



- QUATERNARY**
- O** ORGANIC DEPOSITS: peat and organic mud; occurs beneath bogs and fens; organic deposits too small to be shown at the scale of this map; occur within other units; average thickness is 2-3 m thick, maximum thickness 10 m
  - Ap** Floodplain sediments: sand and silt; stratified to massive; these fine sediments typically overlie gravel and occur beneath flat surfaces close to river level; areas mapped as Ap are prone to periodic flooding
  - At** Alluvial terrace sediments: gravel overlain by thin silt and sand; well stratified; underlie flat surfaces well above river level
  - Af** Alluvial fan sediments: gravel, sand, and silt; poorly sorted; underlie fan-shaped surfaces at the toes of slopes where streams enter valleys; composition is dependent on source materials
  - Ax** Alluvial complex sediments: gravel, sand, and silt; a complex of Ap, At, and Af overlain and interdigitated with colluvium adjacent to steep slopes
  - Ch** Landslide deposits: diamicton, rubble, and silt resulting from slumps, rock falls, rock slides, or debris flows; surfaces are hummocky or irregular; deposits border steep slopes and are commonly > 5 m thick; composition is dependent on source materials
  - Cs** Colluvium on steep slopes (> 35°): rock fragments in a matrix of sand and silt (diamicton); poorly sorted, massive to weakly stratified; masses scarp and bluffs produced by erosion; the scarp and bluffs have developed mainly in unconsolidated sediments, commonly 2-5 m thick
  - Cv** Colluvial veneer: rock fragments in a matrix of sand and silt (diamicton); poorly sorted, discontinuous; commonly 1-2 m thick; occurs mainly on moderate to steep slopes (> 25°) in areas of till and bedrock; includes material derived from till and bedrock
  - L** Thick glacial lake sediments (> 2 m): cover of clay, silt, and sand thick enough to mask underlying topography; well stratified, commonly with rhythmic layering; surface expression undulating or hummocky; deposits locally typical
  - Lv** Veneer of glacial lake sediments: discontinuous, generally thin cover of clay and silt; stratified; includes localized, thicker deposits of gravel and sand deposited on and just off the shore of the former lake
  - G** Ice-contact sediments: sand and gravel deposited in contact with melting glacier ice; surfaces are irregular or hummocky and may include kettle depressions; locally include Gt more than 3 m thick; deposits consisting mainly of sand are labeled sg
  - gd** Deltaic sediments: sand; stratified; underlies the undulating to nearly flat surface of a delta built out into a glacial lake; the sand is more than 3 m thick on average and probably is underlain by gravel
  - Gt** Glaciofluvial terrace sediments: sand and gravel; stratified; occur beneath terraces interpreted to be glaciofluvial in origin because of their elevation above streams and rivers, their location along meltwater flow paths, or their associated eskers and kettles; average thickness is greater than 5 m
  - T** Till: sediments deposited directly from glacier ice; consists of rock fragments of a wide range of sizes in a sandy to clayey matrix (a sandy silt matrix is most common); includes colluvium on steep slopes, and glaciofluvial sediments in valley bottoms and where the channel symbol is shown
  - Tr** Thick till: cover of till thick enough to mask or partially mask underlying topography; surface expression undulating to linear (drumlin, drumlinoid ridges, flutes); more than 2 m thick
  - Tr** Ridged till: thick till underlying long irregular ridges that formed beneath or at the margin of a glacier; the ridges are approximately perpendicular to the direction of ice flow
  - Tv** Till veneer: fill with abundant bedrock outcrops; less than 2 m thick
- PRE-QUATERNARY**
- R** BEDROCK: sedimentary, volcanic, metamorphic, and intrusive rocks of Paleozoic through Cenozoic age

- SYMBOLS**
- Geological boundary (defined, approximate/assumed) .....
  - Landslide scar (large, small) .....
  - Abandoned or underfit stream channel, small (former meltwater cause; flow direction known, unknown) .....
  - Margin of terrace or large meltwater channel .....
  - Kettle (large, small) .....
  - Esker (water flow direction known, unknown) .....
  - Drumlin, drumlinoid, fluting (known or inferred direction of ice flow shown) .....
  - Glacial striae (known or inferred direction of ice flow shown) .....
  - Cirque .....



Geology by J.J. Clague, 1998  
 Digital cartography by Kazuharu Shimamura, Terrain Sciences Division  
 Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

OPEN FILE 3639  
**SURFICIAL GEOLOGY**  
**WEST ROAD (BLACKWATER) RIVER**  
 BRITISH COLUMBIA

Scale 1:100 000 - Échelle 1/100 000

Kilometres 2 4 6 8 Kilomètres

Transverse Mercator Projection  
 CM 123197, Scale Factor 0.9998  
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Digital base map from data compiled by Geomatics Canada, modified by the Terrain Sciences Division  
 Mean magnetic declination (1998): 22°07' E, increasing 3.2" annually. Readings vary from 22°04' E in the SW corner to 22°10' E in the NE corner of the map

Published 1998

939NE	939NW	939NE
939SE	939SW	939SE
939NE	939NW	939NE

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE

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