GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES

LEGEND

SEDIMENTARY ROCKS

CENOZOIC

QUATERNARY
RECENT
- Qal — *Alluvium: sand; silt; clay; gravel*

PLEISTOCENE OR RECENT
- Qm — *Marine deposits: clay; silt; sand; gravel*

PLEISTOCENE
- Qg — *Glacial-fluvial deposits: gravel*

TERTIARY
PALEOCENE OR EOCENE
- Tpe — *Unnamed Paleocene/Eocene sandstones: carbonaceous sandstones*

MESOZOIC

CRETACEOUS
UPPER CRETACEOUS
- Ke — *EUREKA SOUND FORMATION: sandstone; siltstone; shale; lignite*
- Kk — *KANGUK FORMATION: shale; minor tuff beds*

LOWER AND UPPER CRETACEOUS
- Kh (Khv2, Khv1) — *HASSEL FORMATION: sandstone; minor shale, coal, tuff; Khv1: lower volcanic flow; Khv2: upper volcanic flow*

LOWER CRETACEOUS
- Kc (Kcu, Kcl) — *CHRISTOPHER FORMATION: Kcl (informal lower member): shale, with glauconitic sandstone in upper part; Kcu (informal upper member): shale, with calcareous sandstone in upper part; Kc (undivided Kcl and Kcu): shale, with minor siltsone, sandstone*
- Ki — *ISACHSEN FORMATION: sandstone; siltstone; shale; minor coal*

JURASSIC AND CRETACEOUS
UPPER JURASSIC AND LOWER CRETACEOUS
- JKd (E, D, C, B, A) — *DEER BAY FORMATION: JKdA (Amund Ringnes Island): silty shale; JKdB (Amund Ringnes Island): glauconitic sandstone; JKdC: silty shale; JKdD: locally glauconitic sandstone; JKdE: silty shale, with thin sandstones near top; JKd (undivided Deer Bay Formation): silty shale*

JURASSIC
UPPER JURASSIC
- Ja — *AWINGAK FORMATION: sandstone, partly shaly; local coal*
- Jr — *RINGNES FORMATION: shale; very large yellow-buff concretions; minor sandstone*

UPPER(?), MIDDLE AND LOWER JURASSIC
- Js (Jsu, Jsl) — *SAVIK FORMATION: Jsl (Lower Member): subsurface only; Jsu (Upper Member): shale; local sandstone beds on Cornwall Island; Js (undivided Savik Formation): shale; local glauconitic siltstone*

MIDDLE AND LOWER JURASSIC
- Jj (D, C, B, A) — *JAEGER FORMATION: JjA: clayey sandstones and sandy shales; JjB: partly pebbly, partly glauconitic, partly phosphatic sandstones; JjC: silty, sandy shale; JjD: partly glauconitic, partly phosphatic sandstones*

LOWER JURASSIC
- Jb — *BORDEN ISLAND FORMATION: sandstone, pebble lenses; red-brown ferruginous lenses and beds*

TRIASSIC AND JURASSIC
UPPER TRIASSIC AND LOWER JURASSIC
- TJhu — *HEIBERG FORMATION (Upper Member): sandstone; minor coal*

TJhub — *BORDEN ISLAND FORMATION AND HEIBERG FORMATION (Upper Member), undivided: sandstone, partly bioturbated*

TRIASSIC
UPPER TRIASSIC
- Thl — *HEIBERG FORMATION (Lower Member): sandstone, as thin to thick intervals; with shale, as thin to thick intervals*

UPPER(?), MIDDLE, AND LOWER(?) TRIASSIC
- Tba — *BLAA MOUNTAIN FORMATION: silty shale; some calcareous sandstones in upper part; glauconitic sandstones in lower part*
- Tba/Tbl — *BLAA MOUNTAIN AND BLIND FIORD FORMATIONS, undivided (subsurface only): shale; siltstone; sandstone*

T — *HEIBERG FORMATION (Lower Member), BLAA MOUNTAIN FORMATION AND BLIND FIORD FORMATION, undivided (subsurface only): shale; siltstone; sandstone*

