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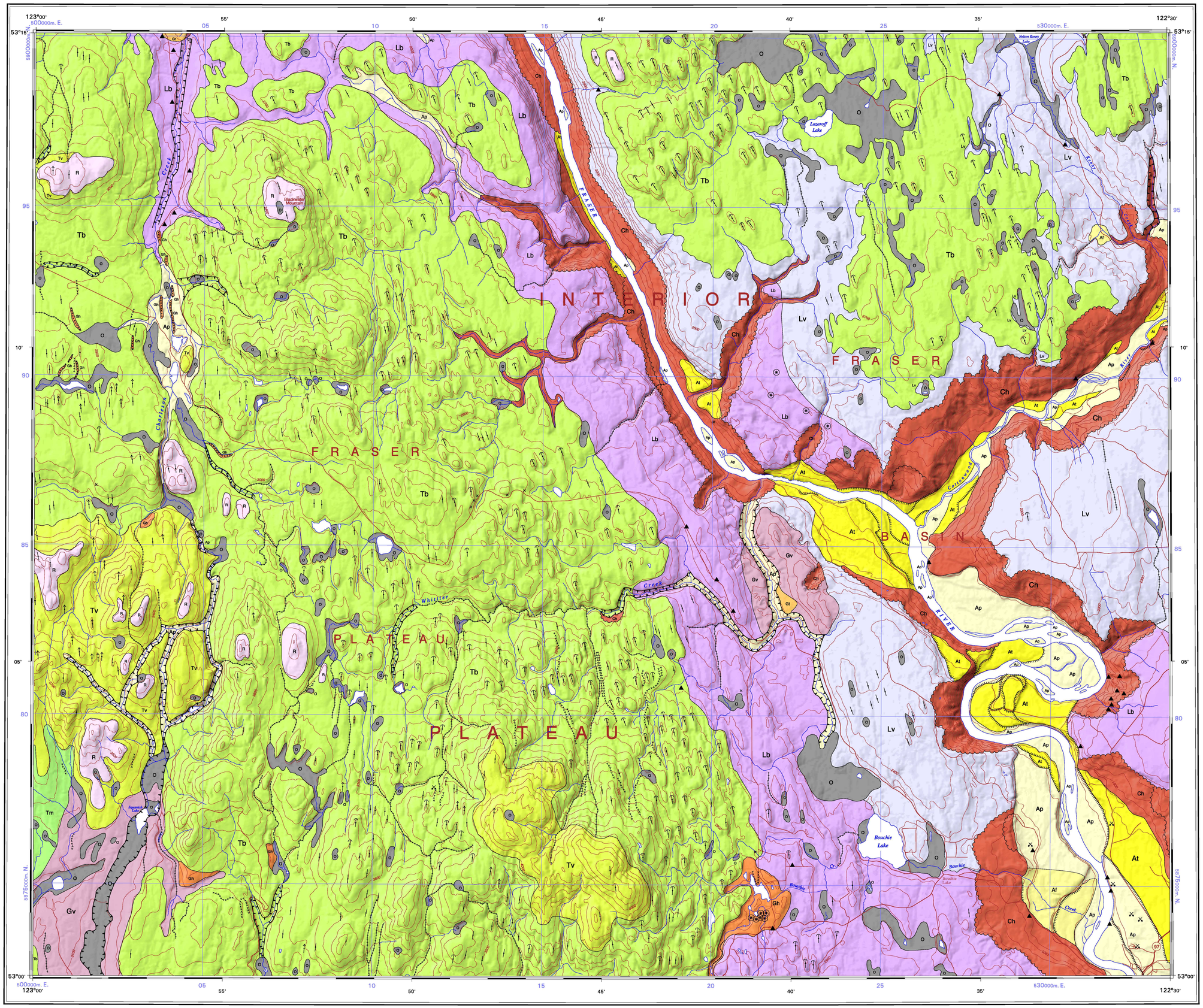
GEOLOGICAL SURVEY OF CANADA | COMMISSION GÉOLOGIQUE DU CANADA




## LEGEND

*This legend is common to Open files 5270 to 5273.*
*Coloured legend blocks indicate map units that appear on this map.*

**QUATERNARY**

**POST-FRASER GLACIATION**

**NONGLACIAL ENVIRONMENT**

**O** — ***ORGANIC DEPOSITS:*** *peat and muck; 1 to 10 m thick (typically 2 to 3 m) forming fens and bogs; organic deposits too small to be shown at this scale occur within other units; common within abandoned meltwater channels.*

***ALLUVIAL (FLUVIAL) DEPOSITS:*** *gravel and sand with minor silt and clay, deposited by streams; commonly stratified; generally well sorted except in alluvial fans.*

**Ap** — ***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.*

**Af** — ***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.*

***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 till.*

**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 (>40°) slopes; commonly gullied.*

**Cv** — ***Colluvium veneer:*** *unconsolidated sediments, with texture dependent on source materials; generally < 1 m thick; commonly developed on steep slopes.*

**FRASER GLACIATION (WISCONSINAN)**

**PROGLACIAL AND GLACIAL ENVIRONMENTS**

***GLACIOLACUSTRINE DEPOSITS:*** *well sorted, stratified sand, silt, and clay deposited in deep water of former glacial lakes; including sporadic sand and gravel deposited in a nearshore environment; sand, silt, and clay commonly occur as rhythmites with rare debris-flow interbeds; outliers 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 till surfaces.*

***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** — ***Glaciofluvial 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** — ***Glaciofluvial 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** — ***Glaciofluvial 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, 1-3 m thick.*

**GLACIAL ENVIRONMENT**

***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 glaciofluvial 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*

LOCATION MAP

**Authors: A. Blais-Stevens and J.J. Clague**

*Geology by A. Blais-Stevens, 2003–2005 and J.J. Clague, 1981–1986*

*Airphotos (1971 and 1977), interpretation by A. Blais-Stevens, 2003–2005 and J.J. Clague 1981–1986*

*Digital map compilation by F. Créac'hcadec and L. Robertson, GSC Northern Canada Division*

*Digital cartography by J.L. Dohar, Data Dissemination Division (DDD)*

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

OPEN FILE 5271

SURFICIAL GEOLOGY

# COTTONWOOD CANYON

BRITISH COLUMBIA

Scale 1:50 000/Échelle 1/50 000

kilometres 1 0 1 2 3 4 kilomètres

Universal Transverse Mercator Projection
North American Datum 1983


Projection transverse universelle de Mercator
Système de référence géodésique nord-américain, 1983


*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 from data compiled by Geomatics Canada, modified by DDD*

*Mean magnetic declination 2007, 19°34'E, decreasing 15.6' annually*

*Elevations in feet above mean sea level*

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|---|---|---|---|
| 93 G/11 | 93 G/10 | 93 G/9 | 93 H/12 |
| 93 G/6 | 93 G/7 OF 5272 | 93 G/8 OF 5273 | 93 H/5 |
| 93 G/3 | 93 G/2 OF 5271 | 93 G/1 OF 5270 | 93 H/4 |
| 93 B/14 | 93 B/15 | 93 B/16 | 93 A/13 |

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

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5271
GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA
2007

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