ADJOINS MAPS 1A and 1B

ALEXANDER TERRANE

QUATERNARY — PLEISTOCENE AND RECENT

- Qs — Glacial deposits, recent alluvium and colluvium; few if any outcrops
- Qal — Landslide and rockslide debris

TERTIARY — MIOCENE AND(?) YOUNGER

- TEL — WRANGELL INTRUSIONS: Felsite, latite porphyry
- Tv — WRANGELL LAVA: basalt, latite; minor rhyolite

OLIGOCENE AND(?) OLDER

- Ts — AMPHITHEATRE FORMATION: sandstone, conglomerate, shale; minor carbonaceous shale, lignite

TAKU-SKOLAI TERRANE

QUATERNARY — PLEISTOCENE AND RECENT

- Qs — Glacial deposits, recent alluvium and colluvium; few if any outcrops
- Qal — Landslide and rockslide debris

TERTIARY — MIOCENE AND(?) YOUNGER

- TEL — WRANGELL INTRUSIONS (TEL, Tgd): Felsite, latite porphyry
- Tgd — Hornblende-biotite diorite
- Tv — WRANGELL LAVA: basalt, latite; minor rhyolite

OLIGOCENE AND(?) OLDER

- QTqp — Biotite quartz latite porphyry
- Ts — AMPHITHEATRE FORMATION: sandstone, conglomerate, shale; minor carbonaceous shale, lignite

CRETACEOUS AND/OR TERTIARY

- KTgd — Hornblende-biotite quartz diorite
- KTdi — Biotite-hornblende diorite
- KTgd — Biotite-hornblende granodiorite

CRETACEOUS — LOWER CRETACEOUS

- uKb — Augite-hornblende gabbro and diorite
- uKpx — Clinopyroxenite; minor hornblende clinopyroxenite

JURASSIC — UPPER JURASSIC

- uTg — Porphyritic gabbro; minor diorite and hornblendite

TRIASSIC TO CRETACEOUS — UPPER TRIASSIC TO LOWER CRETACEOUS

- uKv — Grey phyllite; minor greywacke and conglomerate (includes DEASERAN FORMATION and upper part of McCARTHY FORMATION)

UPPER TRIASSIC

- uTrc — McCARTHY FORMATION: thin-bedded limestone and argillite
- NIZINA LIMESTONE and CHITISTONE LIMESTONE (uTrn, uTrc): Gypsum
- uTrn — Massive limestone, thin-bedded limestone, limestone breccia
- uTrv — NIKOLAI GREENSTONE (uTrv, uTrc): Dark green to maroon massive metabasalt, meta-andesite; minor pillow lava, volcanic breccia and conglomerate at base
- uTrc — Thin-bedded limestone; minor chert and argillite

MIDDLE TRIASSIC

- mTp — Dark grey phyllite; minor limestone

PERMIAN AND/OR TRIASSIC AND/OR(?) CRETACEOUS

- Pu, uPu — Pyroxene gabbro. Pattern used where boundaries are undefined.
- Pu, uPu — Peridotite; rare dunite. Pattern used where boundaries are undefined.

PERMIAN AND(?) PENNSYLVANIAN — LOWER PERMIAN AND(?) OLDER

- HELEN CREEK FORMATION (Psp, Psc)
- Psp — Siliceous argillite; minor greywacke and conglomerate; rare limestone
- Psc — Sandstone; minor siliceous argillite and pebble conglomerate
- Psv — Amygdaloidal pillow basalt, breccia, tuff
- Psc — Bioclastic limestone, calcarenite
- Psg — Pebble to cobble conglomerate

PENNSYLVANIAN AND(?) PERMIAN

- STATION CREEK FORMATION (Psv, Psc)
- Psv — Tuff, breccia, siliceous argillite, chert; rare meta-andesite flows
- Tuff, breccia, meta-andesite and meta-basalt flows; rare argillite. Pattern indicates pillow lava

CARBONIFEROUS AND(?) DEVONIAN

- DCp — Dark grey phyllite
- DCv — Calcareous tuff, breccia, meta-andesite and basalt; locally chlorite-actinolite schist
- DCc — Thin-bedded limestone and phyllitic limestone
- DCt — Grey phyllite, limy phyllite, siltstone; minor phyllitic limestone

DEVONIAN AND(?) SILURIAN — MIDDLE DEVONIAN AND(?) UPPER SILURIAN

- Dc — Massive, light grey crystalline limestone

CAMBRIAN TO DEVONIAN

- €Dv — Greenstone, greenschist
- €Ds — Massive siltstone, tuffaceous phyllite and greywacke

CAMBRIAN OR ORDOVICIAN — UPPER CAMBRIAN OR LOWER ORDOVICIAN

- €Ov — Porphyritic meta-andesite and meta-basalt; rare volcanic breccia and limy tuff
- €Oc — Thin-bedded crystalline limestone
- €Owg — Greywacke, phyllite; minor pebble conglomerate

