

### LEGEND

#### OVERLAP ASSEMBLAGES

#### NEOGENE

**WRANGELL VOLCANIC ROCKS:**

**NW** basaltic-andesitic, andesitic and dacitic lava flows; dacite and rhyolite domes; minor silicic pyroclastic deposits;

#### PALEOCENE

**RUBY RANGE BATHOLITH (ca. 64-57 Ma):**

**PR** medium to coarse-grained, equigranular, light grey to white biotite +/- hornblende granodiorite; fine to coarse-grained, salt and pepper, hornblende +/- biotite, quartz diorite; very coarse-grained biotite, muscovite K-feldspar pegmatite dikes; likely in part coeval with Rhyolite Creek volcanoplutonic complex

**LATE CRETACEOUS (?)**

**LKgb** coarse-grained, dark brown-black, hornblende +/- biotite, plagioclase, pyroxene, gabbroic dikes and intrusions

**LKd** fine to coarse-grained hornblende diorite to tonalite with abundant garnets; locally grading into garnet amphibolite

**LKgn** medium to coarse-grained, mylonitic to weakly deformed, biotite, quartz +/- garnet, orthogneiss; dark grey weathered, dark and light grey banded fresh; commonly interlayered with biotite-schist or amphibolite of Snowcap Assemblage; inferred Late Cretaceous in age, but could be as old as Permian

**LATE JURASSIC TO EARLY CRETACEOUS**

**DEZADEASH FORMATION:**

**JKD** interbedded light to dark buff-grey lithic greywacke, sandstone, siltstone, thin dark grey shale, argillite and conglomerate; mass-flow conglomerate; rare light grey tuff

**TRIASSIC TO CRETACEOUS**

**Tgd** medium to coarse-grained, unfoliated, hornblende diorite to hornblende, biotite, quartz diorite; salt and pepper appearance; locally abundant dark grey fine grained gabbro; may in part be equivalent to Early Cretaceous Kluanne Ranges Suite

**PALEOZOIC-MESOZOIC**

**PMc** medium to coarse-grained, beige to cream coloured marble; locally light grey to dark grey banded; strongly deformed

**PMs** fine to medium-grained, garnet-biotite schist and metasedimentary rocks; brown to rusty weathered, dark grey fresh; layers variably richer in quartz or biotite; may result from low-grade metamorphism of rocks part of the Dezadeash Formation

**PMgn** medium to coarse-grained, orange weathered, dark grey to black, biotite-quartz-feldspar +/- kyanite-sillimanite paragneiss; fine-grained, banded grey to dark grey metasedimentary rocks

**MISSISSIPPIAN-PENNSYLVANIAN**

**STATION CREEK FORMATION:**

**MPS** volcanic tuff; volcanoclastic siltstone and sandstone; crystal tuff and chert; basaltic flows and breccia

#### YUKON-TANANA TERRANE

**PROTEROZOIC TO DEVONIAN**

**SNOWCAP ASSEMBLAGE:**

**PDsv** brown-rusty weathered, dark grey metavolcanic sandstone and conglomerate; dark grey-green garnet-biotite metabasalt; fine-grained dark grey clay; interlayered with marble of the Snowcap Assemblage

**PDsc** fine to medium-grained, grey-cream weathered, light grey to white marble occurring as lenses and thick layers (up to several metres wide) within schist, orthogneiss, metavolcanic or metasedimentary rocks; locally associated with ultramafic rock lenses; internally strongly deformed

**PDsa** medium-grained, dark and light grey banded amphibolite gneiss with abundant garnets; fine-grained dark green to black garnet amphibolite schist; fine to medium-grained, rusty-brown weathered, dark green massive metabasalt

**PDss** fine to medium-grained, light to dark grey and brown weathered biotite, muscovite, quartz, garnet schist; locally abundant aluminosilicates (sillimanite, +/- kyanite); locally migmatitic

