

QUATERNARY GEOLOGY NOTES

INTRODUCTION
The 1974 regional bedrock and surficial geology mapping program was initiated as part of the Nechako Plateau Geology Program to stimulate further exploration and define new mineralization targets in the Babine Lake area...

PHYSIOGRAPHIC SETTING
The glacial Babine and Hauste basins lie close to the northern edge of the Nechako Plateau. Three physiographic elements are common to these basins: broad valleys are occupied by underfit streams and lakes...

QUATERNARY STRATIGRAPHY
Six surficial sediment types occur in the study area: basal and supraglacial tills, glacialic debris flows, glaciofluvial, glaciolacustrine, colluvial, fluvial and organic deposits. The relative abundance and areal distribution of these sediments is physiographically constrained...

Pre-Late Wisconsinan Deposits
Pre-Late Wisconsinan fluvial and lake deposits are exposed on the Newman Peninsula in the vicinity of the Bell Lake open pit. Maximum thickness of these sediments provides an Ogygia neoglaciation interval age of ca. 14 ka (Harrington et al., 1974). These deposits rest unconformably on glacially eroded bedrock...

Late Wisconsinan Glacial Deposits
Late Wisconsinan glacial deposits include: dense, clay and silt-rich massive diamictites, interpreted as basal tills (e.g. log 3048); less compact, massive diamictites with prominent sandy matrix interpreted as washed basal and supraglacial tills (e.g. log 3039, 3070, 3197, 3255); and stratified diamictites interpreted as glacialic debris flows...

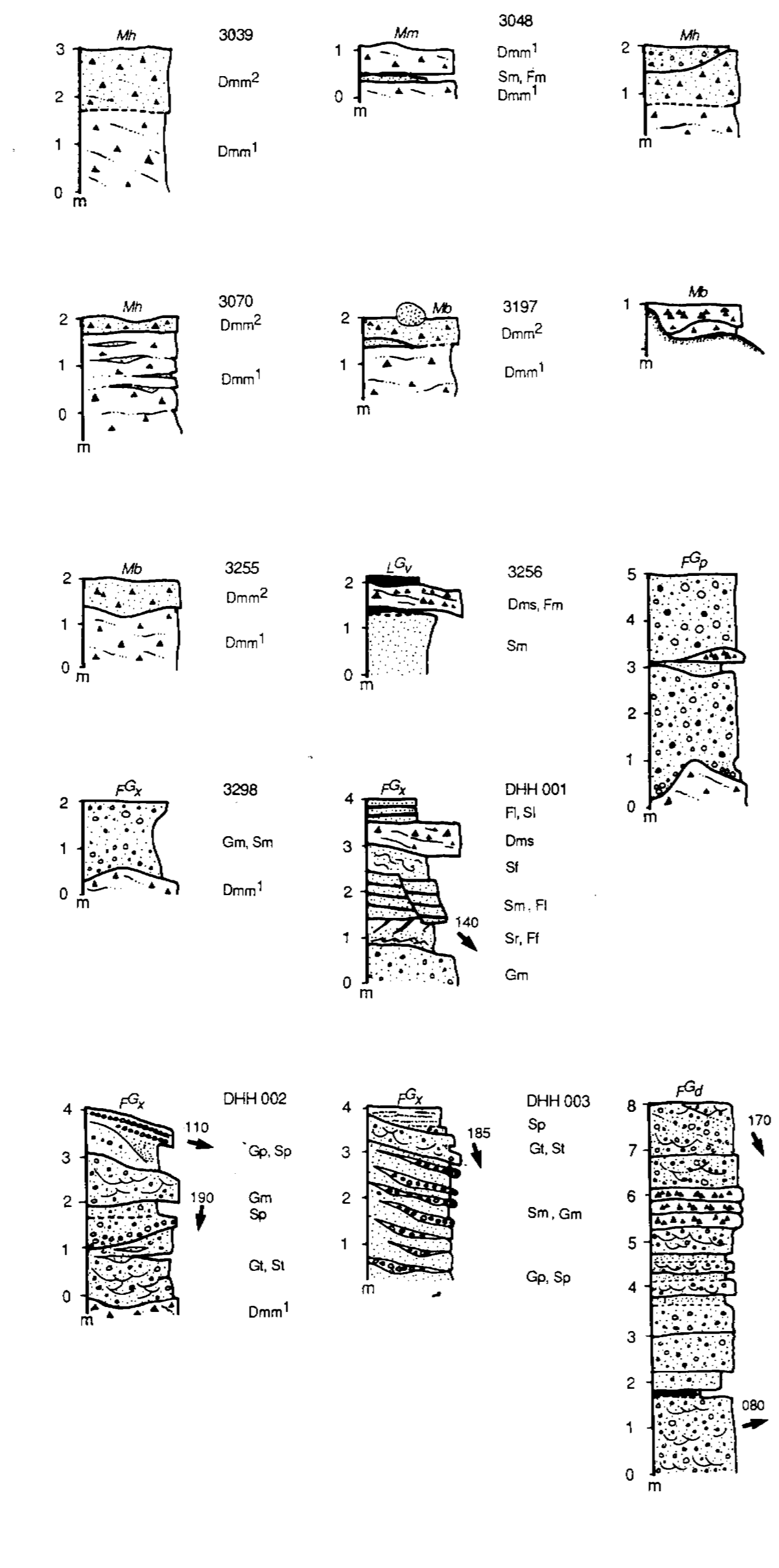
Late Wisconsinan Deglacial Deposits
Deglacial sequences include glaciofluvial and glaciolacustrine sediments. Interbedded clay-supported gravel, sand and siltstone, massive stratified, massive to laminated, and ripple-bedded sandstone and siltstone, and debris flow sequences (e.g. logs DHH 001, DHH 003)...

