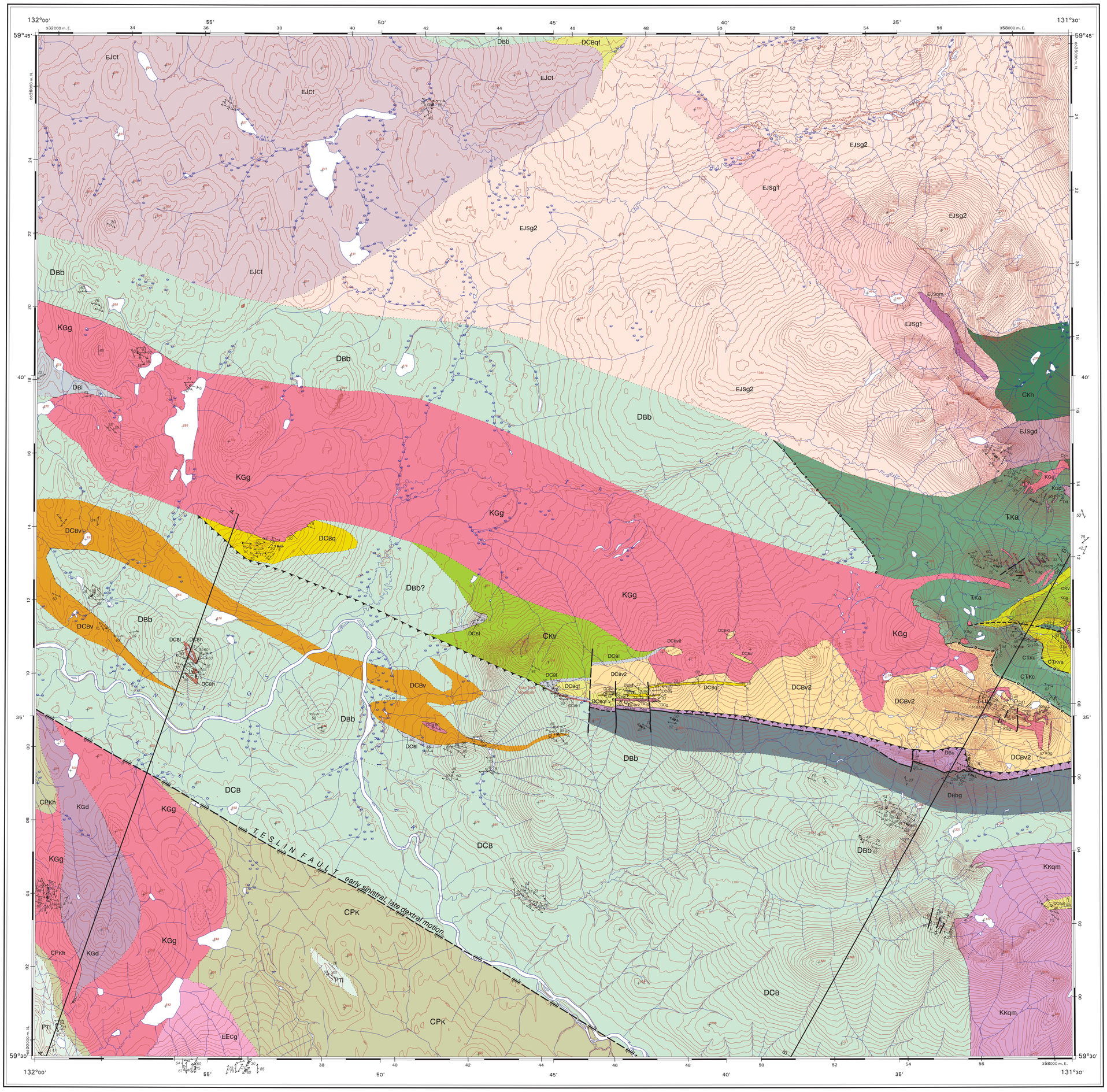
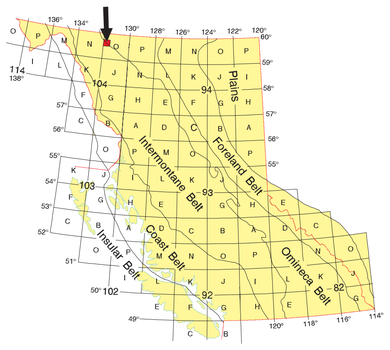
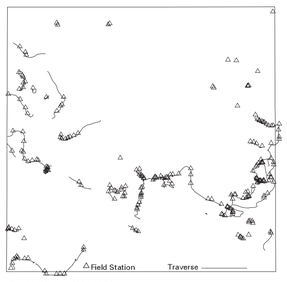


LOCATION MAP





RELIABILITY DIAGRAM
(See Note 3)

SOURCES OF INFORMATION:

Dixon-Warren, A. and Hickin, A. (2000a): Ancient Pacific Margin Part IV: Surficial mapping and till geochemistry in the Swift River area, northwestern British Columbia; in Geological Fieldwork 1999, *BC Ministry of Energy and Mines*, 2000-1, pages 47-69.

