GEOLOGICAL SURVEY OF CANADA — COMMISSION GÉOLOGIQUE DU CANADA

DEPARTMENT OF ENERGY, MINES AND RESOURCES
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES

Legend for Map 1

From: Norris, D.K. 1980, Geology, Northern Yukon Territory and Northwestern District of Mackenzie, Geological Survey of Canada, Open File 715.

CENOZOIC

QUATERNARY
PLEISTOCENE AND HOLOCENE

- **Qu** Hummocky or ridged moraine and lacustrine deposits; undivided
- **Qf** Fluviatile silt, sand and gravel; undivided
- **Qff** Fluviatile deposits of fans and fan aprons
- **Qgf** Glaciofluvial deposits; undivided
- **Ql** Lacustrine deposits and minor fluvial deposits; undivided
- **Qmm** Hummocky or ridged moraine in areas of mountain glaciation
- **Qml** Hummocky or ridged moraine in areas of Laurentide glaciation
- **Qd** Rock slide debris
- **Qe** Marine and estuarine deposits; undivided
- **B** Pediments mostly with thin cover of colluvium and/or organic deposits

TERTIARY AND QUATERNARY
PALEOCENE TO PLEISTOCENE

- **Tb** Sandstone and mudstone, fluviodeltaic; includes Beaufort Formation and Quaternary surficial deposits; undivided
- **Tg** Sand, silt and pebble beds in eastern Old Crow Plain
- **T_R** REINDEER FORMATION: sand, gravel, lignite and mud; marine and nonmarine
- **T_{MC}** MOOSE CHANNEL FORMATION: sandstone, mudstone and siltstone; alluvial, deltaic and littoral; undivided
- **T_{BP}** BONNET PLUME FORMATION (upper part): sandstone, mudstone and coal; fluviatile and lacustrine

MESOZOIC

CRETACEOUS AND TERTIARY
UPPER CRETACEOUS AND LOWER TERTIARY

- **KT_M** MONSTER FORMATION: mudstone, sandstone and conglomerate; fluviatile?

CRETACEOUS
UPPER CRETACEOUS

- **K_{TI}** TENT ISLAND FORMATION: mudstone, sandstone and conglomerate; marine and fluviatile. Includes Cuesta Creek Member at base
- **K_{EP2}** EAGLE PLAIN FORMATION (upper part): sandstone, siltstone and shale; alluvial and deltaic
- **K_{BC}** BOUNDARY CREEK FORMATION: bituminous shale and bentonite; marine
- **K_{BP}** BONNET PLUME FORMATION (lower part): conglomerate, sandstone and coal; fluviatile and lacustrine
- **K_{dw}** Sandstone and concretionary shale exposed along Porcupine River; marine
- **K_{EP1}** EAGLE PLAIN FORMATION (lower part): sandstone, siltstone and shale; marine

LOWER AND UPPER CRETACEOUS

- **K_{TR}** TREVOR FORMATION: sandstone, light greyish brown, mesa-forming; marine

LOWER CRETACEOUS

- **K_{KA}** KATHUL GRAYWACKE: pebble-conglomerate, sandstone, siltstone and argillite; marine
- **K_{AR}** ARCTIC RED FORMATION: shale, conretionary, silty and siltstone; marine. May include Martin House Formation.
- **K_{HR}** HORTON RIVER FORMATION: shale, black, bentonitic; marine
- **Kbr** Shale, sandstone and phosphatic iron formation; flyschoid, marine
- **Kwr** Shale, siltstone and sandstone; marine
- **K_{MH}** MARTIN HOUSE FORMATION: sandstone, glauconitic and siltstone; marine
- **Ksr** Sandstone and conglomerate; marine
- **K_{SM}** SHARP MOUNTAIN FORMATION: sandstone and conglomerate; marine
- **K_{BI}** BIEDERMAN ARGILLITE: argillite, dark grey to black with thin interbeds of siltstone and sandstone; flyschoid
- **K_{RR}** RAT RIVER FORMATION: sandstone and siltstone, conglomeratic; marine
- **K_{MG}** MOUNT GOODENOUGH FORMATION: shale, siltstone and sandstone; marine
- **Kq** Sandstone, shale and quartzite; marine. Includes Martin Creek and McGuire Formations, and Keenan Quartzite
- **Kp** Parsons Sandstone (informal): sandstone, siltstone and shale; marine

JURASSIC AND CRETACEOUS
JURASSIC AND LOWER CRETACEOUS

- **JK_H** HUSKY FORMATION: brownish grey shale and siltstone; marine
- **JK_{NB}** NORTH BRANCH FORMATION: sandstone and conglomerate, glauconitic; marine. Includes non-marine equivalents of Bug Creek Formation.
- **JK_K** KINGAK FORMATION: shale and siltstone; marine; may include Glenn Shale

