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**NATMAP**
**CARTNAT**
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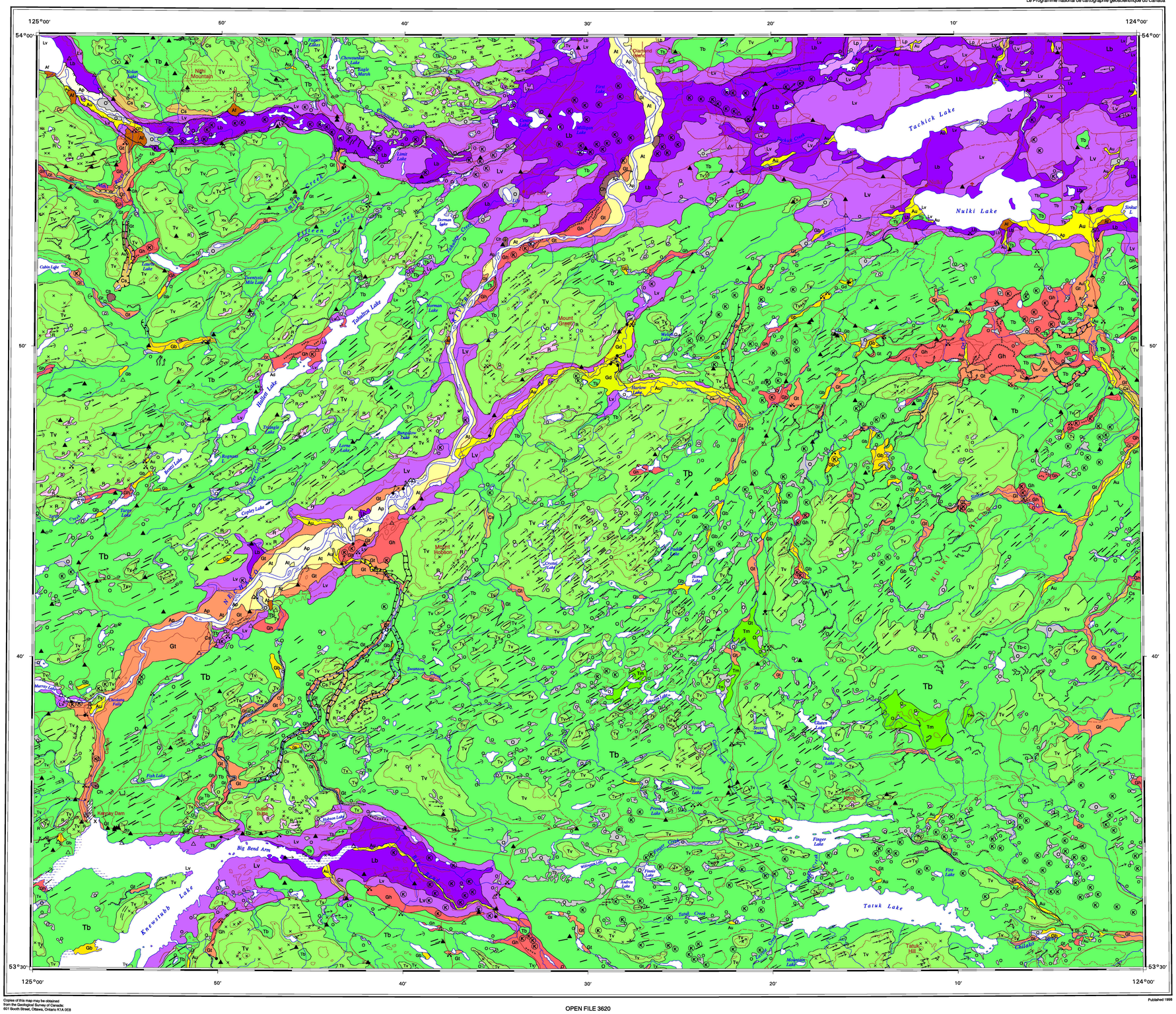


Copies of this map may be obtained from the Geological Survey of Canada; 601 Booth Street, Ottawa, Ontario K1A 0E8

LOCATION MAP

Geology by A. Plouffe, 1996, 1997

Co-ordinated by L.C. Struik through the auspices of the Nechako NATMAP Project

Digital map compilation by A. Moore, Geological Survey of Canada

Digital cartography by E. Everett, Geoscience Information Division

Electrostatic plot produced by the Geoscience Information Division

OPEN FILE 3620

SURFICIAL GEOLOGY

# TAHULTZU LAKE

BRITISH COLUMBIA

Scale 1:100 000/Échelle 1/100 000

kilometres 2 0 2 4 6 8 kilomètres

Universal Transverse Mercator Projection / Projection transverse universelle de Mercator

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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 from data compiled by Geomatics Canada, modified by the Geoscience Information Division

