



STRATIGRAPHY AND SEDIMENTOLOGY OF THE BILLY CREEK FORMATION
(CAMBRIAN, FLINDERS RANGES) AND ITS EQUIVALENTS ON THE
NORTHEAST COAST OF KANGAROO ISLAND, SOUTH AUSTRALIA

(VOLUME 2)

BY

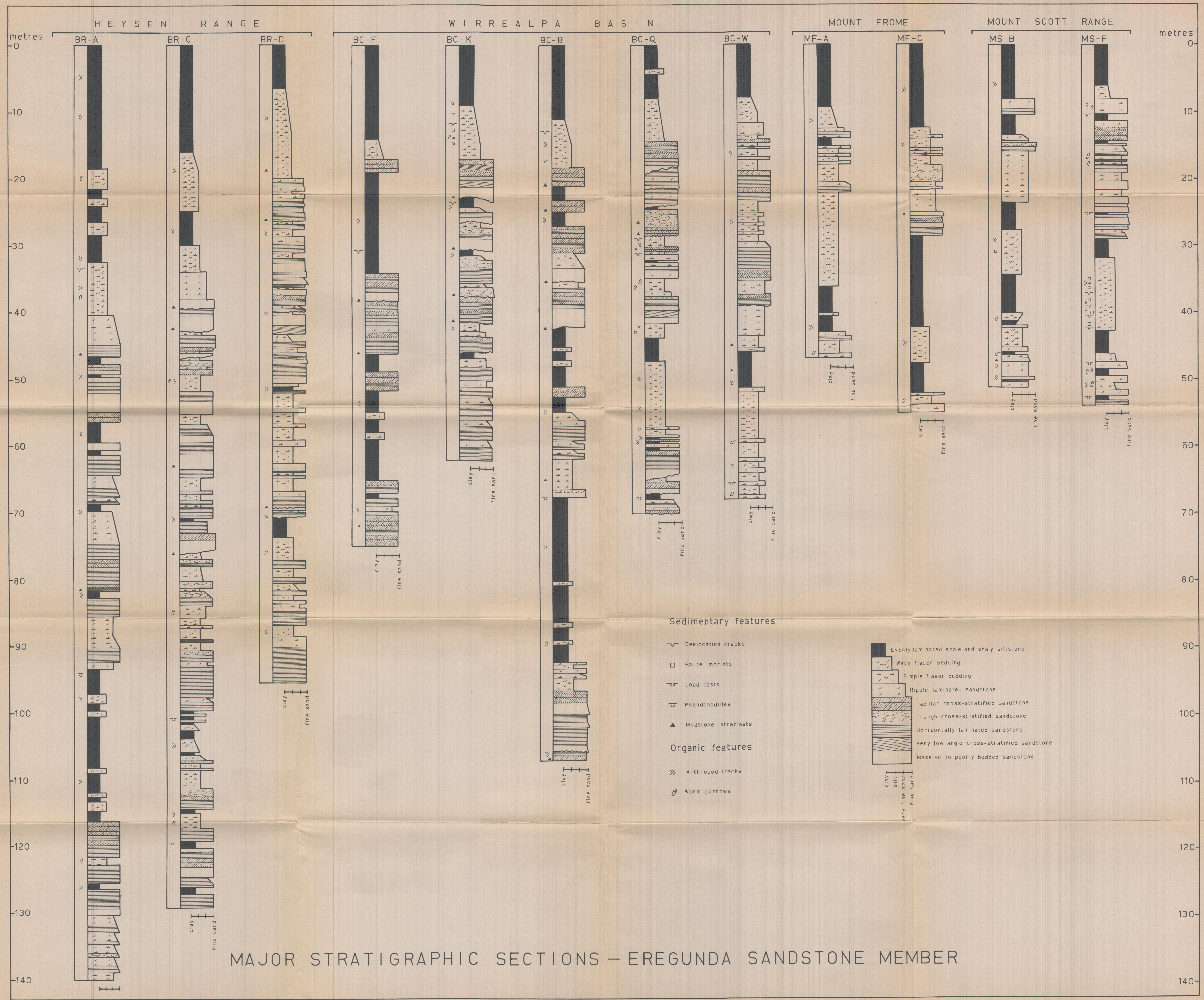
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DEPARTMENT OF GEOLOGY AND MINERALOGY

UNIVERSITY OF ADELAIDE

JUNE, 1979.

