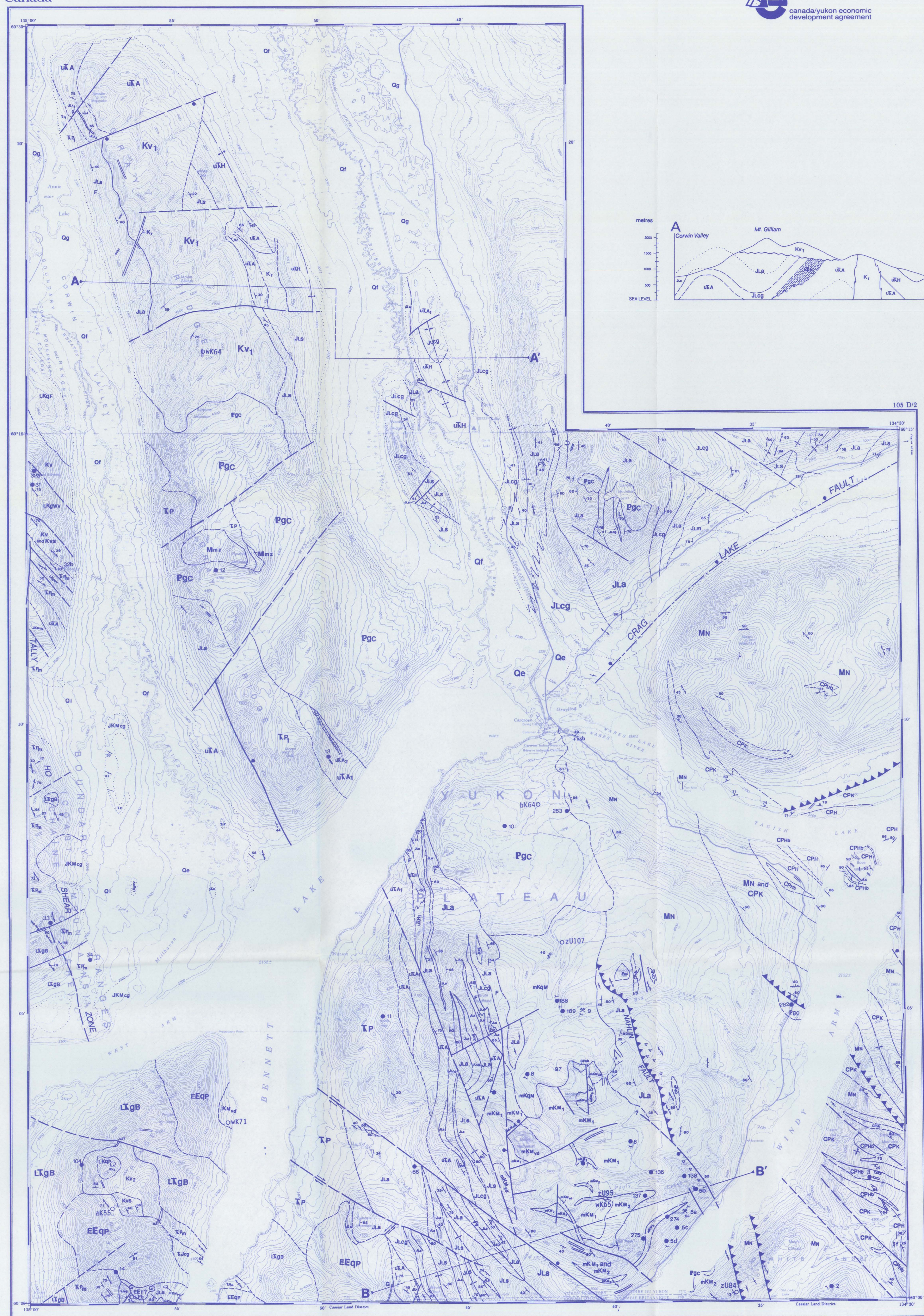


LEGEND

QUATERNARY

- Qe Unconsolidated eolian sands and sand dunes
Qf Unconsolidated gravel, sand and silt of fluvial or glacioluvial origin
Ql Unconsolidated gravel, sand, silt and varved clay of lacustrine or glaciolacustrine origin
Qg Unconsolidated glacial moraine, kame, esker and drift material

TERTIARY

EARLY EOCENE TO LATE PALEOCENE

- IEGP Penitence Granite: grey weathering, coarse-grained biotite-hornblende granite with pink, megacrystic potassium feldspar; leucocratic to pink quartz monzonite phases (55 Ma, K-Ar)
IEQC Crozier Creek Granite: pale pink to orange brown weathering, medium- to coarse-grained leucocratic, biotite granite (80 Ma U-Pb)
Egc Carcross Pluton: fine- to medium-grained, biotite-hornblende granite to leucocratic granodiorite with sparse, white, alkali feldspar phenocrysts (84 Ma K-Ar)

