Energy, Mines and Resources Canada
Énergie, Mines et Ressources Canada

GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA

STRATIGRAPHIC SECTIONS

1
- Silt and sand: fining upward with abundant soft sediment deformation features; minor gravel
- Diamicton: massive, clasts striated

river

2
- Sand, silt, and clay: coarsening upward, well bedded; abundant graded beds, dropstones throughout

covered
3 m to river

3
- Gravel: normally graded to silt
- Mixture of silt, sand, and diamicton
- Diamicton: stratified
- Gravel: very coarse, some fine gravel and sand
- Diamicton: stratified with sand and silt

covered
10 m to creek

4
- Gravel: normally graded to silt
- Sand with minor gravel: well stratified with abundant cut-and-fill structures, some soft sediment deformation features; lower contact erosive
- Diamicton: massive to stratified, striated clasts, sharp lower contact
- ? Gravel: boulder to pebble, imbricate to disorganized

5
- Gravel: normally graded to silt
- Sand,silt with minor gravel; chaotic and disorganized bedding with abundant soft sediment deformation structures throughout

river

6
- Sand and silt (cliff top deposit)
- Gravel: poorly sorted with some sand layers; dip angles up to 20°
- Diamicton: sharp lower contact, stratification marked by sand, silt, and gravel
- Gravel, sand, and diamicton: inter-stratified
- Sand, silt, and diamicton: inter-stratified, fining upward, abundant soft sediment deformation
- Diamicton: generally massive with some lenses, striated clasts

covered
5 m to river

7
- Gravel: normally graded to silt
- Sand and silt: a series of fining upward sequences from sand to silt, abundant ripples
- Diamicton: lower contact irregular
- Gravel: pebbles to cobbles, moderately sorted, and stratified
- Diamicton: clasts striated; massive
- Gravel: massive, poorly sorted