Awarded 14 March 1980



HEYSEN RANGE

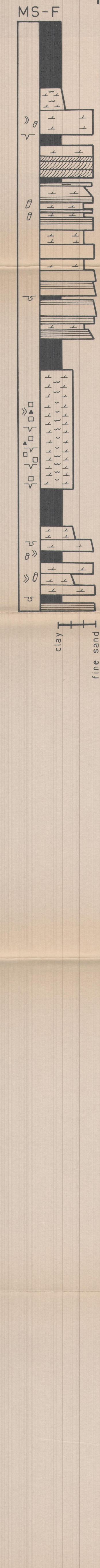
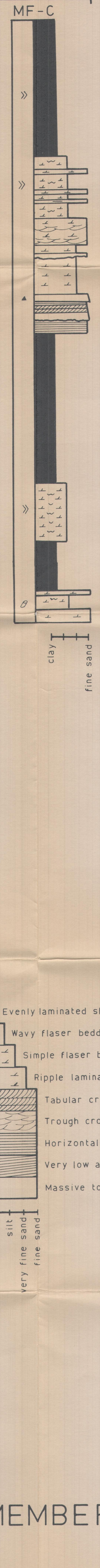
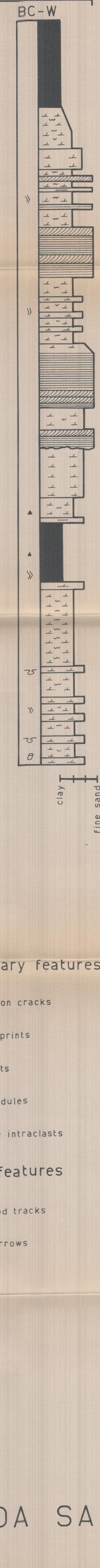
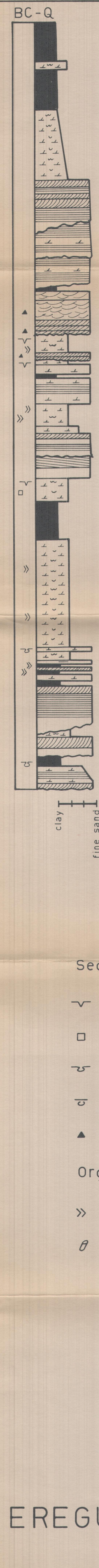
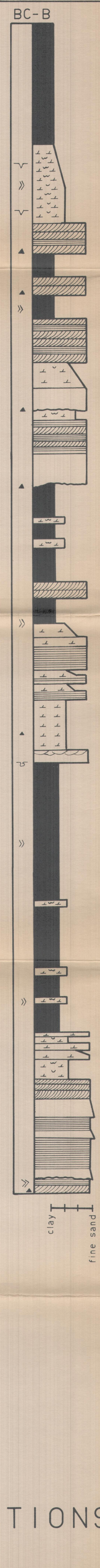
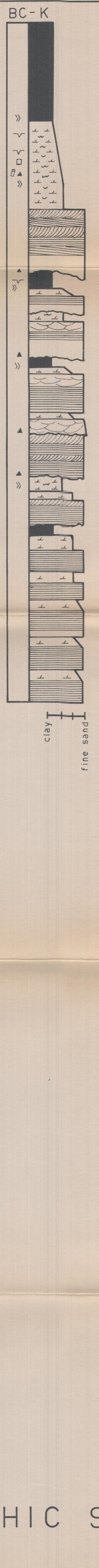
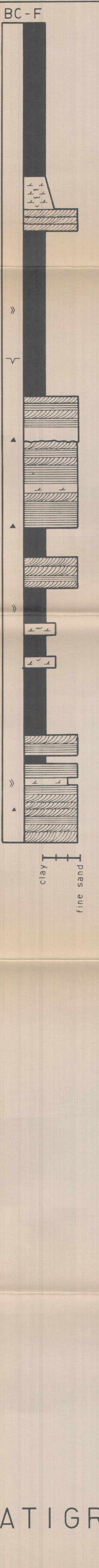
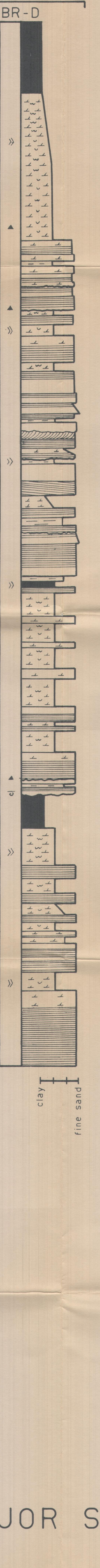
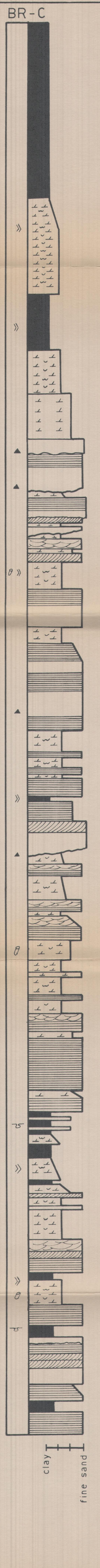
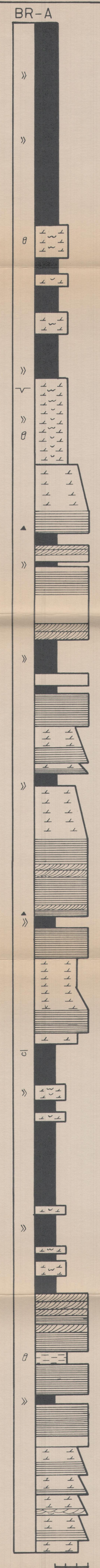
WIRREALPA BASIN