#### LEGEND EXPLANATION

**PLUTONIC SUITES:** grouping of plutonic rock units based on age, regional distribution and in some cases composition

**LAYERED ROCK ASSEMBLAGES:** regionally mappable units generally of Group or Formation rank

#### SYMBOLS

geologic contact (defined, approximate).....

fault; strike-slip, dextral (approximate).....

fault; movement not known (approximate).....

thrust fault (inferred).....

foliation (dominant/early, late).....

mineral lineation.....

intersection lineation.....

crenulation lineation.....

fold axis (microfold, z-fold).....

bedding.....

dike.....

field station.....

limited-use road or trail.....

#### RECOMMENDED CITATION

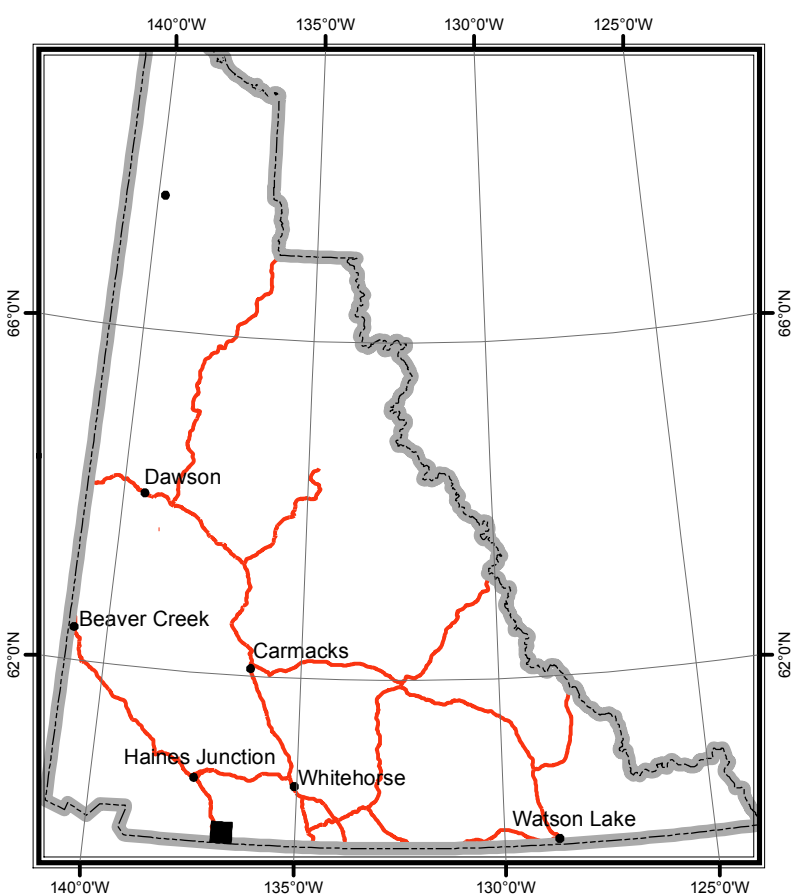
Bordet, E. and Israel, S., 2014. Preliminary geological map of the Takhanne River area, NTS 115A/02 (1:50 000 scale), Yukon Geological Survey Open File 2014-16.

Digital cartography and drafting by Esther Bordet and Steve Israel, Yukon Geological Survey.

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 purchased from the Yukon Geological Survey, Energy, Mines and Resources, Yukon Government, Room 102-300 Main St., Whitehorse, Yukon, Y1A 2B5. Ph. 867-667-3201. Email geology@gov.yk.ca