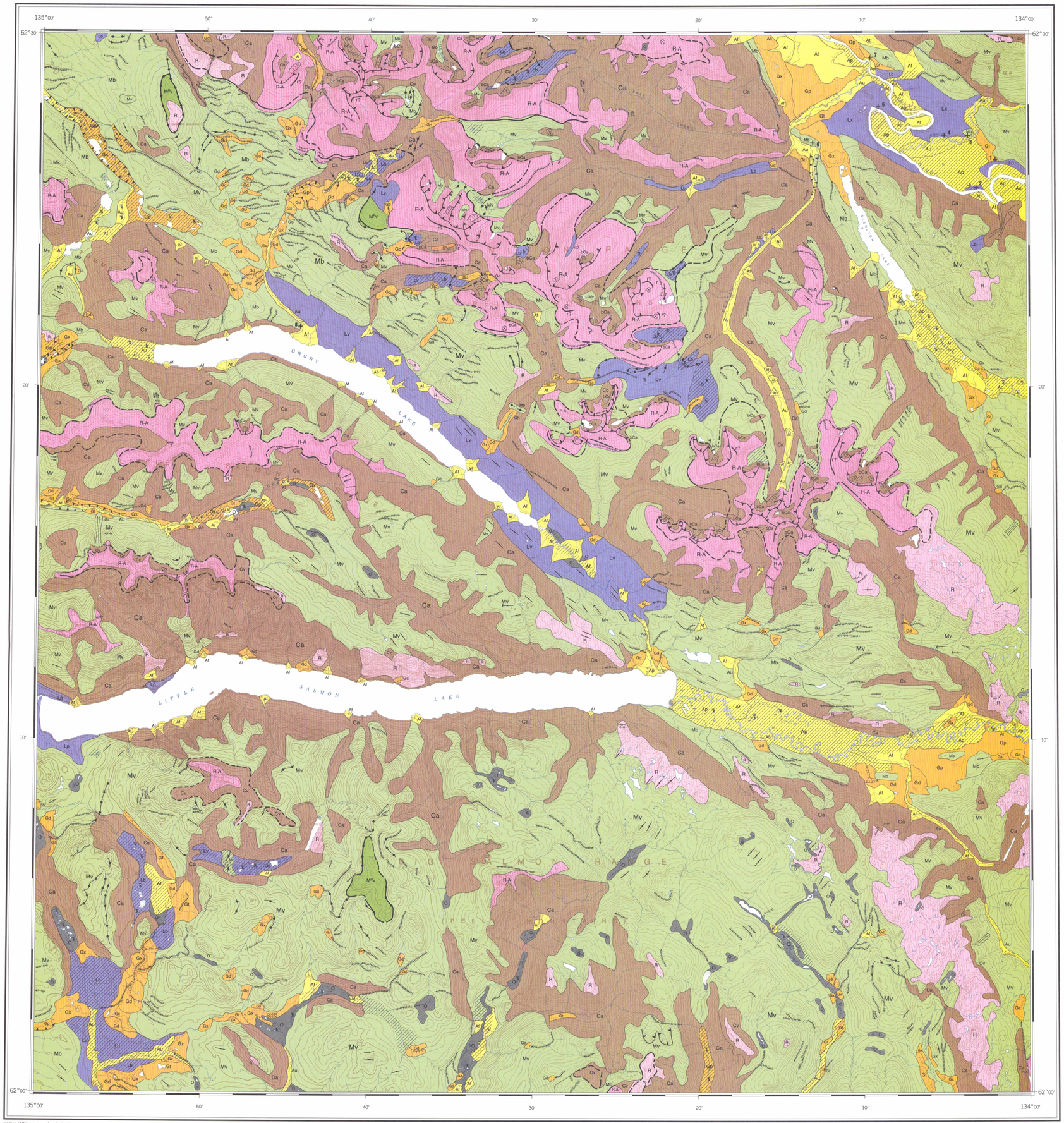
15 m to river

8
- Diamicton: clasts striated, massive
- ? Gravel: poorly sorted, weakly stratified, predominantly granitic clasts
- ? Sand, silt, and diamicton
- ? Diamicton: striated clasts, glacio-tectonic features at lower contact
- ? Gravel and sand: unit variable, some large scale deltaic foresets present, other areas are sand and silt; cut by abundant diapirs of silt and clay; lithologies dominated by weathered and grusified granitic clasts; abundant iron staining throughout

creek

Vertical scale (m): 30, 20, 10, 0

LEGEND
- Eolian sediments
- Glaciolacustrine sediments
- Glaciofluvial sediments
- Till
- Reid glaciolacustrine sediments
- Reid glaciofluvial sediments
- Reid till
- Bedrock



Geology by B.C. Ward and L.E. Jackson Jr., 1987-1989

Geological cartography by the Geological Survey of Canada

Colour separations were produced using digital methods

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

Base map assembled by the Geological Survey of Canada from maps 105 L/1 (1979), 105 L/2 (1976), 105 L/7, L/8 (1970), published at 1:50 000 scale by the Surveys and Mapping Branch

Copies of the topographical editions covering this map area may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, Ontario, K1A 0E9

Mean magnetic declination 1993, 29°42′ E, decreasing 11.5′ W annually. Readings vary from 29°26′ E in the SW corner to 29°59′ E in the NE corner of the map

Elevations in feet above mean sea level

LEGEND

This legend is common to maps 1786A to 1789A, coloured legend blocks indicate map units that appear on this map

QUATERNARY

HOLOCENE - POST McCONNELL GLACIATION

O — ***ORGANIC DEPOSITS:*** *peat and muck several metres to tens of metres thick; formed predominantly by the accumulation of vegetative material in bogs and fens, depressions and valley bottoms. Permafrost is commonly present within 1 m of the surface in blanket bog; thermokarst collapse and palsa growth are common in bogs and fens*

E — ***EOLIAN DEPOSITS:*** *well sorted sand transported and deposited by wind action; greater than 1 m thick and generally forming parabolic and linear dunes*

COLLUVIAL DEPOSITS: *stony diamicton or rubble resulting from the breakdown of bedrock through physical and chemical weathering and the downslope movement of previously deposited surficial material; variably reworked and transported by gravitational processes such as creep, solifluction, debris flow, snow avalanching, and rockfall*

Cb — ***Colluvial blanket sediments:*** *diamicton or rubble; greater than 1 m thick*

Cv — ***Colluvial veneer sediments:*** *diamicton or rubble; less than 1 m thick and/or discontinuous*

Ca — ***Colluvial apron sediments:*** *bouldery diamicton, poorly sorted sand and gravel forming a wedge-like slope-toe complex of small steep debris flow and avalanche-dominated fans and solifluction deposits ranging from less than 1 m at the upslope limit to 10 m or more in the thickest part of the apron*

bCa — ***Rockfall deposits:*** *bouldery, angular rockfall deposits that form aprons up to 10 m or more in maximum thickness along the bases of steep slopes*

ALLUVIAL DEPOSITS: *gravel to silt size sediments deposited by streams; deposits are commonly stratified and moderately to well sorted, except for some alluvial fan deposits*

Ap — ***Floodplain sediments:*** *cobble to pebble gravel capped by sand and silt; greater than 1 m thick; includes lacustrine and organic deposits in abandoned channels and bog and fen areas; floodplain deposits subject to periodic inundation and reworking by floods*

At — ***Alluvial terrace sediments:*** *cobble to pebble gravel capped by sand and silt; greater than 1 m thick; underlies one or more benches along the margins of active floodplains*

Af — ***Alluvial fan sediments:*** *gravel, sand, silt, and diamicton up to 10 m or more thick; alluvial fans subject to stream avulsion and flooding and, on smaller and steeper fans, inundation by debris flows*

Au — ***Alluvial sediments, undivided:*** *floodplains, fans, and terraces that cannot be subdivided at this map scale*