MOUNT FROME

MOUNT SCOTT RANGE

metres
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140

metres
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140



Sedimentary features

- ∩ Desiccation cracks
- Halite imprints
- ⌋ Load casts
- ⊖ Pseudonodules
- ▲ Mudstone intraclasts
- » Arthropod tracks
- ⊖ Worm burrows

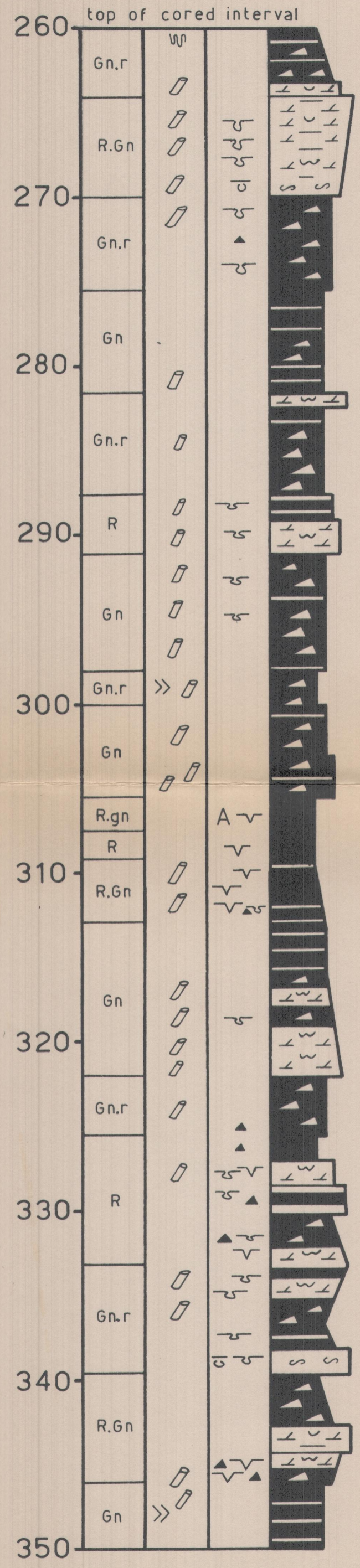
Organic features

- Evenly laminated shale and shaly siltstone
- Wavy flaser bedding
- Simple flaser bedding
- Ripple laminated sandstone
- Tabular cross-stratified sandstone
- Trough cross-stratified sandstone
- Horizontally laminated sandstone
- Very low angle cross-stratified sandstone
- Massive to poorly bedded sandstone

