PRELIMINARY GEOLOGIC MAP OF NELSON (N.T.S. 82F WEST HALF) MAP AREA, BRITISH COLUMBIA

Compiled by: H. W. LITTLE

NORTHERN PART

QUATERNARY

Q UNCONSOLIDATED SEDIMENTS: TILL, SAND, GRAVEL, SILT

TERTIARY
EOCENE
MIDDLE EOCENE

Ec CORYELL INTRUSIONS: MONZONITE, QUARTZ MONZONITE, SYENODIORITE

JURASSIC

Jn NELSON INTRUSIONS: PORPHYRITIC GRANITE AND GRANODIORITE; GRANODIORITE, DIORITE, QUARTZ DIORITE, HORNBLENDE SYENITE

TRIASSIC AND(?) LOWER JURASSIC

Ts SLOCAN GROUP: SLATE, ARGILLITE, LIMESTONE, CONGLOMERATE, TUFF

PERMIAN

Pk KASLO GROUP: ANDESITE, DACITE, MINOR TUFFACEOUS SEDIMENTS AMPHIBOLITE

UPPER PALEOZOIC AND/OR TRIASSIC(?)

uPTgn MAP-UNIT uPTGN: CALCAREOUS QUARTZITE, PELITIC SCHIST, MARBLE, GNEISS

CARBONIFEROUS

Cm MILFORD(?) GROUP: PELITIC SCHISTS, CALC-SILICATE ROCKS AND MINOR AMPHIBOLITE

PENNSYLVANIAN(?)

Pmr MOUNT ROBERTS(?) FORMATION: ARGILLACEOUS QUARTZITE, LIMESTONE, GREYWACKE

UPPER PALEOZOIC(?) TO EOCENE: (VALHALLA GNEISS COMPLEX, AFTER REESOR 1965, MODIFIED BY PARRISH ET AL 1985)

TERTIARY
PALEOCENE AND EOCENE

PEqm MAP-UNIT PEQM: BIOTITE QUARTZ MONZONITE

PALEOCENE

Pmgn MAP-UNIT PMGN ('MIXED GNEISS'): LEUCOGRANODIORITE AND LEUCOQUARTZ MONZONITE WITH INCLUSIONS, REMNANTS, AND EXTENSIVE LAYERS OF GNEISS AND SOME AMPHIBOLITE

CRETACEOUS
UPPER CRETACEOUS

uKgdgn VEINED AUGEN GRANODIORITE GNEISS UNIT: AUGEN GNEISS VEINED WITH LEUCOGRANODIORITE, LEUCOGRANITE, AND PEGMATITE

PRE-MIDDLE JURASSIC

pmJhgn HYBRID GNEISS UNIT: LAYERED PARAGNEISS AND MIGMATITE

AGE UNKNOWN

gn UNDIVIDED GNEISSES: MISCELLANEOUS LAYERED GNEISS, MIXED GNEISS, METAQUARTZITE, AND SCHIST, IN PLACES CONTAINING MUCH LEUCOGRANITIC MATERIAL

SOUTHWEST PART

QUATERNARY

Q UNCONSOLIDATED SEDIMENTS: TILL, SAND, GRAVEL, SILT

TERTIARY
EOCENE
MIDDLE EOCENE

Ec CORYELL INTRUSIONS: SYENITE, MONZONITE, QUARTZ MONZONITE; BIOTITE-AUGITE MONZONITE

Es SHEPPARD INTRUSIONS: SODIC LEUCOGRANITE; MINOR SYENITE

Emv MARRON FORMATION: AUGITE AND/OR HORNBLENDE AND/OR BIOTITE ANDESITE AND TRACHYANDESITE; BASALT(?); MINOR TUFF AND AGGLOMERATE

Ekr KETTLE RIVER FORMATION: TUFFACEOUS ARKOSE

TERTIARY(?)

Ti MAP-UNIT TI: HORNBLENDE-FELDSPAR AND HORNBLENDE PORPHYRIES OF DIORITIC COMPOSITION; TID, AREAS OF OUTCROPS ALMOST ENTIRELY OF DIORITIC DYKES

CRETACEOUS(?)