JURASSIC

- **JKu** Sandstone, siltstone and shale. May include Kingak, Porcupine River and Husky Formations; undivided
- **J_{PO}** PORCUPINE RIVER FORMATION: sandstone, grey; marine and nonmarine
- **J_K** KINGAK FORMATION: shale, siltstone and sandstone; marine. May include Shublik Formation
- **J_{BC}** BUG CREEK GROUP: sandstone, quartzite, siltstone and shale; marine. Includes Murray Ridge, Almstrom Creek, Manuel Creek, Richardson Mountains and Aklavik Formations

TRIASSIC
MIDDLE AND UPPER TRIASSIC

- **TR_S** SHUBLIK FORMATION: limestone and sandstone, coquinoid; marine

PALEOZOIC

PERMIAN
LOWER AND MIDDLE PERMIAN

- **P_T** TAHKANDIT FORMATION: limestone, light grey, skeletal and chert, spicular; marine
- **P_{SP}** STEP CONGLOMERATE: conglomerate, chert-pebble; fluviatile?
- **P_S** SADLEROCHIT FORMATION: sandstone and quartzite, dark grey; marine
- **Pu** Shale, siltstone and limestone; undivided; marine
- **P_{JC}** JUNGLE CREEK FORMATION: limestone, sandstone and conglomerate, dark brownish-grey weathering
- **Po** Limestone, light grey, coarse crystalline; marine

CARBONIFEROUS AND PERMIAN

- **CPu** Limestone, siltstone and shale; undivided; marine. May include Nation River, Hart River, Ettrain and Jungle Creek Formations

CARBONIFEROUS

- **C_E** ETTRAIN FORMATION: limestone, grey, skeletal, micritic and shale; marine
- **C_{HR}** HART RIVER FORMATION: limestone, dolomite and chert, brown weathering; marine
- **Cb** Siltstone, shale and limestone, brown weathering; marine
- **C_L** LISBURNE GROUP: limestone, skeletal, micritic, cherty, light grey weathering; marine. Include Alapah and Wahoo Formations.
- **C_F DC_F** FORD LAKE SHALE: shale, calcareous, pyritic; marine. May be Upper Devonian in part.
- **C_T** TUTTLE FORMATION: conglomerate, sandstone and shale; fluviatile?
- **Mo** Sandstone, shale and coal; nonmarine
- **C_{EN}** ENDICOTT GROUP: shale, skeletal limestone, conglomerate and coal; marine and nonmarine. Includes Kekiktuk Conglomerate and Kayak Formation.

DEVONIAN AND CARBONIFEROUS

- **DCu** Limestone, shale and siltstone; undivided; marine. May include Canol Formation, Ford Lake Shale, Hart River Formation, Unit Cb and Ettrain Formation.

DEVONIAN
UPPER DEVONIAN

- **Dus** Shale, gypsiferous, rusty weathering; marine
- **Dss** Sandstone, feldspathic, rusty weathering, as lentil in Dus
- **D_I** IMPERIAL FORMATION (and equivalents): sandstone, shale and siltstone; flyschoid. May include Canol Formation and Dus.
- **D_{CA}** CANOL FORMATION: shale, siliceous, black, yellowish-red weathering

MIDDLE DEVONIAN

- **D_H** HUME FORMATION: limestone and shale; marine
- **Dsh** Shale, dark greenish grey, and limestone, dark grey; marine

SILURIAN AND DEVONIAN
UPPER SILURIAN, LOWER AND MIDDLE DEVONIAN

- **SDu** Limestone, dolomite and shale; undivided; marine. Includes Delorme, Arnica, Cranswick and Ogilvie Formations

CAMBRIAN TO DEVONIAN
UPPER CAMBRIAN TO LOWER DEVONIAN

- **€Db** Limestone, dolomite and shale; undivided; marine
- **$€D_R$** ROAD RIVER FORMATION: shale, graptolitic; limestone, argillaceous and debris flows
- **G** Granite, biotite, hornblende and syenodiorite, fluorite, horblende with apparent radiometric ages ranging from 406 to 220 Ma. Includes Sedgwick (G_S), Fitton (G_F), Old Crow (G_{OC}), Schaeffer (G_{SH}), Ammerman (G_{AM}) and Dave Lord (G_{DL}) intrusions.