PALEOZOIC (UNDIFFERENTIATED)

- Ppw — Grey phyllite, meta-sandstone; minor meta-grit
- Pv — Meta-andesite flows, tuff, breccia; minor pillow lava indicated by pattern
- Pc — Light to dark grey crystalline limestone
- Pw — Massive green meta-greywacke and -tuff

- Pb — Gabbro, peridotite gabbro, diabase

INTRUSIONS OF UNKNOWN AGE

- g — Granite
- qm — Quartz monzonite
- gd — Granodiorite
- qd — Quartz diorite
- di — Hornblende diorite

GRAVINA-NUTZOTIN BELT

QUATERNARY — PLEISTOCENE AND RECENT

- Qs — Glacial deposits, recent alluvium and colluvium; few if any outcrops
- Qal — Landslide and rockslide debris

TERTIARY — MIOCENE AND(?) YOUNGER

- TEL — WRANGELL INTRUSIONS: Felsite, latite porphyry

OLIGOCENE AND(?) OLDER

- Ts — AMPHITHEATRE FORMATION: sandstone, conglomerate, shale; minor carbonaceous shale, lignite

CRETACEOUS — UPPER CRETACEOUS

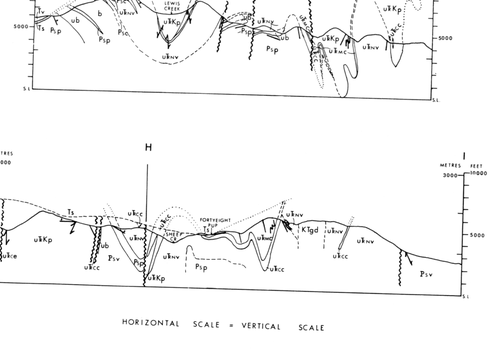
- uKb — Augite-hornblende gabbro and diorite
- uKpx — Clinopyroxenite; minor hornblende clinopyroxenite

CRETACEOUS AND(?) JURASSIC — LOWER CRETACEOUS AND(?) UPPER JURASSIC

- KJsag — DEASERAN FORMATION: sandstone, shale, conglomerate; minor tuff

PALEOZOIC AND MESOZOIC

DUKE RIVER FAULT — SHAKWAK FAULT — DALTON FAULTS



Geological boundary: defined; approximate; assumed
Limit of geological mapping
Fault: defined; approximate; assumed
Bedding, facing determined: inclined; vertical; overturned
Bedding, facing undetermined: inclined; vertical
Foliation: inclined; vertical
Lineation, fold axis: undetermined vergence*; northerly vergence*
Fold: undetermined vergence* (first phase, second phase, undetermined phase); northerly vergence* (first phase, second phase, undetermined phase)
Trace of axial plane of macroscopic fold (I on trace of axial plane indicates second phase fold): upright; inclined; overturned — syncline, syncline (approximate, assumed); anticline, anticline (approximate, assumed)
Trace of attitude on plane of cross-section
Bedding, facing determined
Bedding, facing undetermined
Foliation
Orientation of fold axis and its asymmetry on plane of cross-section
Fossil locality and map collection number
Roads: all weather
Other roads
Contours (interval 100 or 500 feet)
Height in Feet above mean sea level

Radiometric date: location and rock type (Q: common rock); mineral (a: amphibole, b: biotite, w: whole rock); method (K: Potassium-Argon); age in millions of years; laboratory (b: University of British Columbia, g: Geological Survey of Canada, o: United States Geological Survey)

*Vergence is the direction of the upper member of the rotational couple implied by the asymmetry of the fold.

Geology by F. B. Read, 1974, 1975; J.W.H. Monger, 1974

Geological cartography by F. B. Read, 1976. Base map compiled from editions available as of January 1976.

Scale 1:50,000 Échelle

INDEX MAP

TO ONE GRID REFERENCE ON THIS SHEET
ADD THE FIGURES OF THE WHITE NUMBERS ON THE MARGIN ON WHICH THE GRID REFERENCE LIES
ADD ONLY THE LARGER FIGURES WHERE IN THE MARGIN OR WHERE THEY ARE SHOWN
GRID ZONE 7 NO
GSC STANDARD MILITARY GRID REFERENCE
Note: Two-letter square identification is not used in this area.
Grid Zone Designation 7 NO
Square Identification
Easting 335665
Northing 6865
Example: 7 NO 335665

ONE THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 7

MAGNETIC DECLINATION 30°04' EAST AT CENTRE OF SHEET, 1968
Annual magnetic change 21 westerly

MAP 2A

GEOLOGY OF PARTS OF BIGHORN CREEK (115G/3), DESTRUCTION BAY (115G/2), SLIMS RIVER (115B/15) MAP-AREAS, YUKON TERRITORY

O. F. 381-2A