

LEGEND

EAST

WEST

Coloured legend blocks indicate map units that appear on the map and accompanying structure sections.

QUATERNARY

CRETACEOUS

JURASSIC AND CRETACEOUS

JURASSIC

TRIASSIC

PERMIAN

CARBONIFEROUS

DEVONIAN AND CARBONIFEROUS

DEVONIAN

SILURIAN

ORDOVICIAN

LOWER AND MIDDLE ORDOVICIAN

CAMBRIAN AND ORDOVICIAN

CAMBRIAN

LOWER CAMBRIAN

UPPER PROTEROZOIC

MESOZOIC

JURASSIC

TRIASSIC

PERMIAN

CARBONIFEROUS AND PERMIAN

DEVONIAN

SILURIAN

ORDOVICIAN

LOWER AND MIDDLE ORDOVICIAN

CAMBRIAN AND ORDOVICIAN

CAMBRIAN

LOWER CAMBRIAN

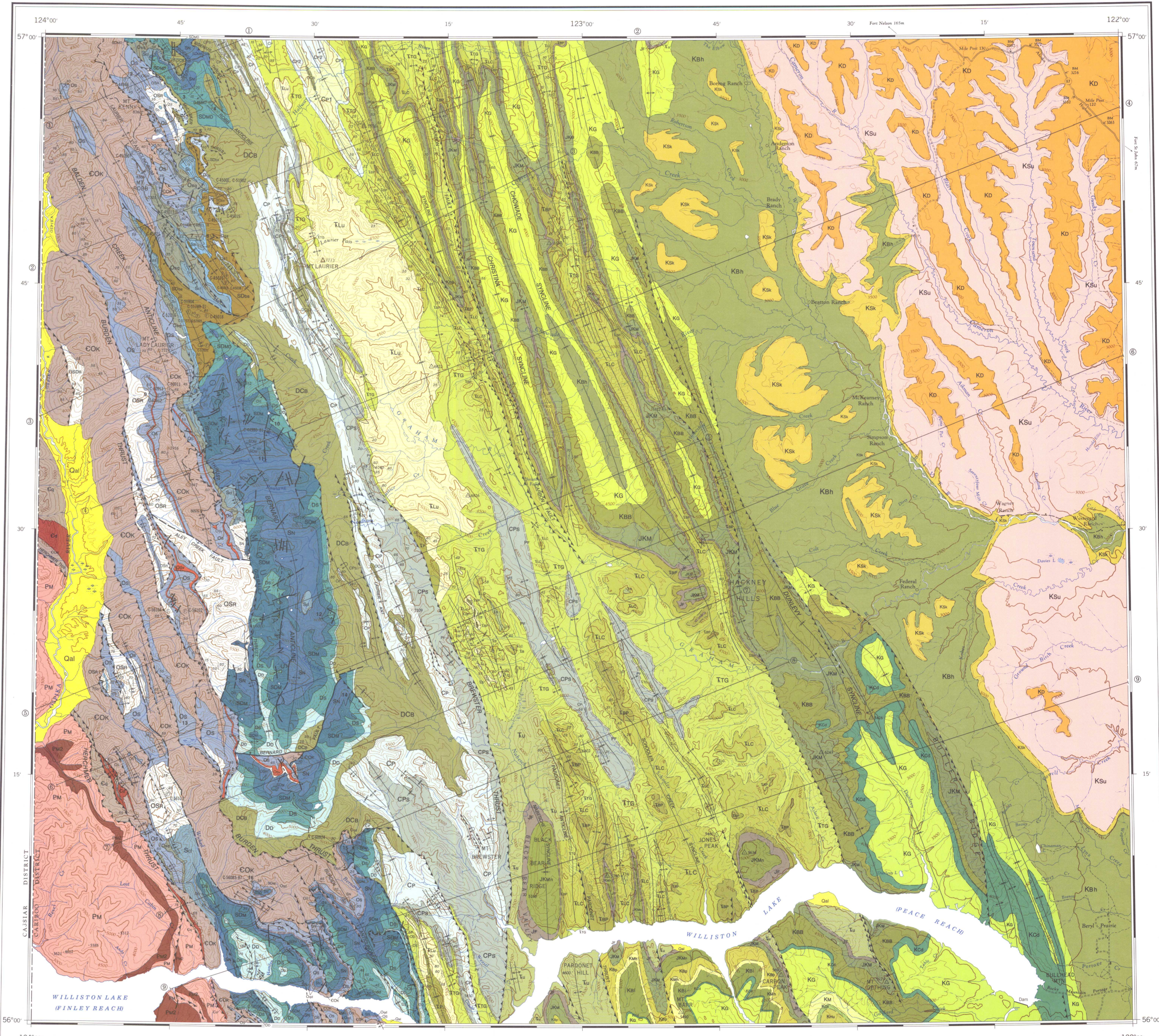
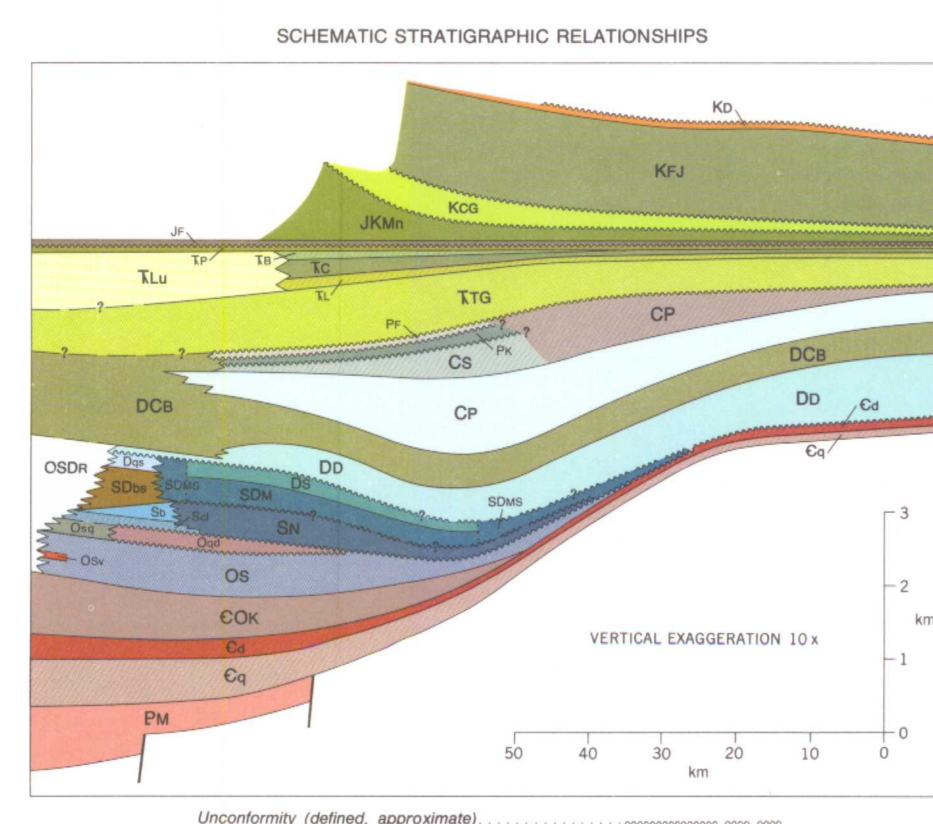
UPPER PROTEROZOIC

