GEOLOGICAL SURVEY OF CANADA COMMISSION GÉOLOGIQUE DU CANADA

DEPARTMENT OF ENERGY, MINES AND RESOURCES
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES

LEGEND AND DESCRIPTION OF TERRAIN UNITS

SYMBOL		NAME	SURFICIAL DEPOSITS: MATERIAL	SURFICIAL DEPOSITS: THICKNESS (metres)	LANDFORM: TOPOGRAPHY	LANDFORM: SLOPES (degrees)	COMMENTS
		man-made terrain	diamicton, rubble, gravel, sand	>2	plain	0-3	landfill
I		glacier ice	ice and snow	>20	rolling, sloping, crevassed	1-30	steep slopes occur in areas of ice falls
O	O	organic terrain	peat, muck	<15	plain	0-3	bogs, fens, swamps
	Ob	organic blanket	peat, muck	>1	takes form of underlying surface	0-10	
	Ov	organic veneer	peat, muck	0.5-1	takes form of underlying surface	0-15	
C	Cm Cm	landslide	diamicton; blocks and rubble of local bedrock	>3	hummocky, rolling	0-35 0-15	includes landslides involving bedrock and landslides involving unconsolidated Quaternary sediments
	Cf	avalanche fan, debris-flow fan	gravel, diamicton	>5	fan	5-30	includes fans with entrenched channels and fans close to local base level
	Cs	talus	blocks and rubble of local bedrock	>2	apron, sheet	25-35	little or no vegetation on presently active slopes
	* Cb	colluvial blanket	colluvium	>1	takes form of underlying surface	1-35	includes slopewash, minor talus, talus stabilized by vegetation
	* Cv	colluvial veneer	colluvium	0.5-1	takes form of underlying surface	1-40	includes slopewash, minor talus, talus stabilized by vegetation
A	Af	alluvial fan	gravel and sand	>5	fan	1-20	includes terraced fan remnants (Aft), fans with entrenched channels, and fans close to local base level
	Ap	floodplain	gravel and sand	>2	plain with shallow channels	0-3	includes low benches subject to occasional flooding
	* Ax	valley floor complex	alluvium and colluvium	>2	plain, fan, terraces, lower valley walls	0-35	includes Ap, At, Af, and Cf; differentiation of these units is not possible at scale of map
	* Av	alluvial veneer	gravel and sand	0.5-1	takes form of underlying surface	0-20	
	At	river terrace	gravel and sand	>2	terrace and scarp	0-3	generally one to several metres of sand overlying gravel
	* Ad	delta	gravel and sand	>5	terrace	0-5	marine delta
A^G	Ahm Ahh	kames, ice stagnation terrain	gravel and sand	>10	rolling, hummocky	0-15 0-30	unit deposited in contact with stagnant glacier ice; interbeds of diamicton commonly present in unit
	* Ahr	esker	gravel and sand	>10	ridge	0-30	unit deposited beneath and within stagnant glacier ice
	Ahb	glaciofluvial blanket	gravel and sand	>1	takes form of underlying surface	0-20	
	Ahv	glaciofluvial veneer	gravel and sand	0.5-1	takes form of underlying surface	0-20	
	Ahf	glaciofluvial fan	gravel and sand	>10	fan	1-20	ice-contact feature, commonly with kettles
	Aht	kame terrace	gravel and sand	>10	terrace and scarp	0-3	ice-contact feature, commonly with kettles
	Ahd	delta	gravel and sand	>10	terrace, fan	0-20	proglacial and ice-contact lacustrine and marine deltas
L^G	Lhm	rolling glaciolacustrine terrain	silt, clay, minor sand (locally with dropstones)	>2	rolling	0-10	ice-marginal depositional environment; relict lake floor
	* Lht	glaciolacustrine terrace	silt, clay, minor sand (locally with dropstones)	>2	terrace	0-3	
	* Lhb	glaciolacustrine blanket	silt, clay, minor sand (locally with dropstones)	>1	takes form of underlying surface	0-10	
	* Lhv	glaciolacustrine veneer	silt, clay, minor sand (locally with dropstones)	0.5-1	takes form of underlying surface	0-15	
W^G	Wrm	rolling glaciomarine terrain	silt, clay (locally with dropstones)	>2	rolling	0-10	proglacial depositional environment; relict seafloor
	Wfp	glaciomarine plain	silt, clay (locally with dropstones)	>2	plain	0-2	proglacial depositional environment
	Wfb	glaciomarine blanket	silt, clay (locally with dropstones)	>1	takes form of underlying surface	0-15	
	Wfv	glaciomarine veneer	silt, clay (locally with dropstones)	0.5-1	takes form of underlying surface	0-20	
M	Mm	ground moraine	till	>2	rolling	0-15	constructional morainic topography (not controlled by form of underlying unit)
	* Mb	till blanket	till	>1	takes form of underlying surface	0-20	
	* Mv	till veneer	till	0.5-1	takes form of underlying surface	0-25	
D	Dr Dm	drift	till, gravel, and colluvium	>2	ridged, rolling	0-15	constructional drift topography (not controlled by form of underlying unit)
	Db	drift blanket	till, gravel, and colluvium	>1	takes form of underlying surface	0-25	
	Dv	drift veneer	till, gravel, and colluvium	0.5-1	takes form of underlying surface	0-30	
Us		terrace scarps, river banks	all types of unconsolidated Quaternary sediments	>20 (scarp height)	steep erosional slopes	>30	unit consists of several stratigraphic units of contrasting lithologies, in places with a blanket or veneer of colluvium
R	R	bedrock			rolling, sloping, hummocky, ridged	0-60	thin (<0.5 m) or no cover of unconsolidated Quaternary sediments
	Rs	canyon walls, river banks			steep slopes	>45	Rs used mainly in conjunction with Us for canyon walls

