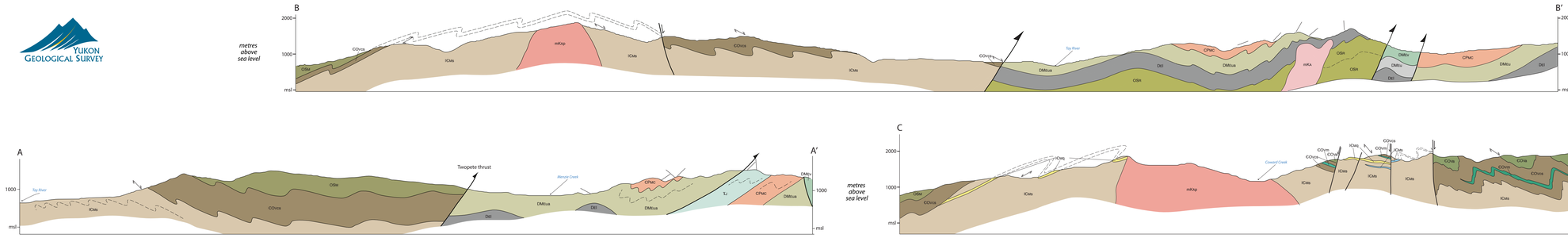

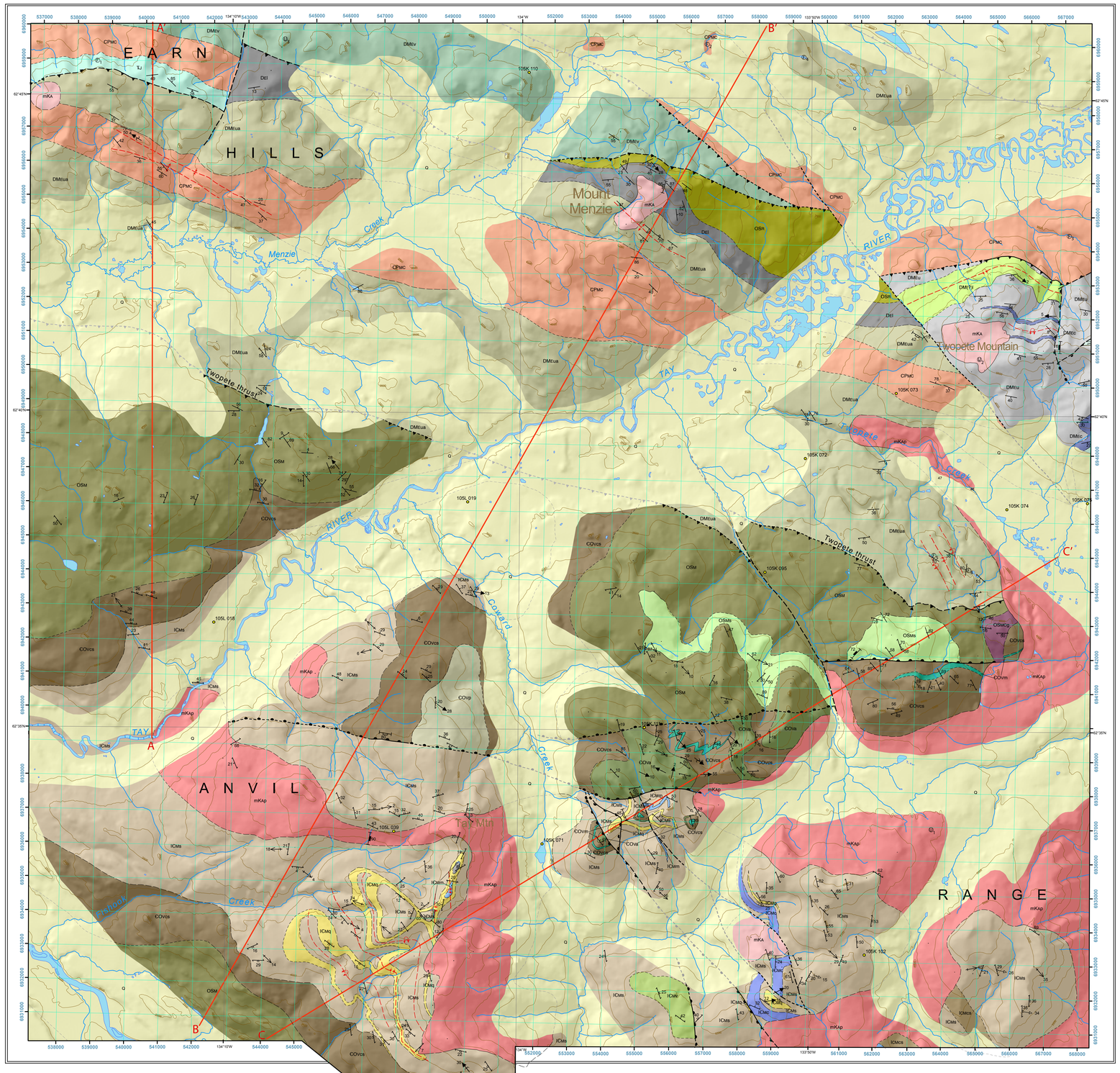

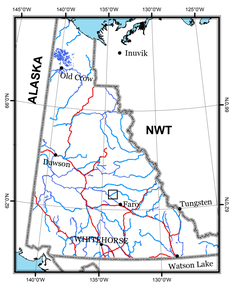

1:50 000-scale topographic base data produced by CENTRE FOR TOPOGRAPHIC INFORMATION, NATURAL RESOURCES CANADA

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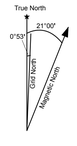
CONTOUR INTERVAL 100 FEET
Elevations in feet above Mean Sea Level
North American Datum 1983
Universal Transverse Mercator Projection

BEDROCK GEOLOGY
TAY MOUNTAIN AREA

CENTRAL YUKON

SCALE 1:50 000

0 1 2 3 4 5 kilometres



Use diagram to obtain numerical values
APPROXIMATE MEAN DECLINATION 2015
FOR CENTRE OF MAP
Annual change decreasing 22.4 '

NTS 105L/16 Earn Lake	NTS 105K/13 Stokes Lake	NTS 105K/14 Mount Gillis
NTS 105L/09	NTS 105K/12 THIS MAP	NTS 105K/11 Barwell Lake
NTS 105L/01 Glenlyon Lake	NTS 105K/05 Rose Mountain	NTS 105K/06 Mount Mye

QUATERNARY

Q — unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits

INTRUSIVE ROCKS

CRETACEOUS

ANVIL PLUTONIC SUITE

