

**PRELIMINARY GEOLOGIC MAP OF TERRACE
(NTS 103 I EAST HALF) MAP AREA, BRITISH COLUMBIA;
by G.J. Woodsworth, M.L. Hill and P. van der Heyden**

SEDIMENTARY AND VOLCANIC ROCKS

- QUATERNARY**
PLEISTOCENE AND RECENT
- Q UNCONSOLIDATED SEDIMENTS
- LOWER CRETACEOUS**
SKEENA GROUP (IKSc and IKss)
ALBIAN(?)
- IKSc CHERT-PEBBLE CONGLOMERATE, SANDSTONE, SILTSTONE; COMMONLY MICACEOUS
 - HAUTERIVIAN(?) TO BARREMIAN(?)
 - IKss BLACK MICACEOUS SHALE, SILTSTONE, SANDSTONE; COMMONLY CONTAINS STICKS, TWIGS, WOODY DEBRIS
- MIDDLE AND UPPER JURASSIC**
BOMSER LAKE GROUP (UJB, UJtc, and mJA)
UPPER OXFORDIAN
- UJB MARINE AND NONMARINE SANDSTONE, SILTSTONE, SHALE
 - UJtc "TROUT CREEK ASSEMBLAGE": CONGLOMERATE, SANDSTONE, SILTSTONE
- UPPER BAJOCCIAN TO LOWER CALLOVIAN**
ASHMAN FORMATION
- mJA THIN BEDDED SILTSTONE, SHALE, GREYWACKE, CONGLOMERATE
- UPPER TRIASSIC TO MIDDLE JURASSIC**
HAZELTON GROUP (mJs and IJt)
- LOWER BAJOCCIAN**
SMITHERS FORMATION
- mJs GREENISH VOLCANIC SANDSTONE, SILTSTONE, TUFF, TUFFACEOUS SEDIMENTS, TUFF-BRECCIA
- UPPER TRIASSIC AND LOWER JURASSIC**
CARNIAN AND LOWER SINEMURIAN
TELKWA FORMATION
- IJt CALC-ALKALINE BASALT TO RHYOLITE BRECCIA, TUFF, AND FLOWS; MINOR INTRAVOLCANIC SEDIMENTS; INCLUDES METAMORPHOSED EQUIVALENTS
- LOWER SINEMURIAN(?)**
- IJK "KITSELA VOLCANICS": RHYOLITIC BRECCIA, TUFF, WELDED TUFF; MINOR FLOW-BANDED RHYOLITE; AGE UNKNOWN BUT ASSUMED TO BE A FACIES OF THE TELKWA FORMATION; INCLUDES METAMORPHOSED EQUIVALENTS
- TRIASSIC**
SMITHIAN TO CARNIAN
- Argillite, chert; minor limestone
- LOWER PERMIAN**
SAKMARIAN TO ARTINSKIAN
- IPs LIMESTONE, SILTY LIMESTONE, CALCAREOUS MUDSTONE; MINOR TUFF
- LOWER PERMIAN(?)**
- IPv GREY-GREEN CHERTY VOLCANICS, TUFF, BRECCIA; MINOR GREYWACKE; INCLUDES METAMORPHOSED EQUIVALENTS
- AGE UNCERTAIN**
- um AMPHIBOLITE-FACIES METAMORPHIC ROCKS NOT ASSIGNABLE TO OTHER UNITS; MAY IN WHOLE OR PART BE EQUIVALENT TO IJt, IPv

