531000 532000 FGhdr-HT Mb/LGr Mb/LGr Ov\LGp-Xtp) Op\Fp-Xtp # Mu/FGu

Note: This map accompanies the YGS Open File 2023-1 report, which should be referred to for a complete description of the mapping methodology and definitions of polygon label codes.

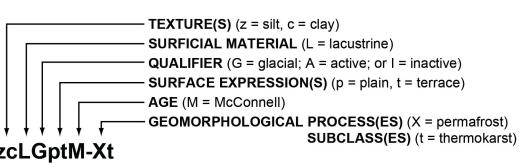
This map serves as a general guide to surficial materials only, as it is primarily based on remote interpretation with limited field verification, and significant variation may occur within a polygon. Geotechnical field investigations such as test pitting and/or drilling would be required to fully characterize surficial materials prior to site specific activities.

SURFICIAL MATERIALS

Surficial material polygon map units were classified using the Terrain Classification System for British Columbia (Howes and Kenk, 1997) with minor modifications developed for Yukon Geological Survey's mapping standards to include a wider variety of permafrost features and age classifications.

A sample polygon map label or terrain unit is shown below. Surficial material forms the core of the polygon map labels and is represented by the first single upper case letter in each terrain unit. Up to 3 textural codes are written in lower case to the left of each surficial material (listed in order of decreasing dominance), and up to 3 surface expression codes are written in lower case to the right. An upper case activity qualifier (A = active; I = inactive) may be shown immediately following the surficial material. Alternatively, the glacial qualifier "G" may be written immediately following the surficial material to indicate materials that were deposited in close proximity to glaciers. Age is indicated by an upper case letter that follows the surface expression but precedes any geomorphological process modifiers. Up to 3 geomorphological processes (upper case letters) and subclasses (lower case letters) always follow a dash ("-") symbol. Detailed definitions for the polygon map label codes are provided in subsequent sections.

Up to 4 terrain units may be combined in a complex polygon map label if they could not be differentiated at the scale of mapping. Each terrain unit is separated by a delimiter that either indicates relative proportions between the components (".", "/", "/") or stratigraphic relationships ("\").