mKA — blocky, medium to coarse-grained, biotite ± hornblende granodiorite

mKAp — porphyritic, medium-grained biotite ± hornblende granodiorite with phenocrysts of K-feldspar up to 5 cm long

ORDOVICIAN TO SILURIAN

MENZIE CREEK VOLCANICS

OSMg — medium-grained, dark green pyroxene-bearing gabbro that forms sills, dikes and small plutons

LAYERED ROCKS

MIDDLE TO UPPER TRIASSIC

JONES LAKE FORMATION

TrJ — grey-brown weathering, grey fresh, thick-bedded grainstone with rare cross-beds

CARBONIFEROUS TO PERMIAN

MOUNT CHRISTIE FORMATION

CPMc — rusty orange to brown weathering, grey, dark grey, grey-green, maroon chert with siltstone interbeds

DEVONIAN TO MISSISSIPPIAN

EARN GROUP

DMEua — arenite: white and grey weathering, grey fresh, clean, medium-grained quartz arenite to chert-pebble conglomerate with tuffaceous matrix; calcareous, medium-grained, quartz-rich sandstone; grey, medium-bedded to massive quartzose siltstone, grey and black chert, siltstone interbedded with limestone; rare, altered, plagioclase-phyric basalt or andesite and beige weathered, welded tuff

