

LEGEND

- PLEISTOCENE AND RECENT**  
 13 Undifferentiated alluvial and deltaic sand; marine beach deposits; cobbles and boulders; may include Tertiary deposits
- CRETACEOUS (?) AND TERTIARY**  
 UPPER CRETACEOUS (?) AND TERTIARY  
 12 EURKA SOUND FORMATION: sandstone, siltstone; interbedded silty shale and conglomerate; includes undifferentiated clay and silt, sands with partly carbonized wood, and lignite; non-marine (200+)
- CRETACEOUS**  
 UPPER CRETACEOUS  
 11 KANGUK FORMATION: dark grey shale; some siltstone, sandstone, and sand; marine (650)
- LOWER OR UPPER CRETACEOUS  
 10 Gabbro, diorite
- LOWER AND UPPER CRETACEOUS  
 8 HASSEL FORMATION: sandstone, siltstone, shale; some coal; non-marine (1800+)
- LOWER CRETACEOUS  
 7 CHRISTOPHER FORMATION: grey to black shale; minor siltstone and limestone; marine (1540)
- 6 ISACHSEN FORMATION: sandstone, sand, grey shale, siltstone; some coal; local agglomerate; mainly non-marine (3250)
- JURASSIC (?) AND CRETACEOUS**  
 UPPER JURASSIC (?) AND LOWER CRETACEOUS  
 5 DEER BAY FORMATION: black shale; minor siltstone and sandstone; marine (500+)
- JURASSIC**  
 4 AWINGAK FORMATION: grey sand, sandy shale; minor coal, conglomerate, and dolomite; non-marine (1500+)
- 3 JAEGER FORMATION: varicoloured sandstone, pebbly sandstone, sand; marine (1000)
- TRIASSIC AND (?) JURASSIC**  
 2 HEIBERG FORMATION: sand, sandstone, mudstone; some coal; mainly non-marine (2000+)
- PENNSYLVANIAN AND/OR PERMIAN**  
 1 Gypsum; minor limestone; includes blocks of lava flows; some included gabbro may be of Cretaceous age

Figures in parentheses are approximate thicknesses of formations in feet  
 Note: New formation names used here will be properly defined in a Memoir being prepared.

On Lougheed Island, a lower shale unit is tentatively referred to the Kanguk formation, and three upper units, siltstone, sandstone and siltstone, are tentatively referred to the Eureka Sound formation.  
 Northwestmost Ellef Ringnes Island is probably underlain by the Beaufort formation.  
 A descriptive summary of the geology of the area as a whole has already been given by Fortier, and for the area from Deer Bay to Isachsen Dome by Heywood.

<sup>1</sup> Tessier, E.T. (1956): Geological Reconnaissance, Prince Patrick, Eglington and Western Melville Islands, Arctic Archipelago, Northwest Territories; Geol. Surv., Canada, Paper 55-5.

<sup>2</sup> Fortier, Y.O. (1957): The Arctic Archipelago; Geol. Surv., Canada, Economic Geol. Ser. 1, (4th Ed.), pp. 393-442.

<sup>3</sup> Heywood, W.W. (1957): Isachsen Area, Ellef Ringnes Island, District of Franklin, Northwest Territories; Geol. Surv., Canada, Paper 56-8.

- Geological boundary in area investigated in detail (arrow indicates direction of dip) . . . . .
- Geological boundary established from the air or from air photographs (arrow indicates direction of dip) . . . . .
- Limit of geological mapping . . . . .
- Bedding (horizontal, inclined, vertical, overturned) . . . . .
- Bedding trend with indicated direction of dip . . . . .
- Fault (defined, approximate) . . . . .
- Fault (inclined) . . . . .
- Anticline (arrow indicates direction of plunge) . . . . .
- Syncline (arrow indicates direction of plunge) . . . . .
- Unmapped area . . . . .