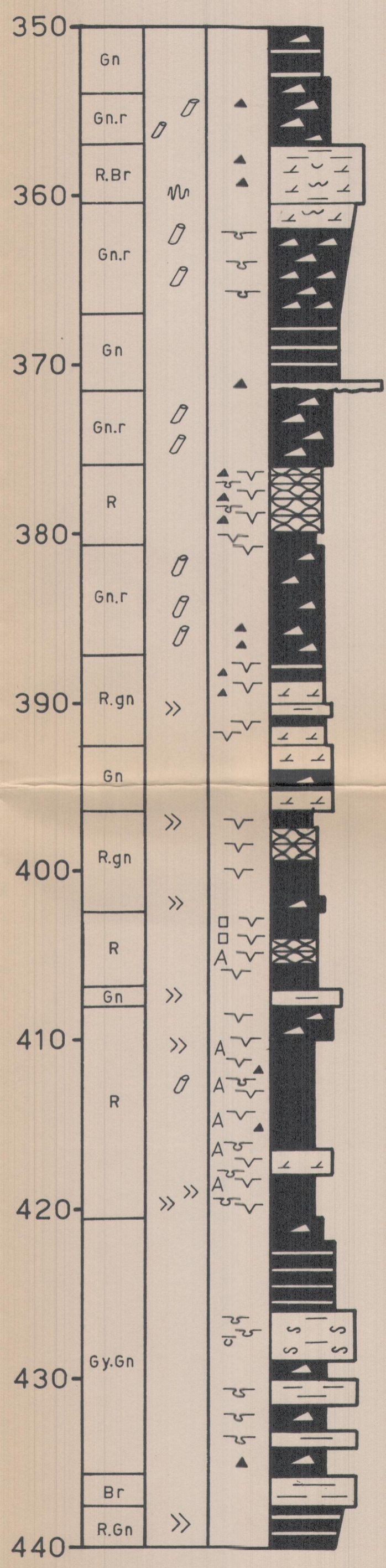
MAJOR STRATIGRAPHIC SECTIONS — EREGUNDA SANDSTONE MEMBER

B O R E C O R E L O G — Y A L K A L P O 2

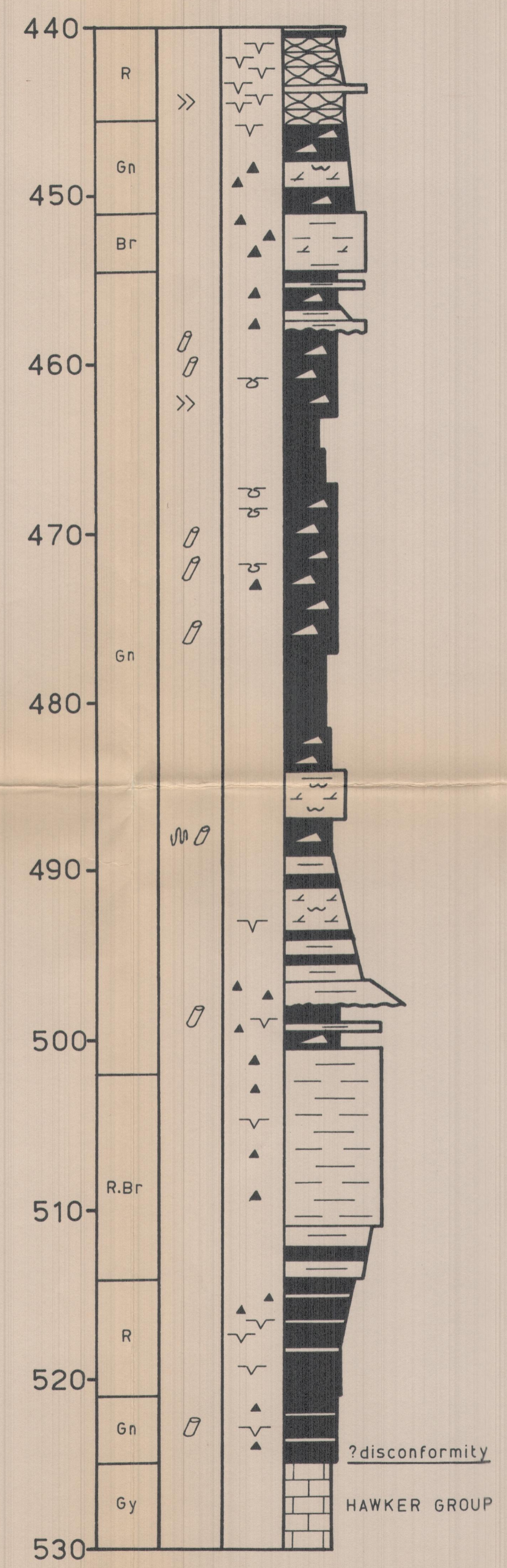
top of cored interval



mud
sand
pebbles



mud
sand
pebbles



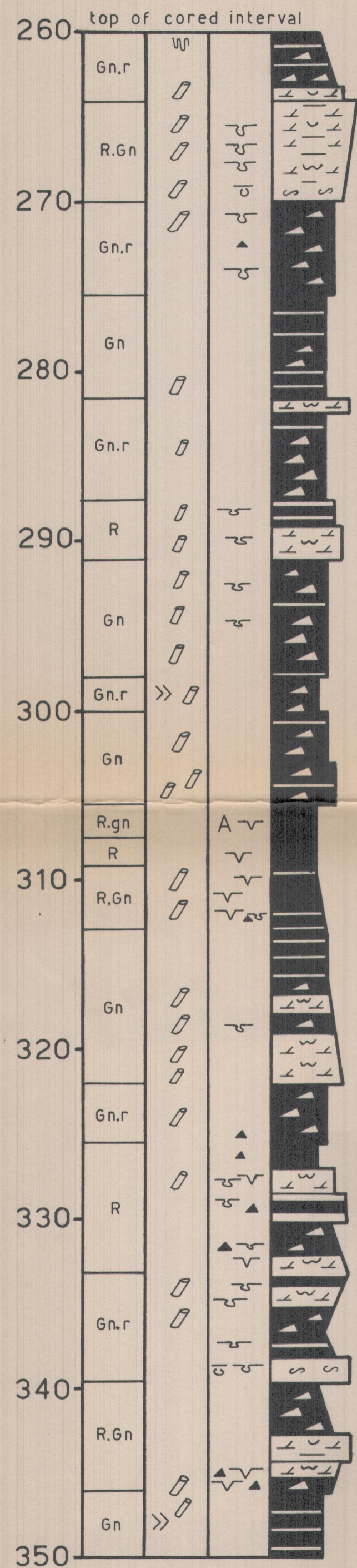
mud
sand
pebbles

Rock colour	Organic features	Sedimentary features	
Gy			Micritic limestone
R	>>	∩	Shale
Gn	∞	∩	Lenticular bedding
		□	Linsen bedding
		∩	Wavy bedding
