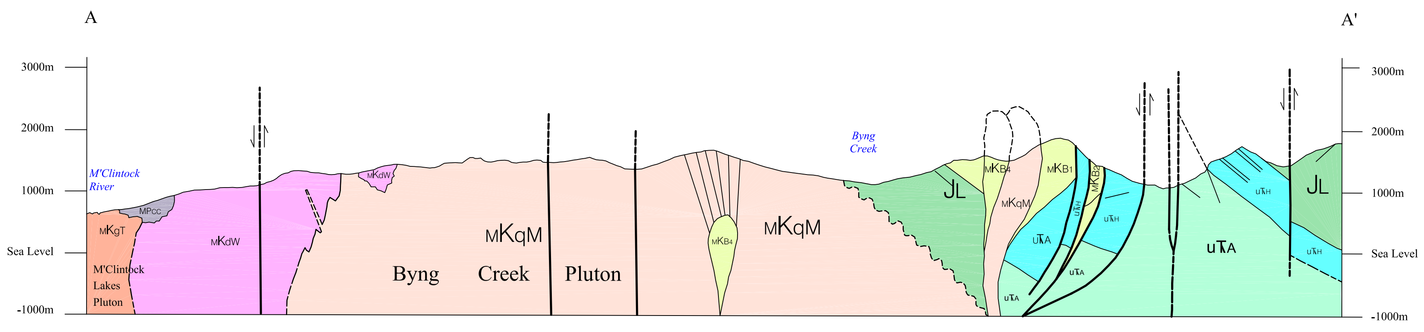

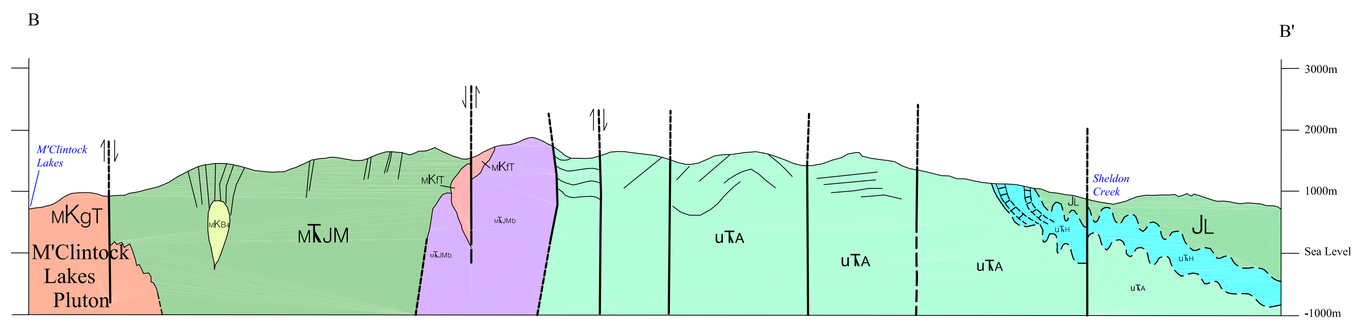

YUKON GEOLOGICAL SURVEY

Yukon
Energy, Mines and Resources

MOUNT M'CLINTOCK
YUKON
SCALE 1:50 000

Topographic base produced by SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES.

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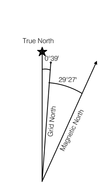
ONE THOUSAND METRE
Universal Transverse Mercator Grid
ZONE 8

Miles 1 0 1 2 3 Miles

Metres 1000 0 1000 2000 3000 4000 Metres

CONTOUR INTERVAL 20 METRES
Elevations in Feet above Mean Sea Level
North American Datum 1983
Transverse Mercator Projection



Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 1984
FOR CENTRE OF MAP
Annual change decreasing 6.6'

105 E/2 Tempelman-Kluit 1984	105 E/1 Tempelman-Kluit 1984	105 F/4 Tempelman-Kluit 1977
105 D/15 Hart and Hunt Geoscience Map 2003-4	105 D/16 THIS MAP	105 C/13 Gordey and Stevens, 1994
105 D/10 Wheeler 1961	105 D/9 Wheeler 1961	105 C/12 Gordey and Stevens, 1994

QUATERNARY

Q — Unconsolidated silt, sand and gravel of glacial, fluvial and lacustrine origins.