INTRUSIVE ROCKS

CRETACEOUS AND ?OLDER (radiometric ages)
- *Gabbro dykes and sills (g2)*

PALEOZOIC

MISSISSIPPIAN AND PENNSYLVANIAN (age of parent rock)
- MPe (MPs, g1) — *Diapiric domes and dykes: gypsum, with included blocks and masses of anhydrite, dolomite and limestone (MPls), and gabbro of unknown age (g1)*

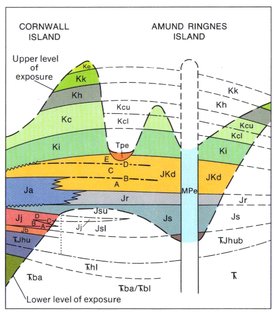
Geological boundary (defined, approximate, assumed)
Intraformational contact (defined, approximate)
Intraformational marker (defined, approximate)
Bedding (ground observation; inclined, vertical)
Bedding (from air photograph or observed from aircraft; dip direction)
Foliation (inclined, vertical)
Fault (defined, approximate; solid circle indicates downthrow side)
Anticline (defined, approximate; arrow indicates plunge)
Syncline (defined, approximate; arrow indicates plunge)
Fossil locality (GSC catalogue number) C-33978 (F)
Radiometric age determination (age in m.y.) 142-144 m.y. (R)
Stratigraphic section studied, showing approximate line of traverse (BAA: H.R. Balkwill; RV: K.J. Roy; WR: D.G. Wilson) RV 72-3
Structural cross-section A — B

Geology by H.R. Balkwill based on studies of vertical air photographs and ground and air observations by H.R. Balkwill, W.S. Hopkins, Jr., K.J. Roy, W.V. Sliter, and D.G. Wilson (1971-1974)

Geological compilation by H.R. Balkwill

To accompany GSC Memoir 390 by H.R. Balkwill

SCHEMATIC STRATIGRAPHIC RELATIONSHIPS



Geological cartography by J.H. Waddell, Institute of Sedimentary and Petroleum Geology, Geological Survey of Canada

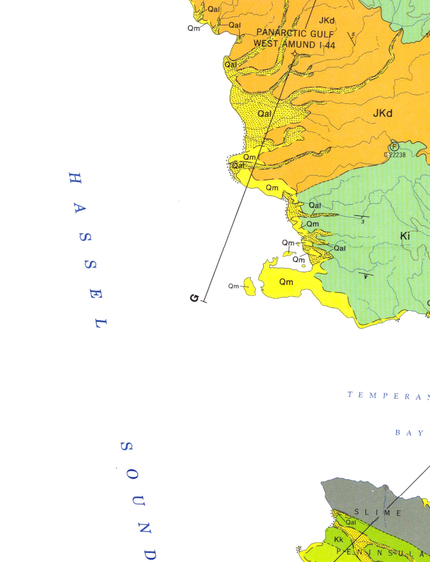
Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Base map at the same scale from parts of 1:250 000 scale maps "Cape Nathorst", "Cornwall Island", "Haig-Thomas Island", and "Hassel Sound", published by the Surveys and Mapping Branch, 1965 and 1966

Copies of the topographical edition of these maps may be obtained from the Canada Map Office, 615 Booth Street, Ottawa, Ontario K1A 0E9

The daily change of the North Magnetic Pole causes the magnetic compass to be very erratic in this area

Elevations in feet above mean sea level



Copies of this map may be obtained from the Geological Survey of Canada 601 Booth Street, Ottawa, Ontario K1A 0E8 3303 - 33rd Street N.W., Calgary, Alberta T2L 2A7

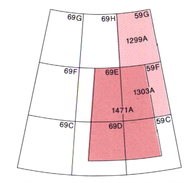
INDEX MAP

MAP 1471A
GEOLOGY
AMUND RINGNES, CORNWALL, AND HAIG-THOMAS ISLANDS
DISTRICT OF FRANKLIN

Scale 1:250,000

Kilometres 6 0 6 12 18 Kilometres
Miles 4 0 4 8 Miles

Transverse Mercator Projection



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

MAP 1471A
AMUND RINGNES, CORNWALL, AND HAIG-THOMAS ISLANDS
DISTRICT OF FRANKLIN

Printed by the Surveys and Mapping Branch, 1979