Dixon-Warren, A. and Hickin, A. (2000b): Surficial Geology of the Swift River area (104N/9, 16 and 104O NW); *BC Ministry of Energy and Mines*, Open File 2000-5.

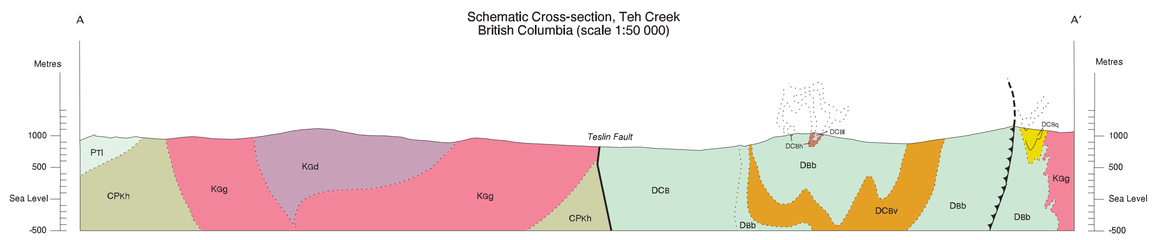
Gabrielse, H. (1969): Geology of Jennings River map-area; *Geological Survey of Canada*, Paper 68-55, 37 pages.

Roots, C.F., Harms, T.A., Simard, R.-L., Orchard, M.J. and Hearman, L.M. (2002): Constraints on the age of the Klinkit assemblage east of Teslin Lake, northern British Columbia; in Current Research, *Geological Survey of Canada*, 2002-A7, 11 pages.

Notes:
1. On this map we have endeavored to extend map contacts beneath the extensive surficial deposits that blanket much of the southern and western two thirds of the map area.
2. For information on the extensive surficial deposits in the area see Dixon-Warren and Hickin (2000a,b).
3. Outcrop distribution is also based on at least 20 low level over-flights.

104N16	1040-13	1040-14
OF 2001-4	OF 2000-6	OF 2002-2 / OF 2001-6
104N09 / OF 2001-5	1040-12 / OF 2001-17	1040-11
104N08	1040-05	1040-06

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE



Recommended citation:
Mihalynuk, M. G., Harms, T. A., Roots C. F., Nelson, J. L., de Keijzer, M., Friedman , R. M. and Gleeson, T. P. (2001): Geology of Teh Creek (NTS 104O/12); *British Columbia Ministry of Energy and Mines*, Open File 2001-17, scale 1:50 000.

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

BRITISH COLUMBIA
Ministry of Energy and Mines
Energy and Minerals Division

GEOLOGICAL SURVEY BRANCH

OPEN FILE 2001-17

GEOLOGY OF TEH CREEK
(NTS 104O/12)

Geology by Mitchell G. Mihalynuk, Tekla A. Harms, Charles F. Roots, JoAnne L. Nelson, Martin de Keijzer, Richard M. Friedman and Tom P. Gleeson

Digital cartography by Parm Dhesi (Geological Survey of Canada), and Mitchell G. Mihalynuk

Digital base map compiled by the Province of British Columbia, Ministry of Environment Land and Parks, modified by the Geological Survey of Canada

TRIM 51,52,53W,61,62,63W,71S,72S,73SW

Scale 1:50 000

1 0 1 2 3 4 Kilometres

Universal Transverse Mercator Projection
North American Datum 1983

Magnetic declination 2001, 25°39E, decreasing 17.3 annually.
Centre of the map

Elevations in metres above mean sea level

LEGEND

POST ACCRETIONARY UNITS

QUATERNARY

Qb — *Tuya Basalt: olivine basalt, tuff*

EOCENE

EECg — *Charlie Cole pluton: foliated granodiorite*

CRETACEOUS

KGg — *Hornblende granodiorite > hornblende diorite, quartz and biotite hornblende quartz monzonite and monzonite ~105 Ma, 110 Ma dikes (see Roots et al., 2002)*

Kgd — *Mainly hornblende > biotite quartz diorite*

KKqm — *Klinkit batholith: foliated biotite quartz monzonite*

LATE SYN - TO POST - ACCRETIONARY INTRUSIONS

EARLY JURASSIC

EJSgd — *Simpson Peak batholith: prophyritic tan to pink quartz monzonite weakly foliated hornblende > biotite granodiorite and quartz diorite ~185 Ma*

EJSqm — *Simpson Peak batholith: light grey to rust weathering, non-foliated quartz-biotite-feldspar quartz monzonite porphyry, medium grained phenocrysts in fine to aphanitic matrix*

EJSg1 — *Simpson Peak batholith: foliated, K-feldspar megacrystic granite*

EJSg2 — *Simpson Peak batholith: non-foliated K-feldspar porphyritic, granodiorite, quartz monzonite*

