

LEGEND

OVERLAP ASSEMBLAGES

- MIOCENE (?)**  
**WRANGELL VOLCANICS**
- Mw** coherent flow-banded andesitic to dacitic lavas and subvolcanic intrusions; silicic tuff and lapilli
- OLIGOCENE**
- Oa** pebble to cobble and locally boulder, clast supported conglomerate; clast types include well-rounded to sub-angular rock-types found in the immediate area including mafic to intermediate volcanic and intrusive rocks, fine-grained clastics and marls
- TKOPE SUITE (ca. 34-23 Ma):**
- Ot** medium to coarse-grained, plagioclase, quartz porphyry;
- JURASSIC TO EARLY CRETACEOUS**  
**KLUANE RANGES SUITE (ca. 124 - 116 Ma):**
- EKx** medium to coarse grained, strongly foliated, hornblende, biotite granodiorite to quartz-diorite
- PYROXENITE CREEK SUITE (ca. 124 Ma):**
- EKp** fine to coarse-grained, strongly foliated to massive hornblende, biotite granodiorite; white to beige weathered, salt and pepper fresh; garnets common
- 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
- JARVIS RIVER ASSEMBLAGE:**
- Ju** black to dark grey siltstone and fine-grained sandstone; light grey arkosic to lithic sandstone
- LATE TRIASSIC**  
**BEAR CREEK ASSEMBLAGE**
- uKbm** foliated and faulted melange-like assemblage of medium to dark green, medium- to coarse-grained clastic or volcanoclastic rocks and lesser grey chert and mudstone, with local highly foliated, cm- to dm-scale, cream-coloured layers and lenses of more felsic composition (tuff?)
  - uKbs** fine-grained meta-siltstone, mudstone and sandstone; phyllitic to schistose, locally more massive; abundant pyrite cubes observed in mudstone;
  - uKbv** fine to medium-grained, strongly foliated to massive intermediate to mafic metavolcanic rocks; greenschist near fault zones; interlayered with metasedimentary rocks of uTrBs and thin carbonate horizons; locally pillowed

WRANGELLIA

- LATE TRIASSIC**  
**MAPLE CREEK GABBRO (ca. 232 Ma)**
- uMg** medium to coarse-grained, gabbro and diorite; massive to strongly foliated near fault zones
- KLUANE MAFIC/ULTRAMAFIC SUITE (ca. 232-228 Ma)**
- uTu** medium to fine-grained peridotite, dunite and gabbro; where deformed abundant serpentinite
- MCCARTHY FORMATION**
- uTm** fine-grained calcareous to carbonaceous mudstone and siltstone; massive beige to cream weathered carbonate; white to light grey, strongly deformed evaporite
- NIKOLAI FORMATION**
- uNf** dark green to maroon, massive to locally foliated, amygdaloidal and vesicular basalt; rare pillow and volcanic breccia

MISSISSIPPIAN TO PERMIAN

- HASEN CREEK FORMATION**
- Phc** beige to white weathered, laterally discontinuous carbonate; light to dark grey banded to massive; locally strongly deformed
  - Phs** fine-grained mudstone, siltstone and sandstone; minor volcanoclastic rocks; locally phyllitic
- STATION CREEK FORMATION**
- CS** dark green metabasalt, volcanic breccia, greenschist; minor carbonate and fine-grained siliciclastic rocks

ALEXANDER TERRANE

- JURASSIC**  
**SAINT ELIAS SUITE (ca. 152-148 Ma)**
- JS** coarse-grained, dark brown-black, hornblende +/- biotite, granodiorite and quartz-diorite
- DEVONIAN**  
**BULLION CREEK ASSEMBLAGE**
- Dp** fine-grained, dark to light grey phyllite and calcareous phyllite
  - Dc** fine to medium-grained, grey-cream weathered, light grey to white marble; internally strongly deformed
  - Dv** dark green metabasalt, meta-volcanoclastic rocks, greenschist

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 (approximate).....
- fold axial trace (antiform, synform).....
- overturned fold axial trace (antiform, synform).....
- foliation.....
- mineral lineation.....
- intersection lineation.....
- crenulation lineation.....
- fold axis (microfold, z-fold).....
- bedding.....
- dike.....
- field station.....
- limited-use road, trail.....

