

TECTONIC ASSEMBLAGES AND PLUTONIC SUITES (from Wheeler and McFeely, 1991)

Tectonic assemblages represent distinctive successions of stratified rocks, mainly bounded by unconformities or faults, deposited in specific tectonic environments during particular intervals of time...

REFERENCES

- Armstrong, R.L. 1985. Mesozoic - early Cenozoic plutonism in the Canadian Cordillera - distribution in time and space. Geological Society of America, Abstracts and programs, 1985, v. 17, p. 338.

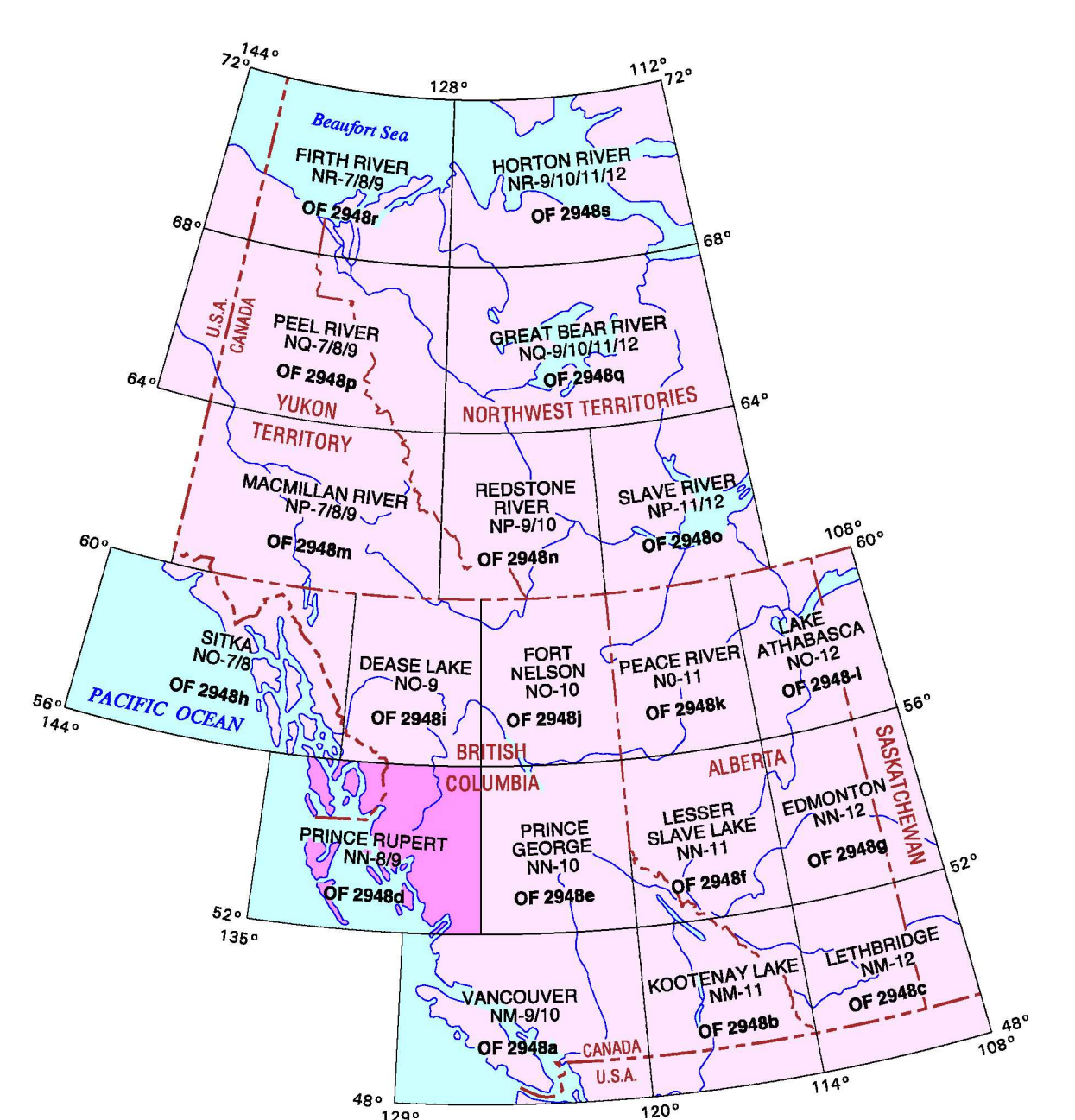
SOURCES OF INFORMATION

Geological information contained in the GIS map library and the 1:1,000,000 scale folio series is derived directly from John Wheeler's Tectonic Assemblage Map of the Canadian Cordillera (Wheeler and McFeely, 1991, Map 1712A)...

