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**INDEX**

**DATE:**

**LOC:**

**PHOTO:**

**WITH:**

**STRUCT.:**

**ST.**

**DIP.**

**LIN.:**

**PET. NOTES:**

**PLAN (A):**

**N.A.**

**LOC. 095 mag N/W, 20° W**

**2688/19**

**2688/19**

**2688/19**

**2688/19**

**2688/19**

**2688/19**
N° (2684/85/86/87/88/89/89) (2690)
DATE: 7/2/33
LOC: JANUARY ISLAND, MAWSON COAST W
PHOTO ROLL 20 - FOLD, LOC. NW
OF CAMP
LOC: Plan A of point "125" on 1:25,000 sheet
LITH - Ga-FS-Ø-CNEISS (2685/6/7)
(BIO) - Ga-Diop-HNBL-FS-Ca/Si/Silicate
Ga-Diop- CS (2688/9)
HNBL - FS-Ø-CNEISS (2684)
See below

STRUCT FOLD, LOC. - F1, S1, def. by
Fe/Mg comp. layers
ST. ap 020 may. (toward Fold Is)
DIP. ap 15° South
PLUNGE 35°+0 050°
- Reclined idealized fold, Sn def. by gross comp. layering - laminated
HNBL - FS-Ø-CNEISS / FS-Ø-CNEISS
The laminated amphibole rich felsic
gneiss has compositional lamellae
def. by Hablande - Ø/Fs layers
from <0.5 cm to 3 cm thick
and amphibole free Fs
layer from <0.5 cm to 3 cm thick
The amphibole Fs - Q - Cneiss
has minor streaks of amphibole
in this photo → Sn+1

The lamellae of the Hall - Fs -
Q - Cneiss depict Sn+1
Sn+1 is a new plane
(fce) to F1

The amphib streaks are || to
Sn+1
Sample is of the amphibole
bearing material (2684)
2684 Sample of calc-silicate conformable inter bed
thickness approx 3 m -
flat top, steeply cliffing
unit strike approx NE
dip approx 70° SE
Inter layered with O/F/S -
Anese in layers from
a few cm up to a few
meters thick
Dominant minerals in CS
bands are: GARNET
DIOPSIDE
HORNBLende
Feldspar
Mnr. BIOTiTE

2686/7 two samples of calc-
silicate unit approx
2m thick near the high
Point of contact is the
most eastern tip (near
Survey point) → 2
The two samples are similar to 2685. The Calc-silicate units are in grey (1 mm) "granular" $\frac{1}{2}$ to 50 light grey, grey, green, greenish, and pink layers. FS - CS.

NOTES The CS layers crop out as major bands within the O/Fs - greiss, often as conformable penitent layers but also as "rolled up" ovate pods and isolated "stringers" where deformation hasized these layers.

(2681) - Garnet-chlorite samples from calcareous pods (up to 20 cm x 40 cm) within the O/Fs - n)

The Calc-silicate units are occasionally very rich in Ga - Diop + produce, ovate pods, subangular fragments, and stringers.
of ga-diof. rock (2688/9) in deconcreted obviously very disturbed zones within the P/Fs - n.

The body between the CS and the P/Fs - n is occasionally gradational (usually very small def) thing.

Nº (2690)

\[ \text{ga-diof-hab-fs-cs} \]

Presumably thin layers of calc-silicate have been interlayered with P/Fs grays & subsequently landwarded - loc. observed about 10 m W of high point is about 30 m W of eastermost point of unit. The unit here is almost flat-lying.
a shallow dip of about 20° to the SE.

P/Fs malakinate zone, 10cm x 30cm x elongate stringy bone segregated from within the calciturbinate layers.

Malakinate also evident on a small scale in the P/Fs - n - don't enter as a migratable though - not really enough malakinate.

Also - observing distant cliff exposures - there is considerable variety in strike x dip of what appears to be on the macroscopic
scale a homogenous anelastic inter-layered (amph) Fs - Q - gneiss and Garnet-Poikiloblasted - Ramsellende-Fs - C8 unit
No estimate of regional orientation possible

2. In some areas considerable disruption has folded the unit into mesoscopic tight parallel similar flow folds

Orientation impossible to record. Possibly S folds to the South West with axial plane dipping at 70° to the ESE
IN SUMMARY:

The area consists of a mesoscapically heterogenous amphibolite facies sequence of interlayered

garnet - diopside - hornblende

feldspar - light grey

"speckled" calc-silicate

and (hornblende) - quartz

feldspathic - leucocratic

medium grained-gneiss.