R.gn		▲	Simple flaser bedding
		∩	Ripple laminated siltstone
R.Br		∩	Evenly bedded sandstone
		SS	Contorted sandstone

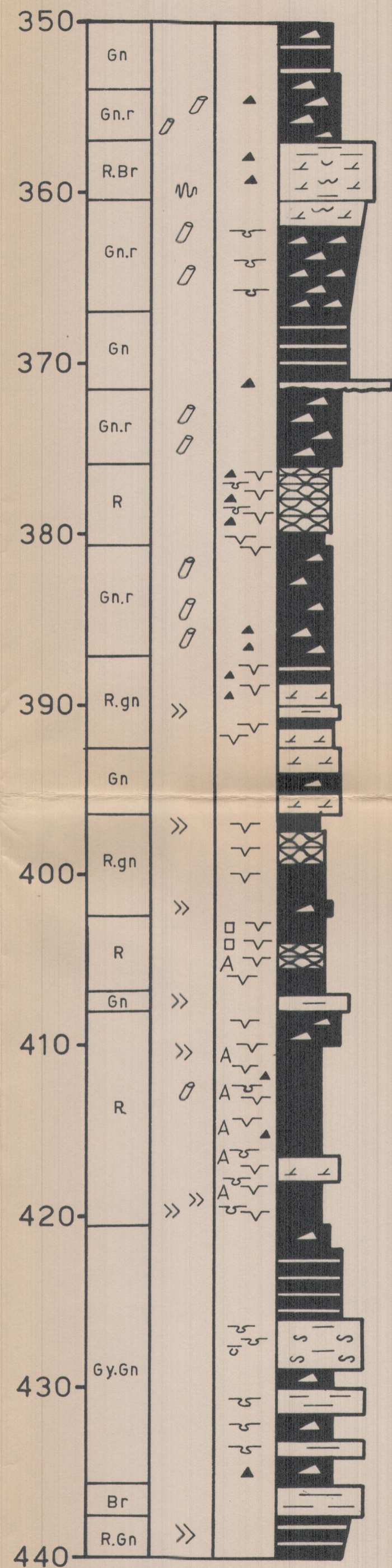
mud
sand
pebbles

Sedimentary features		Rock colour	
∩	Desiccation cracks	R	Red
▲	Mudstone intraclasts	Br	Brown
□	Halite pseudomorph casts	Gn	Green
∩	Load structures	Gy	Grey
∩	Pseudonodules	R.Br	Red-brown
A	Anhydrite	R.br	Red with minor brown
Organic features			
∩	Worm burrows		
>>	Arthropod tracks		
∞	Molluscan trails		