PROTEROZOIC

UPPER PROTEROZOIC

PROTEROZOIC

- QUATERNARY**
  - Qal Gravel, sand, silt, clay, and fill
- CRETACEOUS**
  - UPPER CRETACEOUS (Cenomanian)**
    - Kd DUVEGAN FORMATION: sandstone, shale, and conglomerate
  - LOWER CRETACEOUS (Alban) AND UPPER CRETACEOUS (Cenomanian)**
    - Fort St. John Group (Ks-Ku)
      - Ksu SULLY FORMATION: siltstone, shale, and marl; includes some upper Cretaceous beds at the top
      - Kbk SKAMM FORMATION: fine grained sandstone; minor shale, coal, and conglomerate; marine
      - Khu HULCROSS FORMATION: dark grey, calcareous shale, marl
      - Kgr GATES FORMATION: massive to thick bedded sandstone; clay sandstone and shale; silt mudstone
      - Km MOOSEBAR FORMATION: dark grey shale; marl
  - LOWER CRETACEOUS (Bemian-Aptian)**
    - Bullhead Group (Kc-Kg)
      - Kg GETWIND FORMATION: fine grained sandstone; minor shale, coal, and conglomerate; marine and non-marine
      - Kcs CADOMIN FORMATION: massive conglomerate and conglomeratic sandstone; non-marine
- JURASSIC AND CRETACEOUS**
  - UPPER JURASSIC (T) AND LOWER CRETACEOUS (Tithonian-Valanginian)**
    - Minnes Group (Kj-Ku)
      - Kj BEATTIE PEAKS FORMATION: interbedded, fine grained sandstone and shale
      - Km MONACH FORMATION: massive, quartzitic sandstone
      - Kjp BEATTIE PEAKS FORMATION: interbedded, fine grained sandstone and shale; marl. May possibly include Monach Formation equivalents
      - Kjm MONKIEV FORMATION: massive, quartzitic sandstone. May include some Jurassic strata
  - LOWER JURASSIC (J) AND LOWER CRETACEOUS (Tithonian-Valanginian)**
    - Jf FENNE FORMATION: argillaceous and siltstone shale; siltstone; minor sandstone; marl
- JURASSIC**
  - LOWER AND UPPER JURASSIC (Sinemurian-Tithonian)**
    - Jp FENNE FORMATION: argillaceous and siltstone shale; siltstone; minor sandstone; marl
- TRIASSIC**
  - UPPER TRIASSIC (Norian)**
    - Tp PARSONS FORMATION: carbonaceous and argillaceous limestone; silt limestone; calcareous and dolomitic siltstone
  - UPPER TRIASSIC (Kamian)**
    - Tb BALDOWNE FORMATION: massive limestone and dolomite with siltstone and sandstone interbeds
    - Tc CHARLE LAKE FORMATION: dolomitic and calcareous sandstone; siltstone; sandy limestone; dolomite; and minor siltstone (structure section)
  - MIDDLE AND UPPER TRIASSIC (Ladinian-Kamian)**
    - Tl LARD AND CHARLE LAKE FORMATIONS (undivided)
  - LOWER AND MIDDLE TRIASSIC (Griesbachian-Ladinian)**
    - Tto ROAD AND GRAYLING FORMATIONS: calcareous siltstone; silt limestone; silt shale; minor silt dolomite and calcareous sandstone
- PERMIAN**
  - LOWER AND UPPER PERMIAN (Artinskian-Wardian)**
    - Pf FANTASQUE FORMATION: massive, grey chert containing abundant sponge spicules
  - LOWER PERMIAN (Asselin-Sarcelan)**
    - Ph KINLOE FORMATION: siltstone, shale, and limestone. Mapped as part of the Stoddart Group (structure section)
- CARBONIFEROUS AND PERMIAN**
  - Lower Carboniferous and Permian to Upper Permian (Stoddart Group, Kinloae and Fantasque Formations; undivided (structure section))
- CARBONIFEROUS**
  - LOWER CARBONIFEROUS (Upper Viséan-lower Namurian)**
    - Cs STODDART GROUP AND KINLOAE FORMATION (undivided)
  - LOWER CARBONIFEROUS (Upper Toumaian-lower Viséan)**
    - CP2 PHOPHET FORMATION (undivided): massive limestone, chert, and chert
    - CP1 Lower and middle units: limestone, chert, dolomite, shale, and siltstone
- DEVONIAN AND CARBONIFEROUS**
  - UPPER DEVONIAN/LOWER CARBONIFEROUS**
    - DCB DECA RIVER FORMATION: shale; calcareous shale; siltstone; calcareous siltstone; silt limestone, and limestone; limestone marker unit (DCB); limestone; and silt, nodular limestone (structure section)
- DEVONIAN**
  - MIDDLE DEVONIAN**
    - Do DUNDOW FORMATION: limestone; dolomite; argillaceous limestone; secondary, coarse crystalline dolomite
  - LOWER AND MIDDLE (T) DEVONIAN**
    - Ds2 Upper unit: massive, light grey, medium crystalline dolomite (structure section)
    - Ds1 Lower unit: medium to thick bedded, olive and grey weathering, sandy dolomite and dolomitic, medium to thick bedded light grey and light olive
- SILURIAN (T) AND DEVONIAN**
  - SDM Middle Devonian to Middle Devonian to Lower Devonian (undivided)
  - SDM1 Lower Devonian to Middle Devonian to Lower Devonian (undivided)
  - SDM2 Lower Devonian to Middle Devonian to Lower Devonian (undivided)
- SILURIAN**
  - LOWER SILURIAN (Llandoveryan)**
    - Ss SINDA FORMATION: dolomite, limestone; carbonaceous limestone and dolomite; black chert nodules and lenses
- ORDOVICIAN**
  - UPPER ORDOVICIAN (Upper Caradocian-Taughitlan)**
    - OSr Quartzite-dolomite unit: quartzite; dolomitic quartz sandstone; microcrystalline dolomite with black chert nodules; carbonaceous, nodular limestone
  - LOWER AND MIDDLE ORDOVICIAN (Llanvirnian-Caradocian)**
    - OSr Quartzite-dolomite unit: quartzite; dolomitic quartz sandstone; microcrystalline dolomite with black chert nodules; carbonaceous, nodular limestone
    - OSr Graptolite shale-quartzite unit: shale; calcareous shale; siltstone; argillaceous limestone; and quartz sandstone (undivided)
- CAMBRIAN AND ORDOVICIAN**
  - UPPERMOST CAMBRIAN AND LOWER ORDOVICIAN (Trempealeau-Arenigian)**
    - OSr Quartzite-dolomite unit: quartzite; dolomitic quartz sandstone; microcrystalline dolomite with black chert nodules; carbonaceous, nodular limestone
- CAMBRIAN**
  - MIDDLE (T) CAMBRIAN**
    - Cs Dolomite unit: medium crystalline dolomite; sandy dolomite
  - LOWER CAMBRIAN**
    - Cs Quartzite unit: orthoquartzite; calcareous shale; silt quartzite; siltstone; shale. Probable equivalent of the Dog Group
- UPPER PROTEROZOIC**
  - MISNORINKA GROUP**
    - PM Phyllite and schistose pelite; quartzite; minor limestone
    - PM Carbonate marker unit (PM2): massive limestone and dolomite
    - PM Possible equivalent of the Spring Formation