MESOZOIC

LATE CRETACEOUS

- Kr Pale to rusty orange and pale green siltstone, siltstone and claystone with common pink K-feldspar and quartz eyes; more siliceous and fractures more conchoidal than Er (84 Ma, 70 Ma K-Ar)
LKgf Folie Mountain Stock: pale pink weathering, medium- to coarse-grained, biotite, quartz-rich granite (78 Ma U-Pb)
LKgv Wheat Valley Granodiorite: dark grey weathering light grey, medium-grained, hornblende diorite, quartz diorite and lesser granodiorite; locally foliated (78 Ma U-Pb)
LKgp Perkins Peak Plug: pale pink weathering, white porphyritic andesine and granite with plagioclase and quartz-phenocrysts in fine-grained mafic matrix; coarse-grained and mafic phases (78-79 Ma K-Ar)
LKgm Carcross Granite: dark grey to green and maroon, aphanitic and porphyritic andesine to diorite, feldspar, biotite, quartz, and associated epidiolite rocks (85-78 Ma K-Ar)
Kv1 Grey Ridge Volcanics: dark grey to pale grey-green and maroon, aphanitic and porphyritic andesine to diorite, feldspar, biotite, quartz, and associated epidiolite rocks
Kv2 Finger Mountain Volcanics: dark grey to blue grey, aphanitic and porphyritic, moderately well-bedded, vitreous andesine to rhyolite flows, breccia, and agglomerate
Kv3 Epidiolite Rocks: light grey and buff weathering, well-bedded tuff and epidiolite gneiss with sandy tuff and minor limestone

MID-CRETACEOUS

- MT, MCINTYRE PLUTONIC SUITE
Montana Mountain Pluton: orange weathering, medium-grained, biotite-hornblende granite; southern border phase is quartz-rich (107 Ma U-Pb)
MOUNT NANSSEN GROUP
MONTANA MOUNTAIN VOLCANICS (88-94 Ma)
Massive to brecciated, dark green to grey andesine plug domes and dykes; locally plagioclase porphyritic
Orange weathering, massive to locally flow banded, rhyolite tuff, pyroclastic and rhyolite flows (88 Ma U-Pb)
Massive to poorly bedded, dark weathering, dark to pale green and maroon andesine and diorite flows, subvolcanic, lithic tuff and epidiolite breccia; locally feldspar-phryic or with chlorite amygdaloids (85 Ma U-Pb)
JURASSIC OR CRETACEOUS
JKMg Millhaven Conglomerate: Polymictic, clast-supported conglomerate composed of sub-angular clasts of quartz, quartzite, schists, granites, chert and intermediate volcanics; minor sandstone, greywacke, and shale
JURASSIC
UPPER JURASSIC
TANTALUS FORMATION (OXFORDIAN-KIMMERIDGIAN)
Massive to thickly bedded chert pebble conglomerate with massive, poorly indurated, grey sandstone and quartz sandstone with interbedded dark grey shale
LOWER AND MIDDLE JURASSIC
LABERGE GROUP (HETTANGIAN? TO BAJOCIAN)
Dark red-brown weathering, rhythmically and thinly bedded, tawny to dark green and grey, silty argillite, shale and siltstone; local hornfels; contains ammonoid fossils and rare coaly plant fragments; minor interbedded massive sandstone and conglomerate
Resistant, grey to brown, finely laminated phyllite
Pale to dark orange weathering, dark grey, massive and thickly to medium bedded, medium to coarse-grained feldspathic and lithic greywacke with lesser arkose, arenite, and grit; uncommon argillite and conglomerate lenses
Rust-orange weathering, resistant, thickly bedded to massive, clast- and matrix-supported polymictic cobble conglomerate; clasts of granitic rock and Lewis River Group volcanics with lesser schist, metamorphic quartz, limestone, and other sedimentary clasts; granitic clasts dominant higher in section; interbedded greywacke, arenite and argillite
Pale green, heterolithic, angular, poorly sorted basal conglomerate and clastic flows containing fragments of Bennett Granite, Nisling metamorphic rock and undifferentiated sedimentary rock

LATE TRIASSIC

- LTgb Bennett Granite: pink, potassium feldspar megacrystic, hornblende granite to granodiorite; associated easterly trending mafic dyke swarms (220 Ma U-Pb)