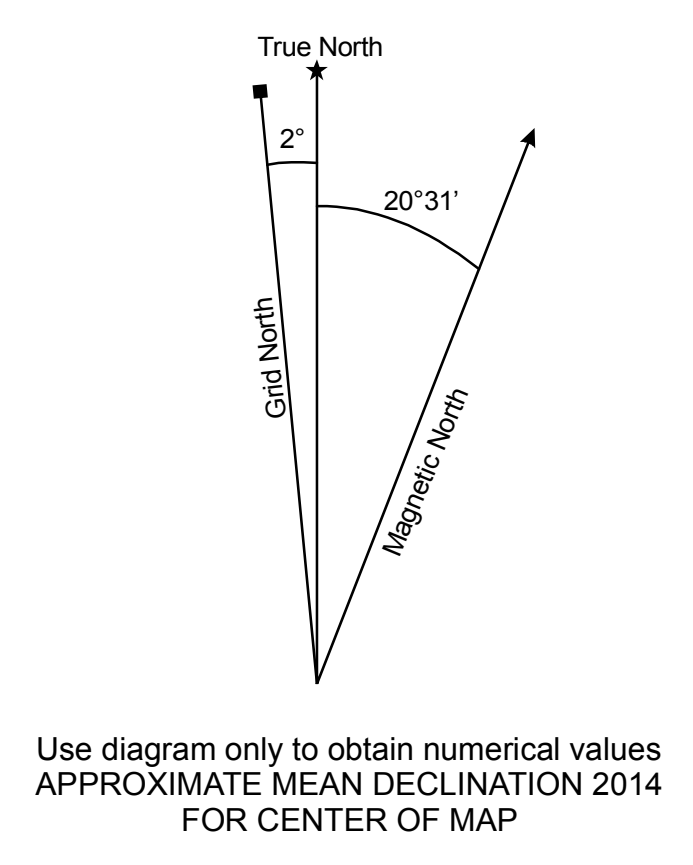
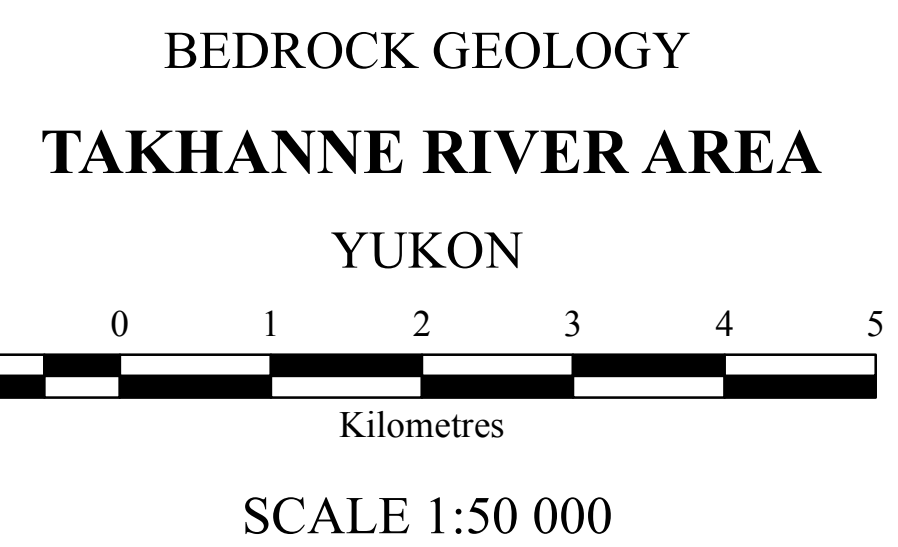
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1:50 000-scale topographic base data produced by CENTRE FOR TOPOGRAPHIC INFORMATION, NATURAL RESOURCES CANADA

ONE THOUSAND METRE GRID Universal Transverse Mercator Projection North American Datum 1983 Zone 8

CONTOUR INTERVAL 100 Feet Elevations in feet above Mean Sea Level



Yukon Geological Survey  
Energy, Mines and Resources  
Government of Yukon

Open File 2014-16

**Preliminary geological map of the Takhanne River area, NTS 115A/02**  
**(1:50 000 scale)**

by  
Esther Bordet and Steve Israel