GIS MAP LIBRARY

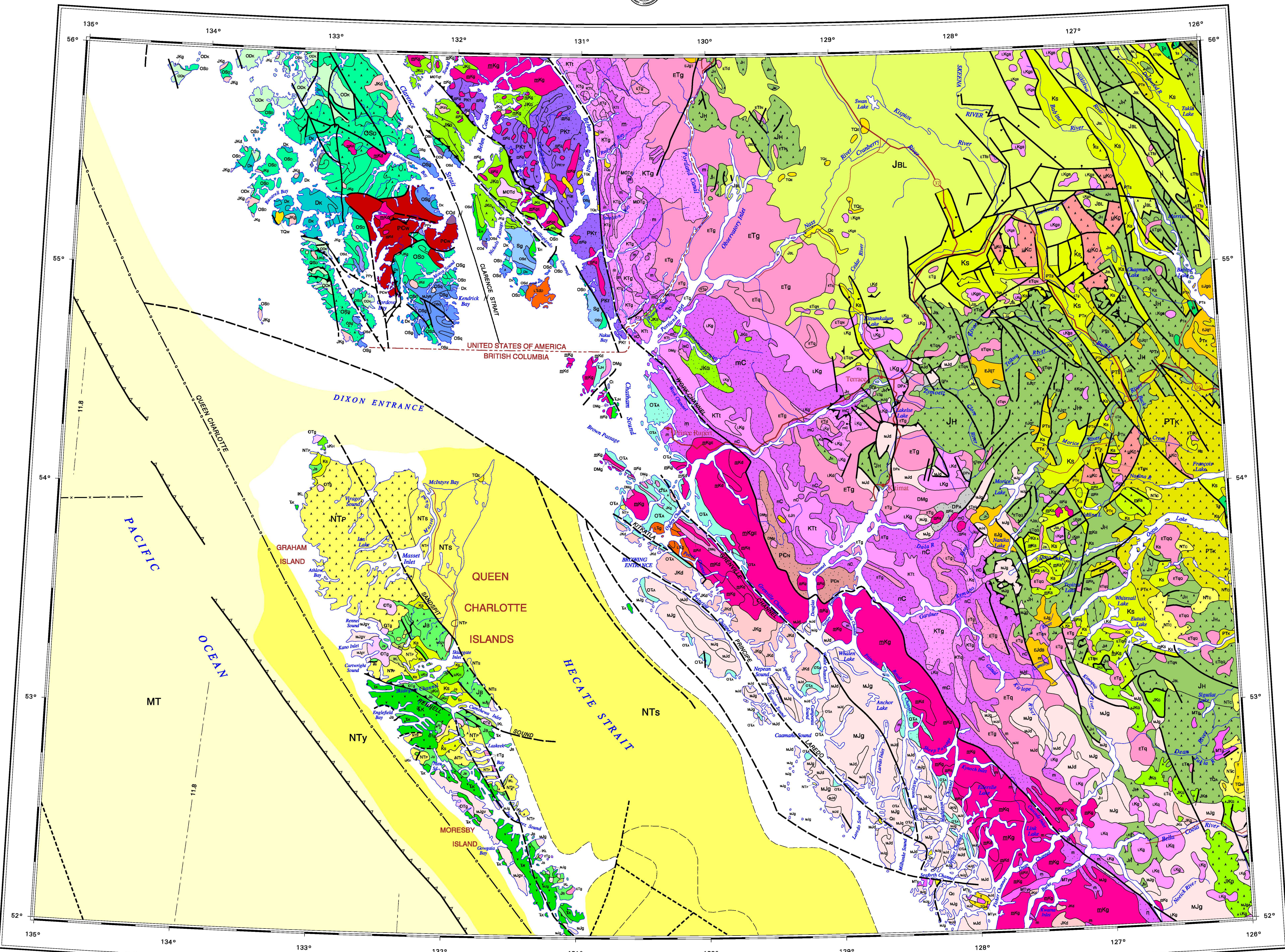
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COROLLERAN TECTONIC ASSEMBLAGE MAP LIBRARY



TECTONIC ASSEMBLAGES OF THE PRINCE RUPERT MAP AREA

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OPEN FILE 2948d TECTONIC ASSEMBLAGE MAP PRINCE RUPERT BRITISH COLUMBIA - U.S.A.

Scale 1:1 000 000 - Echelle 1/1 000 000. Includes projection information: Lambert Conformal Conic Projection and Projection conique conforme de Lambert.

