

**LEGEND**

**QUATERNARY**

**POST-FRASER GLACIATION**

**NONGLACIAL ENVIRONMENT**

- O** ORGANIC DEPOSITS: peat and muck; 1 to 10 m thick (typically 2 to 3 m) forming lens and logs; organic deposits too small to be shown at this scale occur within other units; common within abandoned meltwater channels.
- Ap** ALLUVIAL (FLUVIAL) DEPOSITS: gravel and sand with minor silt and clay, deposited by streams; commonly stratified; generally well sorted except in alluvial fans.
- Af** Floodplain sediments: sand and silt, commonly including organic materials and underlain, in many places, by gravel; 1 to 3 m thick; occurring as flat surfaces close to river level; prone to flooding.
- At** Fan sediments: poorly sorted sand and gravel, with diamicton; generally 2 to 15 m thick; forming fans at the toe of slopes.
- At** Terrace sediments: stratified sand and gravel overlain by a veneer of sand and silt; 2 to 10 m thick; forming terraces well above flood level.
- Ch** COLLUVIAL DEPOSITS: diamicton and rubble accumulated from various mass-wasting processes, ranging from slope wash to rock fall; composition dependent on source materials.
- Ch** Landslide debris: mostly unconsolidated sediments, with texture dependent on source materials; generally 1 to 10 m thick, but may exceed 10 m near the toe of large landslides; forming hummocky accumulations on lower slopes and valley floors; commonly developed in glacial lake sediments and fill.
- Cs** Slope colluvium: rock fragments in a matrix of sand, silt, and minor clay; 1 to 5 m thick; formed by reworking of unconsolidated deposits on steep (>47°) slopes; commonly gullied.
- Cv** Colluvium veneer: unconsolidated sediments, with texture dependent on source materials; generally less than 1 m thick; commonly developed on steep slopes.

**FRASER GLACIATION (WISCONSINAN)**

**PROGLACIAL AND GLACIAL ENVIRONMENTS**

- Lb** GLACIOLACUSTRINE DEPOSITS: well sorted, stratified sand, silt, and clay deposited in deep water of former glacial lakes; including apronic sand and gravel deposited in a nearshore environment; sand, silt, and clay commonly occur as rhythmites with rare debris-flow interbeds; outcrops are common on adjacent units; contacts between subunits Lb and Lv are gradational.
- Lb** Glaciolacustrine blanket: well sorted, stratified sand, silt, and clay; 3 to 10 m thick; reflecting topography of underlying units.
- Lv** Glaciolacustrine veneer: deep-water deposits of well sorted, stratified sand, silt, and clay overlain, in places, by shallow-water deposits of sand and gravel; occurring near limits of former glacial lakes; includes minor till outcrops; 1 to 3 m thick; reflects topography of underlying units; commonly developed on fill surfaces.
- Gt** GLACIOFLUVIAL DEPOSITS: sand and gravel, well to poorly sorted, and commonly stratified; deposited by glacial meltwater; bedding disrupted locally following the melting of supporting ice.
- Gt** Glaciolacustrine terrace sediments: sand and gravel, stratified to massive; 1 to 10 m thick; forming flat surfaces perched well above alluvial deposits or associated with meltwater channels.
- Gb** Glaciolacustrine blanket: sand and gravel, stratified to massive; generally 1 to 5 m thick; sediment cover is continuous, but the underlying morphology is visible; commonly located near the mouth of meltwater channels.
- Gh** Ice contact deposits: sand and gravel, stratified to massive and commonly faulted; generally greater than 3 m thick; forming hummocky, kettled surfaces or eskers.
- Gv** Glaciolacustrine veneer: made up of sand and gravel, well to poorly sorted, and commonly stratified; deposited by glacial meltwater; bedding disrupted locally following the melting of supporting ice, 1 to 3 m thick.

