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

MAP 1510A

GEOLOGY

SOUTHERN MELVILLE PENINSULA

DISTRICT OF FRANKLIN

Scale 1:100 000

Kilometres 2 0 2 4 6 8 Kilometres
Miles 2 0 2 4 Miles

Universal Transverse Mercator Projection

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LEGEND

NEOPHELIKIAN TO HADRYNIAN

CENOZOIC — QUATERNARY

Qu — *Unconsolidated glacial drift with associated marine, lake, river and bog deposits, includes some periglacial slope deposits and felsenmeere*

PALEOZOIC — ORDOVICIAN

Ob — *BAD CACHE RAPIDS FORMATION: limestone*

NHkd — *Diabase dykes*

APHEBIAN

Ag — *Aplitic to pegmatitic granitic rocks; mainly granodiorite*

Aub — *Coarse grained granular hornblende, pyroxene, olivine, garnet ultrabasic rocks; minor metagabbro and amphibolite*

PENRHYN GROUP

Apqb — *Medium-to fine-grained flaggy to massive quartzofeldspathic psammitic gneiss with biotite schist or marble laminae*

Apn — *Medium grained pelitic gneiss with graphite, garnet, cordierite and sillimanite (Apn) ; subordinate leucosomatic veins and laminae; rusty weathering gossanous quartz, graphite schist (Apr)*

Apnc — *Medium grained, massive quartzofeldspathic calcium-silicate gneiss (Apnc); major minerals are plagioclase, quartz, microcline and diopside; saussuritized calcium-silicate gneiss (Apca)*

Apcs — *Medium grained, laminated calcium-silicate gneiss and marble; major minerals are plagioclase, diopside, microcline, quartz and calcite*

Apc — *Coarse grained white calcite marble; commonly has dispersed diopside, scapolite, plagioclase, microcline, quartz and graphite*

Apm — *Medium grained homogeneous amphibolite*

Apq — *Coarse grained white quartzite, minor disseminated biotite, feldspar sillimanite and garnet; some lenses of biotite, sillimanite, graphite, quartz schist*

AAm — *Amphibolite dykes*

ARCHEAN

GRANITOID GNEISS

Aqdn — *Hornblende quartz diorite augen gneiss; locally abundant inclusions of hornblende paragneiss, and amphibolite*

Aqmn — *Hornblende quartz monzonite augen gneiss; locally abundant inclusions of hornblende paragneiss, and amphibolite*

Agdn — *Medium to coarse grained layered biotite, hornblende granite to granodiorite gneiss; rare amphibolite lenses*

PRINCE ALBERT GROUP

Aanm — *Undifferentiated Prince Albert Group (Aanm); hornblende paragneiss (Aan); and fine grained amphibolite gneiss (Aam)*

Aaln — *Leucocratic quartzofeldspathic gneiss*

Axif — *Iron Formation: mainly banded quartz magnetite; minor iron sulphide and iron silicate*

Lithological contact surface trace (defined, approximate, inferred)

Bedding and gneissosity (horizontal, inclined, vertical)

Mineral foliation and schistosity (horizontal, inclined, vertical)

Fold axial surface (inclined, vertical)

Fold axis trend and plunge

Mineral lineation, rodding and mullion trend and plunge

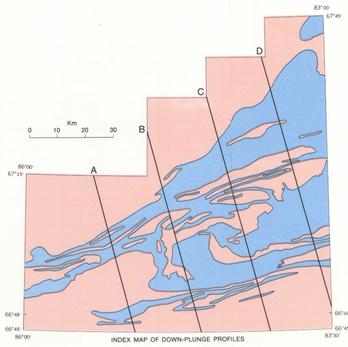
Fault surface trace (defined, approximate)

Locality of isotopic age determination in millions of years ⓚ bK1637

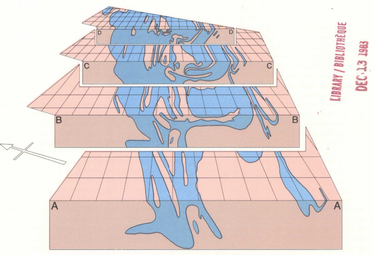
Method:
Potassium-Argon, Rubidium-Strontium, Uranium-Thorium-Lead ..... KRU

Material:

amphibole	a	sphene	s
biotite	b	whole-rock errorchron	e
concordia intercept	c	whole-rock isochron	i
muscovite	m	zircon	z



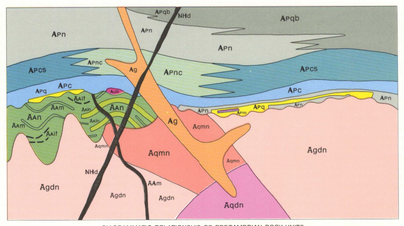
INDEX MAP OF DOWN-PLUNGE PROFILES



DOWN-PLUNGE PERSPECTIVE SKETCH OF BASEMENT-SUPRACRUSTAL ROCK RELATIONSHIPS. GRID ON SURFACE IS 25 km²

A PENRHYN GROUP

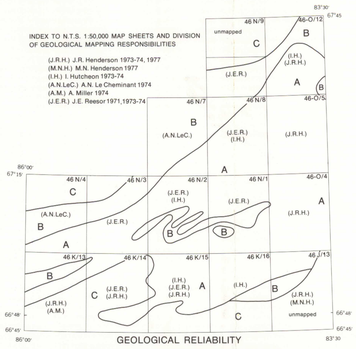
A BASEMENT COMPLEX



DIAGRAMMATIC RELATIONSHIP OF PRECAMBRIAN ROCK UNITS

INDEX TO N.T.S. 1:50,000 MAP SHEETS AND DIVISION OF GEOLOGICAL MAPPING RESPONSIBILITIES

(J.R.H.) J.R. Henderson 1973-74, 1977
(M.N.H.) M.N. Henderson 1977
(I.H.) I. Hutcheon 1973-74
(A.N.LeC.) A.N. Le Cheminant 1974
(A.M.) A. Miller 1974
(J.E.R.) J.E. Reesor 1971,1973-74



GEOLOGICAL RELIABILITY

A CONTACTS MAPPED BY CLOSELY SPACED FOOT TRAVERSES

B GEOLOGY INFERRED BETWEEN WIDELY SPACED FOOT TRAVERSES AND SCATTERED SPOT LANDINGS

C GEOLOGY INFERRED BETWEEN WIDELY SPACED HELICOPTER TRAVERSES WITH SCATTERED SPOT LANDINGS

Geology by J.R. Henderson 1973-74, 1977; M.N. Henderson 1977, I. Hutcheon 1973-74; A.N. LeCheminant and A. Miller 1974; and J.E. Reesor 1971,1973-74

To accompany Bulletin 324 by J.R. Henderson

Geological cartography by the Geological Survey of Canada

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

Base map cartography with some generalization by the Geological Survey of Canada from maps published at 1:50,000 scale by the Surveys and Mapping Branch in 1974

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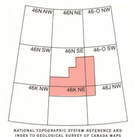
Magnetic declination 1981 varies from 31°19' W in the SW corner of the map to 38°45' W in the NE corner of the map. Mean annual change is -21'

Elevations in feet above mean sea level

THE MAGNETIC COMPASS MAY BE ERRATIC IN THIS AREA

INDEX MAP



NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO GEOLOGICAL SURVEY OF CANADA MAPS

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