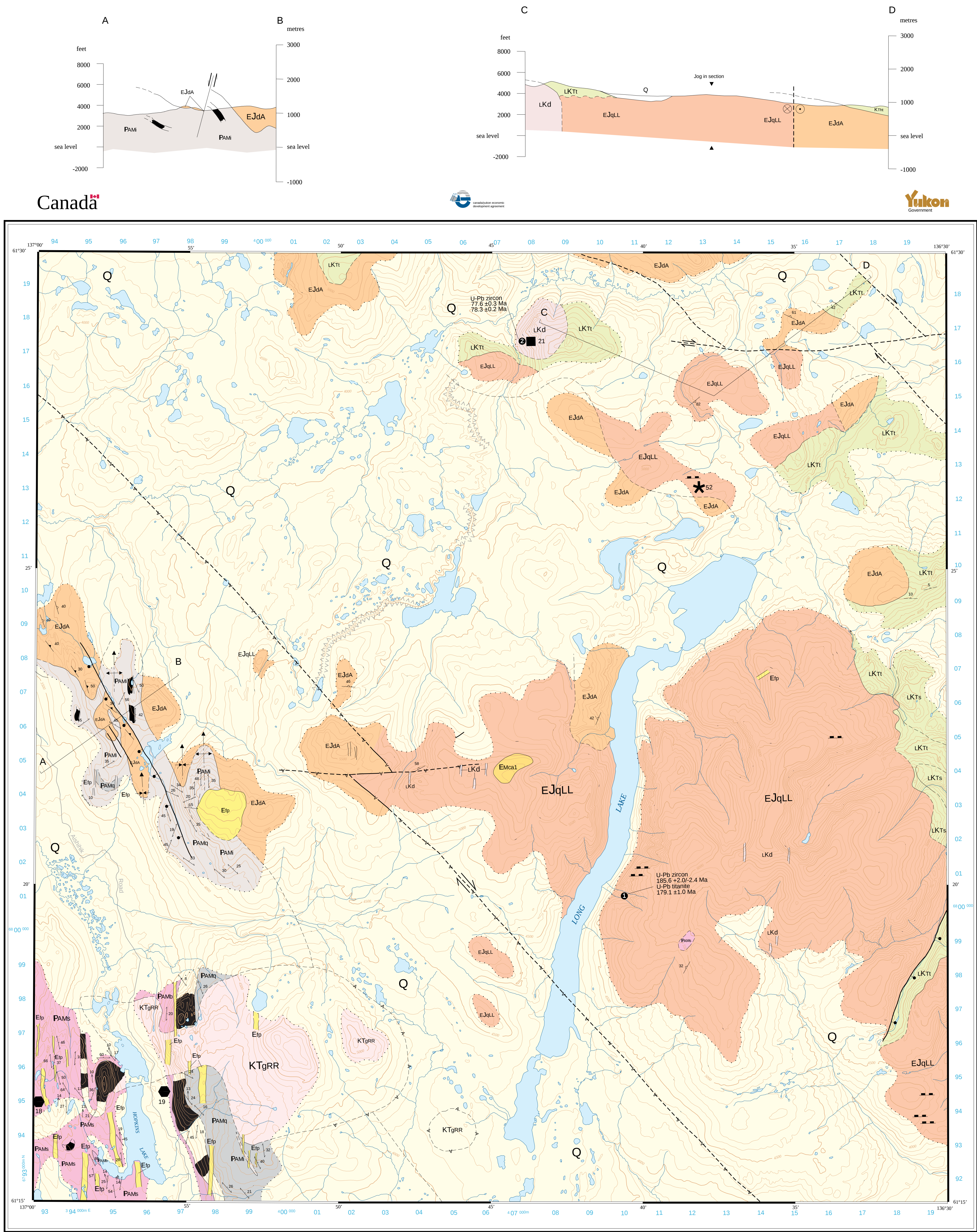


LAYERED ROCKS

QUATERNARY

Q undifferentiated, unconsolidated gravels, sands and gravels of glaciogenic origin.

Eocene

MOUNT CREEDON VOLCANIC SUITE

Exa1 brown, orange and green weathering, intermediate to dark green, andesite feldspar porphyry flows, vesicular, hornblende phenocrysts are common pyroxenes, biotite and grey quartz eyes are rare, a flow fabric, defined by the parallel alignment of feldspar grains, is common; unit includes some autoclastic flow breccia and minor tuff.

LATE CRETACEOUS

TRANSALIN FORMATION

LK1 heterogeneous grey, green and maroon, poorly consolidated, intermediate to felsic, feldspar and hornblende-feldspar porphyritic tuff, flow breccia and volcaniclastic rocks; feldspar and hornblende phenocrysts occur in discrete phenocrysts and as glomerophyritic clots; the matrix consists of crystal lithic tufts and sands; pea to boulder size rounded to angular, auto-clastic and, less commonly, xenolithic clasts constitute the breccia flows.

LK1s green, grey, and maroon, interbedded volcanoclastic, sandstone and mudstone; clasts consist of reworked volcanic rocks and fragments of the country rock. sand consists primarily of feldspar and quartz grains; mudstone locally preserve plant debris, includes minor tuff.