KqP MAP-UNIT KQP: QUARTZ-FELDSPAR PORPHYRY

CRETACEOUS
UPPER CRETACEOUS

uKsm SOPHIE MOUNTAIN FORMATION: COARSE CONGLOMERATE WITH MINOR INTERBEDS OF SILTSTONE AND ARENACEOUS ARGILLITE

JURASSIC

Jn NELSON INTRUSIONS: GRANODIORITE, QUARTZ DIORITE, DIORITE; LOCALLY MONZODIORITE AND TONALITE

JrM ROSSLAND MONZONITE: BIOTITE-HORNBLENDE-AUGITE MONZONITE, MAINLY MEDIUM GRAINED

LOWER JURASSIC

ROSSLAND GROUP

lJh HALL FORMATION: SOFT CARBONACEOUS SHALE, BUFF TO BROWN ARGILLACEOUS SANDSTONE, SOME SILTSTONE AND MINOR GREYWACKE

lJe ELISE FORMATION: ANDESITE AND BASALT FLOWS AND FLOW BRECCIA, AGGLOMERATE; MINOR SILTSTONE

lJa ARCHIBALD FORMATION: BLACK, HARD, BRITTLE LAMINATED SILTSTONE, COMMONLY TUFFACEOUS

PENNSYLVANIAN(?)

P?um ULTRAMAFIC INTRUSIONS: SERPENTINITE; SOME DUNITE(?)

Pmr MOUNT ROBERTS FORMATION: BLACK SILTSTONE AND ARGILLACEOUS QUARTZITE, SLATE, GREYWACKE, CHERT, PEBBLE CONGLOMERATE, LAVA, LIMESTONE; PMRGN, PARAGNEISS

SILURIAN(?) DEVONIAN AND(?) CARBONIFEROUS
MIDDLE AND UPPER DEVONIAN IN PART

Dpo 'PEND D'OREILLE SEQUENCE' OF YATES: BLACK ARGILLITE, GREY LIMESTONE; MINOR CHERT AND GREENSTONE

AGE UNKNOWN

cgn CASTLEGAR GNEISS: LAYERED BIOTITE AND HORNBLENDE-BIOTITE AUGEN GNEISS

Tgn TRAIL GNEISS: LAYERED HORNBLENDE GNEISS, BIOTITE-HORNBLENDE QUARTZ DIORITE GNEISS, FOLIATED APLITE AND PEGMATITE, MASSIVE PEGMATITE, QUARTZO-FELDSPATHIC MICA SCHIST AND AMPHIBOLITE

