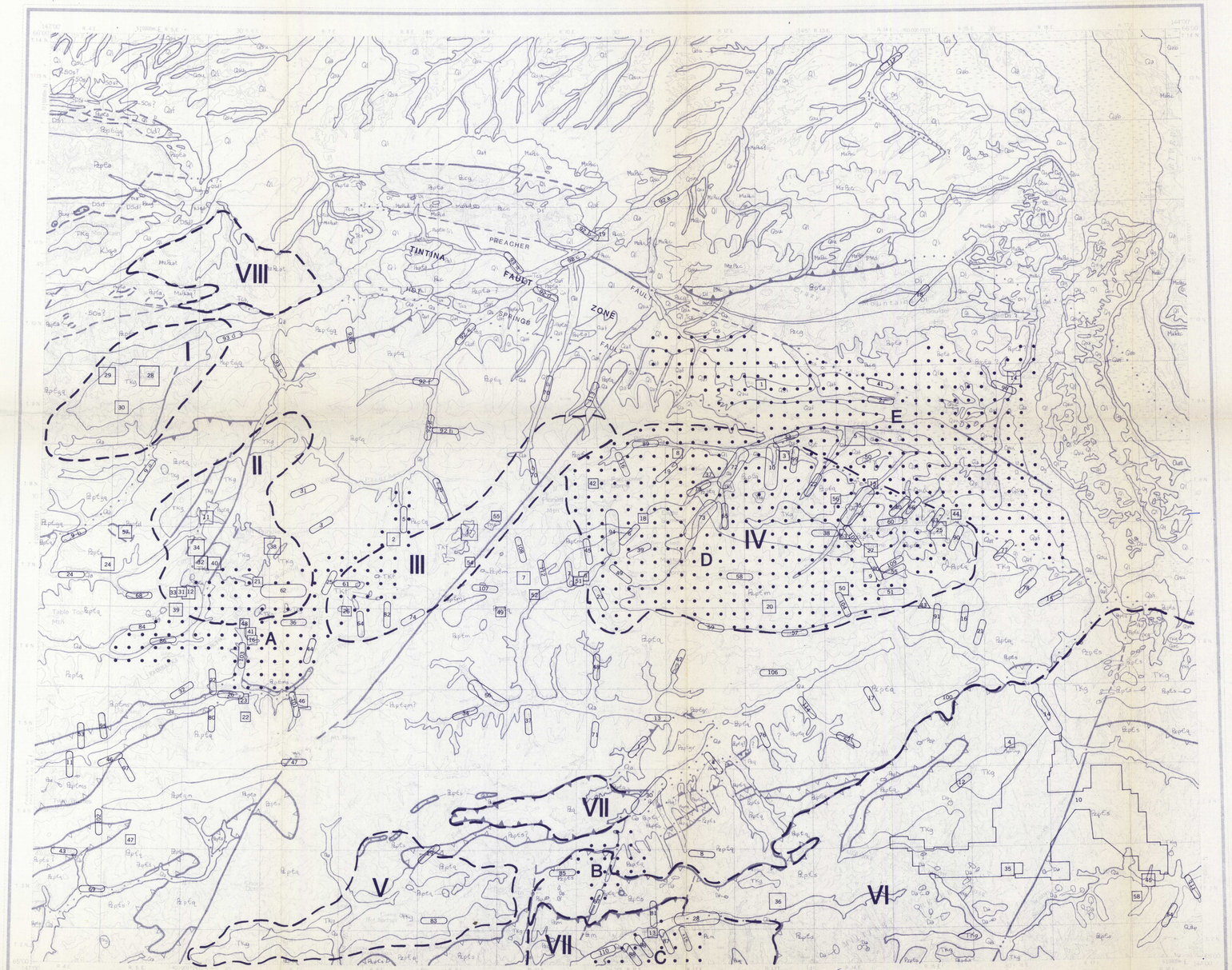
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY



Base from U.S. Geological Survey, 1955

SCALE 1:250 000

5 0 5 10 15 20 MILES

5 0 5 10 15 20 25 30 KILOMETERS

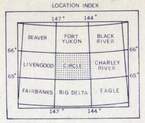
CONTOUR INTERVAL 200 FEET

CIRCLE QUADRANGLE

ALASKA

AREA OF MAP

LOCATION INDEX



MAP SHOWING MINERAL RESOURCES OF THE CIRCLE QUADRANGLE, ALASKA

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1983

GEOLOGY GENERALIZED FROM FOSTER AND OTHERS, 1983

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

FOLIO THE CIRCLE QUADRANGLE, ALASKA

OPEN-FILE REPORT 83-170-B

MINERAL RESOURCE SYMBOLS

Placer mines and prospects

- 18 — 1-100 claims
- 12 — >100 claims

Lode prospects and occurrences

- 1 — 1-10 claims
- 2 — 11-100 claims
- 7 — 101-500 claims
- 24 — 501-1000 claims
- 10 — >1000 claims; area claimed approximately outlined
- Occurrence

