

LEGEND

- QUATERNARY**
- POST-FRASER GLACIATION**
- NON-GLACIAL**
- A** MODERN ALLUVIUM: sand, gravel, silt, and minor muck and peat, at or near present base-level (floodplain, channel, delta, and shoreline deposits)
 - F** FAN DEPOSITS: poorly sorted gravel, sand, silt, and clay; F, at or near present base-level; Fr, above present base-level
 - B** BOG DEPOSITS: muck, mucky peat, marl, and peat
 - S** LANDSLIDE DEPOSITS: blocks and rubble, mainly bedrock
- AF** ALLUVIUM-FAN COMPLEX sand, gravel, silt, and muck and peat
- FRASER GLACIATION**
- GLACIAL DRIFT**
- LACUSTRINE ENVIRONMENT**
- LACUSTRINE DEPOSITS UNDIFFERENTIATED:** silt, clay and sand
- Lt Lv** LACUSTRINE DEPOSITS: silt with minor clay and sand; Lt, deposits thick enough to mask underlying topography (generally more than 10 feet thick); Lv, thin veneer not masking underlying topography (generally less than 10 feet thick)
 - Lx** LACUSTRINE COMPLEX: silt, sand, and gravel; complex of deep water and shoreline deposits and features
 - Lc** COLLAPSED LACUSTRINE DEPOSITS: silt, sand, clay, and minor gravel; ridged and kettled deposits disrupted by melting of underlying ice
 - T** FLUVIAL ENVIRONMENT TERRACED DEPOSITS: gravel, sandy gravel, and sand; T, undifferentiated; Ts, stream terrace; Td, delta terrace
 - Tk** KETTLE TERRACE DEPOSITS: gravel, sandy gravel, and sand; includes kettled stream terrace, kettled delta terrace and kame terrace
 - W** RILL COMPLEX: lag gravels, channel-bottom gravels, areas of unmodified till, small areas of hummocky gravel, and local pockets of backwater silt (in general moraine deposits washed and channelled by meltwater)
 - H** HUMMOCKY GRAVELS: poorly sorted gravel and sand characterized by irregular hummocky and kettled topography; includes kames and eskers
 - M** GLACIAL ENVIRONMENT MORAINAL DEPOSITS: till with minor sand, gravel, and silt; M, undifferentiated; Mr, ridged (characterized by sharp ridges and kettles); Md, drumlinoid (characterized by streamlined forms)
- PRE-FRASER GLACIATION**
- GLACIAL AND NON-GLACIAL**
- "OLDER" UNCONSOLIDATED SEDIMENTS:** sand, silt, gravel, and till deposited prior to the last ice advance (generally overlain by Fraser and younger deposits); shown only where deposits contribute to the present geomorphology
- U** UNDIVIDED DEPOSITS: (forested areas mapped largely by airphoto interpretation); U, mainly undifferentiated moraine deposits but may contain small areas of younger deposits; Ur, mainly glacial, fluvial, and lacustrine environment deposits with ridged or kettled topographic expression
- Db** DRIFT BENCHES: glacial drift and older deposits; discontinuous benches of undetermined origin (may be constructional glacial or erosional "Older")

- Rock outcrop and areas of near-surface rock
- Geological boundary (defined, approximate, assumed)
- Glacial striae
- Trend of drumlinoid or streamlined feature (direction of ice movement known, unknown)
- Landslide escarpment
- Esker (direction of stream flow known)
- Meltwater channel (minor, major)
- Raised shoreline features
- Gravel pit (in Fraser and younger deposits, in Pre-Fraser deposits)

GEOMORPHIC LEGEND

MAP UNIT	TOPOGRAPHIC EXPRESSION	LOCAL RELIEF IN FEET	TOPOGRAPHIC SITUATION	MATERIAL
A	Flat Channels Low escarpments	10	Valley bottom Lake shore	Clay to gravel
F	Smoothly sloping fan Small channels Low escarpments	10	Valley sides Changes in stream gradient Stream junctions	Clay to gravel
B	Rounded or elongate form Flat surface	10	Closed depressions Seepage areas	Organic Silt
S	Hummocks and ridges Closed depressions Lobate or fan form	50	High relief areas of Tertiary bedrock	Landslide debris
L	Flat to gently rolling (depending on thickness and underlying topography)	10	Valleys	Clay to fine sand
Lc	Gently to sharply rolling	25	Valleys Valley wells	Silt to sand
T	Flat surfaced (escarpments between terrace levels)	10	Valley sides and bottoms Remnants of present floodplains	Sand and gravel
Tk	Flat to rolling Closed depressions Local escarpments	100+	Valley sides and bottoms	Sand and gravel
W	Small hummocks Channels	50	Valley slopes	Silt to gravel Till
H	Hummocks and ridges Closed depressions	100	Valley bottom and sides	Sand and gravel
M	Gently rolling Closed depressions	25	Valley sides Areas low to moderate relief	Till
Mr	Hummocks and ridges Closed depressions	25	Valley sides Areas low to moderate relief	Till
Md	Streamlined ridges and grooves Closed depressions	100+	Areas low to moderate relief	Till
	Flat to rolling (depending on degree of glacial mottling)	10-100+	Valley bottom fills Valley side benches Valley wall pockets	Clay to gravel Till

ENVIRONMENT - FACIES CLASSIFICATION OF GLACIAL DRIFT (DEPOSITS)