Geological boundary (defined, approximate, assumed)

Facies boundary

Folding: top known (inclined, vertical, overturned)

Fault: extension (upward) and applied to vertical fault; solid circle indicates downthrow side; dashed, approximate, assumed

Trough fault (synonymous with contraction fault; both indicate upthrow side; defined, approximate, assumed)

Artificial trace of axial plane: overturned

Syncline (trace of axial plane): overturned

Fossil locality, GSC catalogue number

Measured stratigraphic section (see text for field section data)

Dotted line denotes change in mapping precision. Stratigraphic subdivisions are amalgamated at dotted line

Line of section

Geology of Triassic and older strata by R.I. Thompson, 1975-76, assisted by Douglas Haines and Roger Day, 1975 and Scott Topley and Neil Godfrey, 1976

Geology of Jurassic and younger strata taken from a compilation by D.F. Scott, 1968

Geological compilation by R.I. Thompson

Geological cartography by B.H. Orman, Institute of Sedimentary and Petroleum Geology, Geological Survey of Canada

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

Base map at the same scale published by the Army Survey Establishment R.C.E. in 1954. Williston Lake was added by the Geological Survey of Canada for this edition.

Copies of this map may be obtained from the Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario, K1A 0E8, 3003-33rd Street N.W., Calgary, Alberta T2L 2A7, 100 West Pender Street, Vancouver, B.C. V6C 1H6

Library / Bibliothèque

MAY 7 1987

GEOLOGICAL SURVEY COMMISSION GÉOLOGIQUE

Elevations in feet above mean sea level

Recommended citation: Thompson, R.I., 1986. Geology, Halfway River, British Columbia, Geological Survey of Canada, Map 1634A, scale 1:250 000

Canada

This map has been produced from a scanned version of the original map  
Reproduction par numérisation d'une carte sur papier

NOT TO BE TAKEN FROM LIBRARY  
NE PAS SORTIR DE LA BIBLIOTHÈQUE

1634A

MAP 1634A  
SHEET 1  
HALFWAY RIVER MAP AREA  
BRITISH COLUMBIA  
FOR STRUCTURE SECTIONS, SEE SHEET 2