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

OPEN-FILE REPORT
97-156-B
Pamphlet accompanies map

BREW, David A., Reconnaissance Geologic Map of the Petersburg A-3 Quadrangle, southeastern Alaska

Base from U.S.G.S 1:63,360
Topographic Map Series, 1949

TRUE NORTH
MAGNETIC NORTH
29°
APPROXIMATE MEAN DECLINATION, 1949

SCALE 1:63 360

1 1/2 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

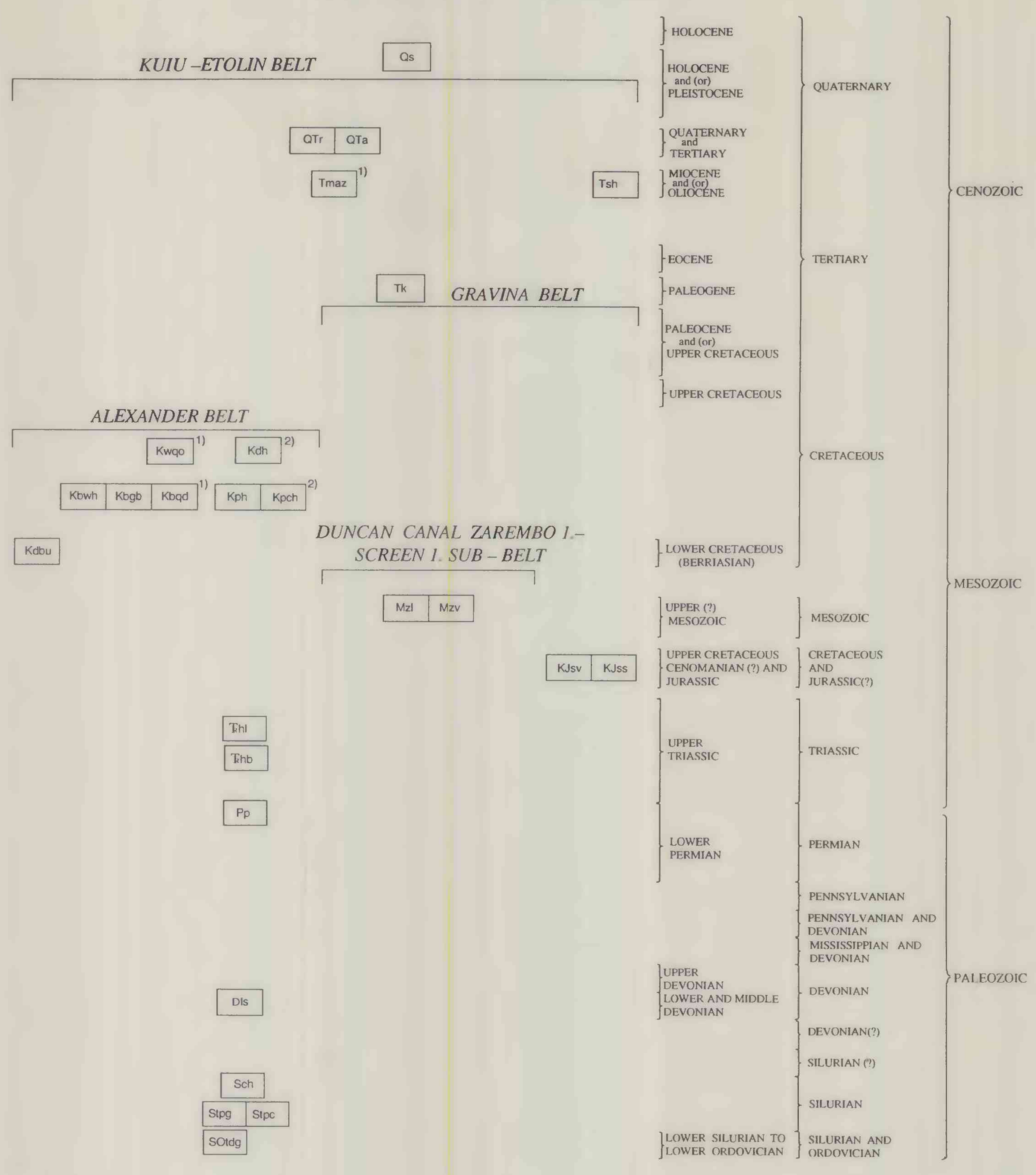
CONTOUR INTERVAL 100 FEET
DOTTED LINES REPRESENT 50-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

ALASKA
QUADRANGLE LOCATION

Geologic Mapping by D.A. Brew, A. Barrows, H.C. Berg, R.L. Elliott, J.G. Evans, A.B. Ford, D.J. Grybeck, G.R. Himmelberg, S.J. Hunt, S.M. Karl, R.D. Koch, R.A. Loney, A.T. Ovenshine, R.A. Sonnevil, and G.D. Webster; 1968-1981

CORRELATION OF MAP UNITS FOR PETERSBURG A-3 QUADRANGLE

(SEE INDEX MAP FOR LOCATION OF BELTS)



NOTES:
1. AGE OF EMPLACEMENT
2. AGE OF METAMORPHISM

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature. Any use of trade names is for descriptive purposes only and does not imply endorsement by the U.S.G.S.

