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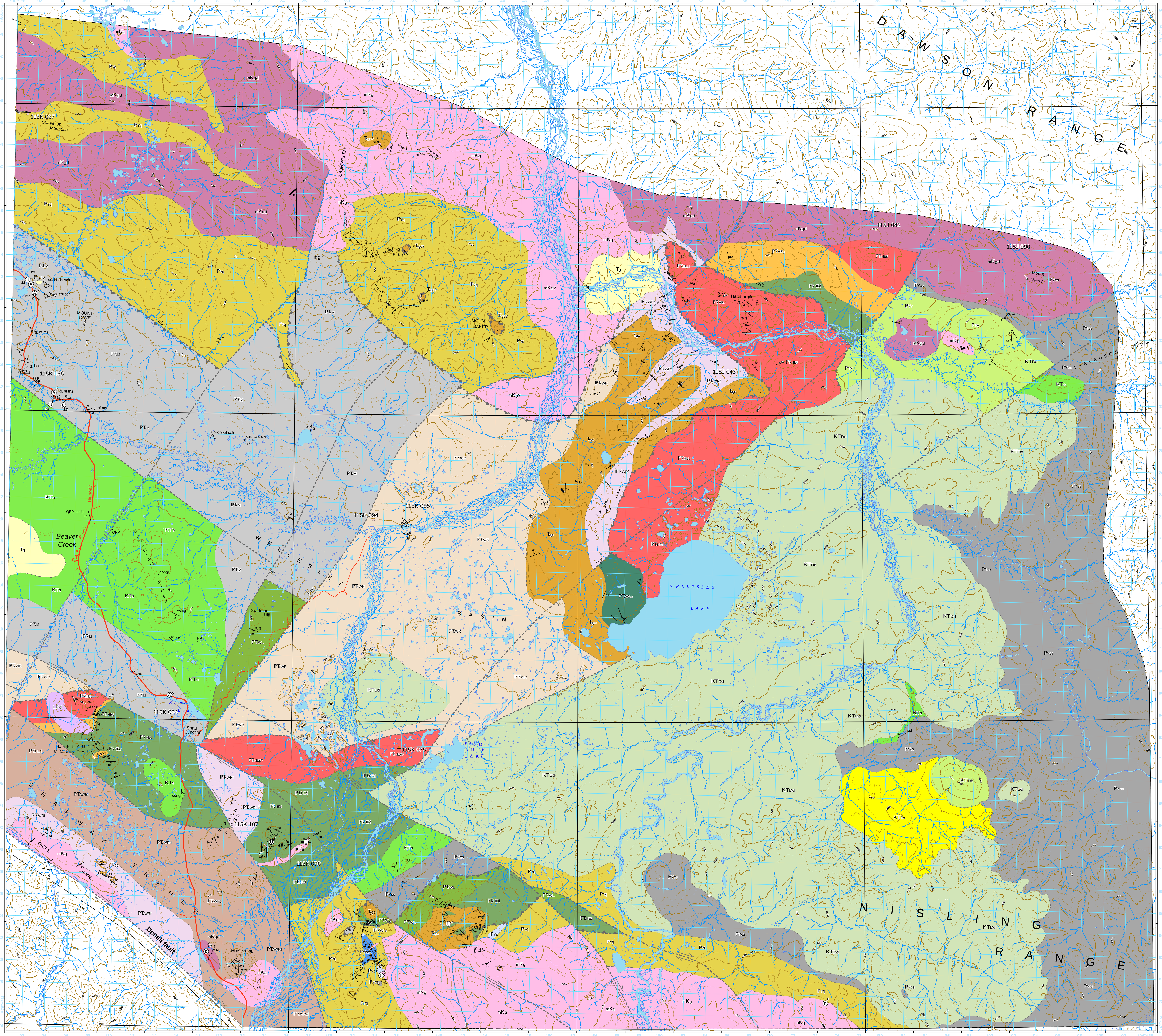


LEGEND

INTRUSIVE ROCKS

TERTIARY

Tg — variably rusty white to cream quartz- and feldspar-porphyritic granite; quartz is characteristically smoky grey (U/Pb zircon - ca. 55 Ma, J.K. Mortensen, unpublished data, 2004); many smaller bodies: QFP - quartz-feldspar porphyry; FP - feldspar porphyry

LATE CRETACEOUS

LKd — unfoliated fine- to medium-grained hornblende diorite and gabbro (U/Pb zircon - ca. 67 Ma, J.K. Mortensen, unpublished data, 2004)

