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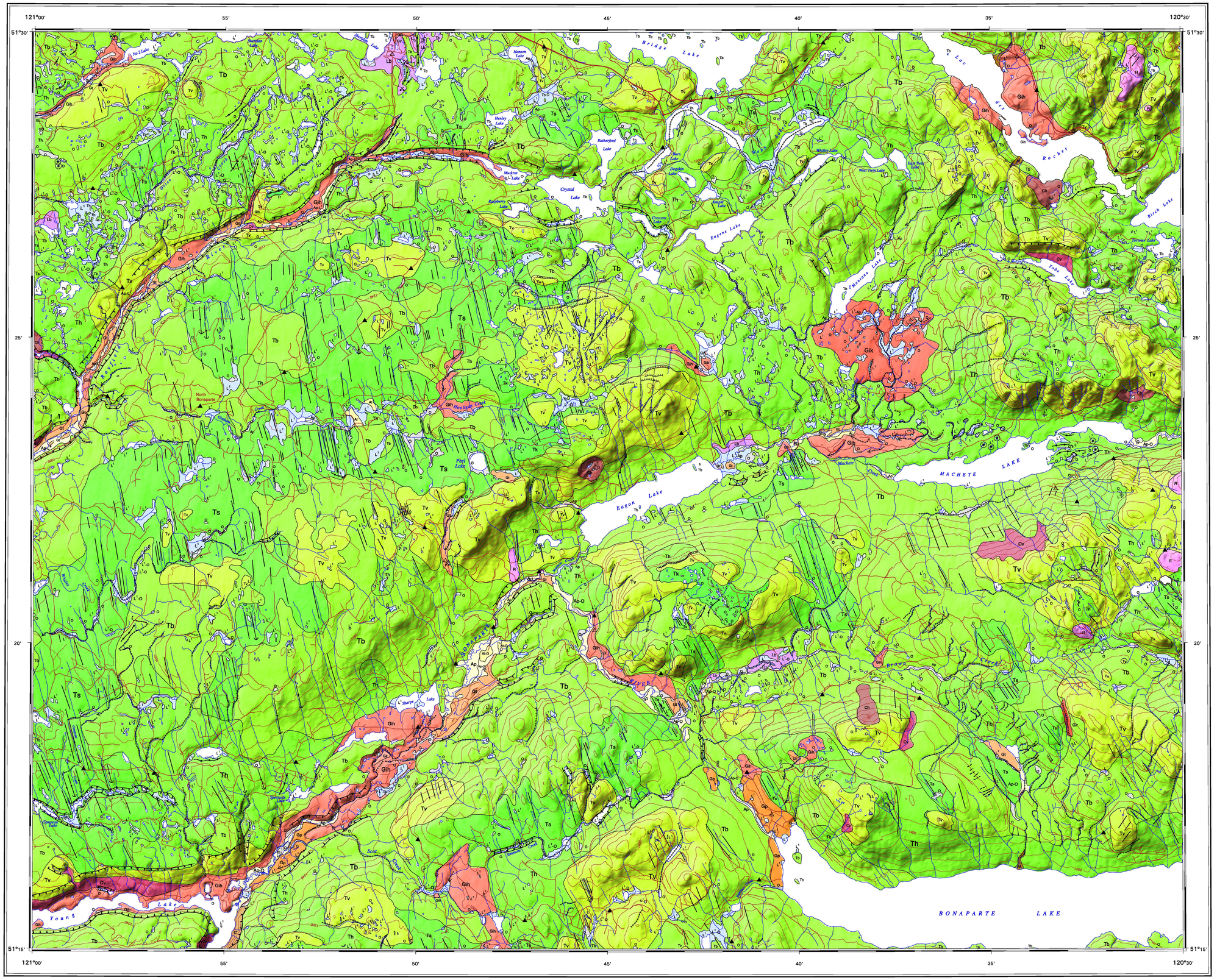
GEOLOGICAL SURVEY OF CANADA | COMMISSION GÉOLOGIQUE DU CANADA



LOCATION MAP

Author: J.M. Bednarski

Geology by J.M. Bednarski, 2007

Airphoto interpretation by J.M. Bednarski, 2007 - 2008

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

Digital cartography by J.D. Narraway, 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

OPEN FILE 5839

SURFICIAL GEOLOGY

BRIDGE LAKE

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
© Her Majesty the Queen in Right of Canada 2009

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

Shaded relief image prepared by DDD, derived from the digital elevation model supplied by J.M. Bednarski, based on SRTM imagery
Illumination: azimuth 315°, altitude 35°, vertical factor 4.8x

Magnetic declination 2009, 17°54'E, decreasing 14.0' annually

Elevations in metres above sea level

92 P/11	92 P/10	92 P/9
92 P/6 OF5939	92 P/7 OF5839	92 P/8
92 P/3 OF5933	92 P/2 OF5932	92 P/1

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

LEGEND

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 Gd surficial units) are known, or suspected, areas are coloured according to the overlying unit and labelled in the following manner: Lv/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 shrubs in a eutrophic 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.*

Ch — ***Landslide and slump debris:*** *diamicton, generally 1 to 10 m thick, but may exceed 10 m near the toe of large landslides; hummocky topography; includes active and inactive 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:*** *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.*

At — ***Fluvial terrace deposits:*** *>2 m thick; forming inactive terraces above modern floodplain; represents a potential aggregate source.*

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

L^1 — ***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

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

Lb — ***Glaciolacustrine blanket:*** *>1 m thick; obscurs topography of underlying units.*

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

Gp — ***Proglacial outwash deposits:*** *generally 1 to 5 m thick; forming planar surfaces; generally mantle valley floors and surfaces adjacent to glacial meltwater channel margins.*

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

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 relating to melting of underlying ice.*

Gik — ***Ice-contact stratified deposits with kettles:*** *same as Gih, but the surface is marked with kettles.*

Gir — ***Esker deposits:*** *1 to >20 m thick; forming ridges.*

Git — ***Kame terrace deposits:*** *1 to 10 m thick; generally forming flat unpaired terraces on valley slopes.*

TILL: *diamicton deposited directly by Cordilleran glaciers; sandy to clayey matrix with striated 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:*** *>1m thick; hummocky to rolling till surface including discontinuous pockets of gravel.*

Tk — ***Kettled till:*** *>1 m thick till; hummocky moraine pocked with numerous lakes.*

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

R — ***Bedrock outcrop:*** *continuous bedrock outcrop; can include pockets of till or colluvium rarely exceeding 2 m thickness.*

Geological boundary (defined)
Major landslide
Meltwater channel or underfit channel, small (paleoflow direction known, unknown)
Meltwater channel, large (paleoflow direction known, unknown)
Lateral meltwater channel
Escarpment
Kettle large, small
Esker
Major moraine
Minor moraine or crevasse filling
Drumlin (ice flow direction known, unknown)
Crag-and-tail
Fluting
Striation sites (direction known)(coincide with some stations sites)
Bedrock lineation
Gravel pit
Field observation site (with and without samples)

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2009

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