



MAP 45, 1963  
TO ACCOMPANY PAPER 63-40  
GEOLOGY  
NORTHEASTERN DISTRICT OF MACKENZIE  
NORTHWEST TERRITORIES

Scale: One Inch to Eight Miles = 1:500,000  
Miles 0 8 16 24

**LEGEND**

**PALEOZOIC**

**CAMBRIAN TO SILURIAN (?)**

22 Dolomite

**CAMBRIAN (?)**

21 Sandstone, minor shale

20 Dolomite (shale and siltstone of more than one age; may include minor metagabbro, metadiorite)

**COPPERMINE RIVER GROUP (18-19)**

19 Sandstone, shale, argillite

**HELLT FLOW**

18 Basalt flow

**PARRY BAY FORMATION (17)**

17 Dolomite, limestone, minor sandstone, shale; 17a, includes dolomite, shale, calcareous sandstone and conglomerate of younger Kanuyak Formation

16 Sandstone, conglomerate

**GOULBURN GROUP (10-15)**

15 Sandstone, conglomerate

14 Silstone and argillite, sandstone

13 Dolomite, limestone

**PROTEROZOIC**

12 Argillite, argillite with interstratified limestone and calcareous siltstone

11 Quartzite, orthoquartzite, minor arkose, conglomerate, sandstone

10 Argillite, concretionary argillite, dolomite, quartzite, minor conglomerate

**EPWORTH GROUP (7-9) (Probably correlative in part with Goulburn Group)**

9 Dolomite

8 Quartzite

7 Argillite, slate

6 Diorite, gabbro, anorthosite; may in part be older than 5, 6a, diorite, gabbro, 6b, anorthosite, anorthositic gabbro

5 Granite, granodiorite, and allied rocks, massive to foliated, of more than one age; locally includes undifferentiated 5a, pegmatite granite, pegmatite, 5b, megacrystic granite, macrocline-granite; 5c, hornblende granite, granodiorite, quartz diorite, minor diorite; 5d, pyroxene-bearing granite and granodiorite; 5e, porphyritic granite, very coarse-grained granite; 5f, granite with inclusions of mica-quartz schist or amphibolite; 5g, granite rock cut by leucogranite

4 Granite gneiss, mafic gneiss, mixed gneiss, gneiss; probably derived in part from suite 3-5; contains some massive granitic rock; 4a, biotite gneiss and megacrystic 4b, hornblende gneiss, amphibolite gneiss, and migmatite, in part granitiferous; 4c, calc-alkaline gneiss and granolite; 4d, quartz and pyroxene-bearing gneiss and granolite; 4e, augite gneiss; 4f, mylonite

**YELLOWKNIFE GROUP (1-3)**

3 Amphibolite, probably mainly of volcanic origin, includes minor metasediments; may be in part equivalent to 1 and 2, and in part of different age

2 Greywacke, micaceous quartzite, minor argillite and conglomerate, derived locally, commonly contains some granitic material; locally includes rock of volcanic origin; 2a, greywacke, micaceous quartzite, phyllite, mica-quartz schist; 2b, white mica-quartzite; 2c, slate, argillite; 2d, conglomerate; 2e, horned schist, garnet- and sillimanite-bearing schist

1 Greenstone and amphibolite derived mainly from intermediate to acidic volcanic rocks; includes metasediments locally; 1a, greenstone, amphibolite; 1b, amphibolite; 1c, metamorphosed acidic volcanic rocks; 1d, greenstone containing lenses and layers of carbonate

**Drift-covered area boundary**

Geological boundary (defined or approximate, gradational)

Geological boundary in drift-covered area (from air photos)

Bedding, top known (horizontal, inclined, overturned)

Bedding, top unknown (inclined, vertical)

Schistosity, generally, foliation (horizontal, inclined, vertical, dip unknown)

Cleavage (horizontal, inclined, vertical)

Lamination (horizontal, inclined, vertical)

Fault (approximate, assumed)

Joint (horizontal, inclined, vertical)

Structure (direction of plunge known, unknown)

Fossil locality

**Age determination (potassium-argon, fission track, muscovite (m))**

Pitlike structure

Trench

Mineral prospect, mineral occurrence

**Symbols for Metals and Minerals**

Arenosyncline ..... sp Iron formation ..... f-f  
Chalcopyrite ..... cp Iron Oxide (general) ..... Fe  
Copper (general) ..... Cu Magnetite ..... mag  
Galena ..... gn Pyrrhotite ..... py  
Cassiterite ..... cs Silver ..... Ag  
Gold ..... Au

Geology by H. H. Baskin, J. A. Davidson, J. A. Fraser, W. H. Poole, F. M. G. Williams, 1962

Geological Cartography by the Geological Survey of Canada, 1963

Trading Post ..... TP  
Wireless Station ..... WS  
District boundary ..... DB  
City ..... C  
Esker ..... E  
Sand ..... S  
Marsh ..... M  
Rapids ..... R  
Height in feet above mean sea-level

Base-map compiled and drawn by the Survey and Mapping Branch, 1952, 1958, 1958

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