▲ MINFILE Occurrences			
Number	Name	Deposit Type	Commodity
115A036	ARCHIBALD	Au-Quartz Veins	Gold
115A037	STRIDE	Podiform Chromite	Chromite
115A038	SUGDEN	Coal	Coal
115A039	FERGUSON	Unknown	Unknown
115A040	DECOELI	Gabbroid Cu-Ni-PGE	Cu-Ni-PGE
115A041	ELLEN	Volcanogenic Massive Sulfide	Copper
115A053	BH	Unknown	Unknown
115B002	KASKAWULSH	Unknown	Copper
115B003	KIMBERLY	Coal	Coal
115B004	JARVIS	Unknown	Copper
115B011	BRYSON	Coal	Coal
115B008A	TELLURIDE	Volcanogenic Massive Sulfide	Copper, Zinc
115A008B	FROHBERG	Volcanogenic Massive Sulfide	Copper, Zinc

RECOMMENDED CITATION

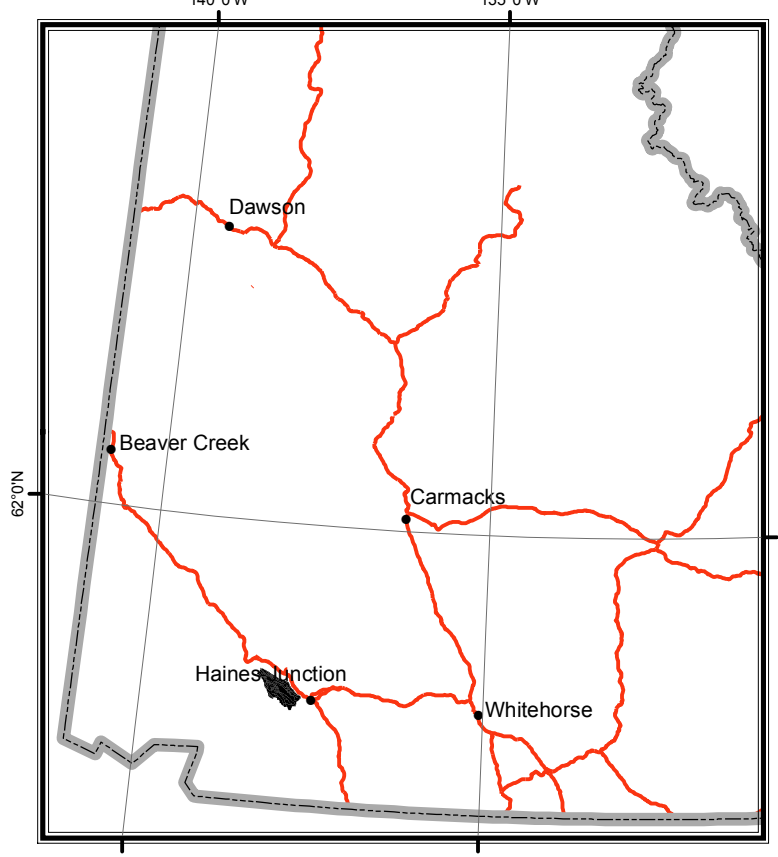
Israel, S., Colpron, M., Cubley, J., Moynihan, D., Murphy, D.M., and Reif, C. Preliminary bedrock geology of the Mt. Decoeli area, parts of NTS (115A/12,13 and 115B/9,16), Yukon Geological Survey Open File 2014-XX.

