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Bedrock geology compilation by R.H. Rainbird and C.W. Jefferson.
Surficial geology compilation by D.A. Hodgson.
Digitization by R. Wyllie and S. Milne. Additional mapping and field assistance by A. Conly,
G. Green, L.J. Hulbert, J. Kimiksana, W. McBride, J. Morin, A. Mouton, S. Phaneuf, K. Telmer
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Aber Resources and their operators Aber Resources and their operators Digital cartography by Louis P. Renaud, Geological Survey of Canada

Any revisions or additional information known to the user would by welcomed by the Geological Survey of Canada Digital base map from Surveys, Mapping and Remote Sensing Branch published at 1:250 000 scale. Generalized and modified by the Geological Survey of Canada Copies of the topographical edition of this map may be obtained from the Canada Map Office, Department of Natural Resources Canada, Ottawa, Ontario, K1A 0E9

Mean magnetic declination 1994, 41°32' E, increasing 38.1' annually. Readings vary from 40°37' E in the SE corner to 42°21' E in the NW corner of the map The proximity of the North Magnetic Pole causes the magnetic compass to be erratic in this area Elevations in feet above mean sea level

BEDROCK AND SURFICIAL GEOLOGY WASHINGTON ISLANDS DISTRICT OF FRANKLIN

Scale 1:50 000 - Échelle 1/50 000 Transverse Mercator Projection Projection transverse de Mercator CM 111°30', Scale Factor 1 MC 111°30', facteur d'échelle 1

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LEGEND

CENOZOIC HOLOCENE

FLUVIAL DEPOSITS: gravel and silty sand; channel, floodplain, delta and terrace deposits; 1 to 10m thick

RAISED BEACH DEPOSITS: bouldery to silty sand over till, rubbly to silty gravel over rock; single ridges shown by symbol; a few cm to several m thick

Pw GLACIOMARINE DEPOSITS: silt or fine sand; massive to finely laminated deposits with scattered dropstones; commonly gullied; deposited adjacent to major glacial meltwater outlets; 1 to 20 m thick

GLACIOFLUVIAL DEPOSITS: bouldery to gravelly sand; knolls of hummocky Pf complexes deposited in subglacial or englacial environment; proglacial floodplains, deltas and fans; marine deltas may include massive to

stratified sand or silt beds up to 20 m thick; 1 to 20 m thick Victoria Island till: stony loam; commonly shows lineations on air photos, Pt2 some fields of spindle drumlins; deposited by continental glacier, possibly late Wisconsinan maximum; includes till veneer too thin to mask underlying bedrock relief; <1 to 10 m thick

Pt1 Prince Albert Peninsula till: stony loam, numerous gravel kame deposits; prominent frost-fissure troughs; time of deposition unknown; 1 to 10 m thick

____ unconformity _____

PALEOZOIC CAMBRIAN-ORDOVICIAN

Undifferentiated Cambrian and Ordovician sedimentary rocks including Saline River C-O Formation: variegated red and green ripple cross-laminated siltstone and very fine sandstone containing numerous burrows (eg. Planolites) desiccation cracks and halite casts (formerly map unit 10a of Thorsteinsson and Tozer, 1962). Gradational upward into wavy-laminated dolosiltite with green siltstone interlayers. Sharp erosional unconformity with Nelson Head Formation (Shaler Supergroup) exposed in creek gullies on northwest side of Glenelg Bay. Gradationally overlain by Cass Fiord and/or Cape Clay Formations: strongly dolomitized and variably silicified massive to faintly stratified vuggy tan dolostone (formerly map unit 10b of Thorsteinsson and Tozer, 1962; cf. Okulitch, 1992) ---- unconformity -----

NEOPROTEROZOIC 723+4/-2 Ma (U-Pb baddeleyite; Heaman et al., 1992) Franklin Igneous Event-diabase/gabbro sills and dykes: differentiation sequence

NFg in sills: olivine-chromite cumulates, plagioclase-olivine cumulates, plagioclaseolivine-clinopyroxene cumulates, plagioclase-clinopyroxene-cumulates, plagioclase-clinopyroxene-pigeonite cumulates, granophyre. Intrusive breccia with locally derived sedimentary rock xenoliths in gabbroic matrix. NFg(u) denotes sills of predominantly ultramafic composition

----- intrusive contact SHALER SUPERGROUP (Rainbird et al., 1994)

Wynniatt Formation: divisible into three intergradational members, in ascending stratigraphic order. Nw1: interlaminated dolosiltite and dololutite with desiccation features. An overlying unit contains metre-scale cycles consisting of rhythmicallylaminated dolosiltite overlain by oolitic dolarenite, intraformational breccia and stromatolitic dolostone. Nw2: thin- to thick-laminated black, rusty-weathering mudstone/ siltstone with minor quartzarenite and dolosiltite interbeds at top. Desiccation cracks near top and base. Nw3: coarsening upward sequence of dolomitic

siltstone and sandstone, overlain by a stromatolitic biostrome. Fine-grained microbial laminites and carbonaceous limestones occur at the top of the member.