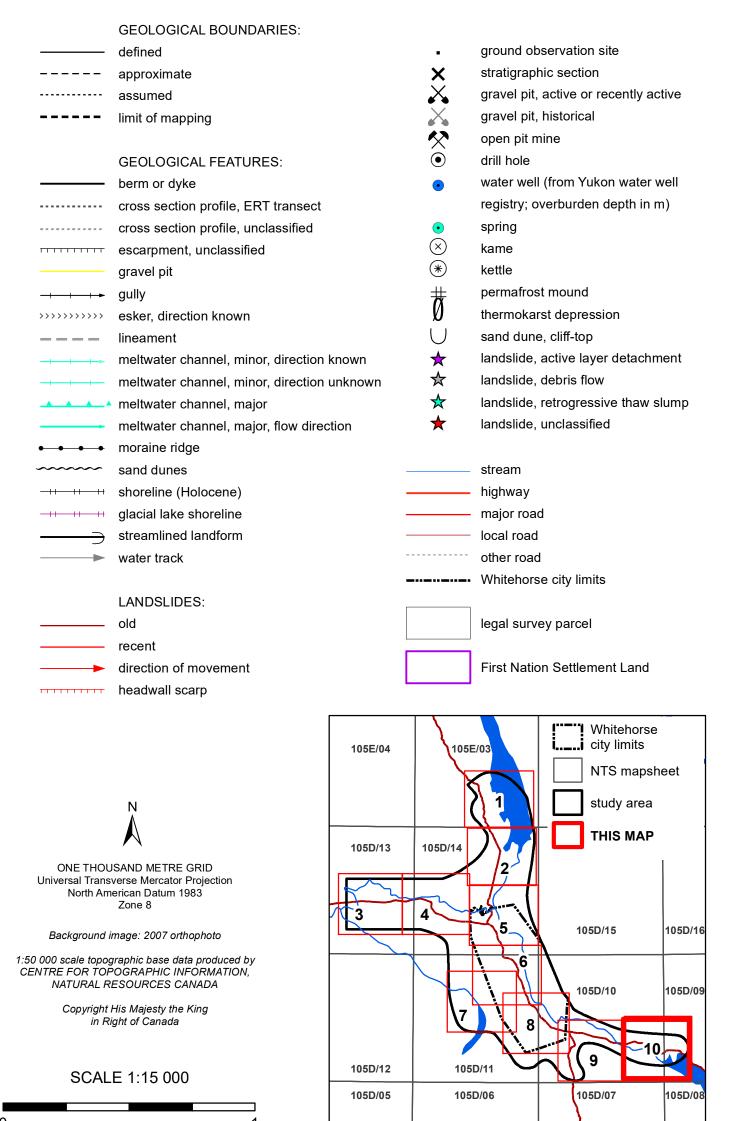


TEXTURE				SURFICIAL MATERIAL		SURFACE EXPRESSION		
Specific clastic textures				Α	Anthropogenic	а	apron	
a	blocks (>256 mm, angular)			С	Colluvium	b	blanket (>1m thick)	
b	boulders (>256 mm, rounded)			Е	Eolian	d	depression(s)	
k	cobble (cobble (64-256 mm, rounded)			Fluvial	f	fan(s)	
р	pebbles (2-64 mm, rounded)			FA	Active Floodplain	h	hummock(s)	
S	sand (0.062 - 2 mm)			FG	Glaciofluvial	1	delta	
Z	silt (0.002 - 0.062 mm)			Н	Water body	m	rolling	
С	c clay (<0.002 mm)				Lacustrine	р	plain	
Grouped clastic textures				LG	Glaciolacustrine	r	ridge(s)	
d	mixed fragments (>2 mm, rounded and angular)			M	Morainal (till)	t	terrace(s)	
х	angular fragments (>2 mm, mix of r & a)			0	Organic	u	undulating	
g	gravel (>2 mm, rounded, mix of b, k, p)			R	Bedrock	v	veneer (0.1 - 1 m thick)	
r	rubble (2-256 mm, angular particles)					w	mantle of variable thickness	
m	mud (mix of silt and clay)							
У	shells (shells or shell fragments)			MASS MOVEMENT PROCESS SUBCLASSES (follows -F, -L or -R)				
n	salt (evaporite crystals)			" initiation zone				
Organic terms				Slow mass movement (follows -F)				
e	fibric organic (poorly decomposed)			c soil creep				
u	mesic organic (intermediate decomposition)			g rock creep				
				k tension cracks				
					lateral spread in bedro			
				j lateral spread in surficial material				
		GEOMORPHOLOGICAL PROCESS			Rapid mass movement (follows -R)			
		Erosional processes		b rockfall				
		-V	gully erosion		debris flow			
		Fluvial and hydrological processes		f debris fall				
		-M	meandering floodplain		debris torrent			
		-U	inundation		rapid mass movement	(follow:	s -F, -L or -R)	
			movement processes	е	earthflow			
		-F	slow landslide		slump – in bedrock			
		-R	rapid landslide		slump – in surficial ma	terial		
		-L	undifferentiated landslide		slump – earthflow			
			Periglacial processes		s debris slide			
		-N	nivation		rockslide			
		-S	solifluction		ROST PROCESS SUBCL	ASSES (follows -X)	
		-X	permafrost		thaw flow slides			
		Deglo	acial processes		permafrost mounds (li		palsa, peat plateau)	
		-E	channeled by glacial meltwater		thermokarst subsiden			
		-H	kettled		OGICAL PROCESS SUB	CLASSES	6 (follows -U)	
	-T ice-contact		ice-contact	b	beaver dams			
		сом	POSITE SYMBOL DELIMITERS					
	 terrain unit(s) on either side of the symbol are of approximately equal proportion. terrain unit(s) before symbol is more extensive than the following one(s). 						proportion.	

SYMBO

(Also denotes partial/discontinuous cover if located at front of label.)

terrain unit(s) before symbol is much more extensive than the following one(s). terrain unit(s) before the symbol stratigraphically overlies the following one(s).



REFERENCES

Howes, D.E. and Kenk, E., 1997. Terrain classification system for British Columbia, Version 2. B.C. Ministry of Environment and BC Ministry of Crown Lands, Victoria, BC.

RECOMMENDED CITATION

Lipovsky, P.S., 2023. Surficial geology of the greater Whitehorse area, Sheet 10 (1:15 000 scale). In: Surficial geology and geohazards of the greater Whitehorse area, Yukon Geological Survey, Open File 2023-1, 67 pages plus appendices.

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

Paper copies of this map may be obtained from Yukon Geological Survey, Energy, Mines and Resources, Government of Yukon, Room 102 - 300 Main St., Whitehorse, Yukon, Y1A 2B5. E-mail: geology@yukon.ca.

A digital PDF file of this map may be downloaded free of charge from the Yukon Geological Survey website: https://yukon.ca/en/science-and-natural-resources/geology.

Yukon Geological Survey Energy, Mines and Resources Government of Yukon

Open File 2023-1 Sheet 10

Surficial geology of the greater Whitehorse area