





































































































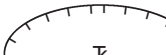

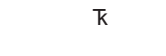
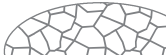



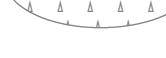



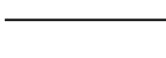













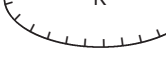


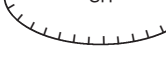








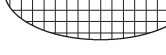



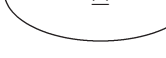









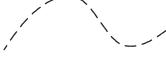




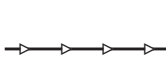




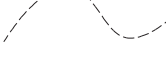



# GSC Geologic Symbol Standard Style File - Surficial Symbols

These symbols accompany the GSC Surficial Geodatabase model version 2.3.14 and is up to date as of March 2018

Symbols are organized by legend order appearance

	Glacier ice or Snowpack: snowpacks (3.01.15.001)
	Glacier ice or Snowpack: Glacier-icefield-icecap (3.01.15.002)
	Anthropogenic deposits: undifferentiated (3.01.14.715)
	Organic deposits: fen (3.01.02.011)
	Organic deposits: bog (3.01.02.013)
	Organic deposits: salt marsh (3.01.02.015)
	Organic deposits: veneer (3.01.02.023)
	Organic deposits: blanket (3.01.02.025)
	Organic deposits: undifferentiated (3.01.02.012)
	Eolian sediments: loess (3.01.03.295)
	Eolian sediments: dunes (3.01.03.299)
	Eolian sediments: veneer (3.01.03.292)
	Eolian sediments: undifferentiated (3.01.03.297)
	Colluvial and Mass-wasting deposits: fan (3.01.01.107)
	Colluvial and Mass-wasting deposits: apron or talus scree (3.01.01.097) Ccl - scoured, Ccl - unscoured
	Colluvial and Mass-wasting deposits: landslide (3.01.01.155) Cz1 - esplanade, Cc2 - mud flow, Cc3 - retrogressive flow flow, Cc4 - rotational landslide, Cc5 - translational landslide
	Colluvial and Mass-wasting deposits: rock-glacier (3.01.01.139)
	Colluvial and Mass-wasting deposits: veneer (3.01.01.092)
	Colluvial and Mass-wasting deposits: blanket (3.01.01.095)
	Colluvial and Mass-wasting deposits: undifferentiated (3.01.01.152)
	Alluvial sediments: floodplain (3.01.04.265)
	Alluvial sediments: fan (3.01.04.257)
	Alluvial sediments: intertidal or estuarine (3.01.04.255)
	Alluvial sediments: terraced (3.01.04.269)
	Alluvial sediments: veneer (3.01.04.252)
	Alluvial sediments: blanket (3.01.04.267)
	Alluvial sediments: undifferentiated (3.01.04.263)
	Lacustrine sediments: beach (3.01.05.582)
	Lacustrine sediments: deltaic (3.01.05.585)
	Lacustrine sediments: littoral and nearshore (3.01.05.573)
	Lacustrine sediments: offshore (3.01.05.577)
	Lacustrine sediments: veneer (3.01.05.572)
	Lacustrine sediments: blanket (3.01.05.575)
	Lacustrine sediments: undifferentiated (3.01.05.583)
	Marine sediments: terraced (3.01.06.495)
	Marine sediments: beach (3.01.06.497)
	Marine sediments: deltaic (3.01.06.507)
	Marine sediments: intertidal (3.01.06.492)
	Marine sediments: littoral and nearshore (3.01.06.493)
	Marine sediments: offshore (3.01.06.509)
	Marine sediments: veneer (3.01.06.502)