* "Does not occur as a dominant unit on this sheet"

Explanation of letter notation

A combination of letters is used to designate each map unit or component of compound map units, e.g. Ap. The upper case letter indicates the broad genetic class. The lower case letter(s) that generally follows indicates morphology. The texture of most map units is implicit in the genetic type (see 'material' in above table); in such cases no specific textural symbol is used. Where the texture of a unit is different from the dominant or expected texture indicated in the table, a lower case textural symbol precedes the upper case genetic symbol, e.g. fCm. Postdepositional modification or erosion of a unit is indicated by an upper case letter which follows the lower case morphological symbol and is separated from it by a dash, e.g. Cv – A. Compound map units are designated by more than one group of letters separated by a colon, e.g. Ap:At. These areas consist of more than one component that could not be separated at the scale of the map. The component to the left of the colon is dominant to that to the right. One term placed above another, e.g. $\frac{Wm}{Wm}$, indicates a stratigraphic succession within the unit. No compound symbolization is used for sediment veneers overlying bedrock – unless otherwise indicated, the presence of the veneer symbol, e.g. Dv, indicates that the underlying unit is rock.

ELUC (1976) provides a complete description of a letter notation system similar to the one used here.

ELUC (1976) Terrain classification system, Victoria, British Columbia, 56p. (available from Assessment and Planning Division, Ministry of Environment, Parliament Buildings, Victoria).

Texture	Genetic class		Morphologic subdivision		Process or form modifiers
g – gravel	X – man-made	L^G – glaciolacustrine	a – apron	p – plain	A – avalanched
s – sand	I – ice	W^G – glaciomarine and marine	b – blanket	r – ridged	H – kettled
f – silt and clay	O – organic	M – morainal	d – delta	s – steep slopes	V – gullied
$\bar{s}$ – silt	C – colluvial	D – drift	f – fan	t – terraced	F – failing
	A – alluvial	U – undifferentiated	h – hummocky	v – veneer	
	A^F – glaciofluvial	R – bedrock	m – rolling	x – complex	

Environment-facies classification of deposits

Environment	Facies			
	Water	Water > Ice	Ice > Water	Ice
Marine		W^G		
Lacustrine				L^G
Fluvial			A	A^F
Glacial				D,M

Stratigraphic sections

- * Covered
- * Peat
- * Estuarine pebbly silt, sand
- * Beach gravel
- Glaciomarine and marine clay, silt, sand
- Glaciolacustrine clay, silt, sand
- Deltaic sand and sandy subaqueous outwash
- Deltaic gravel and gravelly subaqueous outwash
- Glaciofluvial and fluvial sand
- Glaciofluvial and fluvial gravel
- * Ice-contact sand, minor diamicton
- Ice-contact gravel, minor diamicton
- * Till, minor ice-contact sand, gravel
- * Bedrock

* Unit does not occur on this sheet

Gradational contact
Elevation in metres 100
Radiocarbon sample number GSC-2083

Geological boundary (defined, approximate, assumed)
Glacial striae (direction of ice movement known, unknown)
Drumlins
Drumlinoid ridges, flutings
Crag and tail
Cirque
Ice-contact face
Moraine ridge
Esker (direction of flow known, unknown)
Kettle hole (small, large)

Abandoned channel (small, large)
Beach
Escarpment
Landslide scar (small, large)
Avalanche track
Debris flow track
Major gravel pit
Location of representative stratigraphic section — 17 +
Radiocarbon date — Date / Lab no. / Elevation

