

- QUATERNARY**
- Q unconsolidated glacial, glaciofluvial and glaciolacustrine deposits: fluvial silt, sand and gravel, and local volcanic ash, in part with cover of soil and organic deposits
- INTRUSIVE ROCKS**
- Kd KLUANE RANGES SUITE: medium- to coarse-grained, unfoliated, hornblende-biotite, diorite to biotite granodiorite, salt and pepper appearance
 - uTmg MAPLE CREEK GABBRO: medium- to coarse-grained, massive to foliated, dark grey weathered and fresh, pyroxene gabbro; rare olivine phenocrysts
 - uTu KLUANE MAFIC ULTRAMAFIC COMPLEX: fine- to medium-grained, dark grey weathered pyroxene gabbro; dark green/black weathered peridotite, pyroxene and rare dunite, locally strongly serpenitized and altered
- LAYERED ROCKS**
- WRANGELLIA**
- UPPER TRIASSIC (?) - JURASSIC**
- JKD interbedded light to dark buff-grey lithic greywacke, sandstone and siltstone, thin dark grey shale, argillite, phyllite and conglomerate; rare tuff horizons; may include Late Triassic McCarthy Formation, well-bedded calcareous mudstone and black bedded carbonate
- TRIASSIC**
- uTc CHITSTONE LIMESTONE: light beige to light grey carbonate; massive to brecciated and locally bedded; dark green to black fresh; pyroxene-phylic basalt flows; dark grey to black siltstone and light to dark grey limestone found near contact with Hasen Creek Formation
 - uTnv dark green/maroon weathered and fresh, massive to locally foliated, amygdaloidal and vesicular basalt flows; rare pillow, volcanic breccia and conglomerate locally developed near base of unit; breccia and conglomerate contain clasts of sedimentary and volcanic rocks of underlying Hasen Creek and Station Creek formations as well as rounded volcanic clasts typical of the Nikolai basalts
- PENNSYLVANIAN - PERMIAN**
- Skolai Group**
- Phc1 Hasen Creek Formation: light to medium grey, massive to bedded fossiliferous limestone; fossils include corals and crinoids
 - Phc interbedded dark grey and brown weathered siltstone, mudstone and medium- to coarse-grained sandstone; lower part contains volcanoclastic sandstones, tuffs and rare basaltic flows; rare dark grey to black chert beds and chert-pebble conglomerate
 - PPsc interbedded volcanic breccia, agglomerate and volcanoclastic sandstone; intercalated light grey weathered, dark green to black fresh, pyroxene-phylic basalt flows; dark grey to black siltstone and light to dark grey limestone found near contact with Hasen Creek Formation
 - Pps Station Creek Formation: strongly metamorphosed and deformed mafic volcanic rocks, volcanoclastic sandstone, siltstone and mudstone; rare marble interbeds; ubiquitous quartz and calcite (+/- epidote) veins
- Undifferentiated Skolai Group**
- PPs

Mineral Occurrences
Yukon MINFILE (Deklerk and Traynor, 2005)

115K 078	Chair prospect	Ag, Pb, Zn	vein
115K 079	Nutzotin prospect	Cu	skarn
115K 080	California	unknown	Au intrusion
115K 082	Nikki drilled prospect	Cu, Au	porphyry
115K 083	Rip	showing	ultramafic
115K 085	Nutz/Sea	showing	VMS
115K 086	Gruber	unknown	
115K 105	Yellow	showing	ultramafic
115F 043	Pickhandle drilled prospect	Cu, Ni	ultramafic
115F 044	Sevensma anomaly		
115F 045	Canalask deposit	Cu, Ni, PGE	ultramafic
115F 047	Epic	showing	Cu, Mo porphyry
115F 048	Arn	drilled prospect	Au, Cu skarn
115F 049	Sampete	prospect	Cu skarn
115F 050	Monday	prospect	skarn
115F 051	Az/Hump	drilled prospect	Cu, Au skarn
115F 077	Onion	drilled prospect	Ni, Cu, PGE ultramafic