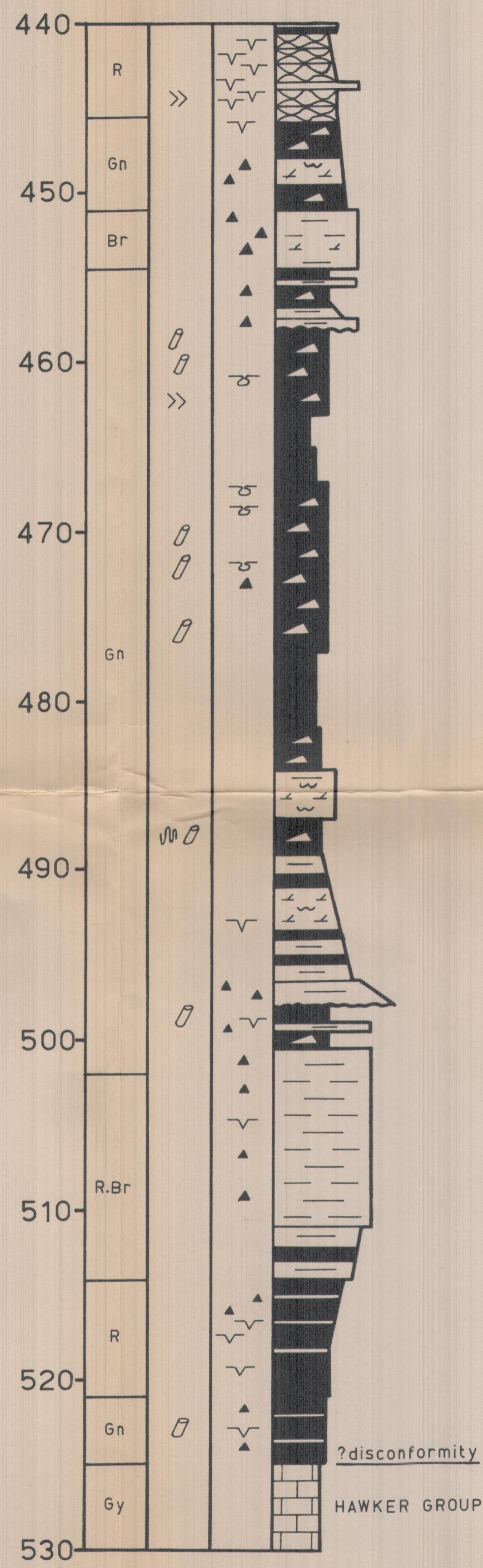
BORECORE LOG — YALKALPO 2



mud
sand
pebbles



mud
sand
pebbles



mud
sand
pebbles

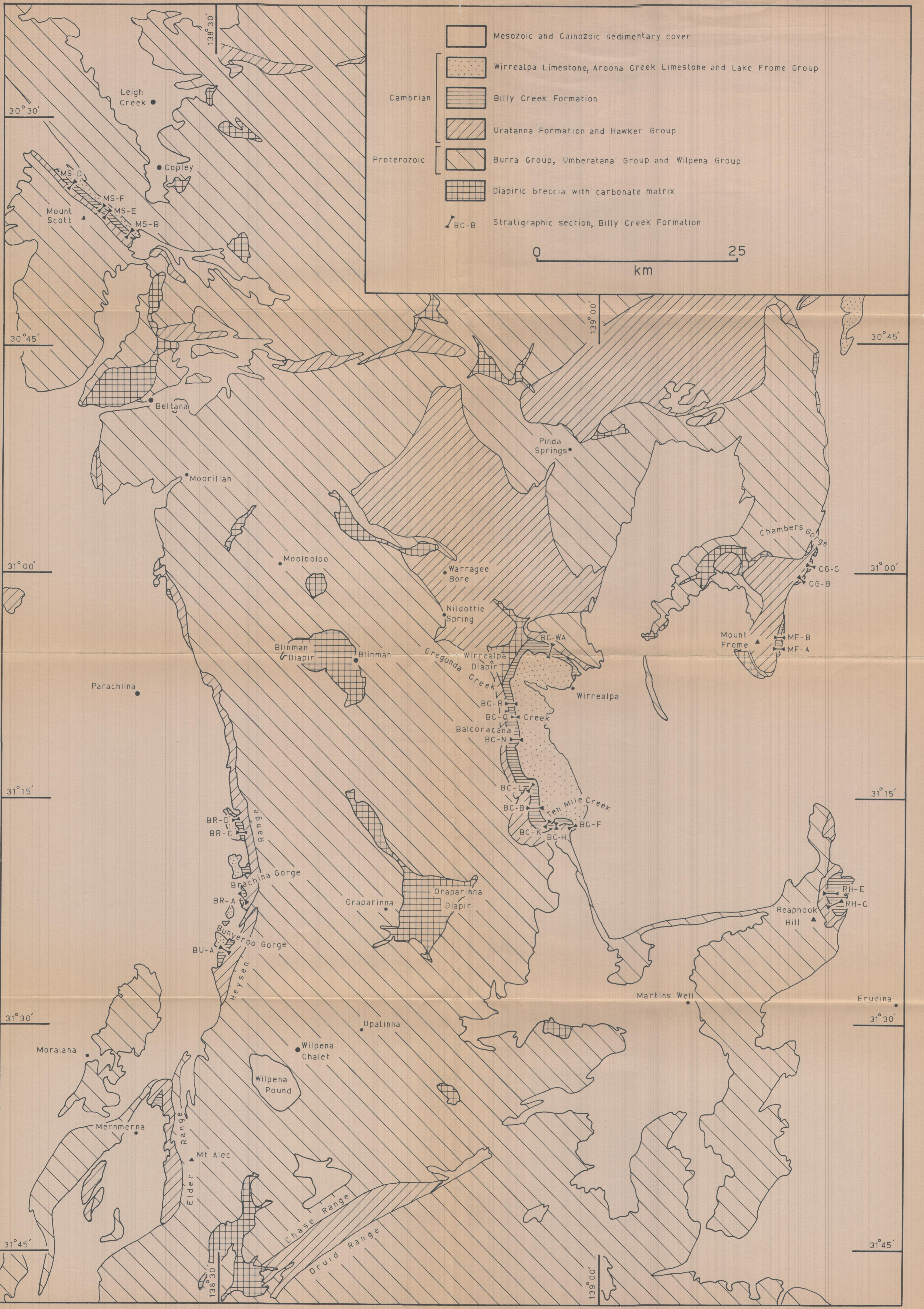
Rock colour	Organic features	Sedimentary features
Gy		Micritic limestone
R	>>	Shale
Gn	∞	Lenticular bedding
	□	Linsen bedding
	∞	Wavy bedding
R.gn	▲	Simple flaser bedding
	∞	Ripple laminated siltstone
R.Br	∞	Evenly bedded sandstone
	∞	Contorted sandstone

