GEOLOGICAL SURVEY OF CANADA COMMISSION GÉOLOGIQUE DU CANADA

DEPARTMENT OF ENERGY, MINES AND RESOURCES
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES

## LEGEND

**CENOZOIC**

QUATERNARY

Unconsolidated sediments: till, sand, gravel, silt

TERTIARY

EOCENE

MIDDLE EOCENE

**Ec** — CORYELL INTRUSIONS: syenite, quartz monzonite; minor granite, pulaskite, and biotite-augite monzonite

**Esg** — SHEPPARD INTRUSIONS: granite, syenite

**Emv** — MARRON FORMATION: augite and/or hornblende and/or biotite andesite; trachyandesite

**Ti** — Map unit Ti (Minor intrusions): hornblende-feldspar and hornblende porphyries

**Ekrs** — KETTLE RIVER FORMATION: tuffaceous arkose

**MESOZOIC**

CRETACEOUS

UPPER CRETACEOUS

**uKsms** — SOPHIE MOUNTAIN FORMATION: coarse conglomerate with minor interbeds of siltstone and arenaceous argillite

JURASSIC AND/OR CRETACEOUS

**Kqp** — Map unit Kqp: quartz-feldspar porphyry

**JKgd** — NELSON INTRUSIONS: granodiorite; minor quartz diorite and diorite

**JKrm** — ROSSLAND MONZONITE: biotite-hornblende-augite monzonite, mainly medium grained

JURASSIC

LOWER AND MIDDLE JURASSIC

**lmJhs** — HALL FORMATION: soft, carbonaceous shale, buff to brown argillaceous sandstone; some siltstone and minor greywacke

LOWER JURASSIC

**lJev** — ELISE FORMATION: flow breccia, massive andesites and basalts, agglomerate, tuff, breccia; black, laminated siltstone (lJes); augite porphyry (lJei)

**lJas** — ARCHIBALD FORMATION: black, hard, brittle, laminated siltstone, commonly tuffaceous, and arenaceous argillite

ROSSLAND GROUP

**PALEOZOIC**

CARBONIFEROUS (?)

PENNSYLVANIAN (?)

**P?um** — ULTRAMAFIC INTRUSIONS: serpentinite; some dunite

**Pmr** — MOUNT ROBERTS FORMATION: black siltstone and argillaceous quartzite, slate, greywacke, chert, pebble conglomerate, lava; limestone (Pmrl); paragneiss (Pmrgn)

AGE UNKNOWN

**gn** — Map unit gn (gneiss in Bonnington Pluton): layered granitoid gneiss and amphibolite

**g** — Map unit g: porphyritic leucogranite

**cgn** — Castlegar gneiss: augen gneiss

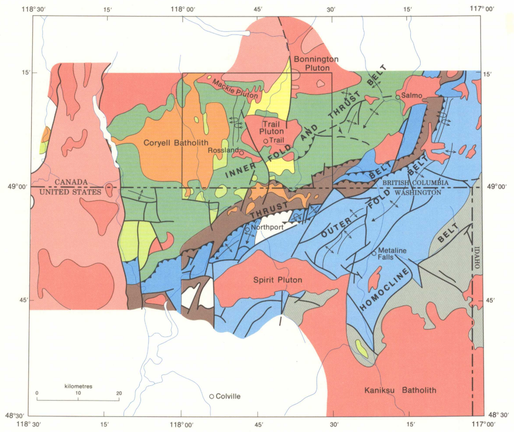
**pCtgn** — Trail gneiss: amphibolitite and grey biotite gneiss, hornblende gneiss, mica schist, aplite and pegmatite; mylonitized gneiss (pCtgnm) (known to be pre-Pennsylvanian)

THRUST BELT OF KOOTENAY ARC

CARBONIFEROUS (?)

**Cs** — Map unit Cs: black argillite, slate, phyllite, minor chert and greenstone; grey to black limestone (Csl)

Geological boundary (defined, approximate, assumed)
Bedding, tops known (inclined, vertical, overturned)
Bedding tops unknown (inclined, vertical)
Schistosity (inclined, vertical)
Foliation in igneous intrusions and layered gneisses (inclined, vertical)
Lineation (inclined)
Fault (defined, approximate, assumed; arrow indicates downthrow side)
Thrust fault (defined, approximate, assumed)
Fossil locality (F)
Fossil locality described in text (F)




Tectonic map showing regional setting of Rossland-Trail map area
After Robert G. Yates, 1971

Canada


INDEX MAP



*Geology by H.W. Little 1949, 1961, 1962 and 1978 and R.I. Thorpe 1962. Geological data published by J.T. Fyles and C.G. Hewlett, 1959, J.T. Fyles, 1970 and P.S. Simony, 1979, and unpublished data by C. Moel, 1971, and 1972 have been incorporated on this map*

*To accompany Paper 79-26 by H.W. Little*

*Geological cartography by G.W. Fouchard, Geological Survey of Canada*

*Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada*

MAP 1504A
GEOLOGY

# ROSSLAND-TRAIL

BRITISH COLUMBIA

Scale 1:50 000

Kilometres 1 0 1 2 3 4 Kilometres
Miles 1 0 1 2 Miles

Universal Transverse Mercator Projection



*Base map at the same scale published by the Surveys and Mapping Branch in 1975*

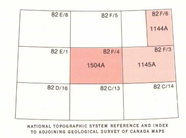
*Copies of the topographical edition of this map may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa*

*Approximate magnetic declination 1981, 20°58' east, decreasing 5.0' annually*

*Elevations in feet above mean sea level*



Printed by the Surveys and Mapping Branch, Published 1982




NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

MAP 1504A
ROSSLAND-TRAIL
BRITISH COLUMBIA

1504A