



OPEN FILE 6278  
SURFICIAL GEOLOGY  
**CHU CHUA CREEK (WEST HALF)**  
BRITISH COLUMBIA

Scale 1:50 000 / Échelle 1/50 000  
kilomètres 1 2 3 4 kilomètres  
Universal Transverse Mercator Projection / Projection transverse universelle de Mercator  
North American Datum 1983 / Système de référence géodésique nord-américain, 1983  
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92 P10	92 P9	82 M12
OF6173	OF6133	
92 P17	92 P8	82 M5
OF5839	OF6278	
92 P2	92 P11	82 M4
OF5932	OF6279	

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADDITIONAL GEOLOGICAL SURVEY OF CANADA MAPS

**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, Tv). 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: L1/Gd.

**QUATERNARY SURFICIAL DEPOSITS**  
POST LAST GLACIATION

**NONGLACIAL ENVIRONMENTS**

**O** **ORGANIC DEPOSITS:** *Fan peat: 1 to 3 m thick on average; peat derived from sedges and partially decayed straws in a autogenic 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.*

**COLLUVIAL DEPOSITS:** *diamicton and rubble; poorly sorted, massive to stratified debris deposited by direct, gravity-induced movement; composition dependant on source material.*

**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.*

**C** **Undifferentiated colluvial deposits:** *undivided landslide debris, colluvial veneer and talus.*

**ALLUVIAL DEPOSITS:** *sorted gravel, sand, minor silt, and organic detritus deposited by streams; commonly stratified.*

**Ap** **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.*

**Ad** **Deltaic sediments:** *stratified sand and gravel underlain by silt and clay; generally 2 to 15 m thick; occurring at the mouths of streams entering lakes.*

**Af** **Alluvial fan deposits:** *poorly sorted gravel, sand, and diamicton >1 m thick; occur where a stream issues from a narrow valley onto a plain or valley floor.*

**L<sup>1</sup>** **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**

**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** **Outwash terrace deposits:** *1 to 10 m thick; generally associated with meltwater channels and canyons; generally forming flat paired terraces perched above alluvial deposits.*

**Gb** **Glaciofluvial blanket:** *>1 m thick; obscures topography of underlying units.*

**Gih** **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 glacial ice.*

**TILL:** *diamicton deposited directly by Cordilleran glaciers; sandy to clayey matrix with stratified clasts of various lithologies.*

**Tb** **Till blanket:** *>1 m thick; continuous till cover forming undulating topography that locally obscures underlying units.*

**Ts** **Streamlined and fluted till:** *>1 m thick; till surface marked by streamlined landforms including flutings and drumlins.*

**Th** **Hummocky till:** *>1 m 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.*

**LEGEND**

- Geological boundary (defined)
- Meltwater channel or underfit channel, small (paleoflow direction known, unknown)
- Meltwater channel, large (paleoflow direction known, unknown)
- Kettle large, small
- Esker (flow direction known)
- End moraine
- Minor moraine or crevasse filling
- Drumlin (ice flow direction 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**

MINIFILE #	NAME	STATUS	Commodity
092P 013	HIDDEN CREEK	Showing	Au, Ag, Cu
092P 026	CEDAR SKARN	Showing	Cu, Ag, Au, Pb
092P 047	CENTRAL GOLDEN LOON VI AREA	Showing	Au, Ag, Pb, Cu
092P 048	GOLDEN LOON (MONTIGNY LAKE)	Showing	Au, Ag, Pb
092P 095	GOLDEN LOON 5	Showing	Au, Ag, Pb
092P 096	GOLDEN LOON 4	Showing	Zn, Cu, Pb
092P 097	GOLDEN LOON 3	Showing	Au, Ag
092P 103	G	Showing	Au, Ag, Pb
092P 106	THUYA	Showing	Cu
092P 119	GOLDEN LOON LOW GRADE ZONE	Showing	Au, Ag
092P 141	GOLDEN LOON HIGH GRADE ZONE	Showing	Au, Ag, Zn, Pb
092P 147	JANICE CREEK	Showing	Cu
092P 166	LATREMOUILLE	Showing	Cu, Ag, Au
092P 169	BILL	Showing	Au, Pb
092P 170	EAKIN CREEK COPPER	Showing	Cu, Ag, Pb
092P 172	CEDAR SHEETED VEINS	Showing	Au, Ag, Pb

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°35' E, decreasing 14.0' annually

Elevations in metres above sea level

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