ORDOVICIAN AND SILURIAN
UPPER ORDOVICIAN AND LOWER SILURIAN

- **OS_K** MOUNT KINDLE FORMATION: dolomite, fine to medium crystalline; undivided; marine
- **OSh** Shale, graptolitic; chert and limestone; undivided

CAMBRIAN TO SILURIAN
?UPPER CAMBRIAN TO UPPER SILURIAN

- **$€S_V$** VUNTA FORMATION: limestone, fine crystalline, marine

CAMBRIAN AND ORDOVICIAN

- **$€O_{JR}$** JONES RIDGE LIMESTONE: limestone and dolomite, siliceous; marine

UPPER CAMBRIAN AND LOWER ORDOVICIAN

- **$€O_F$** FRANKLIN MOUNTAIN FORMATION: dolomite, cherty, cyclic and shale; marine

CAMBRIAN
LOWER AND UPPER CAMBRIAN

- **€wm** Volcanic conglomerate, basaltic flows, limestone beds and exotic blocks; marine?

MIDDLE CAMBRIAN

- **$€_{SC}$** SLATS CREEK FORMATION: sandstone, conglomerate and shale; undivided; marine
- **€2** Dolomite, brecciated and limestone; marine

LOWER CAMBRIAN

- **$€_{SK}$** SEKWI FORMATION: dolomite, silty, bright orange and yellow weathering; quartzite and varicolored shale. Includes Backbone Ranges Formation
- **$€_I$** ILLTYD FORMATION: limestone, light grey, fine crystalline; marine
- **€1** Shale, silty; dolomite and quartzite; marine

PROTEROZOIC

?HADRYNIAN

- **H_S** SHEEPBED FORMATION: shale, dark grey to black; marine?
- **H_K** KEELE FORMATION: limestone, dolomite, quartzite, shale and conglomerate; marine
- **H_4** Limestone and dolomite, light grey and buff weathering; marine
- **H_3** Limestone and dolomite, light grey and buff weathering; marine
- **H_T** TWITYA FORMATION: shale, siltstone, sandstone and dolomite; slumped; marine
- **H_{TI}** TINDIR GROUP: shale, dolomite diamictite and basic sills and flows; undivided
- **H_R** RAPITAN FORMATION: diamictite, variably buff, dark green and brick red; siltstone, pale red shale and iron formation; glacial-marine

?HELIKIAN

- **Pu** Quartzite, argillite, dolomite; undivided
- **H_{LD}** LITTLE DAL FORMATION: dolomite, gypsum, algal stromatolites and shale; marine
- **P_{N6}** NERUOKPUK FORMATION (P_{N0} - P_{N6})* Argillite, dark grey to black and sandstone, brown weathering, lithic
- **Pd | Pv** Sills and dykes, dark greenish grey, mafic
- **H_K** KATHERINE GROUP: quartzite, shale and dolomite; undivided; marine and ? nonmarine
- **H_P** PINGUICULA GROUP: dolomite, sandstone and shale; marine
- **P_{N5}** Argillite, dark grey to greenish grey and limestone, dark grey, fine crystalline to cryptocrystalline
- **Pq** Quartzite, white, fine grained, and argillite, dark grey
- **H_Z** TZESOTENE FORMATION: shale, sandstone and dolomite; marine and ? nonmarine
- **P_{N4}** Argillite, dark grey to dark olive grey; sandstone, olive grey, lithic and chert, medium to light grey
- **H_G** GILLESPIE LAKE GROUP: dolomite, algal, siliceous, orange weathering; marine
- **P_{N3}** Argillite, phyllitic, and siltstone, olive grey, brown weathering
- **P_N** NERUOKPUK FORMATION: undivided
- **P_{N2}** Argillite, olive grey; sandstone, light grey weathering and limestone, dark grey, fine crystalline
- **P_{N1}** Phyllite, olive grey and quartzite, medium grey weathering
- **P_{N0}** Quartzite, dark grey and phyllite, dark grey; brown weathering

*Numbering does not necessarily imply stratigraphic order. Depositional regimes unstudied.

?APHEBIAN

- **H_Q** QUARTET GROUP: argillite and quartzite, slaty and intrusive breccias

Geology by D.K. Norris, 1980

Compiled by D.K. Norris from Geological Survey of Canada Maps 1514A through 1529A by D.K. Norris

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

SYMBOLS

- Geological boundary (defined, approximate)
- Fault, extension (solid circle indicates downthrown side; defined, approximate)
- Fault (assumed projection under cover of younger deposits
- Fault (arrow indicates relative movement; defined, approximate)
- Fault, contraction (teeth indicate upthrown side; defined, approximate)
- Anticline (arrow indicates plunge)
- Syncline (arrow indicates plunge; overturned)
- Mineral occurrence
- Borehole (dry and abandoned, suspended gas, suspended oil, suspended gas and oil)
- Tentative formational assignment . . . ? KMG

Minerals

Copper	Cu	Lead	Pb
Phosphate	P	Tungsten	W
Gold	Au	Uranium	U
Iron	Fe	Coal	C
Nickel	Ni	Zinc	Zn

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APPENDIX 1
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