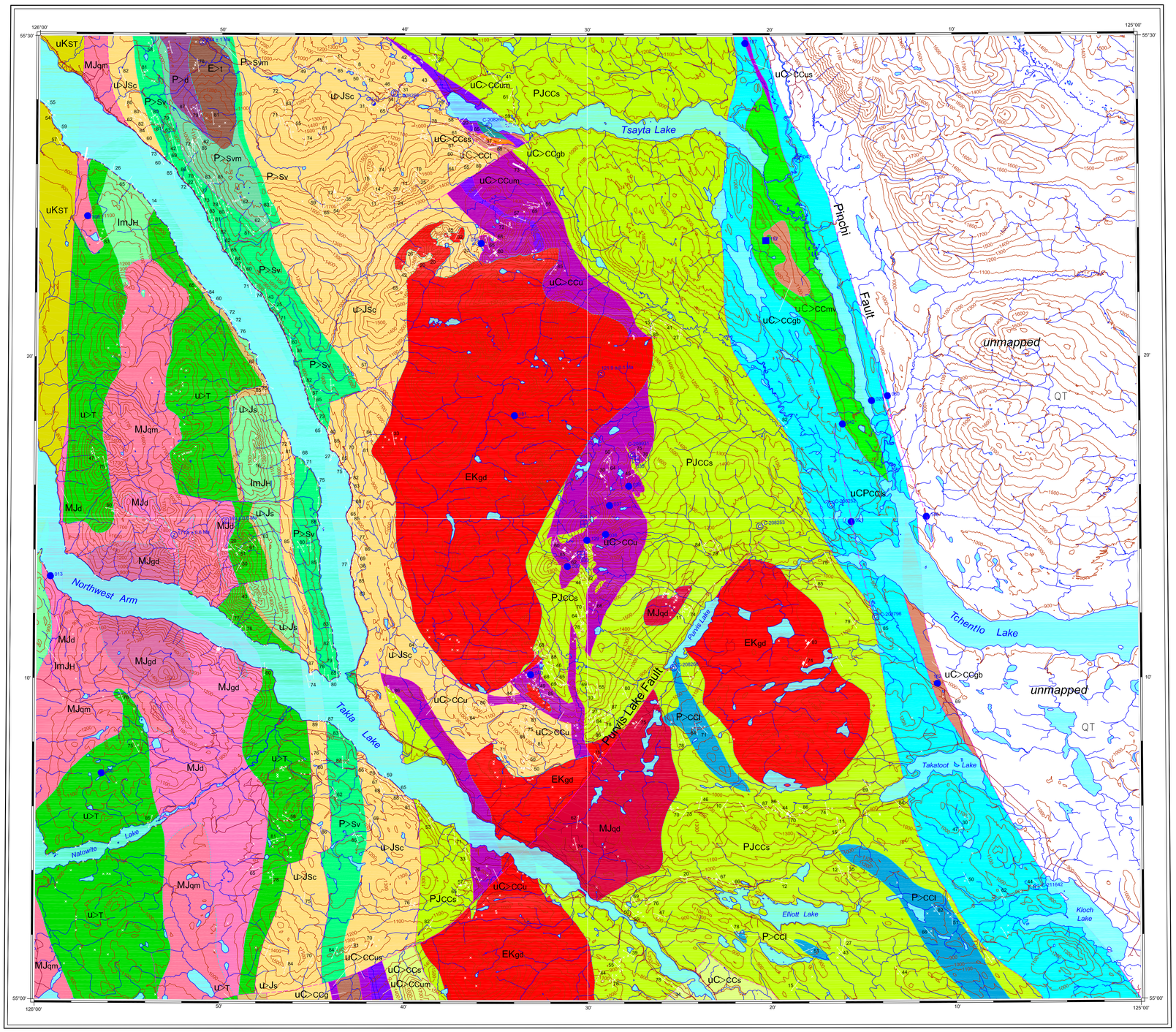
British Columbia
Ministry of Energy and Mines
Minerals Division
Geological Survey Branch



LEGEND

OVERLAP ASSEMBLAGES

Upper Cretaceous
Sustut Group
- uKST — *Tango Creek Formation: polymictic conglomerate; sandstone, shale*

Early Cretaceous
- EKgd — *medium to coarse-grained granodiorite and granite; locally includes diorite and quartz diorite*

Middle Jurassic (?)
- MJgd — *quartz diorite, diorite, tonalite; locally includes gabbro and pyroxenite*

Middle Jurassic
Spike Peak Intrusive Suite (MJqm - MJd)
- MJqm — *red to pink monzonite, quartz monzonite, monzogranite*
- MJgd — *hornblende biotite granodiorite*
- MJd — *hornblende diorite; tonalite, locally foliated*