	Marine sediments: blanket (3.01.06.505)
	Marine sediments: undifferentiated (3.01.06.503)
	Glaciomarine sediments: beach (3.01.09.487)
	Glaciomarine sediments: deltaic (3.01.09.525)
	Glaciomarine sediments: intertidal (3.01.09.512)
	Glaciomarine sediments: littoral and nearshore (3.01.09.513)
	Glaciomarine sediments: offshore (3.01.09.519)
	Glaciomarine sediments: submarine outwash fan (3.01.09.527)
	Glaciomarine sediments: submarine moraine (3.01.09.517)
	Glaciomarine sediments: veneer (3.01.09.483)
	Glaciomarine sediments: blanket (3.01.09.485)
	Glaciomarine sediments: undifferentiated (3.01.09.515)
	Glaciolacustrine sediments: beach (3.01.08.645)
	Glaciolacustrine sediments: deltaic (3.01.08.613)
	Glaciolacustrine sediments: littoral and nearshore (3.01.08.612)
	Glaciolacustrine sediments: offshore (3.01.08.637)
	Glaciolacustrine sediments: subaqueous outwash fan (3.01.08.615)
	Glaciolacustrine sediments: subaqueous moraine (3.01.08.617)
	Glaciolacustrine sediments: hummocky (3.01.08.635)
	Glaciolacustrine sediments: veneer (3.01.08.642)
	Glaciolacustrine sediments: blanket (3.01.08.647)
	Glaciolacustrine sediments: undifferentiated (3.01.08.643)
	Glaciofluvial sediments: outwash plain (3.01.07.249)
	Glaciofluvial sediments: terraced (3.01.07.237)
	Glaciofluvial sediments: outwash fan (3.01.07.225) GFI - subaerial, GFI - subaqueous
	Glaciofluvial sediments: hummocky (3.01.07.215)
	Glaciofluvial sediments: ice-contact (3.01.07.217)
	Glaciofluvial sediments: kame terrace (3.01.07.219)
	Glaciofluvial sediments: esker (3.01.07.229)
	Glaciofluvial sediments: veneer (3.01.07.223)
	Glaciofluvial sediments: blanket (3.01.07.247)
	Glaciofluvial sediments: undifferentiated (3.01.07.235)
	Glacial sediments: rock-glacierized moraine (3.01.10.357)
	Glacial sediments: hummocky till (3.01.10.375) Th1 - carbonates/calcareous
	Glacial sediments: moraine complex (3.01.10.377) Tm1 - carbonates/calcareous
	Glacial sediments: ridged till, moraine (3.01.10.385) Tr1 - carbonates/calcareous
	Glacial sediments: streamlined till (3.01.10.387) Ts1 - carbonates/calcareous
	Glacial sediments: till plain (3.01.10.439) Tp1 - carbonates/calcareous
	Glacial sediments: weathered till (3.01.10.057) Tx1 - carbonates/calcareous
	Glacial sediments: veneer (3.01.10.355) Tv1 - carbonates/calcareous
	Glacial sediments: blanket (3.01.10.359) Tb1 - carbonates/calcareous
	Glacial sediments: undifferentiated (3.01.10.373)
	Weathered bedrock or regolith: veneer (3.01.11.175) Wv1 - carbonates/calcareous
	Weathered bedrock or regolith: blanket (3.01.11.169) Wb1 - carbonates/calcareous
	Weathered bedrock or regolith: undifferentiated (3.01.11.177) W1 - carbonates/calcareous
	Volcanic deposits: pyroclastic sediments (3.01.16.705)
	Volcanic deposits: undifferentiated (3.01.16.707)
	Undifferentiated deposits: undifferentiated (3.01.12.062)
	Bedrock: sedimentary (3.01.13.192)
	Bedrock: igneous (3.01.13.187)
	Bedrock: metamorphic (3.01.13.183)
	Bedrock: undifferentiated (3.01.13.185)