Minto Inlet Formation: five cyclically alternating informal members: lower evaporite (Nmi1), Nmi lower carbonate (Nmi2), middle evaporite (Nmi3), upper carbonate (Nmi4) and upper evaporite (Nmi5). Evaporite members: laminated to thin bedded and cross-laminated white gypsite and grey anhydrite, red gypsiferous siltstone and buff to grey calcisiltite. Chickenwire, nodular anhydrite and crosscutting satinspar veinlets common in gypsiferous siltstone units. Rip-ups and intraclast beds are common. Rare halite molds and desiccation cracks in calcisiltite. Carbonate members: grey to buff-grey laminated to

Reynolds Point Group Jago Bay Formation: interbedded yellow-weathering, cross-bedded quartzarenite, parallellaminated and mudcracked dolosilitie/magnesisilitie and dololutite. Distinctive, yellow-weathering stromatolite composed of both laterally-linked and digitate forms with

thin bedded to massive dolosiltite and fine dolarenite. Hummocky cross-bedding

abundant inter-columnar quartz occurs within 10 m of base of formation Fort Collinson Formation: medium-bedded, fine- to medium grained quartzarenite and Nf dolomitic quartzarenite with common herringbone cross-bedding and subordinate sub horizontal planar stratification to low angle cross-bedding. Locally glauconitic

Boot Inlet Formation: cyclically alternating ooid grainstone, stromatolitic dolostone and Nb dolosiltite rhythmite magnafacies (Morin and Rainbird, 1993). Quartzarenite absent from base of formation (by definition) but becomes gradually more abundant toward top. In places includes Ngb at base

Ngb Grassy Bay Formation: basal mudstone unit of variable thickness (increasing westward), which coarsens abruptly upward to fine- to medium-grained, planar-tabular cross-bedded quartzarenite. Top defined by sporadic erosional unconformity overlain by fining upward succession of hummocky cross-bedded quartzarenite, parallel-bedded dolosiltite and parallel-laminated dololutite

Rae Group Aok Formation: cream-coloured and orange-brown-weathering sideritic to ankeritic dolostone composed of upright to fanning digitate columnar (elongate in plan) stromatolites. In some areas comprises two biostromes of similar thickness that are separated by wavy laminated dolosiltite and dololutite. Quartz sand

common in intercolumn areas of lower biostrome.

Nelson Head Formation: base is thinly laminated black carbonaceous and pyritic mudstone Nnh (locally developed in paleotopographic lows) grading upward into thick-laminated red siltstone and fine ripple crosslaminated quartzarenite. Middle 2/3 (approx.) is fine- to medium-grained, small- to moderate-scale planar-tabular cross-bedded, white to light pink quartzarenite interbedded with thin (<1m) intercalations of red ripple crosslaminated to parallel-bedded siltstone and very fine quartzarenite. Top is wavy- to lenticular-bedded very fine sandstone and parallel laminated green siltstone and fine quartzarenite overlain by grey ripple cross-laminated calcisiltite with black mudstone and intraformational breccia interlayers. Maximum age from detrital zircon: 1077±Ma (U-Pb, unpublished data of R.H. Rainbird and V.J. McNicoll)

SYMBOLS Geological boundary (defined, approximate). . . Fault trace (defined, inferred; solid circle indicates downthrown side). . Lineament (from air photograph) . Synclinal axial surface trace (arrow indicates plunge) . . Anticlinal axial surface trace (arrow indicates plunge) . S91-4 (Rainbird et al. 1994) Measured stratigraphic section (referenced). . Stratigraphic section tie line . . Bedding orientation with dip . .

Joint orientation with dip . .

78 B/11

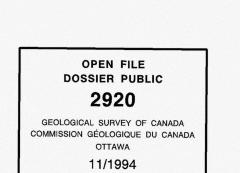
78 B/3

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CANADA-NWT

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