STIKINE TERRANE

Lower to Middle Jurassic
- ImJH — *Hazelton Group; undivided subaerial , maroon to grey, feldspar phyric andesite to dacite flows and associated pyroclastic rocks*

Upper Triassic to Lower Jurassic
- u>Js — *dark grey siltstone and shale, mudstone, minor limestone, with interbeds of quartzose-feldspathic wacke and chert - limestone clast polymictic conglomerate; minor limestone*

Upper Triassic
- u>T — *Takla Group: pyroxene-feldspar-phyric basalt and basalt breccia; lesser amounts of felsic tuff, shale, sandstone and conglomerate*

CACHE CREEK TERRANE

SITLIKA ASSEMBLAGE
Upper Triassic to Lower Jurassic
- u>JSc — *Clastic unit: medium to dark grey slate, phyllite; banded siltstone, sandstone and conglomerate; minor limestone, chert and green chloritic phyllite; locally contains felsic volcanic and plutonic clasts; distal to proximal turbidite succession*

Early Triassic
- E>t — *medium to coarse grained tonalite*

Late Permian or Early Triassic
- P>d — *medium-grained epidote-chlorite-feldspar schist and semischist; weakly foliated chloritized hornblende diorite*

Permian to LowerTriassic
Volcanic Unit (P>Sv - P>Svm)
- P>Sv — *medium to dark green chlorite schist, fragmental chlorite schist and pillowed metabasalt; chlorite-sericite schist containing felsic metavolcanic fragments; lesser amounts of quartz-sericite schist, quartz-feldspar porphyry, metadacite, metarhyolite; minor metasandstone and metachert*
- P>Svm — *chlorite schist, greenstone, pillowed metabasalt*

CACHE CREEK COMPLEX
Upper Carboniferous to Triassic
North Arm succession (uC>CCs - uC>CCmv)
- uC>CCs — *thin to medium bedded chert, limestone, quartz phyllite, graphitic phyllite, chlorite schist and metabasalt; intruded by dikes and sills of greenstone, diabase, and diorite*
- uC>CCss — *siliceified slate, quartzite, pebble conglomerate, limestone*
- uC>CCmv — *mafic volcanic flows, breccias and tuffs*

Rubyrock Intrusive complex (uC>CCt - uC>CCgb)
- uC>CCt — *medium-grained tonalite; quartz-feldspar porphyry*
- uC>CCg — *massive, blocky weathering to schistose greenstone dikes and sills; includes minor mafic flows, chert and phyllite*
- uC>CCgb — *gabbro, diorite, diabase; locally includes clinopyroxenite, serpentinite, amphibolite, tonalite*

Trembleur ultramafic unit (uC>CCu - uC>CCum)
- uC>CCu — *variably serpentinized harzburgite and dunite; locally includes clinopyroxenite, gabbro, greenstone, diabase, amphibolite, chert, limestone, listwanite, nephrite, magnesite-talc schist*
- uC>CCus — *foliated serpentinite, commonly with lozenges of massive serpentinized ultramafite*
- uC>CCum — *serpentinite melange containing knockers of greenstone, diabase, amphibolite, chert, limestone*

Permian to Jurassic (?)
Sowchea succession (PJCCs - P>CCl)
- PJCCs — *light to medium grey quartz phyllite, platy quartzite and metachert; lesser amounts of recrystallized limestone, dark grey grey phyllite, massive to pillowed greenstone, fragmental greenstone and chlorite schist; minor amounts of metasandstone*
- P>CCl — *limestone; minor chert, phyllite, basalt*

Carboniferous to Permian
Pope succession
- uCPCCls — *massive limestone; minor basalt, chert, phyllite*