Holocene Deposits
Holocene deposits include a variety of colluvial, fluvial and organic sediments. Bedrock and glacial deposits on steep slopes are commonly overlain by colluvium. In the Babine and Hauste valleys, colluvial, glaciofluvial, and glaciolacustrine deposits are commonly overlain by Holocene deposits...

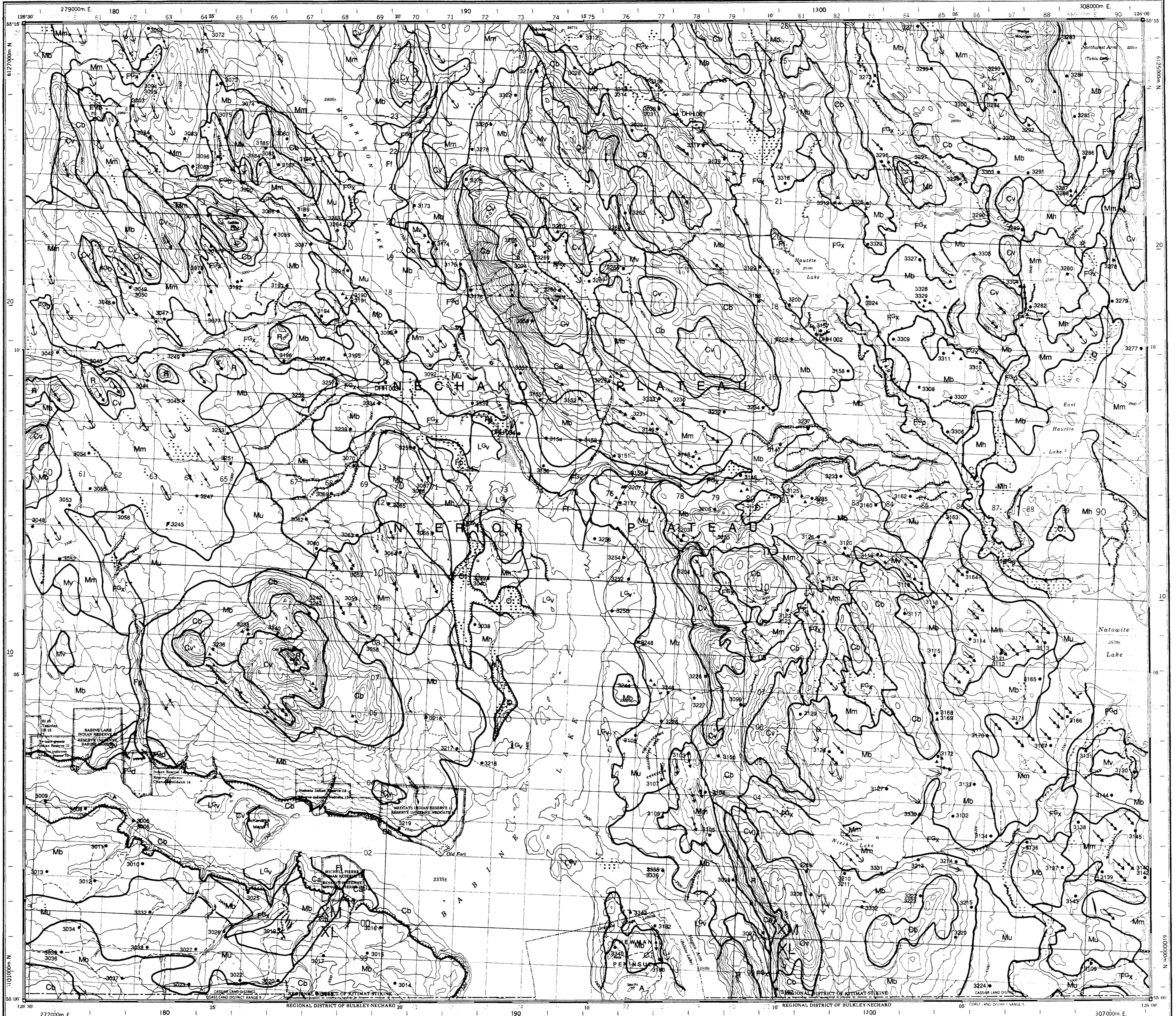
QUATERNARY HISTORY
The contemporary landscape of the Old Fort map area is the product of multiple glacial and fluvial cycles operating throughout the Pleistocene. Although Ogygia neoglaciation interval fluvial and lacustrine sediments are locally preserved (Harrington et al., 1974), most sediments and landforms are inferred to date from the Late Wisconsinan Fraser Glaciation and Holocene. Early during the Fraser Glaciation, ice accumulation occurred in the southern Shesha Mountains northeast of the map area...

REFERENCES
Harrington, C.R., Tigger, H.W. and Mott, J.B. (1974). Mammouth from Babine Lake, British Columbia. Canadian Journal of Earth Sciences, Volume 11, pages 283-290.
Hovess, D.E. and Krebs, E. (1988). Terrain Classification System for British Columbia (Revised Edition). B.C. Ministry of Environment, Lands and Parks, Survey and Resource Mapping Branch, MCE Manual 10, 90 pages.

LEGEND FOR STRATIGRAPHIC SECTIONS
Table with 2 columns: Sediment Type and Description. Includes Glaciofluvial Sediments, Morainal Sediments, Glaciolacustrine Sediments, and Colluvial Sediments.



LANDFORM SYMBOLS
Table with 2 columns: Symbol and Description. Includes Crag-and-tails, rock outcrops, Drumlins, Glacial kites, etc.



Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources
Geological Survey Branch
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NTS 93M/01
Geology by D.H. Huntley, V.M. Levson and G.F. Weary
Scale 1:50 000 Ectho

LEGEND
Table with 2 columns: Symbol and Description. Includes Quaternary, Holocene, Late Wisconsinan, and Pre-Quaternary categories.