	Annular depression: large (3.14.01.023)
	Annular depression: small (3.14.01.024)
	Nivation hollow (3.12.01.020) Central must be added with CentralRepresentation
	Evaporites (3.14.01.017)
	Recently deglaciated area (3.06.01.014) Visual pattern can assist in identification
	Thermokarst depression: large (3.12.01.017) Central must be added with CentralRepresentation
	Thermokarst depression: small (3.12.01.008)
	Patterned ground: large (3.12.01.016)
	Patterned ground: small (3.12.01.002)
	Felsenmeer: large (3.12.01.023)
	Felsenmeer: small (3.12.01.024)
	Dune: active dune field (3.05.01.005)
	Dune: large (3.05.01.003) Special marker symbol needs to be legend
	Dune: small, paleowind direction unknown (3.05.01.009)
	Dune: small, paleowind direction known (3.05.01.008) Marker symbol should be oriented
	Extensive gullied terrain (3.14.01.005)
	Eolian lag deposit (deflation surface) (3.05.01.006)
	Lag deposit (washed scoured lag) (3.14.01.013)
	Reworked sediments (by waves, meltwater) (3.14.01.014)
	Surface boulder concentration (boulder lag) (3.14.01.015)
	Kettle: large (3.06.01.013) Central must be added with CentralRepresentation
	Kettle: small (3.06.01.001)
	Sinkhole: large (3.04.01.007) Central must be added with CentralRepresentation
	Sinkhole: small (3.04.01.001)
	Pit: large inactive (3.03.01.009) Central must be added with CentralRepresentation
	Pit: large active (3.03.01.008) Central must be added with CentralRepresentation
	Pit: small inactive (3.03.01.003)
	Pit: small active (3.03.01.002)
	Mine tailing (3.03.01.007)
	Made ground (fill) (3.03.01.006)
	Quarry: large inactive (3.03.01.010) Central must be added with CentralRepresentation
	Quarry: large active (3.03.01.010) Central must be added with CentralRepresentation
	Quarry: small inactive (3.03.01.005)
	Quarry: small active (3.03.01.004)
	Peat bog mining (3.03.01.008)
	Geological contact: defined (3.02.01.001)
	Geological contact: approximate (3.02.01.002)
	Geological contact: inferred (3.02.01.003)
	Geological contact: concealed (3.02.01.004)
	Limit of mapping (3.02.01.005)
	Tension fracture (3.09.01.010)
	Avalanche track: large (3.09.01.008)
	Avalanche track: small (3.09.01.001) Marker symbol should be oriented
	Debris flow track: large (3.09.01.009)
	Debris flow track: small (3.09.01.002) Marker symbol should be oriented
	Landslide: escarpment inactive (3.09.01.007) Special marker symbol needs to be legend
	Landslide: escarpment active (3.09.01.006) Special marker symbol needs to be legend
	Landslide: scar direction unknown (3.09.01.003)
	Landslide: scar direction known (3.09.01.003) Marker symbol should be oriented
	Retrogressive thaw flow: direction unknown (3.09.01.004)
	Retrogressive thaw flow: direction known (3.09.01.004) Marker symbol should be oriented
	Unspecified slope movement (3.09.01.005) Marker symbol should be oriented
	Cryoplanation terrace scarp (3.12.01.014)
	Limit of permafrost (3.12.01.015)
	Sediment transport direction: paleoflow unknown (3.14.01.022)
	Sediment transport direction: paleoflow known (3.14.01.021)
	Pre-existing coastline (3.13.01.011)
	Alluvial bar or levee ridge (3.14.01.009)
	Terrace scarp (3.13.01.004)
	Ravine scarp (3.14.01.011) Opposite side must be defined for legend Special marker symbol needs to be legend
	Erosional crest (3.14.01.020)
	Beach crest (3.13.01.002) Multiple lines must be defined for legend Special marker symbol needs to be legend
	Limit of submergence: lacustrine approximate (3.11.01.012)
	Limit of submergence: lacustrine defined (3.11.01.011)
	Limit of submergence: marine approximate (3.11.01.014)
	Limit of submergence: marine defined (3.11.01.013)
	Limit of submergence: glaciomarine approximate (3.11.01.010)
	Limit of submergence: glaciomarine defined (3.11.01.009)
	Limit of submergence: glaciolacustrine approximate (3.11.01.007)
	Limit of submergence: glaciolacustrine defined (3.11.01.007)
	Iceberg scour: large (3.14.01.010)
	Iceberg scour: small (3.14.01.001)