QUESNEL TERRANE

- QT — *Quesnel Terrane, undivided*

MINERAL OCCURRENCES

MinFile No.	Names	Commodity	Type
093N 013	AZIDA	Cu, Ag	Chalcopyrite in varieties
093N 016	MITCHELL RANGE	Au	Listwanite-hosted Au
093N 020	INDATA LAKE	Hg	Almaden Hg, Silica-Hg carbonate.
093N 021	TCHENTLO	Hg, Au	Almaden Hg, Silica-Hg carbonate.
093N 033	SIMPSON	Cr	Podiform chromite,
093N 034	BOB	Cr	Podiform chromite,
093N 035	IRISH	Cr	Podiform chromite,
093N 036	HOGEM RANGES	Cr	Podiform chromite,
093N 037	HOGEM RANGES	Cr	Podiform chromite,
093N 038	X9	Cr	Podiform chromite,
093N 039	X16	Cr	Podiform chromite,
093N 040	LEO CREEK	Cr	Podiform chromite,
093N 080	INDATA #5	Hg	Almaden Hg, Silica-Hg carbonate,
093N 090	LUCY	Cu	Podiform chromite,
093N 108	BOL	Cu	Porphyry Cu ± Mo ± Au.
093N 129	X11	Cr	Podiform chromite,
093N 146	TCHENTLO LAKE	Hg	Almaden Hg, Silica-Hg carbonate.
093N 181	DON	Mo, Cu	Porphyry Mo (Low F-type).
093N 182	BAR	Hg	Almaden Hg, Silica-Hg carbonate,
093N 192	INDATA	Cu, Au, Ag, Sb, Pb, Mo	Polymetallic veins

SYMBOLS

- Geological boundary
  - defined
  - approximate
  - assumed
- Fault contact, orientation and displacement unknown
  - defined
  - approximate
  - assumed
- High-angle fault, ball on downdropped side, dip shown if known
  - defined
  - approximate
  - assumed
- Thrust fault, teeth in direction of dip
  - defined
  - approximate
  - assumed
- Dike: inclined, vertical
- Bedding, facing known: inclined, overturned
- Bedding, facing unknown: inclined, vertical
- Slaty cleavage, schistosity: inclined, vertical
- Crenulation cleavage; inclined, vertical
- Mylonitic foliation in harzburgite
- Lineation
- Axis of mesoscopic fold
- Fault: inclined, vertical
- Fossil location: age determined (with GSC number)
  - macrofossil, conodonts
- Field station
- Mineral occurrence with MINFILE number (prefix 93N)
  - past producer (abandoned mine)
  - developed prospect
  - prospect
  - showing
- Mineral occurrence not in MINFILE
- Isotopic age locality (age in millions of years before present)
  - U-Pb zircon
- Roads
- Railway

SOURCES OF INFORMATION

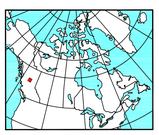
1997-1998 mapping by the British Columbia Geological Survey.

Armstrong, J.E. (1949): Fort St. James map-area, Cassiar and Coast districts, British Columbia; Geological Survey of Canada, Memoir 252, 210 pages.

Bellefontaine, K.A., Legun, A., Massey, N.W.D., and Desjardins, P. (1995): Mineral Potential Project - Northeast B.C., Southern Haît; B.C. Ministry of Energy , Mines and Petroleum Resources, Open File 1995-24.

Elliot, A.J.M. (1975): Geology and Metamorphism of the Mitchell Mountains Ultramaffie, Fort St. James Map Area, British Columbia; unpublished M.Sc. thesis, University of British Columbia, 113 pages.

Whittaker, P.J. (1983): Geology and petrogenesis of chromite and chrome spinel in alpine-type peridotites of the Cache Creek Group, British Columbia; unpublished Ph.D. thesis, Carleton University, 339 pages.



Geology by P. Schiarizza, N. Massey, D. MacIntyre, S. Modeland, S. Munzar, R. Metcalf, D. Tackaberry, A. Justason and L.C. Struik, 1997 - 1998.
Additional sources of information shown in legend.

Geological compilation by P. Schiarizza, N. Massey, D. MacIntyre, B.C. Geological Survey Branch.

Digital cartography by A. Olson

Digital base map from British Columbia Ministry of Environment, Lands and Parks, Generalized and modified from 1:20000 TRIM digital base maps.

Copies of TRIM maps may be purchased from Land Data BC PO BOX 9355 STN PROV GOVT, Victoria, B.C. V8W 9M2

Any revisions or additional geological information known to the user would be welcomed by the British Columbia Geological Survey Branch, Ministry of Energy and Mines, Victoria, B.C.

OPEN FILE 2000-19
BEDROCK GEOLOGY
TSAYTA LAKE
NTS 93N/3, 4, 5 & 6
BRITISH COLUMBIA
Scale 1:100 000

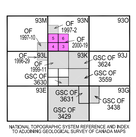
Kilometres 2 0 2 4 6 8 Kilometres
Universal Transverse Mercator Projection
Zone 10

Magnetic declination 1999, 23°29.5' East, decreasing 10' annually. Readings vary from 23°16.5' E in the SE corner to 23°42.7' in the NW corner of the map.

North American Datum 1983

Elevation in metres above mean sea level

Contour interval 100 metres



NATMAP
CARTNAT
Canada's National Geoscience Mapping Program
La Programme national de cartographie géoscientifique du Canada