EARLY CRETACEOUS

mKg — variably foliated to unfoliated biotite (+/- hornblende) granite; locally potassium feldspar porphyritic (98.4 +/- 0.9 Ma; 1, Isotopic Age Determinations table), quartz-potassium feldspar porphyritic (103.1 +/- 0.6 Ma; 3) and massive, medium-grained equigranular (90.8 +/- 1.1 Ma; 2)

mKgd — Dawson Range batholith: variably foliated biotite-hornblende granodiorite (ca. 100 Ma U-Pb ages reported from Longline area of southwestern Stewart River map area; Joyce, 2002)

'WINDY MCKINLEY' TERRANE

TRIASSIC

Tgo — medium- to coarse-grained, unfoliated to strongly foliated, fractured and veined, brown-green gabbro; local mafic to ultramafic pegmatitic segregations (ca. 227 Ma; 12 and 13, Isotopic Age Determinations table)

YUKON-TANANA TERRANE

PALEOZOIC (?)

PYog — medium-grained, homogeneous, foliated quartzo-feldspathic schist inferred to be foliated granitoid

LAYERED ROCKS

CRETACEOUS - TERTIARY

'Donjek Volcanics' (after Tempelman-Kluit, 1974)

KTDb — olivine basalt, locally plagioclase-phyric and breccia-textured

KTDd — dacite, feldspar-phyric, grey-weathering, resistant, green and purple massive tuff breccia

KTDr — rhyolite, white to buff, recessive-weathering felsic volcanic flows and quartz-feldspar porphyries, commonly pyritic

KTs — unfoliated clastic rocks including poorly sorted, pebble- to boulder-conglomerate, immature lithic-rich sandstone and siltstone; includes units Tcgq and lTsp of Tempelman-Kluit (1974); also includes heterolithic conglomerate with clasts of amphibolite and hornblende-phyric intermediate volcanic rocks; sst - sandstone; congl - conglomerate

'WINDY-MCKINLEY' TERRANE

MIDDLE TRIASSIC AND/OR OLDER

Mirror Creek formation

PTM — folded and foliated, medium to dark grey phyllitic argillite with variable amounts of interbedded tan-brown, variably calcareous quartz siltstone, sandstone and pebbly sandstone; locally important calcareous phyllite, argillaceous limestone and biotite-chlorite schist or phyllite; extensively intruded by Triassic gabbro (unit Tgo) with the development of pelitic and calc-silicate hornfels near contacts; g - gabbro; mg - metagabbro; cs - grey, weakly calcareous and carbonaceous phyllite or schist; bi-chl sch - biotite-chlorite schist; qzt - quartzite; calc qzt - calcareous quartzite; hf ms - hornfelsed metasedimentary rocks

Contact relationships not exposed

White River formation

PTWR — undifferentiated muscovite-quartz schist and quartz- and feldspar-augen schist (felsic metavolcanic rocks), carbonaceous meta-pelitic schist and grey psammitic schist and quartzite; includes extensive bodies of Triassic (?) gabbro (unit Tgo, intrusions into layered rocks?); g - gabbro; f - felsic metavolcanic rock

PTWRf — muscovite-quartz schist and quartz- and feldspar-augen schist (felsic metavolcanic rocks) and carbonaceous meta-pelitic schist

PTWRcl — carbonaceous meta-pelitic and psammitic schist and quartzite

Contact relationships not exposed

Harzburgite Peak - Eikland Mountain Ophiolite

Wellesley Lake formation

PTWL — undifferentiated fine-grained, medium- to dark-green mafic volcanic or intrusive rock (massive greenstone), foliated pink and green chert, and presumably Triassic, medium-grained gabbro (unit Tgo)

PTWLc — green, pink, tan and black chert, locally interbedded with or intruded by massive mafic volcanic or intrusive rock; c - chert; g - mafic intrusive or volcanic rock

Contact relationships not exposed

PTHEd — massive, medium- to dark-green, fine-grained to locally feldspar porphyritic basalt or diabase; inferred to be sheeted dyke complex; complex overlies gabbro

PTHEg — gabbro, coarse-grained, locally foliated and lineated (Eikland Mountain); overlies harzburgite and dunite

PTHEu — harzburgite, dunite and lesser lherzolite, variably serpentinized and locally intruded by decimetre-scale bodies of plagiogranite

YUKON-TANANA TERRANE

PYv — foliated feldspar-phyric metavolcanic rock

PYcs — dark grey to black carbonaceous muscovite-quartz phyllite or schist and quartzite, locally graphitic; pyritic horizons of cream-coloured muscovite-quartz schist, inferred to be felsic metavolcanic rocks, occur locally

PYq — slabby psammitic biotite-muscovite-quartz schist intercalated with lesser biotite schist and biotite-muscovite metapelitic schist; may include units PYc, PYcs or PYv

PYc — amphibolitic calc-silicate schist and marble

Mineral Occurrences
(Deklerk and Traynor, 2005)