BRIEF DESCRIPTION OF MAP UNITS IN THE PETERSBURG A-3 QUADRANGLE

Qs — SURFICIAL DEPOSITS (Holocene and(or) Pleistocene)

KUIU-ETOLIN BELT

EXTRUSIVE AND INTRUSIVE VOLCANIC ROCKS OF KUIU-ETOLIN VOLCANIC-PLUTONIC BELT (Quaternary and Tertiary)

QTr — Rhyolite, Rhyodacite, and Related Siliceous Extrusive and Intrusive Rocks

QTa — Andesite and Other Intermediate Extrusive Rocks

INTRUSIVE GRANITIC AND OTHER ROCKS OF KUIU-ETOLIN VOLCANIC-PLUTONIC BELT (Miocene and(or) Oligocene)

Tmaz — Alkali Granite of Northwestern Etolin and Southeastern Zarembo Islands

Tsh — HORNFELSED SEYMOUR CANAL FORMATION ROCKS (Miocene and(or) Oligocene)

Tk — KOOTZNAHOO FORMATION(?) (Paleogene)--Nonmarine arkosic sandstone, sandstone, shale, and conglomerate.

ALEXANDER BELT

INTRUSIVE ROCKS OF THE CHILKAT-PRINCE OF WALES PLUTONIC PROVINCE (Cretaceous)

Kwqo — Hornblende Quartz Monzodiorite with Minor Tonalite, Granodiorite, Quartz Diorite, Diorite, Quartz Monzonite, and Monzodiorite

METAMORPHIC ROCKS IN THE CHILKAT-PRINCE OF WALES PLUTONIC PROVINCE (Cretaceous)

Kdh — Biotite-Feldspar-Quartz Hornfels

ULTRAMAFIC COMPLEX AT BLASHKE ISLANDS AND RELATED ROCKS (Cretaceous)

Kbdu — Dunite

Kbwh — Wehrlite

Kbgb — Clinopyroxene-Hornblende Gabbro

Kbqd — Magnetite-Bearing Chlorite-Hornblende-Pyroxene Monzodiorite

METAMORPHIC ROCKS ADJACENT TO COMPLEX AT BLASHKE ISLANDS (Cretaceous)

Kph — (Garnet-)(Pyroxene-)Biotite-Quartz-Feldspar Hornfels

Kpch — Biotite-Quartz-Feldspar Hornfels

HYD GROUP (Upper Triassic)

Tehl — Hamilton Island Limestone

Tehb — Burnt Island Conglomerate

Pp — PYBUS FORMATION (Lower Permian)--Limestone, dolomite, and chert.

Dls — FOSSILIFEROUS LIMESTONE (Lower and Middle Devonian)

PRINCE OF WALES ISLAND SEQUENCE (Devonian to Ordovician)

Carbonate Rocks and Associated Conglomerates (Upper to Lower Silurian)

Sch — Heceta Limestone

Turbidites and associated rocks (Upper Silurian to Lower Devonian)

Bay of Pillars Formation on Northeastern Prince of Wales Island (Upper(?) to Lower Silurian).

Stpg — Graywacke, Slate, and Limestone

Stpc — Conglomerate, Agglomerate, and Volcanic Breccia

Descon Formation (Lower Silurian to Lower Ordovician)

SOtdg — Graywacke

GRAVINA BELT

STEPHENS PASSAGE GROUP (Upper Cretaceous/Cenomanian to Upper Jurassic(?))

KJsv — Brothers Volcanics/Douglas Island Volcanics--Augite-bearing flows, volcanic breccia, and intercalated tuff, volcanic graywacke, phyllite and slate.

KJss — Seymour Canal Formation--Graywacke, slate, and minor conglomerate.