PALEOZOIC AND LATE PROTEROZOIC

AISHHIK METAMORPHIC SUITE

PAM heterogeneous assemblages of feldspathic muscovite schist and gneiss, two-mica granitic gneiss, and hornblende diorite gneiss; all three rock types are intimately interfoliated; granitic gneiss and muscovite gneiss are tan to brown and are locally characterized by augen of potassium feldspar and discontinuous metabasite boudins; diorite gneiss is grey, equigranular and medium to coarse grained; includes minor marble and quartzite.

PAM1 tan to brown to black quartzite; commonly micaceous includes minor mica-schist, marbles, metabasite and felsic meta-igneous rocks.

PAM2 bleached white weathering, white to grey, coarsely crystalline, flow banded, feld marble; graphite, chert, metabasite and calc-silicate laminae are common.

PAM3 orange and green weathering, green to black hornblende metabasite; includes hornblende amphibolite to hornblende-plagioclase gneiss and hornblende quartzite; adjacent to marble horizons may include significant amount of epidote-dioctide calc-silicate; also includes PAM1; a solitary mega boudin of orange weathering, dark green, gabbroic feldspar augen gneiss.

PAM4 pink porphy, red, and dark grey weathering, dark grey to brown, garnetiferous, muscovite biotite feldspathic mica-schist and quartz mica-schist; fol-form quartz and quartz-feldspar lenses are common and locally impart a magmatic appearance to the rocks; micaceous feldspathic grey quartz gneiss is a locally significant subunit; includes minor quartzite, metabasite marble, and meta-igneous rocks.

INTRUSIVE ROCKS

Eocene

E1p north-trending, olive to orange weathering, green feldspar porphyry dyke rocks; hornblende phenocrysts are common; thought to represent feeder dykes to Ema1 flows; includes buff weathering, tan to orange, leucocratic quartz eye feldspar porphyry which forms a plug that retards the western margin of the Ashihik Batholith in central-west 115 H7.

LATE CRETACEOUS

LKd light grey weathering, dark grey, medium to coarse grained, equigranular, hornblende diorite; planar fabric defined by alignment of euhedral hornblende grains; strongly magmatic; underlies the SA-TO claims; includes orange weathering, dark green, aphanitic to finely crystalline, dense mafic dyke rocks in 115 H7.

LATE CRETACEOUS - TERTIARY

RUBY RANGE PLUTONIC SUITE

KTGR grey to light brown weathering, light to dark grey medium to coarse grained, equigranular to potassium feldspar megacrystic, biotite-hornblende granodiorite-hornblende biotite monzonite and quartz monzonite, in which grey quartz eyes are abundant, is a locally significant phase; titanite is a locally significant accessory; includes minor mafic microdiorite and hornblende diorite.

EARLY JURASSIC

LONG LAKE PLUTONIC SUITE

EJ1a pink-orange weathering, rose to pink to white leucocratic, biotite hornblende quartz monzonite to granite; locally heterogeneous ranging from coarsely crystalline, potassium feldspar megacrystic rock, to finely crystalline equigranular rock; also occurs as cross-cutting pegmatite and aplite dykes; coarse grained rocks are characterized by a subtle to well developed planar fabric defined by the parallel alignment of feldspar megacrysts; microvoids are common; locally includes significant amounts of Ema1.

AISHHIK BATHOLITH

EJ1a white to orange weathering, grey, coarsely crystalline, equigranular, hornblende diorite and monzonite; a porphyritic texture, defined by potassium feldspar megacrysts is locally present; minor amounts of biotite are common; epidote and titanite are important accessory phases; planar fabrics include a solid state fabric along the western margin of the batholith, and a magmatic fabric elsewhere; includes minor mafic microdiorite enclaves, pegmatite, and H-par-11 gneiss in which hornblende diorite is interbedded with Ema1.

SYMBOLS

approximate limit of bedrock.....

geological contact (defined, inferred).....

fault (defined, inferred, dot on down dropped side).....

defines contact or fault inferred from aeromag data.....

bedding (measured, estimated from air photo).....

prominent foliation.....

quartz-veining, mineral elongation lineation.....

planar magmatic fabric in intrusive rocks (inclined, horizontal).....

planar solid-state fabric in intrusive rocks (inclined, horizontal).....

fold axial surface trace (upright and overturned antiforms and synforms).....

quartz veins.....

breccia.....

line of cross-section.....

isotopic age determinations.....

Johnson et al. 1996.....

Lewis 1997.....

MINERAL OCCURRENCES

Minfile Number	Name	Deposit type
115H018	Jansiw	● Cu-Mo-W skarn
115H019	Hopkins	● Cu skarn
115H021	Sato	■ Cu-Mo porphyry
115H052	Lascas	★ industrial-grade quartzite

REFERENCES

LEWIS, J., 1997. Geology, Alteration and Mineralization of the Sato Copper porphyry property, southwestern Yukon Territory, Canada. Department of Earth and Ocean Sciences, University of British Columbia.

JOHNSTON, S.T., MORTENSEN, J.K. and ERDMER, P., 1996. Igneous and metamorphic age constraints for the Ashihik metamorphic suite. Canadian Journal of Earth Sciences v. 33, p.1543-1555.

JOHNSTON and TIMMERMAN, J., 1997. Geology of Ashihik Lake map area, Yukon (NTS 115 H/6). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs, Canada, Geoscience Map 1997-9.

RECOMMENDED CITATION

JOHNSTON and TIMMERMAN, J., 1997. Geology of Hopkins Lake map area, Yukon (NTS 115 H/7). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs, Canada, Geoscience Map 1997-9.

Digital cartography and drafting by Will van Randen, Yukon Geology Program.

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

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