115J 042	○	Run	unknown		
115J 043	○	Mog	anomaly		
105J 090	■	Indiana	drilled prospect	Cu, Mo, Au	porphyry
115K 075	▲	Snag	anomaly	Cu, Ni	gabbroid
115K 076	○	Cottonwood	unknown		
115K 084	▲	Bonza	anomaly	Cu, Ni	gabbroid
115K 085	◆	Fairclough	showing	Cu, Ag	vein
115K 086	◆	Batrick	showing	Mn	vein
115K 087	○	Starvation	unknown		
115K 094	○	Klea	unknown		
115K 107	○	Rhea	unknown		

SYMBOLS

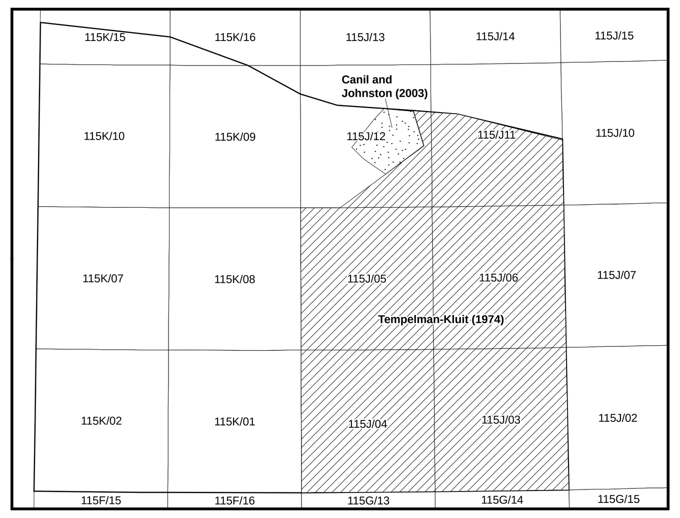
- geologic contact (covered)
- fault, movement not known (covered)
- thrust fault (covered)
- dextral strike-slip fault (covered)
- normal fault (covered)
- axial surface trace, synform
- axial surface trace, antiform
- limit of mapping
- bedding (22)
- foliation (dominant) (54)
- joint (80)
- dyke (80)
- vein (80)
- fault plane (45)
- radiometric date (U/Pb, Ar/Ar, K/Ar) — Ⓤ1 Ⓐ5 Ⓚ1
- field station

NOTES

Stevenson Ridge map area is generally poorly exposed due to heavy vegetative cover and an extensive veneer of Quaternary sediments. The nature of bedrock and contact relationships are highly speculative throughout large parts of the map area.

The interpretation of the bedrock geology presented in this map is based on sparse and widely separated field observations extrapolated with the use of regional aeromagnetic data from the Geological Survey of Canada (Geological Survey of Canada, 1969).

SOURCES OF INFORMATION



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ACKNOWLEDGMENTS

The authors would like to thank Stephen Horton (2006) and Sarah Shoniker and Kristy Long (2007) for excellent field assistance. Safe and uneventful flying services were provided by Sean Whitford, Brett Kapernick, and Doug Makkonen of Trans North Helicopters (2006). Our White River camp was built and operated by Aurora Geosciences of Whitehorse - thanks to cook Jan Brault and bull cook Lucas Halliday. The authors would also like to acknowledge the exceptional hospitality and good humour of our hosts Robert Beatty and Amanda Harris of White River Crossing Lodge. A substantial part of the funding for this program came from Indian and Northern Affairs Canada, through the Strategic Investments in Northern Economic Development (SINED) Fund.

RECOMMENDED CITATION

MURPHY, D.C., VAN STAAL, C. and MORTENSEN, J.K., 2007. Preliminary bedrock geology of part of Stevenson Ridge area (NTS 115J/3, 4, 5, 6, 7, 8, parts of 11 and 12; 115K/1, 2, 7, 8, 9, 10, parts of 15 and 16). Yukon Geological Survey, Open File 2007-9, 1:125 000 scale.

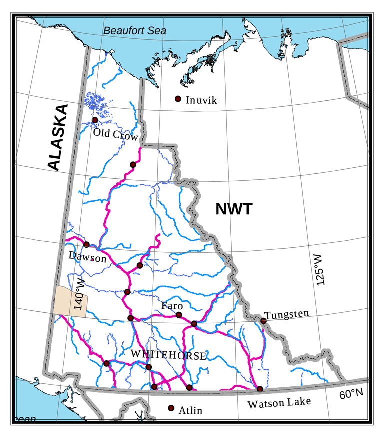
Any revisions or additional geological information known to the user would be welcomed by the Yukon Geological Survey.