GRANITOID ROCKS

- AGES OF MOST PLUTONS ARE SPECULATIVE. ASSIGNED AGES ARE BASED ON TIME OF EMPLACEMENT RELATIVE TO THE DEFORMATIONAL AND METAMORPHIC HISTORY OF THE MAP AREA. RELATIVE TIME OF EMPLACEMENT OF PLUTONS HAS INFERRED FROM SUCH CRITERIA AS DEGREE OF FOLIATION AND ALTERATION, COMPOSITION, INTENSITY OF BRITTLE AND DUCTILE DEFORMATION, AND PRESENCE OF MAFIC DYKES.
- TERTIARY**
- Eg POST-TECTONIC GRANITE, GRANODIORITE; COMMONLY LEUCOCRATIC AND MIAROLITIC; MAY CONTAIN GARNET, FLUORITE; CORRELATIVE WITH ALICE ARM AND NANIKA INTRUSIONS
 - Tg POST-TECTONIC GRANITE, GRANODIORITE; MOST HAVE MORE BIOTITE THAN HORNBLENDE; GENERALLY FRESH, UNFOLIATED TO WEAKLY FOLIATED
- LATE CRETACEOUS(?) TO EARLY TERTIARY**
- LKd PRE- TO POST-KINEMATIC GRANODIORITE, TONALITE, GRANITE; GENERALLY FRESH; LOCAL DUCTILE DEFORMATION; UNFOLIATED TO STRONGLY FOLIATED
- LATE CRETACEOUS(?)**
- LKTg POST-TECTONIC QUARTZ DIORITE, DIORITE, GRANODIORITE; MOST HAVE MORE HORNBLENDE THAN BIOTITE; FRESH TO HIGHLY ALTERED; UNFOLIATED TO WEAKLY FOLIATED; POSSIBLY CORRELATIVE WITH BULKLEY INTRUSIONS
 - LKg PRE- TO SYNKINEMATIC GRANODIORITE, TONALITE; GENERALLY HIGHLY ALTERED AND CUT BY MAFIC DYKE SWARMS; LOCAL TO EXTENSIVE DUCTILE DEFORMATION
- EARLY CRETACEOUS(?)**
- Kd LAYERED DIORITE-GABBRO COMPLEXES; GENERALLY GREENSCHIST FACIES; LITTLE DUCTILE DEFORMATION
- JURASSIC(?) TO CRETACEOUS(?)**
- JKg GREENSCHIST-FACIES QUARTZ DIORITE, TONALITE; BRITTLE TO DUCTILE DEFORMATION COMMONLY INTENSE; WEAKLY FOLIATED
 - JKd GREENSCHIST-FACIES DIORITE-TONALITE COMPLEXES; LESSER METAVOLCANIC ROCK; UNFOLIATED TO WEAKLY FOLIATED; INTENSE BRITTLE DEFORMATION
- EARLY TO MIDDLE JURASSIC(?)**
- Jg PINK GRANODIORITE TO GRANITE; HIGHLY ALTERED; UNFOLIATED; INTENSE BRITTLE DEFORMATION

SOURCES OF INFORMATION

- PREVIOUS WORK:**
S. DUFFELL AND J.G. SOUTHER, 1953-1955
- PRESENT WORK:**
G.J. WOODSWORTH, 1980-1984
M.L. HILL, 1984
P. VAN DER HEYDEN, 1984
- CONTRIBUTIONS BY:**
K.L. KLEINSPENH, 1981
M. MIHALYNUK, 1984
R.G. ANDERSON, 1984
- COMPILED BY:**
G.J. WOODSWORTH, 1985

SYMBOLS

- CONTACT (MAPPED; APPROXIMATE OR ASSUMED; GRADATIONAL)
- LIMIT OF OVERBURDEN OR MAPPING
- FAULT OR SHEAR (NORMAL OR NATURE UNKNOWN; DUCTILE SHEAR)
- THRUST FAULT (BRITTLE; DUCTILE)
- BEDDING (INCLINED; VERTICAL)
- FOLIATION (INCLINED; VERTICAL; ABSENT)
- LINATION OF DUCTILE ORIGIN (INCLINED; HORIZONTAL)
- AXIS OF MINOR FOLDS, CRENULATIONS (INCLINED)
- ANTICLINE
- SYNCLINE