CRETACEOUS

unc — Uncertain: Wheeler (1961) mapped unit as Cretaceous volcanic rocks.

LATE CRETACEOUS

OPEN CREEK VOLCANICS

lKO — Cliff-forming, resistant, columnar-jointed, dark grey and vitreous, quartz-phyric, dacite flows with ash and lapilli tuff horizons.

lKOs — Recessive, maroon-weathering, basal sedimentary and epiclastic rocks.

MID-CRETACEOUS

BYNG CREEK VOLCANICS (ca. 109 Ma)

mKB4 — Light yellow- and orange-weathering, yellow, white and pink, locally flow-banded quartz-phyric rhyolite and quartz-feldspar porphyry plugs, dykes, sills and breccias. Same as some phases of mKqM.

mKB3 — Pale to dark grey-weathering, black, grey, maroon and pink fine-grained and vitreous dacite feldspar porphyry flows, dykes and sills with sparse quartz and mafic (hornblende?) phenocrysts.

mKB2 — Light grey- and orange-weathering, massive and blocky, heterolithic, vitreous, quartz- and feldspar-phyric, felsic lapilli tuff; locally with bomb-sized clasts. Locally densely welded.

mKB1 — Dark grey-green- to brown- to rusty-weathering, dark green and maroon, massive, non-magnetic, aphyric and feldspar-phyric andesite-flows, flow breccia, heterolithic breccia and tuff.

MOUNT McINTYRE PLUTONIC SUITE (ca. 109 Ma)

mKqM — Byng Creek pluton: Light pink-grey- to orange-weathering, pink, medium- to coarse-grained, hornblende-biotite quartz monzonite, granite and quartz syenite with small, mafic clots; locally pegmatic with numerous phases of granophyric quartz monzonite with plagioclase, quartz and hornblende phenocrysts in a fine-grained, sucrosic, potassium feldspar and quartz matrix. Some phases form a crowded quartz-feldspar porphyry and are the same as mKB4 .

WHITEHORSE PLUTONIC SUITE (ca. 115 Ma)

mKdW — Multi-phase pluton dominated by light grey-weathering, medium- to coarse-grained, biotite-hornblende granodiorite and hornblende quartz diorite. Includes Mount M'Clintock Pluton.

TESLIN PLUTONIC SUITE (ca. 120 Ma)

mKgT — M'Clintock Lakes Granite: White- to pale grey-weathering, recessive, leucocratic, coarse-grained, equigranular, hornblende-biotite granite and granodiorite, locally with sparse grey and pink potassium feldspar phenocrysts. This unit has associated aplitic phases and dykes.

mKfT — Mount Byng felsite: White- to pale grey-weathering, recessive, leucocratic, fine-grained to granophyric to porphyritic, feldspar-hornblende felsite and hornblende granodiorite. Occurs predominantly as north-trending dykes but forms small bodies near Mount Byng.

STIKINIA

JURASSIC

LOWER TO MIDDLE JURASSIC

LABERGE GROUP

JL — Undifferentiated Laberge Group dominated by brown- to tan-weathering, recessive, well-laminated, bioturbated, dark grey and brown siltstone, interbedded siltstone and sandstone couplets, greywacke, arkosic sandstone and hornfels; with thin beds of limestone-clast conglomerate. Probably equivalent to Richthofen Formation.

JLc — Cobble conglomerate dominated by granitic clasts.

JLc2 — Cobble conglomerate dominated by limestone clasts.

JLN — Brown- to grey-weathering, gritty sandstone and matrix-supported pebble conglomerate and sandstone. Lithic clasts are dominated by white polycrystalline quartz, alkali feldspar, black mudstone and coarse-grained granodiorite. Similar to sandstone associated with Nordenskiold dacite tuff.