**GLACIAL ENVIRONMENT**

- Tm** TILL: poorly sorted diamicton consisting of pebbles, cobbles, and boulders in a sandy to clayey matrix directly deposited by glaciers; includes colluvium (reworked till) on steep slopes, and small inclusions of glaciolacustrine sediments, especially in valley bottoms and near the mouths and banks of meltwater channels; till surface is commonly fluted and drumlinized.
- Tm** Thick till, rolling: continuous till cover; greater than 3 m thick; masking the underlying topography; bedrock outcrops are rare.
- Tb** Till blanket: continuous till cover with few bedrock outcrops; 1 to 3 m thick on average; conforming to and locally obscuring topography of underlying units.
- Tv** Till veneer: discontinuous till cover with abundant bedrock outcrops; average thickness of 1 m; reflecting topography of underlying units, which is predominantly bedrock.

**PRE-QUATERNARY**

- R** BEDROCK: sedimentary, metamorphic, volcanic, and intrusive rocks of Precambrian(?) to Cenozoic age; including, in places a thin veneer of till and colluvium.

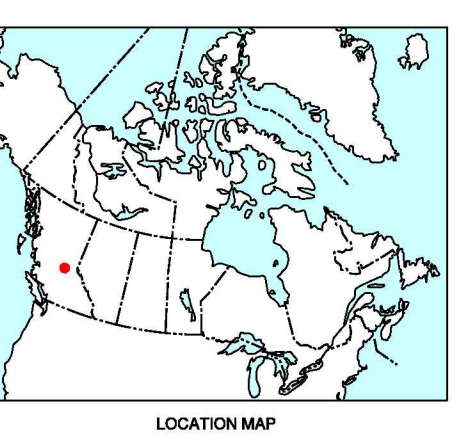
Geological boundary (defined) .....  
 Meltwater channel, large (direction unknown) .....  
 Meltwater channel, small (direction unknown) .....  
 Escarpment .....  
 Esker (direction unknown) .....  
 Landslide scar large .....  
 Drumlin (direction known, direction unknown) .....  
 Crag-and-tail .....  
 Outcrop .....  
 Field observation site .....  
 Gravel pit .....  
 Kettle hole .....  
 (circle with dot)

**ACKNOWLEDGMENTS**

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**REFERENCES**

Blais-Stevens, A. and Clague, J.J., 2007: Surficial geology, Cottonwood, British Columbia, Geological Survey of Canada, Open File 5270, scale 1:50 000.  
 2007: Surficial geology, Cottonwood Canyon, British Columbia, Geological Survey of Canada, Open File 5271, scale 1:50 000.  
 2007: Surficial geology, Hixon, British Columbia, Geological Survey of Canada, Open File 5272, scale 1:50 000.  
 2007: Surficial geology, Alhambra Lake, British Columbia, Geological Survey of Canada, Open File 5273, scale 1:50 000.



Authors: A. Blais-Stevens and J.J. Clague  
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OPEN FILE 5274  
 SURFICIAL GEOLOGY  
**SOUTHEASTERN PORTION OF THE PRINCE GEORGE MAP AREA**  
 BRITISH COLUMBIA

Scale 1:100 000/Echelle 1/100 000

Universal Transverse Mercator Projection  
 North American Datum 1983  
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Projection transversale universelle de Mercator  
 Système de référence géodésique nord-américain, 1983  
 © Sa Majesté la Reine du chef du Canada 2007

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

Digital base map from data compiled by Geomatics Canada, modified by DDD

The digital elevation data was obtained from www.geobase.ca  
 illumination: azimuth 315°, altitude 45°, vertical factor 1x

Mean magnetic declination 2007, 19°35' E, decreasing 15.7" annually.  
 Readings vary from 19°21' E in the SE corner to 19°49' E in the NW corner of the map.

Elevations above mean sea level are in feet (west half of map) and in metres (east half of map)

93 K	93 J	93 L
OF3183	OF2846	
OF3184	OF3182	
OF3688	OF3620	93 G
	OF3638	93 H
OF4157	OF4001	OF3639
		OF5274
	93 C	93 B
		93 A

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GEOLOGICAL SURVEY OF CANADA  
 COMMISSION GÉOLOGIQUE DU CANADA  
 2007

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 Blais-Stevens, A. and Clague, J.J., 2007: Surficial geology, southeastern portion of the Prince George map area, British Columbia, Geological Survey of Canada, Open File 5274, scale 1:100 000.