ENVIRONMENT	FACIES			
	Water	Water > ice	Ice > water	Ice
Lacustrine	Lt Lv		Lx	
	Lc			
Fluvial	Ts Td	Tk	W	H
		W		
Glacial				M Mr Md

Water facies—water is the depositing agent; forms are those of fluvial and lacustrine deposits
 Water > ice facies—water is the depositing agent; form of deposits is somewhat modified by presence of glacial ice
 Ice > water facies—water is the main depositing agent; depositional forms are completely modified or entirely controlled by presence of glacial ice
 Ice facies—ice is the main depositing agent; forms are those of ice deposited materials

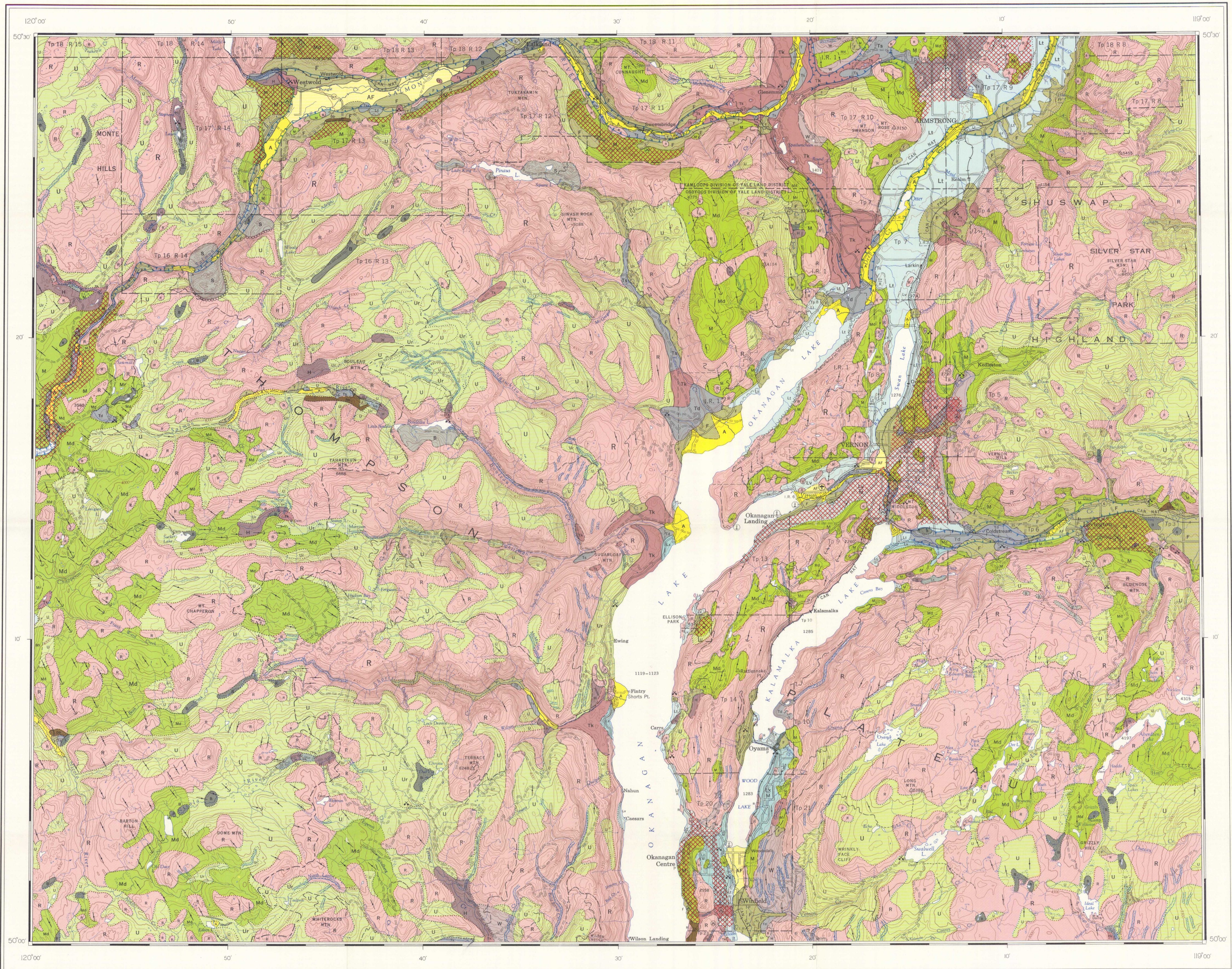
Geological observations by R.J. Fulton, 1963-65, A.A. Berti, 1964 and G.W. Smith, 1965

Published, 1969
 Copies of this map may be obtained from the Geological Survey of Canada, Ottawa

Compilation by R.J. Fulton, 1965

Geological cartography by the Geological Survey of Canada, 1968
 Base-map produced by Geographic Division, Surveys and Mapping Branch, Dept. of Lands and Forests, Victoria, B.C., 1958-59

Approximate magnetic declination 1968, 22°58' East decreasing 3.2' annually



MAP 1245A
 SURFICIAL GEOLOGY
VERNON
 WEST OF SIXTH MERIDIAN
 BRITISH COLUMBIA

Scale 1:126,720
 1 inch to 2 miles

Miles 0 2 4 6
 Kilometres 0 3 6 9

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1245A	1245A	1245A
92°E	82°E	82°E

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

VERNON
 BRITISH COLUMBIA

INDEX MAP