The unit is folded into mesoscopic flow folds and has a variety of S/D orientations varying from 176° to 20°. There are small lockdown inclined folds within both the CS and F/Fs - n. The regional

lamination is the F/Fs - n a.s. to these smaller F1 folds. Similar folds are

being def. by 2-3 mm thick solid hornblende layers.
Small (5m x 10m) zones of very calcareous rock crop out occasionally in the Q/Fs-N CAD-2 pods & angular fragments of garnet-Diopside rock.

The relay between the CS and the Q/Fs-N is generally well defined 0.5cm thick, zona Priitig of CS layer has produced "Xenolith" like mafic pods & stringers in the Q/Fs-N near zone bodies (2690)

No: 2691/2692
Date: 8/2/74
Photo:
Loc: 2 HAUSTEIN ISLAND
Mawson Coast West
Ref to 1:250000 sheet, Point "125"
Lith.: (HNB) - Q - FJs - N (dioritic gneiss)
Gn-Dig-Hll-Fs-Cale-zilicate
(2691) - Tectonite showing body
between Granocratic gneiss
and gale-silicate honeycomb weathering and "preferred amount" of lamplende stringer. Depth
5 surface in the Dacocrales greiss - Typical sample of autch - the Dacocrales greiss like a granular "sandstone" difference coffient as irregular honeycomb blocks.

(2692) - sample similar to 2690 from just above bdy with "X" showing deformed CS Xemplilelde.

STRUCT: Surface depth 1/2" to bdy
Str 095 mag NW
Dip 28° West

CS units up to 3m thick bdy 5 surface up to preferred orientation of lamplende
sieves that drift the dust surface in the demobilization.

Loc. 3: see below

2 photos
Roll 21
Tri. 6/6

West side of Hill 501
1.5 km east of Hill 478
Per Kibo formation
Homo erectus?
2 mm to 5 mm

Fig. 8

3 x 4
No: 2693, 2694
DATE: 9/2/74
PHOTO: Roll 21 Nos 5-10 (4 shots of screen) cliff & face - looking west then north then with tele. N.W. and 2 shots of fold closure illustrated on P6. 1/2 ~ 10cm.

LITH:

1. Acid greiss - composed of interlaminated (a) quartz rich leucocratic layers (0.5cm to 3cm thick) and (b) Amph (turtle) - Fs (?) - P - N (2mm to 3cm thick) (10% mafic content).

Surface: mostly defined by compositional layering of (a) + (b) producing a homogeneous slightly anisotrophic Q/Fs acid greiss. The Amph - Fs - P - N unit bands form a very vague and parallel (to S) foliation defined by the slightly deformed orientation of slightly
elongate (2mm x 3mm) hornblende "zones". Often the sub-parallel fall is not developed & the amphibole bearing lamellae are totally isotropic.

(2693)


Difficult to tell if this is a C.S. or true amphibolite. Some reddish material observed & could be garnet (ro Diop.)

The magic material cut out a sub-parallel (to Sn) lens & irregular layers up to 3 m thick (see photo of cliff line). These may be discontinuous, but tend to think they are folded & deformed amphibolite within meta-sedimentary layers.

(2694) N.B. coarseness of grain near major f and grains
STRUCT.

Sn defined by compositional segregation in the acid greiss phase.
- Sub-parallel to Sn
  - Preferred orientation of small bleb-like zones in acid greiss.
  - Edgy of amphibolite and acid greiss.

Now Sn

ST. ▲ 100° mag. (almost N/S)
DIP 84° E variable but always steep.

Now Sn has been folded with the acid greiss (see photo fold 21) in tight horizontal similar folds. Z folds plunging steeply to the N, drifting steeply to the E.
\[ \frac{1}{2} \sim 10 \text{ cm up to } 15 \text{ cm.} \] There is evident considerable more thickening but no
axial plane e.
see page 6.
Not possible to measure an axial
of these folds.
Sufficient to say that the
a. p. are sub-parallel to Sn
& they are tight - inclined
vaguely def. fold of similar
style. folded surface Sn.

N°: 2695
PHOTO
LOC: 4 – Half way back
do Camp. – due W. of Cak.

DATE: 9/2/74
LITH. Diop-Bio-Hbl – CS.
from small pod. 4m x 6m
in acid greiss.
N°: 2696
LITH. same as above. from CS
pod: 1m x 0.5m.
LOC: right at camp.
In summary:
The entire area west of the camp for several miles is almost (except for 1 or 2 isolated pods) devoid of calc-silicate consisting of a flow folded extremely deformed (plastic deformation).
monotonous sequence of
Hbl - Fs - Q - acid greiss
and amphibolite

Inter-layered 2 - 6 m.
amphibolite in the acid greiss

- No limestone
- Sandy stone long scour
weathered formerly
vaguely amphibolite
endocorrosive med. granodgreiss
FRAME PK