Geology by J.J. Clague, 1975-1977

Geological cartography by P.P. Hermann, Geological Survey of Canada

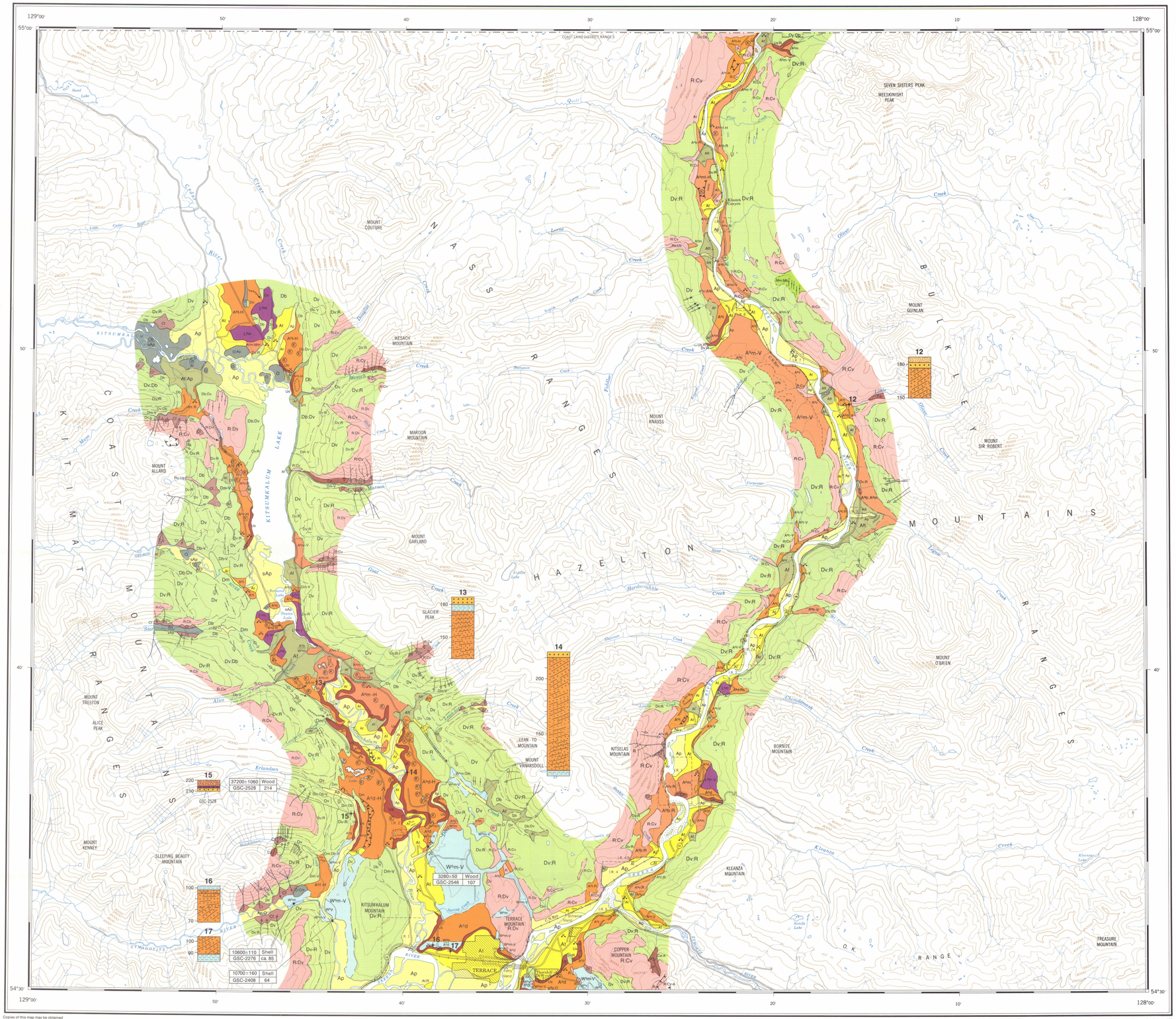
Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Base map cartography by the Geological Survey of Canada from 1:50 000 scale maps 103-I/9, 103-I/15 and 103-I/16 published by the Surveys and Mapping Branch in 1966 and 1975

Copies of the various topographical editions of this map may be obtained from the Canada Map Office, 615 Booth Street, Ottawa, Ontario, K1A 0E9

Approximate magnetic declination 1981, 26°12.5' East, decreasing 8.4' annually

Elevations in feet above mean sea level



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

MAP 1557A

SURFICIAL GEOLOGY

SKEENA RIVER – BULKLEY RIVER AREA

SHEET 3

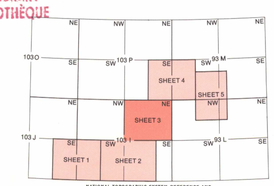
BRITISH COLUMBIA

Scale 1:100 000

Kilometres 2 0 2 4 6 8 Kilometres
Miles 2 0 2 4 Miles

Universal Transverse Mercator Projection

Printed by the Surveys and Mapping Branch, Published 1983



MAP 1557A
SKEENA RIVER – BULKLEY RIVER AREA
BRITISH COLUMBIA

Canada