Paper copies of this map, the accompanying report and Yukon MINFILE may be purchased from Geoscience Information and Sales, c/o Whitehorse Mining Recorder, Energy, Mines and Resources, Yukon Government, Room 102 - 300 Main St., Whitehorse, Yukon, Y1A 2B5, Ph. 867-667-5200, Fax: 867-667-5150, email: geosales@gov.yk.ca.

A digital PDF (Portable Document File) file of this map may be downloaded free of charge from the Yukon Geological Survey website: http://www.geology.gov.yk.ca.

Isotopic Age Determinations

1	Ⓤ	06DM068	mKg	98.4 +/- 0.9 Ma	zircon	igneous crystallization age	R. Friedman and D. Murphy, unpublished, 2007
2	Ⓤ	06DM093	mKg	90.8 +/- 1.1 Ma	zircon	igneous crystallization age	R. Friedman and D. Murphy, unpublished, 2007
3	Ⓤ	06DM107	mKg	103.1 +/- 0.6 Ma	zircon	igneous crystallization age	R. Friedman and D. Murphy, unpublished, 2007
4	Ⓤ	06DM116	Tg	53.7 +/- 0.6 Ma	zircon	igneous crystallization age	R. Friedman and D. Murphy, unpublished, 2007
5	Ⓐ	06DM001	LKd	ca. 70 Ma	biotite	igneous crystallization age	T. Ullrich and D. Murphy, unpublished, 2007
6	Ⓐ	06DM016	PTM	114.0 +/- 0.7 Ma	muscovite	metamorphic cooling age	T. Ullrich and D. Murphy, unpublished, 2007
7	Ⓐ	06DM026	Tgo	109.2 +/- 0.6 Ma	fuchsite	metamorphic cooling age	T. Ullrich and D. Murphy, unpublished, 2007
8	Ⓐ	06DM042	LKd	71.9 +/- 0.5 Ma	biotite	igneous crystallization age	T. Ullrich and D. Murphy, unpublished, 2007
9	Ⓚ	TO72-370	mKg	97.0 +/- 4.4 Ma	hornblende	cooling age	Wanless et al (1978)
				96.7 +/- 3.5 Ma	biotite	cooling age	Wanless et al (1978)
10	Ⓚ	TO72-457	mKg	94.0 +/- 4.3 Ma	hornblende	cooling age	Wanless et al (1978)
				87.4 +/- 3.2 Ma	biotite	cooling age	Wanless et al (1978)
11	Ⓤ	99M-67	Tg	55.1 +/-1.0 Ma	zircon	igneous crystallization age	J.K. Mortensen, unpublished, 2004
12	Ⓤ	01M-06	Tgo	228.2 +/-0.8 Ma	zircon	igneous crystallization age	J.K. Mortensen, unpublished, 2004
13	Ⓤ	01M-08	Tgo	227.1 +/-0.6 Ma	baddeleyite	igneous crystallization age	J.K. Mortensen, unpublished, 2004



1:125 000-scale topographic base data produced from 1:50 000-scale topographic data by CENTRE FOR TOPOGRAPHIC INFORMATION, NATURAL RESOURCES CANADA

TWO THOUSAND METRE GRID
Universal Transverse Mercator Projection
North American Datum 1983
Zone 7

CONTOUR INTERVAL 500 FEET
Elevations in feet above Mean Sea Level

BEDROCK GEOLOGY

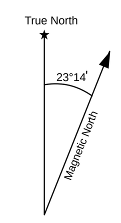
Part of STEVENSON RIDGE (115JK)

YUKON

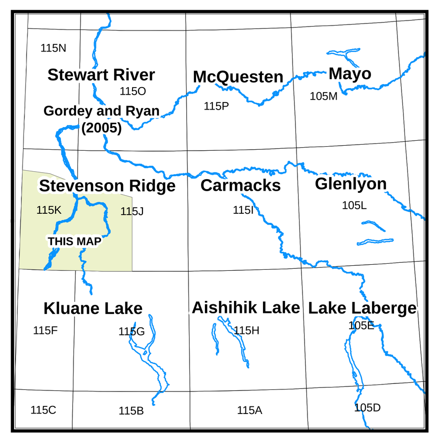
(115J/3, 4, 5, 6, 7, 8, parts of 11 and 12; 115K/1, 2, 7, 8, 9, 10, parts of 15 and 16

SCALE 1:125 000

0 2 4 6 8 10
kilometres



Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 2005
FOR CENTRE OF MAP



Yukon Geological Survey
Energy, Mines and Resources
Government of Yukon

Open File 2007-9

Preliminary bedrock geology of part of Stevenson Ridge area, Yukon (NTS 115J/3, 4, 5, 6, 7, 8, parts of 11 and 12; 115K/1, 2, 7, 8, 9, 10, parts of 15 and 16) (1:125 000 scale)

by

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