

13—GLACIAL AND GLACIOFLUVIAL FEATURES

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
13.1	Crevasse on glacier		lineweights .2 mm color 100% cyan lengths may vary	
13.2	Ice-flow direction		lineweight .25 mm color 100% cyan length may vary 60° 1.5 mm	
13.3	Glacial-lake spillway—Arrow shows direction of flow		color 100% cyan 1.25 mm lineweight .2 mm 25° 60° 2.0 mm length may vary	
13.4	Glacial-lake spillway—Showing elevation. Arrow shows direction of flow		785' HI-6 (100% black)	
13.5	Inferred glacial-lake spillway—Arrow shows direction of flow		all lineweights .2 mm	
13.6	Inferred glacial-lake spillway—Showing estimated elevation. Arrow shows direction of flow		785'	
13.7	Glacial meltwater stream—Barbs show direction of flow		all lineweights .2 mm 7.5 mm color 100% cyan 3.0 mm 2.25 mm spacing may vary ≤ 20°	
13.8	Cutbanks of glacial meltwater stream channel (mapped to scale)—Hachures point into channel		spacing may vary all lineweights .25 mm 1.125 mm color 100% cyan 3.0 mm	
13.9	Flow direction of glacial meltwater in stream channel		color 100% cyan all lineweights .2 mm 2.0 mm stem lengths may vary ≤ 25°	
13.10	Crest line of moraine, sense of symmetry unspecified (1st option)		color 100% cyan lineweight .2 mm circle diameter .75 mm; spacing .625 mm	
13.11	Crest line of moraine, sense of symmetry unspecified (2nd option)		color 100% cyan dot diameter .825 mm; spacing .625 mm	
13.12	Crest line of symmetrical moraine		color 100% cyan 3.0 mm 5.0 mm all lineweights .2 mm circle diameter .675 mm; hachure height 1.5 mm	
13.13	Crest line of asymmetrical moraine—Ticks point down steeper slope		hachure height .75 mm	
13.14	Ridges on moraine		color 100% cyan lineweight .25 mm lengths and spacing may vary	
13.15	Scarp at top of ice-contact slope—Hachures point downscarp		5.0 mm 1.375 mm 12° color 100% cyan	
13.16	Ice-contact slope		pattern 521-C in 50% cyan	
13.17	Esker or ice-channel deposit, transport direction unknown		1.25 mm 3.75 mm 6.25 mm color 100% cyan lineweight .2 mm 70°	
13.18	Esker or ice-channel deposit, transport direction known (1st option)—Chevrons point in direction of transport		color 100% cyan 70° 1.25 mm 1.0 mm lineweight .2 mm	
13.19	Esker or ice-channel deposit, transport direction known (2nd option)—Chevrons point in direction of transport		color 100% cyan 70° 5.0 mm 1.25 mm lineweight .375 mm lineweight .2 mm	
13.20	Drumlin—Showing bearing and direction of flow		2.25 mm 1.25 mm 25° 1.875 mm 6.0 mm color 100% cyan lineweight .2 mm	Point of observation is at the midpoint of the bearing line.
13.21	Drumlin, flow direction unknown (1st option)—Showing bearing		1.875 mm 6.0 mm lineweight .2 mm	May also be shown in black or other colors.
13.22	Drumlin, flow direction unknown (2nd option)—Showing bearing		1.75 mm 1.0 mm 3.5 mm lineweight .2 mm color 100% cyan	
13.23	Drumlin (length mapped to scale)—Showing bearing and direction of flow		color 100% cyan 1.25 mm draw length to scale 1.25 mm 25° all lineweights .2 mm	Use when map scale is large enough to show actual length of drumlin.
13.24	Drumlin (length mapped to scale), flow direction unknown—Showing bearing		draw length to scale	May also be shown in black or other colors.

*For more information, see general guidelines on pages A-i to A-v.