WISCONSINAN - McCONNELL GLACIATION

GLACIOLACUSTRINE DEPOSITS: *well stratified sand, silt, clay, and minor gravel and diamicton deposited in lakes ponded by glacial ice; sediments may have regular surfaces or have ridged, hummocky, or pitted surfaces caused by meltout of buried glacial ice. They commonly contain segregated ground ice and are affected by contemporary thermokarst collapse and retrogressive thaw flow slides along rivers*

Lp — ***Glaciolacustrine plain:*** *sand, silt, and clay with minor dropstones; 5 m or more thick*

Lb — ***Glaciolacustrine blanket:*** *silt and clay with minor sand; 1 to 5 m thick*

Lv — ***Glaciolacustrine veneer:*** *silt and clay; less than 1 m thick or discontinuous*

Lx — ***Glaciolacustrine complex:*** *sand, silt, and clay; hummocky, pitted, and ridged; comprises up to 10 per cent gravel and diamicton layers and lenses and dropstones; usually more than 5 m thick*

GLACIOFLUVIAL DEPOSITS: *sand, gravel, and minor silt, greater than 1 m thick, deposited by streams flowing from or in contact with glacial ice, including deltas graded to former glacial lake levels. Sorting ranges from good to poor and stratification from thin bedded to massive. Sediments commonly display evidence of syndepositional collapse due to meltout of buried or supporting ice*

Gp — ***Glaciofluvial plain and fan sediments:*** *pebble to cobble gravel capped by sand and silt; greater than 1 m thick*

Gt — ***Glaciofluvial terrace sediments:*** *pebble to cobble gravel capped by sand and silt; greater than 1 m thick*

Gd — ***Glaciofluvial delta:*** *sand, gravel, and minor silt and clay; greater than 5 m thick*

Gx — ***Glaciofluvial complex:*** *sand, gravel, diamicton, and minor silt and clay; greater than 5 m thick; forming hummocks, kettles, esker and crevasse-fill ridges; includes minor elements of* Gp *and* Gt

MORAINAL DEPOSITS: *glacial diamicton, mainly till, generally consisting of a silty sandy matrix containing pebbles, cobbles, and minor boulders; deposited either directly by glacial ice or by gravity flow from glacier ice*

Mb — ***Till blanket:*** *greater than 1 m thick but conforming to the underlying topography*

Mv — ***Till veneer:*** *less than 1 m thick or discontinuous; in places contains extensive areas of thin (less than 1 m) and patchy colluvium*

MIDDLE PLEISTOCENE - REID GLACIATION

GRd — ***GLACIOFLUVIAL SEDIMENTS:*** *sand, gravel, and minor silt and clay; greater than 5 m thick; deposited as deltas by meltwater streams entering glacial and proglacial lakes*

MPlv — ***MORAINAL DEPOSITS:*** *glacial diamicton, mainly till, generally consisting of a silty sandy matrix containing pebbles, cobbles, and minor boulders; less than 1 m thick or discontinuous; in places contains extensive areas of thin (less than 1 m) and patchy colluvium*

EARLY PLEISTOCENE - PRE-REID GLACIATION

MPRv — ***MORAINAL DEPOSITS:*** *glacial diamicton, mainly till, generally consisting of a silty sandy matrix containing pebbles, cobbles, and minor boulders; many of the clasts are highly weathered; less than 1 m thick or discontinuous; in places contains extensive areas of thin (less than 1 m) and patchy colluvium*

PALEOZOIC TO TERTIARY

R — ***BEDROCK:*** *includes areas of thin colluvial cover blockfields and sorted stone polygons in alpine areas*

R-A — *Bedrock areas subject to rapid mass wasting processes (rockfall and snow avalanches)*

Geological boundary
Cirque
Arête
Streamlined glacial bedform (ice flow direction known, unknown)
Moraine (McConnell glaciation, Reid glaciation)
Glacial limits
McConnell (defined, approximate, assumed)
McConnell coincident with moraine
Reid (defined
Esker (flow direction defined, undefined)
Subglacial and proglacial meltwater channel,
McConnell (large, small, single wall of large channel), arrow indicates flow direction
Reid (small) arrow indicates flow direction
Terrace (marking stages of formation)
Discontinuous organic deposits generally less than 1 m thick
Rock glacier
Landslide (arrow indicates direction of movement)
Tor
Thermokarst collapse activity
Location of stratigraphic section 2+

Published 1993

Copies of this map may be obtained from the Geological Survey of Canada:
601 Booth Street, Ottawa, Ontario K1A 0E8
3303-33rd Street, N.W., Calgary, Alberta T2L 2A7
100 West Pender Street, Vancouver, B.C. V6B 1R8

LOCATION MAP

MAP 1789A

SURFICIAL GEOLOGY

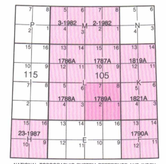
TELEGRAPH MOUNTAIN

YUKON TERRITORY

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



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

Recommended citation:
Ward, B.C., and Jackson, L.E., Jr.
1993: Surficial geology, Telegraph Mountain, Yukon Territory; Geological Survey of Canada, Map 1789A, scale 1:100 000

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