DEv — volcanic rocks: fine to medium-grained, grey-green feldspar ± pyroxene-phyric andesite and volcanic breccia

DMEu — undifferentiated: thin-bedded, fine-grained sandstone and muddy siltstone that is commonly rhythmically bedded; dark grey, laminated quartzose siltstone and fine-grained quartzose sandstone; includes fine-grained, purple and green striped hornfels with rare, cm-scale limestone lenses; rare medium-grained, massive arenite

DM(?)l — limestone debris flow: light grey weathering, thin-bedded, purplish-grey limestone and calcareous sandstone; heterogeneous, very poorly sorted, dominantly matrix supported debris flow deposit comprising boulders of massive to cross-bedded limestone in a slump folded muddy to sandy matrix

DMEc — chert: thin-bedded, black chert and siliceous siltstone

DEl — recessive dark grey and black chert that commonly has white weathered stripes interbedded with silvery weathered siltstone and fine-grained sandstone

ORDOVICIAN AND SILURIAN

ROAD RIVER GROUP

OSR — buff weathering, platy, dolomitic siltstone commonly with trace fossils; light green-grey weathered, fine-grained, calcareous sandstone; dark grey, medium-grained, quartz-rich lithic sandstone

MENZIE CREEK FORMATION

OSMs — sandstone: dark grey-green weathering, thin-bedded, medium-grained greywacke; grey-brown weathering, thin-bedded to laminated, variably carbonaceous siltstone; buff weathering, massive purplish-grey hornfelsed siltstone and calc-silicate hornfels; orangey-grey, thin-bedded siltstone and sandstone, grey phyllite and quartzose siltstone and sandstone

OSM — dark green amygdaloidal basalt, locally pillowed; green, monolithic basalt breccia; grey-green weathering, green heterolithic volcanic breccia; volcaniclastic siltstone and sandstone; minor green ribbon chert. North of Tay River: thick-bedded, medium to coarse-grained basalt interlayered with light green banded tuff and calcareous siltstone and phyllite

UPPER CAMBRIAN AND ORDOVICIAN

VANGORDA FORMATION

COVa — amphibolite: dark green and white weathering, foliated amphibolite schist; dark purple and dark green, finely foliated meta-igneous rocks comprising fine-grained biotite and amphibole; minor porphyritic (plagioclase) metagabbro or metabasalt

COVm — marble: grey and white weathered, thin-bedded, light brown-grey to purple grey fresh, quartz-rich marble and calcareous sandstone

COVp — phyllite: light green grey, very fine grained tuffaceous phyllite

COVcs — calc-silicate: green, purple and beige striped, variably calcareous calc-silicate schist; grey weathered, pinkish grey fresh calcareous schist; brown weathered fresh, finely striped calcareous, mica-rich schist; chalky white calcareous siltstone to phyllite

LOWER CAMBRIAN

MOUNT MYE FORMATION

ICMs — schist: brown weathered, fine to coarse-grained biotite-muscovite ± cordierite ± andalusite schist

ICMq — quartzite: dark grey to black, variably carbonaceous quartzite and quartz-rich, carbonaceous phyllite

ICMm — marble: light grey and dark grey, thin-bedded marble

ICMv — metavolcanic rock: dark green, massive greenstone with disseminated biotite and rare pyroxene crystals; green, well-foliated chlorite schist and phyllite

ICMcs — calc-silicate: interbanded pale green calc-silicate rock and brown biotite phyllite

ICMc — carbonate: orange and grey weathered, grey fresh, thin-bedded micaceous, calcareous schist thickly interlayered with light grey marble and minor grey shale