DUNCAN CANAL-ZAREMBO ISLAND-SCREEN ISLAND SUB-BELT OF THE GRAVINA BELT

METAMORPHOSED STEPHENS PASSAGE GROUP AND OTHER ROCKS (Upper(?) Mesozoic)

Mzl — Massive Limestone

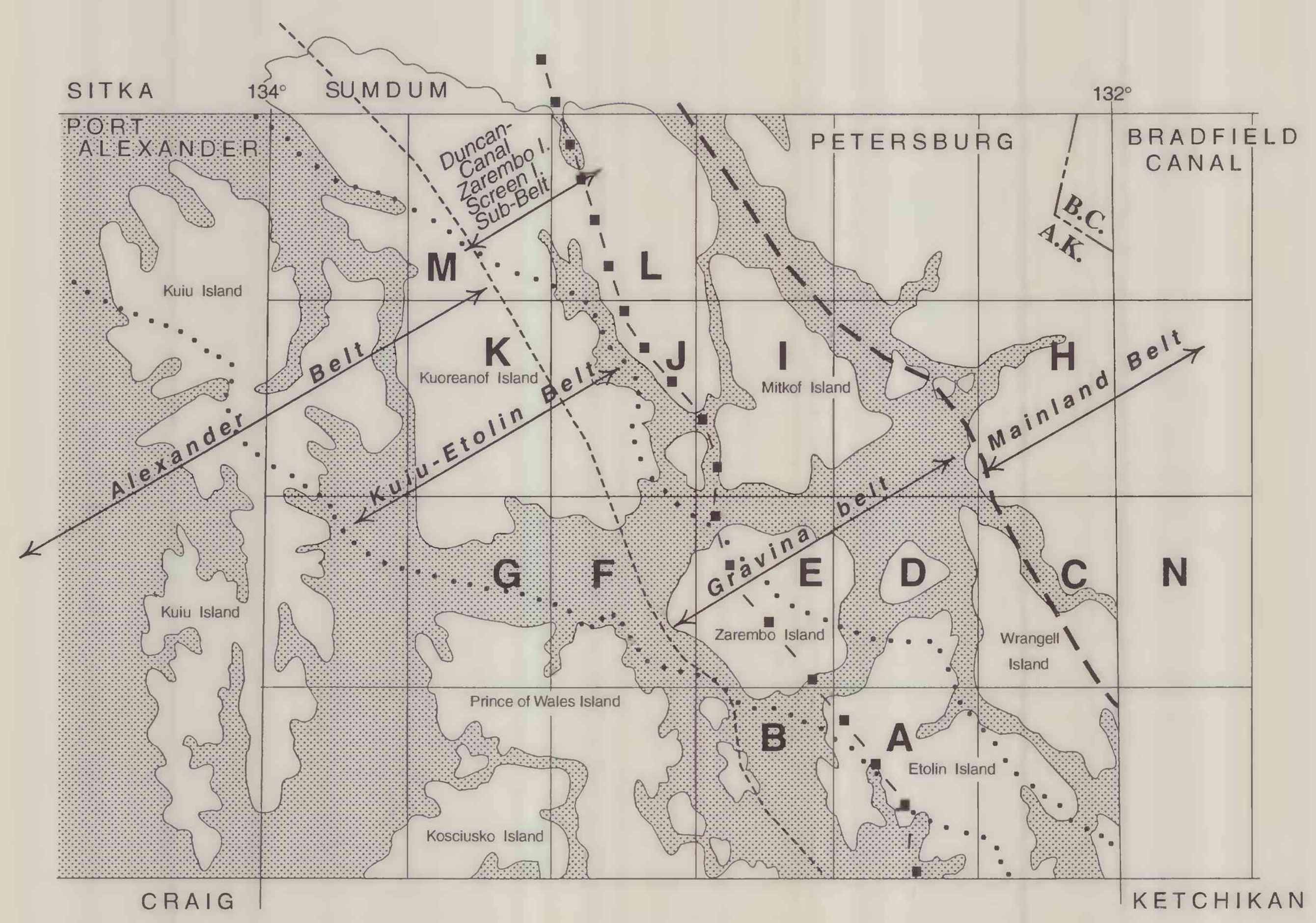
Mzv — Greenstone and Greenschist Metamorphosed From Intermediate to Mafic Volcanic Rocks

LINE SYMBOLS

Contact; shown as solid line where position is known or inferred and where concealed by younger units or water; this convention has been adopted to facilitate future scanning and digitizing of this map data; locally extended for long distances beneath water where no control is available

High-angle fault; shown as solid line where position is known or inferred and where concealed by younger units or water; this convention has been adopted to facilitate future scanning and digitizing of this map data

Contractional or thrust fault; shown as solid line where position is known or inferred and where concealed by younger units or water; this convention has been adopted to facilitate future scanning and digitizing of this map data



Index map of Petersburg project area (Brew and others, 1984) showing locations of belts mentioned in text and on Correlation of Map Units diagram and the locations of 1:250,000- and 1:63,360-scale quadrangles. The 1:63,360-scale quadrangles in this Open-File Report map series (OFR 97-156a-n) are indicated by capital letters. The different types of lines bounding the belts have no special significance.

RECONNAISSANCE GEOLOGIC MAP OF THE PETERSBURG A-3 QUADRANGLE, SOUTHEASTERN ALASKA

By
David A. Brew

1997

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