LEGEND

SYMBOLS

- geologic contacts (defined, approximate, inferred, covered)
- fault: movement not known (defined, approximate, inferred, covered)
- fault: dextral (defined, approximate, inferred, covered)
- fault: sinistral (defined, approximate, inferred, covered)
- mapping limit
- truss fault (known, approximate, inferred, covered)
- normal fault (defined, approximate, inferred, covered)
- fold axial trace (upright-anticline, syncline; overturned-anticline, syncline)
- bedding (top known, inclined, vertical)
- foliation (dominant, late)
- stretching lineation, mineral lineation
- intersection lineation
- fold axis (dominant phase, Z-fold)
- isotopic age locations (U-Pb, K-Ar)
- fossil locality
- field station
- cross-section lines
- road (highway, gravel)
- trail
- ice

Isotopic Age Determinations

Type	Station #	Age	Mineral	Interpretation	Reference
1	K-Ar W169	121.3 ± 3.6	hornblende	cooling	Farrar et al., 1988
2	K-Ar White River	225 ± 14	biotite	cooling	Campbell, 1981
3	K-Ar T072-457b	87.4 ± 3.2	biotite	cooling	Wanless et al., 1978
4	K-Ar T072-457b	94.0 ± 4.3	hornblende	cooling	Wanless et al., 1978

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DODDS, C.J., CAMPBELL, P.B., READ, P.B., ORCHARD, M.J., TOZER, E.T., BAMBER, E.W., PEDDER, B.S., NORFORD, B.S., MCLAREN, D.J., HARKER, P., MCGIVER, E., NORRIS, A.W., ROSS, C.A., CHATTERTON, B.D.E., COOPER, G.A., FLOWER, R.H., HAGGART, J.W., UYENO, T.T., and IRWIN, S.E.B. 1993. Macrofossil and conodont data from SW Klane Lake (115G and F1E12), Mount St. Elias (115B and C1E12), SW Dezadeash (115A), NE Yukon (114O) and Tatchemahni River (114P) map areas, southwestern Yukon and northwestern British Columbia. Geological Survey of Canada, Open File 2731, 137 p.

FARRAR, E., CLARK, A.H., ARCHIBALD, D.A. and WAY, D.C., 1988. Potassium-argon age of granitoid plutonic rocks, southwest Yukon Territory, Canada. Isochron West 51 19 23.

MULLER, J.E. 1967. Klane Lake map area, Yukon Territory (115G, 115F E12). Geological Survey of Canada, Memoir 340, 137 p.

WANLESS, R.K., STEVENS, R.D., LACHANCE, G.R. and DELABO, R.N. 1978. Age determinations and geological studies, K-Ar isotopic ages, Report 13. Geological Survey of Canada, Paper 77-2.

RECOMMENDED CITATION

ISRAEL, S., COBBETT, R. and FOZARD, C., 2007. Bedrock geology of the Miles Ridge area, Yukon (parts of NTS 115F/15, 16 and 115K/1, 2) (1:50 000 scale). Yukon Geological Survey, Open File 2007-7.

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

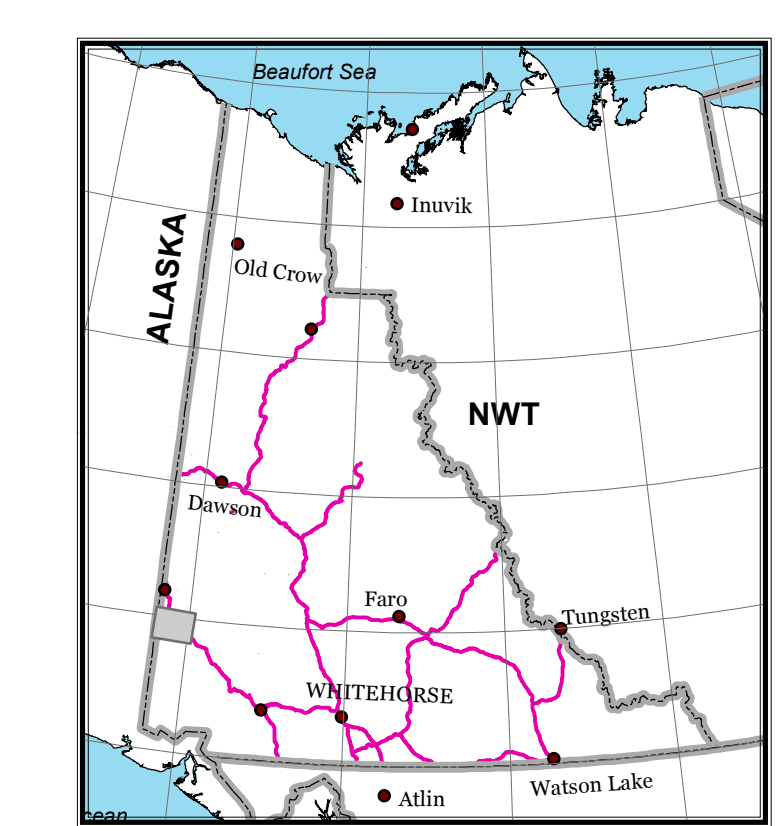
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Fossil Data