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

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

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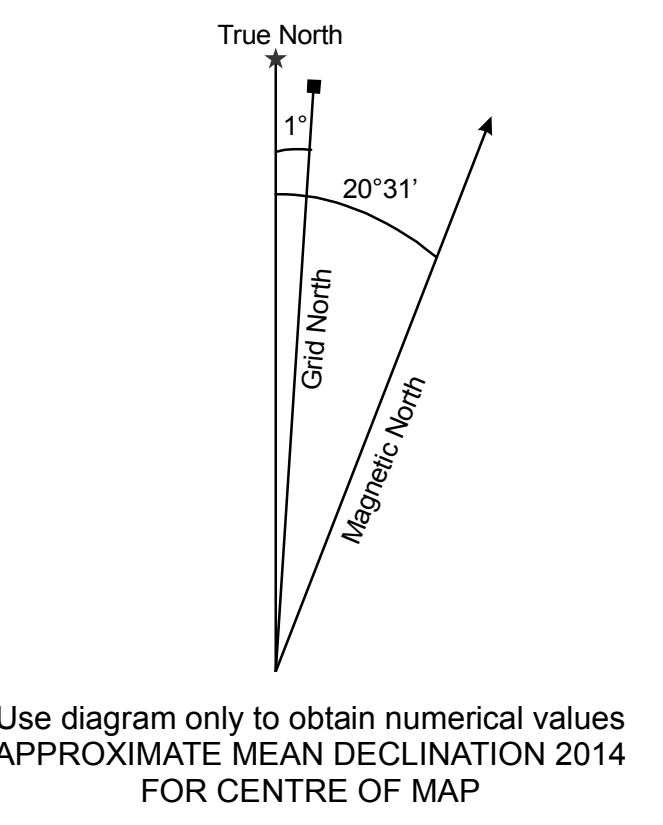
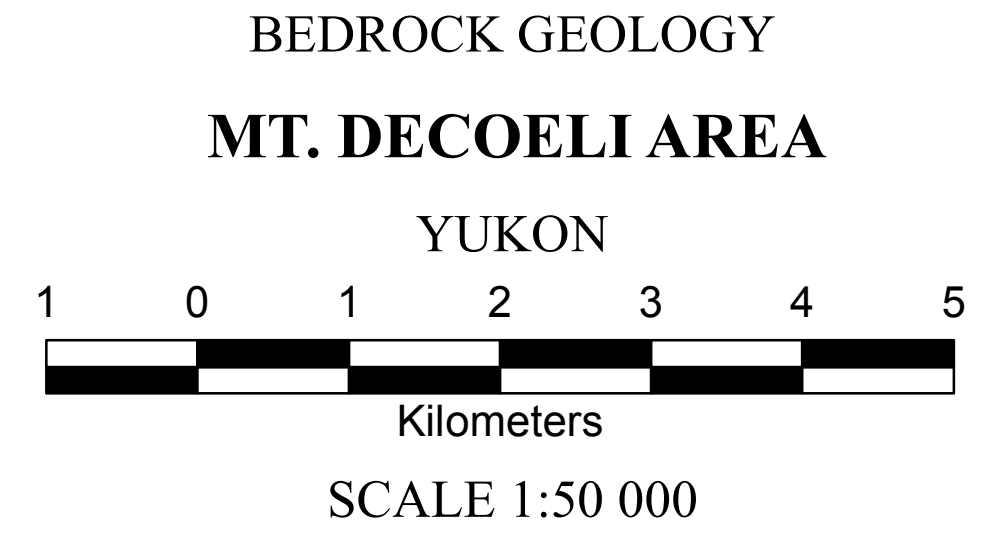
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1:50 000-scale topographic base data produced by CENTRE FOR TOPOGRAPHIC INFORMATION, NATURAL RESOURCES CANADA

ONE THOUSAND METRE GRID  
Universal Transverse Mercator Projection  
North American Datum 1983  
Zone 8  
(West half of map Zone 7, projected into Zone 8)

CONTOUR INTERVAL 20 Metres  
CONTOUR INTERVAL 100 Feet For Northeast Corner of Map  
Elevations above Mean Sea Level



Yukon Geological Survey  
Energy, Mines and Resources  
Government of Yukon

Open File 2014-18

Preliminary geological map of the  
Mt. Decoeli area, NTS 115A/12,13 and 115B/9,16  
(1:50 000 scale)

by  
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