Symbols denote general location mines and prospects and are not outlines of claim blocks. Number within symbol refers to table 1 (placers) or table 2 (lodes)

V — Tract permissive for mineral deposits. Roman numeral identifies area as discussed in text

A — Areas containing the majority of past and present placer mines or permissive for the occurrence of undiscovered placer deposits. Capital letter identifies area as discussed in text

GEOLOGIC SYMBOLS

Contact
Approximately located, and inferred

Fault
Dashed where existence or kind of fault uncertain or where approximately located; dotted beneath covering deposits; arrows indicate apparent direction of offset
U, upthrown side
D, downthrown side

Thrust fault
Postulated, dotted beneath covering deposits

Premetamorphic thrust fault
Postulated; predates major regional metamorphism. Dotted beneath covering deposits

DEFINITION OF MAP UNITS

UNCONSOLIDATED DEPOSITS

- Qa — Alluvium and colluvium
- Qaf — Alluvial fan deposits
- Qs — Silt and peat
- Qsu — Silt, undifferentiated and organic material
- Qg — Gravel
- Ql — Loess

SEDIMENTARY ROCKS

- Tcs — Conglomerate and sandstone

UNMETAMORPHOSED IGNEOUS ROCKS

- Tkg — Granite
- Tkf — Felsic igneous rock

NORTHWEST CIRCLE QUADRANGLE

- KJqa — Quartzite, argillite, conglomerate, and hornfels
- MzPzat — Argillite, tuff, quartzite, and conglomerate
- MzPzaq — Argillite and quartzite
- Pzug — Ultramafic and mafic rocks and greenstone
- DSd — Dolomite and argillite
- DSl — Limestone, dolomite, and shale
- SOs — Siltstone, dolomite, chert, and mafic igneous rocks
- Old — Livengood Dome(?) Chert
- PzpCa — Argillite, grit, and quartzite
- PzpCqg — Grit, quartzite, and argillite

AREA NORTH OF TINTINA FAULT ZONE

- MzPzc — Circle Volcanics and associated rocks
- PMc — Chert, argillite, and quartzite
- MzPzd — Diorite
- Pzcg — Chert pebble conglomerate
- Pzcc — Chert, conglomerate, and limestone
- Pzc — Chert and argillite
- Dl — Limestone
- Pzl — Limestone and chert
- PzpCa — Argillite, grit, and quartzite
- PzpCb — Basalt and limestone

AREA SOUTH OF TINTINA FAULT ZONE

- Da — Augen gneiss
- Pzq — Quartzite, meta-argillite and phyllite
- Pzm — Phyllite, calcareous phyllite, and marble
- PzpCs — Pelitic schist
- PzpCms — Garnet-muscovite schist
- PzpCd — Dolomite and marble
- PzpCq — Quartzite and quartzitic schists (includes magnetic chlorite schist subunit (PzpCqm))
- PzpCm — Mafic schist
- PzpCgr — Grit and quartzite

Ultramafic, Mafic, and Eclogitic Rocks

- Pzp — Serpentinized peridotite
- Pzg — Greenstones
- Pze — Eclogite

CORRELATION OF MAP UNITS

UNCONSOLIDATED DEPOSITS

Qa, Qaf, Qs, Qsu, Ql — QUATERNARY

SEDIMENTARY ROCKS — UNMETAMORPHOSED IGNEOUS ROCKS

Tcs — TERTIARY (?)

Tkg, Tkf — Paleocene and Late Cretaceous — TERTIARY AND (OR) LATE CRETACEOUS

Northwest Circle Quadrangle	*Area North of Tintina Fault Zone*	*Area South of Tintina Fault Zone*
KJqa — Cretaceous or Jurassic		MESOZOIC
Fault (?)		
MzPzat, MzPzaq — Age relations uncertain	MzPzc — Triassic and Pennsylvanian and (or) Mississippian	MzPzd — MESOZOIC AND (OR) PALEOZOIC
Pzug — PALEOZOIC (?)	PMc — Pennsylvanian and (or) Mississippian; Age relations uncertain	
Thrust Fault (?)	Thrust Fault (?)	
DSd, DSl — Devonian and (or) Silurian		Pzcg, Dl — Devonian — Pzcc, Pzc, Pzl — PALEOZOIC
SOs — Silurian and (or) Ordovician		Da — Devonian; Pzq, Pzm — PALEOZOIC; Age relations uncertain — Pzp, Pzg, Pze — PALEOZOIC (?)
Old — Ordovician (?)		Thrust Fault (?)
Fault (?)		
PzpCa, PzpCgr	PzpCa — Fault (?) — PzpCb	PzpCs, PzpCms, PzpCd, PzpCq, PzpCm, PzpCgr — Thrust Fault (?) — Age relations uncertain — PALEOZOIC AND (OR) PRECAMBRIAN
PALEOZOIC AND (OR) PRECAMBRIAN		