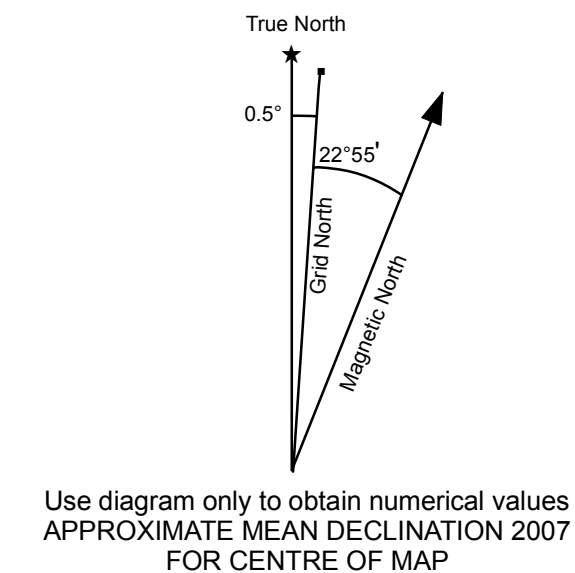
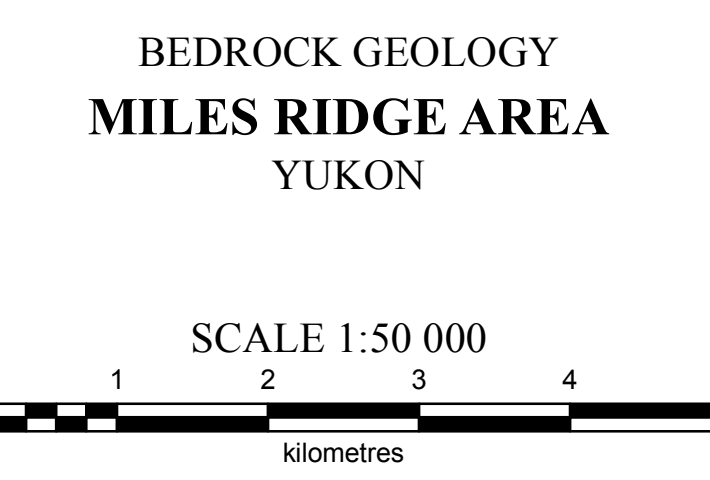
Locality	GSC-ID	Material	Unit	Age Range	Reference
1	O-31409	Buchia	JKD	Late Jurassic to Early Cretaceous	Muller, 1967
2	O-31407	Buchia	JKD	Late Jurassic to Early Cretaceous	Muller, 1967
3	O-31408	bivalves, genus and species ident.	JKD	Lower Cretaceous	Muller, 1967
4	C-210050	Monotis	uTc, uTm	Upper Cretaceous	Dodds et al (1993)
5	C-210053	Monotis	uTc, uTm	Upper Cretaceous	Dodds et al (1993)
6	O-31401	lophophyllid coral ?	Phc		Dodds et al (1993)



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

CONTOUR INTERVAL 100 Feet Elevations in feet above Mean Sea Level



115K/2	115K/1	115J/4
THIS MAP	115F/16	115G/13
115F/15	115F/9	115G/12