Mean magnetic declination 1998, 22°35′E, decreasing 8.5′ annually. Readings vary from 22°21′E in the SE corner to 22°49′E in the NW corner of the map

| | | | |
|---|---|---|---|
| 93 M/NE | 93 N/NW | 93 N/NE | 93-O/NW |
| 93 M/SE | 93 N/SW OF 3071 | 93 N/SE OF 2842 | 93-O/SW |
| 93 L/NE | 93 K/NW OF 3183 | 93 K/NE OF 2846 | 93 J/NW |
| 93 L/SE | 93 K/SW OF 3184 | 93 K/SE OF 3182 | 93 J/SW |
| 93 E/NE | 93F/NW | 93 F/NE OF 3620 | 93 G/NW |

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

## LEGEND

QUATERNARY
POST FRASER GLACIATION

NONGLACIAL ENVIRONMENT

**X** — *ANTHROPOGENIC DEPOSITS:* Rubble, diamicton, and gravel, 1 to 10 m thick, forming flat and steep surfaces, emplaced by human activity

**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; occurs as flat surfaces close to river level; prone to flooding

**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

**Ad** — *Deltaic sediments:* stratified sand and gravel underlain by silt and clay; 2 to 5 m thick on average; occur at the mouth of streams entering lakes

**Af** — *Fan sediments:* poorly sorted sand and gravel, with diamicton; 2 to 15 m thick on average; forming fans at the toes of slopes

**Au** — *Alluvial sediments, undivided:* undivided floodplain, terrace, deltaic and fan sediments

*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 toes of large landslides; forming hummocky accumulations on lower slopes and valley floors; commonly developed in glaciolacustrine sediments

**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

FRASER GLACIATION (WISCONSINAN)

PROGLACIAL AND GLACIAL ENVIRONMENT

*GLACIOLACUSTRINE DEPOSITS:* Well sorted, stratified sand, silt, and clay deposited in deep water of former glacial lakes and include sporadic sand and gravel deposited in the nearshore environment; the sand, silt and clay commonly occur as rhythmites with rare debris flow interbeds; outliers are common on adjacent units; contacts between subunits **Lp**, **Lb**, and **Lv** are gradational

**Lp** — *Glaciolacustrine plain:* well sorted, stratified sand, silt, and clay; generally > 10 m thick; masks the underlying topography; locally incised

**Lb** — *Glaciolacustrine blanket:* well sorted, stratified sand, silt, and clay; 3 to 10 m thick; reflects 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; occurs near limits of former glacial lakes; includes minor till outcrops; 1 to 3 m thick; reflects topography of underlying units

*GLACIOFLUVIAL DEPOSITS:* Sand and gravel, well to poorly sorted, deposited by glacial meltwater; commonly well to crudely stratified; bedding disrupted locally following the melting of supporting ice

**Gt** — *Glaciofluvial terrace sediments:* sand and gravel, stratified to massive; 1 to 10 m thick; perched 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

**Gd** — *Proglacial deltaic sediments:* sand and gravel with minor silt and clay; commonly overlies glaciolacustrine silt and clay; 5 to 10 m thick; forming slightly inclined surfaces

**Gh** — *Ice contact deposits:* sand and gravel, stratified to massive and commonly faulted; generally greater than 3 m thick; forming hummocky and kettled surfaces

GLACIAL ENVIRONMENT

*TILL:* Pebbles, cobbles, and boulders in a sandy to clayey matrix; includes colluvium (reworked till) on steep slopes and small inclusions of glaciofluvial sediments, especially in valley bottoms and near the mouth and banks of meltwater channels. The till surface is commonly fluted and drumlinized. Suffix -c denotes the presence of abundant meltwater channels (e.g. **Tv-c**)

**Tm** — *Thick till, rolling:* till cover; greater than 3 m thick; masks the underlying topography; bedrock outcrops are rare

**Tb** — *Till blanket:* continuous till cover with few bedrock outcrops; 1 to 3 m thick on average; conforms to and locally obscures topography of underlying units

**Tv** — *Till veneer:* discontinuous till cover with abundant bedrock outcrops; average thickness of 1 m; reflects topography of underlying units which is predominantly bedrock

PRE-QUATERNARY

*BEDROCK:* Sedimentary, metamorphic, volcanic, and intrusive rocks of Precambrian to Cenozoic age

**R** — *Bedrock:* outcrop; includes, in places, a thin veneer of till and colluvium

*Geological boundary*
*Dunes (inactive, non directional)*
*Landslide scar (small, large)*
*Buried valley*
*Paleocurrent direction (measured above the till of the last glaciation, and below)*
*Meltwater channel, small (flow direction known, unknown)*
*Meltwater channel, large (flow direction known, unknown)*
*Kettle hole (large, small)*
*Esker (direction of flow known, unknown)*
*Glacial fluting*
*Crag and tail*
*Drumlin (direction of flow known, unknown)*
*Glacial striae (direction of flow known, unknown)*
*Bedrock lineation*
*Outcrop*
*Gravel pit*
*Field observation site (with, without sample)*

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**3620**
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