Stride Ridge

Ga - Bio - Hnb -
- Al2O3 rich - N

C gr T5 zone
calc - Silicate

Laminated quartz
W (N) jr
WIND SCOUR

mig - meta red
- lense - CS

2697/8

2670/8/9

Migmatite
From 12k
100 ft. North of
Laminated Meta Quartzite

Strike 170° mag
Dip 64° to west

Lin. pitch 72° to 90°
comp. streaking
photo roll 23 No. 20 + 21
N. 2697/8/9 700/1/2/3/4/5/7/8/9
DATE 17/2/74
PHOTO ROLL 23 N. 20 →
LOC: FRAME PK. - a bloody cold hole 6000' -30° c + 1850 F
LITH: 1. C or Op/Fs (Pass mobilisate)
2. Calc.-Silicate
   - Forsterite - spinell-
   - Marble 2697/8
   with reaction rim 
2 sediments of Pass Floumik
   - Diopside - Bio - Calcite
   2699 703/4/5/6/7
   rich meta sediment
   - meta pelitianat
   2600/1/2
FRAM PK.
STRUCT. ST. 170 Mag
Dip. 64 W
LIN

359 Mag
33 N+4
DAVIS STATION

Loc: NUCLEO ISLAND  NMS 115

No: 27/01/11/12/13/14/15/16/17/18/19/20/21/22/

PHOTO: ROLL 25 Nos. 3 to 20+

- DAVIS SIN FROM A

- Only clayey/sand surface, deh. Compositions: albitia,
  from nearby mui, (40% to
  major part more typical
  (10%) are e.g.

LITH. 1
- Hyp-Hab. Mitch Banding
  Hyp-Hab - Bio - Cord (Fe. Si)

- Homogenous - (nearly isotropic)
  massive rock

2. X cutting F go. mol. styke

3. Garnet - Bio - Calcite - Cs
   Rubble from dark mucks
   near A

STRUCT. ST. (Affix NNW) (350 mag)

Dip. 33 N. 1.

- Constant dipstrike over
  quite a large area examined
(1710) Slide scale 2011 9812

Island consists of homogenous (hematitic) fgr. Hyp-Hbl-Cord. Q-Fs-grniss cut by discordant late stage fgr. internal dykes. fgr. it. lamin. Calcsilicate and Mafic
light grey. sample from Moraini

Local

N

GLACIAL MORAIN
COVERS OUTCROP

SOLID OUTCROP

2711

2712

2713

2714

DAVIS STN.

Moraini samples
2710: Fine grained homogeneous (anisotropic) (Braunstone) -
- Hyp - Hbbl - (blue quartz-Cord)
- Ps - gneiss
Typical country rock sample showing surface deformation preferred orientation of small zone of recrindle (1 cm x 2 mm)

2711: Sample from outcrop of intermediate grey to basic dyke N.B. flag laths + green fassonag. Dyke discordant undeformed offset 2 m wide - no apparent contact effects.

* 2712 Marble.
* 2713 Late concordite limestone (or quartz)
2714. (Bio) - Garnet rock
2715 (Bio) - Card? - C gr - C s . ?
2717 Coarse grained Hyp. on banded Garnet - card? -
- feldspar - greens
2718 m. gr. laminated Bio - g / core - Garnet -
- Fs - greens
S def. by preferred orientation. Bio. F. +
core layering
2719 Mafic rock -
Typical off about 70% of the mafite etc. around
2720 - sample provision:
Bio - Y/cord - F5 - green

2721/22 - V. C gr. Poss. Cord - (blue creamy - mica may be quartz) - Bio - Plag - green,
Poss. defined jeg.
2721 for 4/5
2722 collection

STRUCT: St. (NNW) 350 mag
Loc. 1. Dip 33 N
S surface photographed roll 25 Nos 1970
S surface def. at Loc. 1 dug
The conf. layering of Units
rich layers in the typical
deformable green, eg 2710
Conf. layering restricted to an area of about 20 m x 10 m
of author elsewhere
S surface def. - sky plowed orientation
of small Yanhende zone
ref. 2710
- both surfaces are parallel
1: 1 hat Model  Plast Pack.
2: 2 Cans Refresh Orange.
2: 2 Plates
+1: 1 Pack 1 frame.
6: 6 carabana
6: 6 Rock Python cm
1: 1 Can opener
1: 1 Jar Vegemite
2: 2 Waist Bands
CANBERRA ACT 10/9
7th 0508 ALAN LANGWORTHY MAWSON
ANTACT 491161 YUVAN TODAK
CALL YISTA BRON

SYD 2/20 7 K 22/01

ALL MANT
SUGGEST CHECK PHNL
0472925500 IS GFML
Tell IS before call
19/01 00:10