	Spillway: central axis, paleocurrent direction unknown (3.10.01.017)
	Spillway: central axis, paleocurrent direction known (3.10.01.012)
	Paleodrainage direction (3.10.01.010)
	Meltwater channel: minor paleocurrent direction unknown (3.10.01.009)
	Meltwater channel: minor paleocurrent direction known (3.10.01.008)
	Meltwater channel: minor lateral (3.10.01.006) Left on left
	Meltwater channel: minor lateral (3.10.01.007) Left on right
	Meltwater channel: major paleocurrent direction unknown (3.10.01.005) Opposite side must be defined for legend Special marker symbol needs to be legend
	Meltwater channel: major paleocurrent direction known (3.10.01.005) Opposite side must be defined for legend Paleocurrent direction symbol (3.10.01.005) must be present Special marker symbol needs to be legend
	Subglacial meltwater corridor margin: approximate (3.10.01.016) Opposite side must be defined for legend Special marker symbol needs to be legend
	Subglacial meltwater corridor margin: defined (3.10.01.015) Opposite side must be defined for legend Special marker symbol needs to be legend
	Partly buried channel scarp (3.10.01.011) Opposite side must be defined for legend Special marker symbol needs to be legend
	Buried valley: central axis, paleodrainage direction unknown (3.10.01.014)
	Buried valley: central axis, paleodrainage direction known (3.10.01.013)
	Moraine ridge: minor large (3.06.01.012) Special marker symbol needs to be legend
	Moraine ridge: minor small, orientation unknown (3.06.01.017)
	Moraine ridge: minor small, orientation known (3.06.01.015) Marker symbol should be oriented
	Moraine ridge: major lateral (3.06.01.006)
	Moraine ridge: major medial (3.06.01.008)
	Moraine ridge: major end (3.06.01.010)
	Moraine ridge: major lateral ice-cored (3.06.01.007)
	Moraine ridge: major medial ice-cored (3.06.01.009)
	Moraine ridge: major end ice-cored (3.06.01.011)
	Ice-contact scarp (3.07.01.007)
	Ice-thrust ridge (3.07.01.008)
	Ice-thrust ridge (3.07.01.009)
	Esker ridge: buried, paleocurrent direction unknown (3.07.01.004)
	Esker ridge: buried, paleocurrent direction known (3.07.01.003)
	Esker ridge: paleocurrent direction unknown (3.07.01.004)
	Esker ridge: paleocurrent direction known or inferred (3.07.01.005)
	Esker ridge: with beach ridges/strandlines, paleocurrent direction unknown (3.07.01.011)
	Esker ridge: with beach ridges/strandlines, paleocurrent direction known or inferred (3.07.01.010)
	Crevasse ridge (3.06.01.005)
	Drumlinoid ridge: buried large (3.08.01.015)
	Drumlinoid ridge: buried small (3.08.01.002) Marker symbol should be oriented
	Drumlinoid ridge: large (3.08.01.018)
	Drumlinoid ridge: small (3.08.01.005) Marker symbol should be oriented
	Drumlin ridge: buried large (3.08.01.014)
	Drumlin ridge: buried small (3.08.01.001) Marker symbol should be oriented
	Drumlin ridge: large (3.08.01.017)
	Drumlin ridge: small (3.08.01.004)
	Crag-and-tail ridge: large (3.08.01.016)
	Crag-and-tail ridge: small (3.08.01.003) Marker symbol should be oriented
	Pre-crag ridge: large (3.08.01.040)
	Pre-crag ridge: small (3.08.01.039) Marker symbol should be oriented
	Large groove: ice flow direction unknown (3.08.01.022)
	Large groove: ice flow direction known (3.08.01.021)
	Fluted bedrock or drift: poorly defined, central long axis - ice flow direction unknown large (3.08.01.034)
	Fluted bedrock or drift: poorly defined, central long axis - ice flow direction unknown small (3.08.01.030) Marker symbol should be oriented
	Fluted bedrock or drift: poorly defined, central long axis - ice flow direction unknown large (3.08.01.033)
	Fluted bedrock or drift: poorly defined, central long axis - ice flow direction unknown small (3.08.01.029) Marker symbol should be oriented
	Fluted bedrock or drift: central long axis - ice flow direction unknown large (3.08.01.020)
	Fluted bedrock or drift: central long axis - ice flow direction unknown small (3.08.01.007) Marker symbol should be oriented
	Fluted bedrock or drift: central long axis - ice flow direction known large (3.08.01.019)
	Fluted bedrock or drift: central long axis - ice flow direction known small (3.08.01.006)
	Cirque headwall (3.06.01.004)
	Arête (3.06.01.003)
	Ice-flow direction: unknown (3.08.01.025)
	Ice-flow direction: known (3.08.01.024)
	Limit of glaciation: approximate (3.11.01.006)
	Limit of glaciation: defined (3.11.01.005)
	Dispersal train margin: approximate (3.08.01.043) Left side Special marker symbol needs to be legend
	Dispersal train margin: approximate (3.08.01.044) Right side Special marker symbol needs to be legend
	Dispersal train margin: defined (3.08.01.041) Left side Special marker symbol needs to be legend
	Dispersal train margin: defined (3.08.01.042) Right side Special marker symbol needs to be legend
	Ice stream margin: approximate (3.11.01.004) Opposite side must be defined for legend
	Ice stream margin: defined (3.11.01.003) Opposite side must be defined for legend
	Ice divide: approximate (3.11.01.002)
	Ice divide: defined (3.11.01.001)
	Bedrock scarp (3.04.01.005)
	Lineament / lineation in bedrock (3.04.01.006)
	Palma or lithalsa (3.12.01.001)
	Hummock (3.14.01.019)
	Pingo (3.12.01.003)
	Gelifluction or solifluction lobe (3.12.01.022)
	Rock glacier (3.12.01.004)
	Rock pingo (3.12.01.005)
	Rock blister (3.12.01.012)
	Rock burst (3.12.01.013)
	Paleowind measurement location (3.05.01.002) Marker symbol should be oriented
	Deflation landform: paleowind direction unknown (3.05.01.007)
	Deflation landform: paleowind direction known (3.05.01.001) Marker symbol should be oriented
	Spring, hot/spring, cold water spring observation location (3.14.01.012)
	Piping observation (3.10.01.002)
	Alluvial fan: paleocurrent direction unknown (3.10.01.001)
	Alluvial fan: paleocurrent direction known (3.10.01.001)
	Delta: paleocurrent direction unknown (3.13.01.010)
	Delta: paleocurrent direction known (3.13.01.001) Marker symbol should be oriented
	Ice-contact delta: paleocurrent direction unknown (3.07.01.001)
	Ice-contact delta: paleocurrent direction known (3.07.01.001) Marker symbol should be oriented
	Paleocurrent measurement: sediments (3.10.01.003) Marker symbol should be oriented
	Paleocurrent measurement: bedrock [p, s-forms] (3.10.01.004) Marker symbol should be oriented
	Ground ice observation (3.12.01.019)
	Erratic observation (3.14.01.002)