13—GLACIAL AND GLACIOFLUVIAL FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
13.25	Kettle		color 100% cyan 45° 1.75 mm 3.0 mm all lineweights .2 mm	May also be shown in black or other colors.
13.26	Hummocky topography (1st option)		pattern 523-K in 50% black	
13.27	Hummocky topography (2nd option)		pattern 523-DO in 50% black	
13.28	Hummocky topography (3rd option)		pattern 524-K in 50% black	
13.29	Younger glacial striation or groove—Showing general bearing and direction of flow		linewidth .2 mm 6.0 mm 25° 1.25 mm color 100% cyan	Point of observation is at the midpoint of the bearing line.
13.30	Younger glacial striation or groove—Showing measured bearing and direction of flow. Dot indicates location of observation point		2.625 mm dot diameter .75 mm	May also be shown in black or other colors.
13.31	Older glacial striation or groove—Showing general bearing and direction of flow		2.625 mm all lineweights .2 mm circle diameter .75 mm	
13.32	Older glacial striation or groove—Showing measured bearing and direction of flow. Open circle indicates location of observation point		2.625 mm all lineweights .2 mm circle diameter .75 mm	
13.33	Younger glacial striation or groove, flow direction unknown—Showing general bearing		linewidth .2 mm 6.0 mm color 100% cyan	
13.34	Younger glacial striation or groove, flow direction unknown—Showing measured bearing. Dot indicates location of observation point		2.625 mm dot diameter .75 mm	
13.35	Older glacial striation or groove, flow direction unknown—Showing general bearing		2.625 mm all lineweights .2 mm circle diameter .75 mm	
13.36	Older glacial striation or groove, flow direction unknown—Showing measured bearing. Open circle indicates location of observation point		2.625 mm all lineweights .2 mm circle diameter .75 mm	
13.37	Younger glacial striation or groove (length mapped to scale)—Arrow shows direction of flow		linewidth .2 mm length may vary 25° 1.5 mm color 100% cyan	Use when map scale is large enough to show actual length of striation or groove.
13.38	Younger glacial striation or groove (length mapped to scale), flow direction unknown		length may vary	May also be shown in black or other colors.
13.39	Older glacial striation or groove (length mapped to scale)—Arrow shows direction of flow		linewidth .2 mm 2.125 mm length may vary color 100% cyan circle diameter .75 mm	
13.40	Older glacial striation or groove (length mapped to scale), flow direction unknown		length may vary	
13.41	Cirque headwall—Hachures point into cirque		linewidth .2 mm color 100% cyan hachure height 1.0 mm; spacing 1.0 mm linewidth .3 mm	May also be shown in black or other colors.
13.42	Arête or headwall of adjoining cirques		linewidth .2 mm color 100% cyan hachure height 2.0 mm; spacing 1.0 mm linewidth .3 mm	
13.43	Margin of glacially scoured basin—Identity and existence certain, location accurate. Hachures point into basin		all lineweights .225 mm color 100% cyan H-8 1.0 mm 12.0 mm 1.0 mm 2.0 mm	
13.44	Margin of glacially scoured basin—Identity or existence questionable, location accurate. Hachures point into basin			
13.45	Margin of glacially scoured basin—Identity and existence certain, location approximate. Hachures point into basin		3.5 mm 2.0 mm 1.0 mm 2.0 mm	
13.46	Margin of glacially scoured basin—Identity or existence questionable, location approximate. Hachures point into basin		.75 mm .75 mm	
13.47	Margin of glacially scoured basin—Identity and existence certain, location concealed. Hachures point into basin		1.25 mm	
13.48	Margin of glacially scoured basin—Identity or existence questionable, location concealed. Hachures point into basin		.75 mm .75 mm	

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13—GLACIAL AND GLACIOFLUVIAL FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
13.49	Glacial limit or terminus—Identity and existence certain, location accurate		lineweight .45 mm color 100% cyan	May also be shown in black or other colors.
13.50	Glacial limit or terminus—Identity or existence questionable, location accurate			
13.51	Glacial limit or terminus—Identity and existence certain, location approximate			
13.52	Glacial limit or terminus—Identity or existence questionable, location approximate			
13.53	Glacial limit or terminus—Identity and existence certain, location inferred			
13.54	Glacial limit or terminus—Identity or existence questionable, location inferred			
13.55	Glacial limit or terminus—Identity and existence certain, location concealed			
13.56	Glacial limit or terminus—Identity or existence questionable, location concealed			
13.57	Glacial limit or terminus—Showing name of glaciation (BL, Bull Lake)			
13.58	Limit of significant glacial advance—Identity and existence certain, location accurate. Hachures on side of advancing ice		lineweight .3 mm color 100% cyan	
13.59	Limit of significant glacial advance—Identity or existence questionable, location accurate. Hachures on side of advancing ice			
13.60	Limit of significant glacial advance—Identity and existence certain, location approximate. Hachures on side of advancing ice			
13.61	Limit of significant glacial advance—Identity or existence questionable, location approximate. Hachures on side of advancing ice			
13.62	Limit of significant glacial advance—Identity and existence certain, location concealed. Hachures on side of advancing ice			
13.63	Limit of significant glacial advance—Identity or existence questionable, location concealed. Hachures on side of advancing ice			
13.64	Retreatal position of stagnant ice margin—Identity and existence certain, location accurate		lineweight .3 mm color 100% cyan	
13.65	Retreatal position of stagnant ice margin—Identity or existence questionable, location accurate			
13.66	Retreatal position of stagnant ice margin—Identity and existence certain, location approximate			
13.67	Retreatal position of stagnant ice margin—Identity or existence questionable, location approximate			
13.68	Retreatal position of stagnant ice margin—Identity and existence certain, location inferred			
13.69	Retreatal position of stagnant ice margin—Identity or existence questionable, location inferred			
13.70	Retreatal position of stagnant ice margin—Identity and existence certain, location concealed			
13.71	Retreatal position of stagnant ice margin—Identity or existence questionable, location concealed			
13.72	Retreatal position of stagnant ice margin—Showing name of depositional unit			

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