



LEGEND

This legend is common to GSC Open File maps produced for NTS sheet 94 P.
Not all map units in the common legend appear on this map.

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. O²-Tr). Where buried aggregate deposits (sand and gravel - commonly associated with G1 or G2 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

ORGANIC DEPOSITS: peat and muck: 1 to 3 m thick on average; formed by the accumulation of plant material in various stages of decomposition; generally occurs as flat, wet terrain (swamps and bogs) over poorly drained substrates.

- O¹ Bog peat: sphagnum or forest peat formed in an ombrotrophic environment; wet terrain; may be treed or treeless; O¹h, hummocky, mounds and plateaus; area may be underlain by ground ice or shallow permafrost conditions; O¹k, thermokarst terrain related to melting ground ice.
- O² Fen peat: peat derived from sedges and partially decayed shrubs in a eutrophic environment; forms relatively open peatlands with a mineral-rich water table that persists seasonally near the surface; generally covered with low shrubs and sometimes a sparse layer of trees.
- O Undifferentiated bog and fen deposits: O¹h, undifferentiated hummocky bog and fen deposits; area may be underlain by ground ice or shallow permafrost conditions; O¹k, undifferentiated bog and fen deposits with thermokarst terrain related to melting of ground ice; O², undifferentiated bog and fen deposits out by numerous subparallel channels on gentle slopes.

COLLUVIAL DEPOSITS: mass wasting debris; poorly sorted, massive to stratified debris deposited by direct, gravity-induced movement; composition dependent on source material.

- Ch Landslide and slump debris: active and inactive landslides; hummocky topography; diamict, generally 1 to 10 m thick, but may exceed 10 m near the toe of large landslides.
- Cv Colluvial veneer: thin and discontinuous cover of slumped and/or soliflucted material <1 m thick; overlies bedrock or till.
- C Undifferentiated colluvial deposits.

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.
- At Fluvial terrace deposits: inactive terraces above modern floodplain; >2 m thick; represents a potential aggregate source.
- Al Alluvial fan deposits: poorly sorted gravel, sand, and organic detritus >1 m thick.
- Av Alluvium veneer: <1 m thick; primarily as uniform sheets of slope wash on gentle slopes.
- A Undifferentiated fluvial deposits.
- L¹ LACUSTRINE DEPOSITS: sand, silt, and minor clay deposited in a former lake; >1 m thick; generally overlain by organic deposits; exposed by recent fluctuations in lake levels.

NONGLACIAL AND PROGLACIAL ENVIRONMENTS

EOLIAN DEPOSITS: wind-deposited medium to fine sand, derived from detrital or glaciocolluvial deposits; in some areas eolian sediments are thin or absent between dunes.

- Er Ridged eolian deposits: forming dunes; generally >2 m thick.
- Ev Eolian veneer: discontinuous veneer of eolian sediments; <1 m thick.

POSTGLACIAL OR LATE WISCONSINAN PROGLACIAL AND GLACIAL ENVIRONMENTS

GLACIOLACUSTRINE DEPOSITS: fine sand, silt, and clay, with minor debris-flow diamict, deposited in glacier-dammed lakes in valleys and along the margin of the retreating Laurentide Ice Sheet; usually overlain by organic deposits in lowlands.

- Lb Glaciolacustrine blanket: >1 m thick.
- Lv Glaciolacustrine veneer: thin and discontinuous; <1 m thick.

GLACIOFLUVIAL DEPOSITS: well to poorly stratified sand and gravel; minor diamict; deposited behind, at, or in front of the ice margin by glacial meltwater; represents a potential aggregate source.

- G Proglacial outwash: cross-stratified gravel and sand deposited in front of the ice margin; G₁, outwash plain deposits; generally 1 to 5 m thick; generally mantle valley floors and surfaces adjacent to glacial meltwater channel margins; G₂, outwash terrace deposits, generally associated with meltwater channels and canyons; 1 to 10 m thick; G₃, glaciofluvial delta deposits; 1 to >30 m thick; G₄, glaciofluvial veneer thin and discontinuous; <1 m thick.
- Gl Ice-contact stratified drift: poorly-sorted sand and gravel with minor diamicts; deposited in contact with the retreating glacier; 1 to >50 m thick; G₁h, hummocky topography relating to melting of underlying ice; G₁k, surface marked by kettle holes; G₁l, esker ridges; G₁l, kame terraces; G₁l, ice-contact glaciofluvial delta deposits; 1 to >30 m thick, surface marked by kettles.

TILL: diamict deposited directly by the Laurentide Ice Sheet; sandy to clayey matrix with striated clasts of various lithologies, including many Canadian Shield, carbonate, and sandstone erratics; clast content is typically low (<10 %).

- 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 flutes and drumlins.
- Th Hummocky till: >1 m thick; hummocky till surface.
- Tr Ridged till deposits: >1 m thick, moraines or crevasse fillings forming a ridged topography.

- Tv Till veneer: <1 m thick, discontinuous till cover, underlying bedrock topography is discernible.

PRE-QUATERNARY BEDROCK

- R Sedimentary bedrock: Cretaceous Fort St. John Group shales (including the Shalestone Formation) and Devonian sandstone exposed in highlands and along meltwater channel and canyon walls.

- Geological boundary (defined, approximate)
- Escarpment
- Meltwater channel or underfit channel, small (paleoflow direction known, unknown)
- Meltwater channel, large (paleoflow direction known, unknown)
- Esker
- Major moraine
- Minor moraine or crevasse filling
- Flutings or drumlinoid ridges parallel to ice flow (direction known, unknown)
- Gravel pit
- Field observation site

OPEN FILE 5505
SURFICIAL GEOLOGY
KIMEA CREEK
BRITISH COLUMBIA

Scale 1:50 000/Échelle 1/50 000

Kilometres 0 1 2 3 4 Kilomètres
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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Geology by J.M. Bednarski, 2003-2005, with additional data provided by T. Farber, A.S. Hilde, and J.M. Lenson, Resource Development and Geoscience Branch, BC Energy, Mines, and Petroleum Resources

Airphoto interpretation by J.M. Bednarski, 2006

Compilation of geology was onto 1:40 000 orthorectified airphoto mosaic by J.M. Bednarski, 2006

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Digital elevation model supplied by J.M. Bednarski.
Illumination: azimuth 310°, altitude 45°, vertical factor 4.8x

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), modified by J.M. Bednarski

Magnetic declination 2007, 22°4' E, decreasing 23.9' annually

94 P13 OF4825	94 P14	94 P15	94 P16 OF5480
94 P17 OF4846	94 P18 OF5508	94 P19 OF5505	94 P20 OF5479
94 P21 OF5475	94 P22 OF5476	94 P23 OF5477	94 P24 OF5481

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

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