SYMBOLS

- geologic contacts (defined, approximate, inferred, covered)
- fault; movement not known (known, approximate, inferred, covered)
- thrust fault (known, approximate, inferred, covered)
- normal fault (known, approximate, inferred, covered)
- fold axial trace (antiform; synform; overturned antiform; overturned synform)
- limit of outcrop
- form lines
- bedding (tops unknown, upright bedding, overturned)
- foliation (dominant, late (Sn+1), late (Sn+2))
- intersection lineation
- fold axis unknown phase, vergence known)
- crenulation lineation
- joint, fault
- apparent dip on cross sections (bedding, late foliation)
- Yukon MINFILE location
- field station
- fossil location
- U-Pb geochronology sample

Mineral Occurrences
Yukon MINFILE (2015)

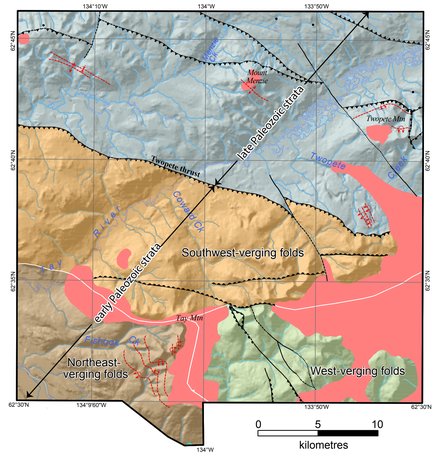
ID Number	*Deposit Type*	*Status*
105K 071	Cu+/-Ag vein	unknown
105K 072	plutonic Au	anomaly
105K 073	unknown	drilled prospect
105K 074	SEDEX Zn-Pb-Ag	drilled prospect
105K 075	unknown	unknown
105K 095	unknown	showing
105K 102	unknown	anomaly
105K 110	Stratiform barite	showing
105L 018	plutonic Au	anomaly
105L 019	Zn-Pb-Ag	showing
105L 039	SEDEX Zn-Pb-Ag	drilled prosect

GEOCHRON

Locality	Type	Station #	Mineral	Age	Interpretation	Reference
1	U-Pb	AR-4	monazite	94.9 ± 0.6	crystallization	unpublished by Mortensen, J.K. and Pigage, L.C.
2	U-Pb	13-RC-177	zircon	96.74 ± 0.03	crystallization	preliminary by Crowley, J.
3	U-Pb	GGA-87-26G3	zircon	360 ± 25	crystallization	unpublished data by Mortensen, J.K.

FOSSILS

Locality	GSC/YGS-NO	Fossil Type	Age	Reference
unit TJ				
1	C-103835	conodonts	Late Triassic, Late Carnian	Gordey, S.P., 2013
unit CPMC				
2	C-150003	conodonts	Carboniferous-Early Permian	Gordey, S.P., 2013
3	C-103779	conodont	Early Permian	Gordey, S.P., 2013
unit DMEua				
4	C-150004	conodonts	Early Carboniferous (Mississippian), Tournaisian	Gordey, S.P., 2013
5	13-RC-230	polygnathus sp. Cf. P. spicatus	Early Mississippian (Tournaisian)	Blodgett, R., 2013
6	13-RC-233	Icriodus? Iowaensis	Late Devonian	Blodgett, R., 2013



Structural domains of the Tay Mountain area

REFERENCES

Blodgett, R. 2013, Fossil Report to Yukon Geological Survey, Whitehorse, Canada

Gordey, S.P. 2013, Geology, Selwyn Basin (105J and 105K), Yukon; Geological Survey of Canada, Open File 5438, 2 maps at 1:250 000 scale and 1 sheet cross-sections at 1:100 000 scale.

Yukon MINFILE, 2015. Yukon MINFILE – A database of mineral occurrences. Yukon Geological Survey, http://data.geology.gov.yk.ca [accessed November, 2015].

RECOMMENDED CITATION

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Digital cartography and drafting by Rosie Cobbett, 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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Yukon Geological Survey
Energy, Mines and Resources
Government of Yukon

Open File 2016-3

Geological map of the Tay Mountain area, central Yukon, parts of NTS 105K/12, 105K/13, 105L/09 and 105L/16, (1:50 000 scale)

by
Rosie Cobbett