gn UNDIVIDED GNEISSES: LAYERED GNEISS, SCHIST, HORNFELS, METAQUARTZITE

SOUTHEAST PART

QUATERNARY

Q UNCONSOLIDATED SEDIMENTS: TILL, SAND, GRAVEL, SILT

TERTIARY
EOCENE
MIDDLE EOCENE

Ec CORYELL INTRUSIONS: Ec1, BASIC SYENITE; Ec2, AUGITE MONZONITE, MINOR PULASKITE,
Em MCGREGOR INTRUSION: SHONKINITE

CRETACEOUS OR TERTIARY

KTp MAP-UNIT KTP: PEGMATITIC GRANITE

JURASSIC OR CRETACEOUS

Jski SILVER KING PORPHYRY: PORPHYRITIC HORNBLENDE QUARTZ DIORITE,

JURASSIC

Jn NELSON INTRUSIONS: GRANODIORITE, MAINLY; QUARTZ DIORITE, QUARTZ MONZONITE, DIORITE, HORNBLENDE SYENITE, GRANITE

Jp MAP-UNIT JP: PSEUDODIORITE; MINOR PYROXENE-BIOTITE-HORNBLENDE ROCK

LOWER JURASSIC

ROSSLAND GROUP

lJh HALL FORMATION: ARGILLITE, SHALE, SILTSTONE, PHYLLITE; LOCALLY SOME VOLCANIC ROCKS AND PEBBLE CONGLOMERATE

lJe ELISE FORMATION: ANDESITE AND BASALT FLOWS AND FLOW BRECCIA, AGGLOMERATE; MINOR SILTSTONE AND AMPHIBOLITE

lJa ARCHIBALD FORMATION: SILTSTONE, ARGILLACEOUS QUARTZITE, ARGILLITE; MINOR TUFF AND LAVA

LOWER JURASSIC(?) AND OLDER

JTy YMIR GROUP: ARGILLACEOUS QUARTZITE, SLATE, ARGILLITE, HORNFELS; MINOR LIMESTONE

SILURIAN(?) DEVONIAN AND(?) CARBONIFEROUS
MIDDLE AND UPPER DEVONIAN IN PART

Dpo 'PEND D'OREILLE SEQUENCE' OF YATES: BLACK ARGILLITE, GREY LIMESTONE; MINOR CHERT, GREENSTONE AND PHYLLITE

ORDOVICIAN
LOWER AND(?) MIDDLE ORDOVICIAN

Oa ACTIVE FORMATION: BLACK SLATE AND ARGILLITE; MINOR LIMESTONE, DOLOMITE, AND ARGILLACEOUS QUARTZITE

PALEOZOIC (UNDIVIDED)

Pu MAP-UNIT PU: QUARTZITE, SCHIST, ARGILLITE, LIMESTONE, AND PHYLLITE

CAMBRIAN
MIDDLE CAMBRIAN

m€n NELWAY FORMATION: CREAM WEATHERING GREY DOLOMITE; LIMESTONE AND ARGILLITE

LOWER CAMBRIAN

LOWER CAMBRIAN AND(?) LATER

l€l LAIB FORMATION: PHYLLITE, SCHIST, ARGILLACEOUS QUARTZITE; LIMESTONE

l€r RENO FORMATION (L€R): ARGILLACEOUS AND MICACEOUS QUARTZITE; MINOR PHYLLITE

lPs MAP-UNIT LPS: QUARTZITE, ARGILLITE, SLATE; MINOR LIMESTONE

l€qr QUARTZITE RANGE FORMATION (L€QR): WHITE, GREEN, AND PINKISH ORTHOQUARTZITE; MINOR CONGLOMERATE AND ARGILLITE

HADRYNIAN

WINDERMERE SUPERGROUP

Hts THREE SISTERS FORMATION: GREEN AND GREY GRIT AND QUARTZITE; MINOR POLYMICTIC CONGLOMERATE AND GREEN PHYLLITE

Hm MONK FORMATION: GREY TO GREEN ARGILLITE AND PHYLLITE; MINOR CONGLOMERATE AND LIMESTONE

Hiv IRENE VOLCANIC FORMATION (HIR): GREENSTONE, LOCALLY PILLOWED; MINOR ARGILLITE AND LIMESTONE

Ht TOBY FORMATION (HT): POLYMICTIC CONGLOMERATE; MINOR ARGILLITE

AGE UNKNOWN

gn UNDIVIDED GNEISSES: LAYERED GNEISS, SCHIST, HORNFELS, METAQUARTZITE

GEOLOGICAL SYMBOLS

GEOLOGICAL BOUNDARY (DEFINED, APPROXIMATE, ASSUMED)

BEDDING, TOPS KNOWN (INCLINED, VERTICAL, OVERTURNED)

BEDDING, TOPS UNKNOWN (INCLINED, VERTICAL)

SCHISTOSITY (INCLINED, VERTICAL)

FOLIATION IN IGNEOUS ROCKS AND LAYERED GNEISSES (INCLINED, VERTICAL)

LINEATION (PLUNGING)

FAULT (DEFINED, APPROXIMATE, ASSUMED)

THRUST FAULT (DEFINED, APPROXIMATE, ASSUMED)

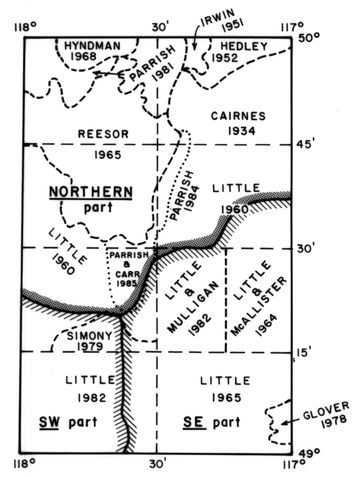
SLOCAN LAKE FAULT ZONE

ANTICLINE (UPRIGHT, OVERTURNED)

SYNCLINE (UPRIGHT, OVERTURNED)

GLACIAL STRIAE (DIRECTION KNOWN, UNKNOWN)

FOSSIL LOCALITY



Index map showing sources of data and areas to which legends apply.

1:125,000

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KILOMETRES