EJCt — *Foliated, pre-to syntectonic? Cocconino biotite-hornblende quartz diorite/tonalite ~196 Ma*

ATLIN COMPLEX - EXOTIC OCEANIC CRUSTAL ASSEMBLAGE

CARBONIFEROUS TO JURASSIC

PTl — *Permian Teslin Formation limestone, Tethyan fusulinids*

CPKh — *Carboniferous to Permian Kedahda Formation hemipelagite: chert, argillite, slate, quartzite; wacke interbedded with chert near Teslin Fault; hornfels near plutons*

CARBONIFEROUS TO TRIASSIC KLINKIT SUCCESSION

TRIASSIC

TKa — *Teh unit, argillite and chert member: black and rust weathering, locally graphitic and phyllitic; encloses unit* TKl

TKl — *Teh unit, limestone member: silty limestone includes quartzite and quartz-rich phyllite pebble conglomerate with carbonate matrix, clasts elongated up to 10:1. Contains Triassic conodonts in 104O/11*

CARBONIFEROUS TO TRIASSIC

CTKc — *Bigfoot unit: conglomerate with quartzite, quartz phyllite, and chert pebble and cobbles; tuffite; tuff*

CKv — *Butsih unit: green tuff, tuffite and lesser flows; minor Visean limestone in 104O/11; grades into* CTKva, *parts possibly correlative with* DCBv2

CKh — *Quartz-rich black clastics and argillite; commonly hornfelsed; may correlate with* CTKva

CTKva — *Quartz siltstone and volcanic siltstone; light purple grey to brown, commonly phyllitic and hornfelsed; where best preserved is well bedded (1-5cm), locally cross-bedded and graded. Similar to eastern most beds in* DCBv2 *near northern contact*

PRE-ACCRETIONARY UNITS

BIG SALMON COMPLEX - PERICRATONIC SEDIMENTS AND OVERLYING ARC COMPLEX

PRE-DEVONIAN TO CARBONIFEROUS

DCg — *Strongly deformed granitiod gneiss; includes ~340 Ma Bare Face quartz diorite (see Roots et al., 2002)*

DCB — *Devonian - Carboniferous Big Salmon Complex (undivided)*

DCBq — *Orthoquartzite with minor pelitic interlayers*

DCBv — *Dacite and andesite tuff and minor marble*

DCBv2 — *Andesite and basalt tuffite, tuff and lesser clastic sediments; includes zoned feldspar and hornblende megacrystic tuff and dykes; very well bedded in east to strongly foliated in west. Cut(?) by ~ 340 Ma Bare Face quartz diorite*

DCBl — *Marble, limestone, dolomite*

DCBh — *Crinkle chert, commonly containing piedmontite (manganiferous - epidote); traces of chalcopyrite are common.* DCBh? *denotes fine-grained quartzite, in part strongly foliated chert pebble conglomerate*

DBb — *Metabasalt, tuff, tuffite; locally metagrabbro or metadiorite as denoted by 'g'*

DBbg — *Basalt gabbro complex, mainly intrusive, minor pillowed flows*

DBu — *Serpentinized ultramafite, minor wehrilite cumulate*

DCBqf — *Quartzite, phyllite, biotite - muscovite - garnet schist, lesser tuff and marble; east of 'Bare Face Mountain' includes strongly deformed* CTKc(?)

SYMBOLS

- *Bedding, tops unknown: inclined, vertical*
- *Bedding, tops known*
- *Bedding, overturned*
- *Foliation, generation unknown, vertical*
- *Foliation: inclined, 1st phase, 2nd phase, 3rd phase*
- *Foliation, vertical 1st phase*
- *Fold, axial surface (no fabric)*
- *Dyke; inclined, vertical*
- *Lineation; 1st phase, 2nd phase, 3rd phase*
- *Clast elongation*
- *Fold; unspecified, 1st phase, 2nd, 3rd, 4th*
- *Crenulation cleavage intesection lineation; (in 1st phase, 2nd phase, 3rd phase folds)*
- *Mineral lineation: horizontal, plunging*
- *Fault Plane*
- *Jointing: inclined, vertical*
- *Shear band cleavage, dextral, sinistral, top up, top down, unspecified*
- *Axial cleavage, 2nd phase fold; 3rd phase fold: inclined, vertical*
- *Vein*
- *Geological contact: defined, approximate, assumed*
- *Unconformity contact*
- *Outcrop with observations*
- *Unspecified Fault: defined, approximate, inferred*
- *Thrust Fault: defined, approximate, inferred*
- *Folds: overturned synform,overturned antiform, phase noted if known*
- *Folds: antiform, synform, phase noted if known*
- *Facies boundary*
- *Topographic contour (20m, 100m interval)*
- *Esker (flow unkown, known)*
- *Isotopic age date sample site, U-Pb zircon (age in Ma)* — U-Pb ~55