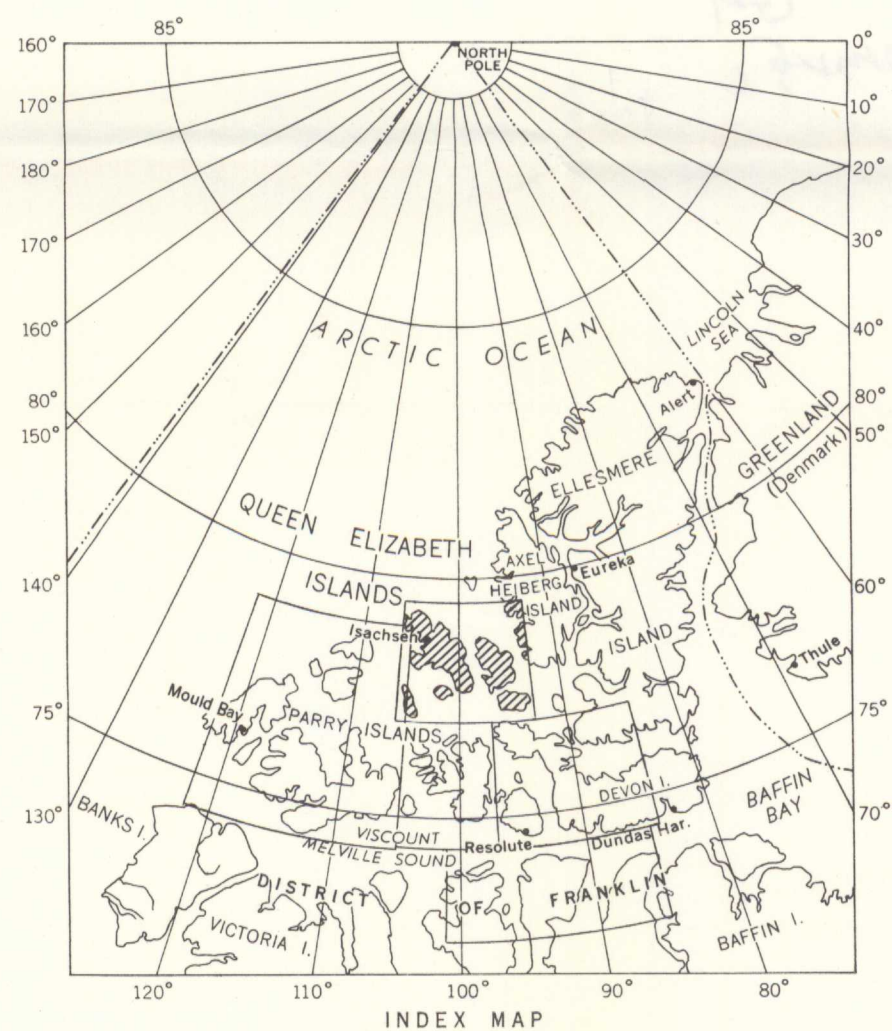
Geology by W. W. Heywood, 1952, 1953  
 Operation Franklin, 1955

Height in feet above mean sea-level . . . . . 600

Cartography by the Geological Cartography Unit, 1959

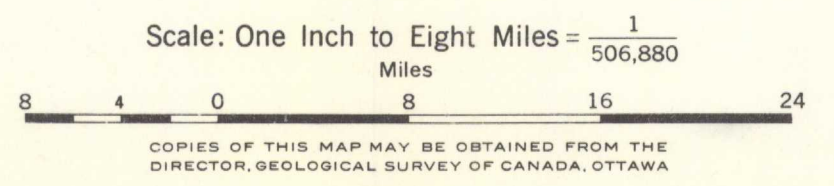
In response to public demand for earlier publication, Preliminary Series maps are now being issued in this simplified form, thereby effecting a substantial saving in time. There is no loss of information, but the maps will be clearer to read if all or some of the map-units are hand-coloured.

Air photographs covering this area may be obtained through the National Air Photographic Library, Topographical Survey, Ottawa, Ontario



14-1959

MAP 14-1959  
 ELLEF RINGNES, AMUND RINGNES,  
 CORNWALL AND LOUGHEED ISLANDS  
 DISTRICT OF FRANKLIN  
 NORTHWEST TERRITORIES



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