



LEGEND

NOTE: In areas where the surficial cover forms a complex pattern, the area is coloured according to the dominant unit and labelled in descending order of cover (e.g. O-Tb). Where buried aggregate deposits (sand and gravel - commonly associated with Gt or Gh surficial units) are known, or suspected, areas are coloured according to the overlying unit and labelled in the following manner: Lv/Gd.

QUATERNARY
SURFICIAL DEPOSITS
POST LAST GLACIATION

NONGLACIAL ENVIRONMENTS

- O** **ORGANIC DEPOSITS:** Fen peat; 1 to 3 m thick on average; peat derived from sedges and partially decayed shrubs in a eutrophic environment; the plant material is in various stages of decomposition; generally occurs as flat, wet terrain (swamps) over poorly drained substrates; forms relatively open peatlands.
- Cv** **COLLUVIAL VENEER:** thin and discontinuous cover of slumped and/or soliflucted material <1 m thick; overlies bedrock or till.
- Ca** **Talus (scree):** accumulation of angular boulders below cliffs; generally 1 to 10 m thick or greater; usually forming fans or aprons.
- Ap** **ALLUVIAL DEPOSITS:** sorted gravel, sand, silt, and organic detritus deposited by streams; commonly stratified.
- L** **FLOODPLAIN DEPOSITS:** sorted gravel, sand, silt, and organic detritus >1 m thick; forming active floodplains close to river level with meander channels and scroll marks.
- L** **LACUSTRINE DEPOSITS:** sand, silt and minor clay deposited in a former lake; >1 m thick; occasionally overlain by organic deposits; exposed by recent fluctuations in lake levels.

POSTGLACIAL OR LATE WISCONSINAN

PROGLACIAL AND GLACIAL ENVIRONMENTS

- Gp** **GLACIOFLUVIAL DEPOSITS:** well to poorly stratified sand and gravel; minor diamicton; deposited behind, at, or in front of the ice margin by glacial meltwater; represent a potential aggregate source.
- Gt** **PROGLACIAL OUTWASH DEPOSITS:** generally 1 to 5 m thick; forming planar surfaces; generally mantle valley floors and surfaces adjacent to glacial meltwater channel margins.
- Gt** **OUTWASH TERRACE DEPOSITS:** 1 to 10 m thick; generally associated with meltwater channels and canyons; generally forming flat paired terraces perched above alluvial deposits.
- Gh** **ICE-CONTACT STRATIFIED DEPOSITS:** poorly-sorted sand and gravel with minor diamictons; 1 to >20 m thick; deposited in contact with the retreating glacier; forming hummocky topography related to melting of underlying ice.
- Gir** **ESKER DEPOSITS:** moderately sorted sand and gravel, 1 to >20 m thick; forming ridges. Formed by meltwater flow within tunnels or chasms in glacier ice.
- Git** **KAME TERRACE DEPOSITS:** 1 to 10 m thick; generally forming flat unpaired terraces on valley slopes.
- Tb** **TILL:** diamicton deposited directly by Cordilleran glaciers; sandy to clayey matrix with striated clasts of various lithologies.
- Tb** **Till blanket:** >1 m thick; continuous till cover forming undulating topography that locally obscures underlying units.
- Th** **Hummocky till:** >1m thick; hummocky to rolling till surface including discontinuous pockets of gravel.
- Tv** **Till veneer:** <1 m thick; discontinuous till cover; underlying bedrock topography is discernible.

PRE-QUATERNARY

- R** **Bedrock outcrop:** continuous bedrock outcrop; can include pockets of till or colluvium rarely exceeding 2 m thickness.

- Geological boundary (defined)
- Meltwater channel or underfit channel, small (paleoflow direction known, unknown)
- Meltwater channel, large (paleoflow direction unknown)
- Escarpment
- Esker (flow direction known)
- End moraine
- Minor moraine or crevasse filling
- Drumlin (ice flow direction known, unknown)
- Fluting (direction known, unknown)
- Striation (direction known)(coincide with some stations sites)
- Bedrock lineation
- Gravel pit
- Mineral occurrence
- Field observation (with and without samples)

Mineral Occurrence Index

MINFILE #	NAME	STATUS	Commodity
092P 050	BONAPARTE	Developed Prospect	Au, Cu, Mo
092P 102	FISHTRAP CREEK	Showing	Cu, Ni
092P 135	HOOP	Showing	Cu, Mo

Mineral occurrence data collected from the Government of British Columbia's web accessed database: <http://www.em.gov.bc.ca/Mining/Geosurv/Minfile>

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Geology by J.M. Bednarski, 2007–2008

Airphoto interpretation by J.M. Bednarski, 2007–2008

Compilation of geology was onto 1:20 000 orthorectified airphoto mosaic by J.M. Bednarski

Digital cartography by M.J. Coulthart, Data Dissemination Division (DDD)

This map was produced from processes that conform to the Scientific and Technical Publishing Services Subdivision (DDD) Quality Management System, registered to the ISO 9001: 2000 standard

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

Digital base map provided by the BC Watershed Atlas (1:50 000, TRIM base)

Shaded relief image prepared by DDD, derived from the digital elevation model supplied by L. Robertson, based on the TRIM topographic data
Illumination: azimuth 315°, altitude 45°, vertical factor 5x

Magnetic declination 2010, 17°30' E, decreasing 13.8° annually

Elevations in metres above sea level

**OPEN FILE
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GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA

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OPEN FILE 6279
SURFICIAL GEOLOGY
LOUIS CREEK (WEST HALF)
BRITISH COLUMBIA

Scale 1:50 000/Échelle 1/50 000

kilometres 1 0 1 2 3 4 kilometres

Universal Transverse Mercator Projection
North American Datum 1983
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Projection transversale universelle de Mercator
Système de référence géodésique nord-américain, 1983
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92 U/5	92 U/6	92 L/3

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