UPPER TRIASSIC

- LEWES RIVER GROUP (CARNIAN TO SINEMURIAN)
AKSALA FORMATION
Hancock Member (Horton): resistant, white to light grey weathering massive and thickly bedded limestone, biotite horizons and marl; minor sooty black limestone and tan dolomite
Resistant, thin, well-bedded, white limestone interbedded with tan weathering, dark grey siltstone
Annie Member (Karnian to Norian): Resistant, massive to moderately well-bedded, red, purple, and green matrix (and clast) supported agglomerate, pebble conglomerate, and lahatic debris flows; clasts of argillite porphyry and subvolcanic diorite porphyry with crystal-rich wacke matrix; interbedded arenite and minor tuff
Andesine feldspar (and argillite) porphyry flows, agglomerate and breccia; minor red siltstone
Massive, grey, white to pink (commonly altered or recrystallized) limestone and biotite limestone breccia; located near the base of this member
POVOAS FORMATION (CARNIAN AND OLDER?)
Resistant, massive light to dark green weathering, dark green to black, argillite phryic basalt and basaltic andesite flows and breccia; minor well-indurated dark grey greywacke, agglomerate, tuff, and associated andesitic rocks with thin carbonate beds
Resistant, massive dark green to black, variably altered, coarse-grained, argillite porphyritic basalt and breccia, commonly with coeval (?) hornblende
Metamorphosed equivalent: Foliated to massive pale to dark green plagioclase-hornblende amphibolite; laminated pale green quartzofeldspathic gneiss and massive amphibolite with relic argillite phenocrysts; marble and rare quartzite
PALEOZOIC
CARBONIFEROUS AND PERMIAN
CACHE CREEK GROUP
Ultramafic rocks: Red-brown weathering, massive to foliated, dark green to black bodies of serpentinitized diorite and harzburgite, peridotite, and microgabbro; may be Mississippian in age and coeval with MN
HORSEFEED FORMATION
Massive, dark green, altered (silicified), aphanitic and amygdaloidal basalt, silt, dykes and dark brown pillow, basal flows; coeval and possibly younger than Kaskas and Horseshoe Formations
Massive to poorly bedded, medium-grained, recrystallized white to pale yellow limestone and crinoidal biotite limestone; rare dolomite
KEDAHDA FORMATION
Resistant, well-bedded, grey, black, red and brown chert, with lesser cherty sandstone and siltstone; minor thin limestone beds and pillow lava
NAKINA FORMATION
Resistant, massive, dark weathering, altered, fine-grained, dark green andesine with hornblende diorite with thin bands of grey chert and carbonate; irregular occurrences of ultramafic rock

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SYMBOLS

- Limit of outcrop.....
Geological boundary (defined, approximate, assumed).....
Bedding (top known, tops unknown).....
Facies change.....
Dyke (inclined, vertical).....
Schistosity (foliation, cleavage, or gneissosity).....
Mineral lineation.....
Shear band.....
Anticline, syncline
upright.....
overturned.....
Fault (defined, approximate, covered; ball on down dropped side).....
Thrust fault (defined, approximate, covered; teeth on upper plate).....
Fault (transcurrent).....
Adit.....
Locality of isotopic age determination.....
Igneous, metamorphic, sedimentary rock.....
Material: amphibole, biotite, zircon, whole rock.....
Method: U-Pb, K-Ar, Rb-Sr.....
Cross section line.....
Fossil, microfossil locality.....
Mine or past producer (Numbers refer to INAC Yukon Exploration volume).....
Mineral occurrence (Numbers refer to INAC Yukon Exploration volume).....
Gossian.....
Breccia.....

MINERAL OCCURRENCES

YEX Number	NAME	Commodity
2	LULU	Ag, Au, Cu
3	MILLET	Cu
5a	VENUS	Au, Ag, Pb, Zn
5b	VAULT	Au, Ag, Pb, Zn
5c	EXTENSION	Au, Ag, Pb, Zn
5d	NIPPER	Au, Ag, Pb, Zn
6	MONTANA (MOUNTAIN HERO)	Au, Ag, Pb, Zn
7	THISTLE (AURORA)	Au, Ag, Pb, Zn
8	JEAN	Au, Ag
9	ARTIC CARIBOU (BIG THING)	Au, Ag
10	CARCON	Cu, Mo
11	KNOB HILL	Cu
12	WABONA	Zn
13	COLLEGE GREEN	Cu
14	FINGER	Au, Ag, Pb
31	BUFFALO HUMP	Au, Ag
32a	MT. STEVENS - ACME	Au, Ag
32b	MT. STEVENS - MIDNIGHT	Au, Ag
33	CROWWELL	Ag, Pb, Cu
34	MILLHAVEN	Ag, Pb, Zn
66	RAILROAD	Ag, Pb
97	ART (ROOTS)	Au, Ag, Pb
104	BEN	Au, Ag
136	JOE PETTY	Au, Ag
137	URANUS	Au, Ag, Pb
138	M+M	Au, Ag, Pb
168	PEETERUS	Au, Ag, Pb
189	PRIDE OF YUKON	Au, Ag, Pb
274	RUBY SILVER (RED DEER)	Ag, Pb
275	HUMPER	Ag, Pb
282	CONRAD	Mo
283	MARRIMOLY	Mo

Indian and Northern Affairs Canada
Exploration and Geological Services Division
Yukon Region

GEOLOGICAL MAP OF CARCROSS (105D/2)
AND PART OF ROBINSON (105D/7) MAP AREAS

Geology by C.J.R. Hart, K.S. Pelletier, J.K. Radloff
M.P. Finlay, and J.A. Hunt

to accompany

OPEN FILE REPORT 1990-4

Geology of Whitehorse, Alligator Lake, Fernick Creek, Carcross and part of Robinson map areas (105D/1, 105D/2, 7). C.J.R. Hart and J.K. Radloff of Aunim Geological Consultants, Inc.

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