



DESCRIPTION OF MAP UNITS

- gms QUARTZ-MUSCOVITE SCHIST - Light-brown to grey, medium- to coarse-grained quartz muscovite schist with variable amounts of biotite, feldspar, garnet, and chlorite. Modifiers designate significant presence of these minerals: bqms, fgms, gcms, chqms, etc.
- fd FELSIC DIKE - Light-tan to white, fine- to medium-grained, thin igneous dikes composed of quartz and feldspar. Locally, minor pink garnet or sulfides may be present. In mineralized zones, dikes may be altered to white mica, chlorite, calcite, amphibole, sphene, and scheelite (endoskarn).
- mq MICACEOUS QUARTZITE - Light-brown to buff, fine- to medium-grained, thin-bedded to massive, with variable feldspar, biotite, chlorite, white mica, and minor calcite and garnet. Calcareous feldspathic quartzite thinly interlayered with and gradational into marble units may contain secondary pyroxene, garnet, amphibole, clinozoisite, white mica, chlorite, and scheelite (endoskarn).
- mb MARBLE - Light-grey to green grey, medium- to coarse-grained, very thin bedded to massive marble. Locally, thinly interlayered with micaceous quartzite, calcareous micaceous quartzite, schist and slightly calcareous schist. Impure marble may contain variable amounts of fine-grained anhedral feldspar, quartz, diopsidic pyroxene, grossularitic garnet, idocrase, tremolite-actinolite, clinozoisite, and iron oxides interstitial to the calcite mosaic and as original sedimentary layers. Grain size of calcite and impurities increase close to the intrusive contact. Marble is host for tungsten skarns near Gilmore Dome. Weathers to brown granular layers.
- cs CALC-SILICATE MARBLE - Light-orange to green, fine- to medium-grained, thinly bedded, compositionally banded, dominantly calc-silicate rock. Originally was very argillaceous and/or dolomitic limestone. Composed of grossularitic garnet, diopsidic pyroxene, plagioclase, clinozoisite, amphibole, quartz, and calcite. Calc-silicates formed during metamorphism, however some recrystallization with metasomatism is often present. Distinguishable from skarn by, in general, finer grain size, lighter color, compositional layering, lower iron content, and lack of scheelite.
- skn SKARN - Medium- to dark-green and reddish brown, mottled, medium- to coarse-grained, veined, dense, hydrothermally altered marble. Composed of pyroxene, garnet, idocrase, quartz, calcite, wollastonite, actinolite, clinozoisite-epidote, and scheelite, with accessory sphene, apatite, chlorite, and iron oxide. Locally fluorite may be present. Skarn may totally replace a marble unit or form as veins within marble. Localization of skarn controlled by structural features such as lithologic contacts, shear zones, joint planes, and quartz veins. Host for the tungsten mineralization.
- en ENDOSKARN - Hydrothermally altered rock other than marble including igneous dikes and pegmatites, schist, and quartzite. Usually adjacent to or near marble skarn. Replacement minerals include pyroxene, amphibole, biotite, chlorite, white mica, clinozoisite, plagioclase, sphene, calcite, minor garnet and sulfides, and occasionally scheelite. Remnant textures are often preserved.
- fe IRON OXIDE ZONE - Bright-orange and yellow, saprolitic-like zones that may contain remnant calc-silicates, scheelite, and sulfides. Concretion features present. Represents surficial weathering of sulfide-iron oxide hydrothermally altered zones.

MAP SYMBOLS

- Trench outline
- Outcrop contact
- Contact, very approximate
- Strike and dip of foliation
- Strike and dip of jointing
- Shear zone
- Fold axis
- Quartz vein
- Scheelite abundance and size, schematic

GEOLOGIC MAP OF THE YELLOW PUP TUNGSTEN MINE, MAIN TRENCH
 GILMORE DOME
 FAIRBANKS MINING DISTRICT, ALASKA

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