TRIASSIC

UPPER TRIASSIC

LEWES RIVER GROUP

AKSALA FORMATION

uTA — Undifferentiated sedimentary rocks dominated by limy siltstone, siltstone, sandstone, conglomerate and hornfels; all with limestone. Includes massive and angular, to well-bedded and well-rounded, limestone-clast conglomerate; and resistant, thick-bedded, massive and densely packed, gritty sandstone with pebble-cobble sized igneous clasts. Very difficult to distinguish from, and may locally include JL .

uTH — Hancock Member: undifferentiated, dominantly calcareous sedimentary rocks dominated by white-weathering, resistant, massive to poorly bedded, sparsely bioclastic limestone, marble and skarn; and recessive sandy limestone with limestone conglomerate, black siltstone and sandstone.

uTC — Casca Member: undifferentiated sedimentary rocks dominated by dark-weathering, siliceous, black and white wispy to finely laminated, thick-bedded, bioturbated siliceous siltstone, finely laminated, limey brown sandstone interlaminated with black muds and interbedded with sandy and gritty limestone, and recessive weathering volcanogenic sandstone with siltstone, shale, gritty sandstone, conglomerate and hornfels.

Sheldon Creek Volcanics

uTSC — Orange-weathering, resistant, light olive-green, locally pillowed and strongly silicified, andesitic and basaltic lava flows; locally with hyaloclasite and breccia. May be part of Joe Mountain Formation.

MIDDLE TRIASSIC

JOE MOUNTAIN FORMATION

MTJM — Dark grey-green-weathering, fine-grained and locally medium-grained, monomineralic or feldspar and pyroxene-phyric, massive andesite and basalt flows, breccia, microdiorite and diabase. Variably altered to greenstone or cut by apilte and epidote veinlets.

MTJMd — Coarse-grained, variextured pyroxene gabbro with small bodies of pyroxenite and anorthosite (in black).

CACHE CREEK TERRANE

MISSISSIPPIAN TO PERMIAN

CACHE CREEK GROUP

MPCcu — Resistant, dark rusty- to dunn brown-weathering, strongly magnetic tectonized and serpentinized ultramafic rocks.

MPCc — Dark-weathering, massive, non-magnetic, dark green chloritized, diabase diorite and basalt.

YUKON TANANA TERRANE

PALEOZOIC AND OLDER

NISLING ASSEMBLAGE

PPNS — Rusty brown- to dark pink-weathering, brown and grey, foliated quartzite and quartz-mica schist.

SYMBOLS

Limit of outcrop

Geological boundary (defined, approximate, assumed or covered)

Fault (dot on downthrown side) (defined, approximate, assumed or covered)

Bedding (inclined, vertical, horizontal)

Igneous flow banding (inclined, vertical)

Flow contacts

Schistosity, gneissosity, foliation (inclined, veritcal)

Anticline, syncline

Cross-section line — A — A'

Dykes, generally felsic

Dyke swarm

Limestone-clast cobble conglomerate

Polymictic, igneous-clast dominated cobble conglomerate

Limestone

Breccia zone

Isotopic age determinations
Details are in the accompanying Bulletin (Appendix 7) — ①

Fossil locality
Details are in the accompanying Bulletin (Appendices 1-3) — J1
J=Jurassic macrofossil; T=Triassic macrofossil; C=Triassic conodont

MINERAL OCCURRENCES

Yukon MINFILE Number	Name		Deposit Type
114	TEXEL (ABI)	♦	Zn, Pb, Ag vein
141	GAMMON	★	Exploration Target
142	BYNG	★	Exploration Target
150	UTSHIG	★	Exploration Target
175	SEYBOLD	★	Exploration Target
184	MOUNT BYNG	♦	Au, Ag, Cu vein
187	BALT	★	Exploration Target

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Geoscience Map 2003-5

Geology of Mount M'Clintock map area (NTS 105D/16) southern Yukon (1:50 000 scale)

by
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