TECTONIC ASSEMBLAGES

- QUATERNARY: Qc CLEARWATER: transitional back-arc volcanics; alkali to tholeiitic olivine basalt flows, pyroclastics, volcanics and cones, contains interbedded nodules, nonmarine.
TERTIARY AND QUATERNARY: TQw WRANGELL: arc and (?) transform volcanics, calc-alkaline andesite, dacite and lesser basalt and basaltic andesite, subvolcanic basalt, basaltic andesite, lesser basalt, trachyte and rhyolite in Yukon, as lavas, pyroclastics, commonly as dissected volcanics, associated tuffs, nonmarine.

MISSISSIPPIAN - UPPER TRIASSIC

- MTc CACHE CREEK: oceanic volcanics and sediments and local accretionary prism mélange; mainly MOR-like tholeiitic to alkali-basalt, some alkali-enriched basaltic andesite, basaltic andesite, andesite, gabbro, hornfelsite and diabase, most sub-separately, basal basaltic andesite with stocks of Upper Triassic Rocks Assemblage; radiolarian ribbon chert, argillite, volcanic sandstone, and limestone, locally as bank near and upper conglomerate with Tertiary fossils; includes Yukon radiolarian east of Fraser River fault, marine.
DEVONIAN - PERMIAN: DPA ASFINA: arc volcanics and platform carbonates; basement of Skinkina; calc-alkaline basalt to rhyolite flows and pyroclastics interbedded with limestone, shale, volcanic sandstone, mafic dykes, mostly full and less rhyolite in western basin; includes Lower Devonian, marine and nonmarine.

UPPER PROTEROZOIC - LOWER CAMBRIAN

- UWp WALES: metamorphosed oceanic arc volcanics; greenschist and amphibolite facies clasts and gneiss derived from basaltic andesite, pillow lava, breccia and tuff and granoblastic gneiss, minor mafic and metapelitic, marine.

PLUTONIC AND ULTRAMAFIC ROCKS

- MIocene (S. 1-16 Ma): MT Motu: generally (?) discordant, alkali to peralkaline, grey olivine pyroxene-ssite amphibole-bearing syenite with marginal pyroxene- and sodic amphibole-bearing, locally with quartz, calc-alkaline, pink, hornblende-biotite granite, quartz syenite and quartz monzonite, minor mafic and metapelitic, marine.

LATE TRIASSIC (214 - 235 Ma)

- LTD (Duke Island): gabbro-ultramafic complex.
LTg Hornblende-biotite quartz diorite - Central Coast Plutonic Complex.
LTu Undivided granite, leucogranite, alkali, quartz monzonite, monzonite, granophyre.

PENNSYLVANIAN - PERMIAN

- PP PPy undivided syenite, syenodiorite, nepheline syenite, sodalite syenite, jacupirangite, orthopyroxene, orthopyroxene.

DEVONIAN - MISSISSIPPIAN

- DMs DMg Granite rocks in Coast Plutonic Complex.
DMn predominantly orthogneiss.

SILURIAN

- S Sg altered hornblende granodiorite in Central Coast Plutonic Complex.

ORDOVICIAN - SILURIAN

- OS OBg hornblende-biotite diorite, quartz porphyritic hornblende granodiorite, leucogranite and Devonian-Silurian biotite-hornblende quartz monzonite, granite, quartz syenite and diorite.
OSa OSu in S. E. Alaska.

CAMBRIAN - ORDOVICIAN

- CO COd foliated and metamorphosed, hornblende diorite and biotite-hornblende granodiorite.

VOLCANIC ROCKS

- Calc-alkaline volcanic rocks.
Tholeiitic volcanic rocks.
Alkaline volcanic rocks.
Bimodal volcanic rocks.
Mixed tholeiitic volcanic and sedimentary rocks.
Bimodal alkaline volcanic rocks.

METAMORPHIC ROCKS

- m metamorphic rocks (undivided), includes Central Gneiss Complex (mC).
n predominantly orthogneiss, includes Central Gneiss Complex (nC).
protolith metamorphosed to amphibolite facies.

OCEANIC CRUST

- MT Miocene.

SYMBOLS

- Geological contact (dashed).
Thrust fault (dash on upper plate).
Extension fault (bold circle indicates downthrow side).
Right lateral transcurrent fault.
Fault of unknown displacement.
Submerged geological contact.
Submerged thrust fault.
Submerged faults and those buried by younger strata.
Submerged deformation front.
Submerged normal fault (bold circle indicates downthrow side).
Submerged transform fault.
Submerged fracture zone.
Submerged pseudofault.
Time lines from magnetic anomalies in oceanic crust (age in Ma).



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Recommended citation: Courtney, J.M., Williams, S.P. and Wheeler, J.O. 2000. Tectonic Assemblage Map, Prince Rupert, British Columbia, U.S.A.: Geological Survey of Canada, Open File 2948d, scale 1:1 000 000.