mud
sand
pebbles

Sedimentary features		Rock colour	
∞	Desiccation cracks	R	Red
▲	Mudstone intraclasts	Br	Brown
□	Halite pseudomorph casts	Gn	Green
∞	Load structures	Gy	Grey
∞	Pseudonodules	R.Br	Red-brown
A	Anhydrite	R.br	Red with minor brown

Organic features

- ∞ Worm burrows
- >> Arthropod tracks
- ∞ Molluscan trails



STRATIGRAPHIC SECTIONS — NILDOTTIE SILTSTONE MEMBER

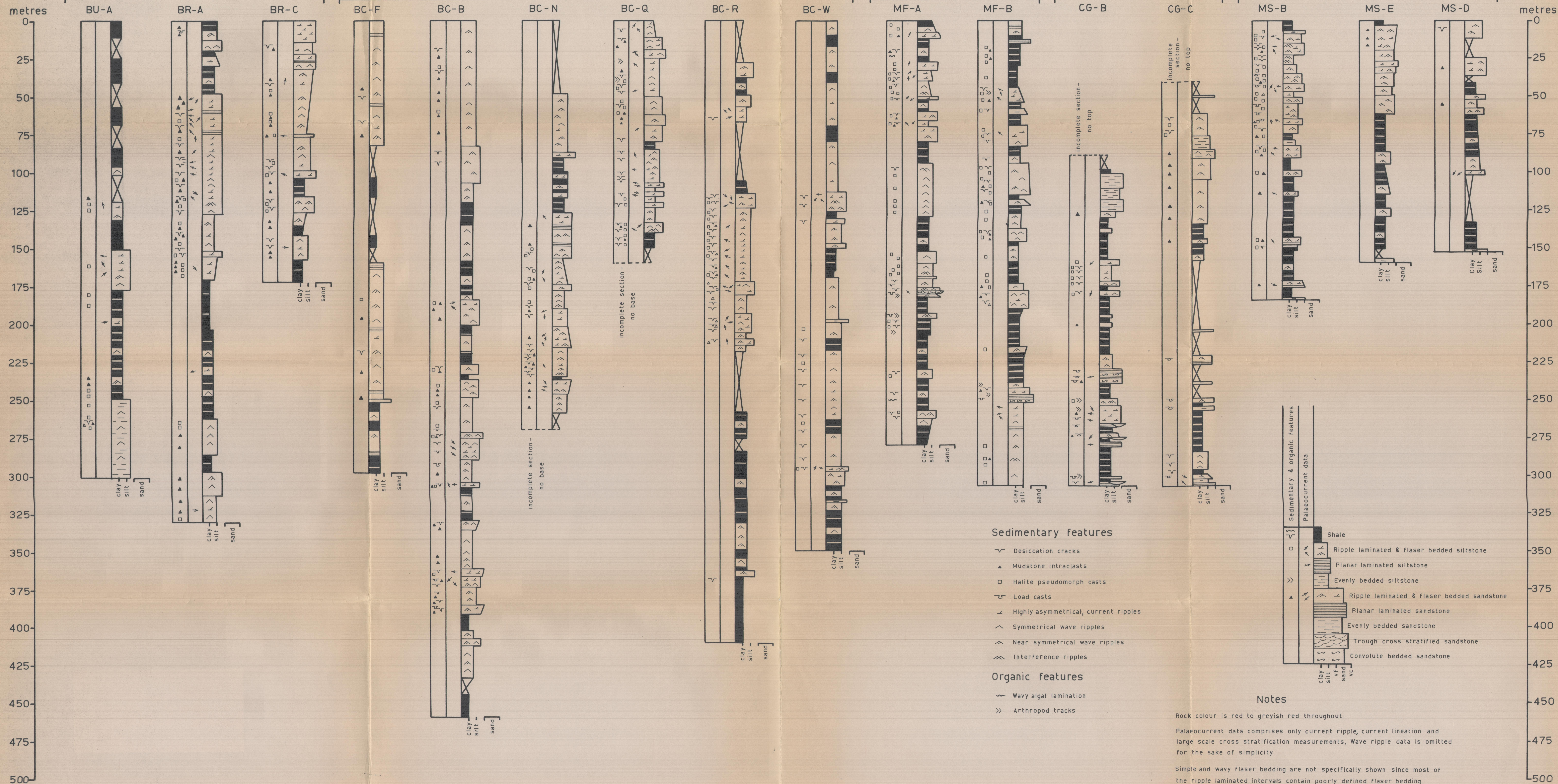
HEYSEN RANGE

WIRREALPA BASIN

MT FROME

CHAMBERS GORGE

MOUNT SCOTT RANGE



STRATIGRAPHIC SECTIONS — WARRAGEE MEMBER

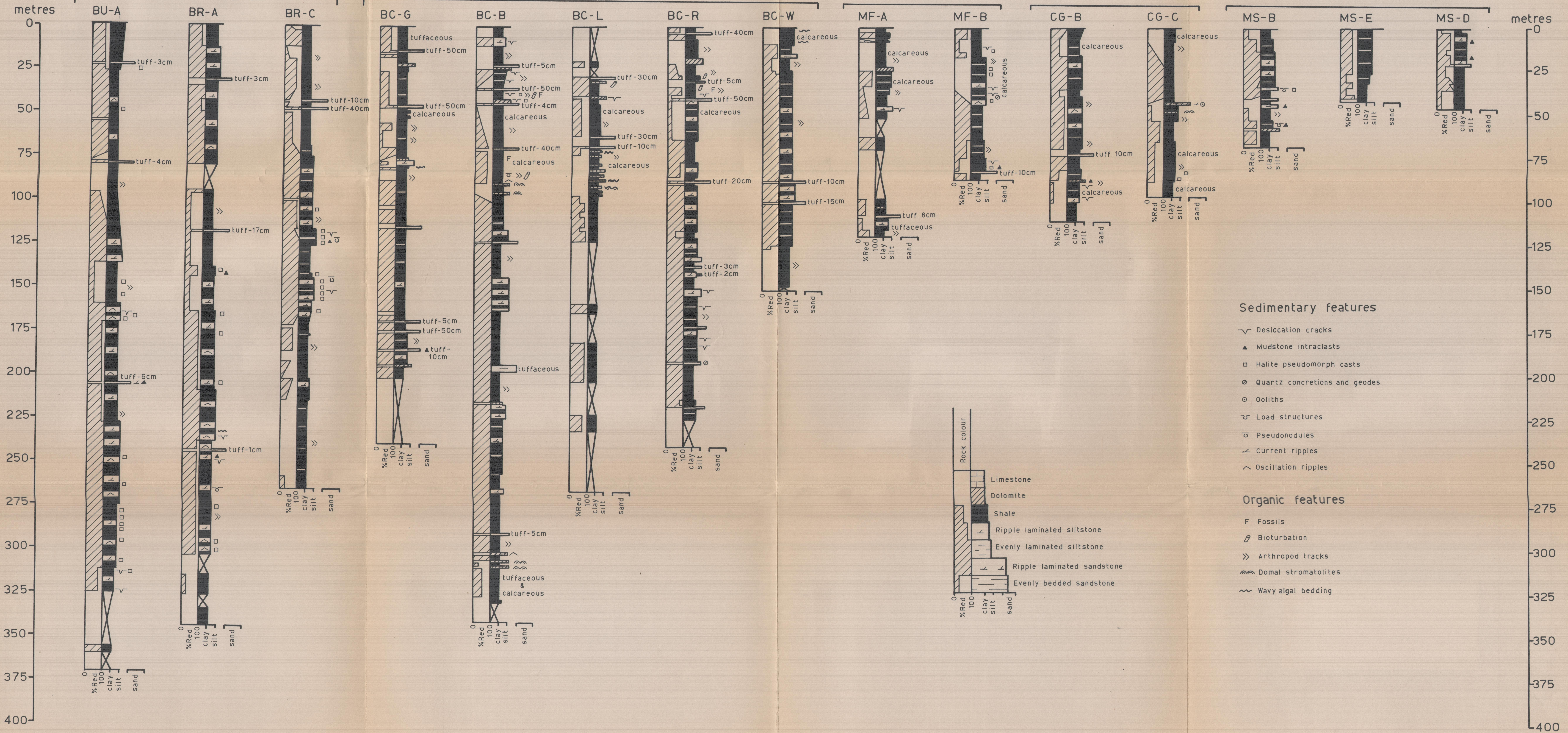
HEYSEN RANGE

WIRREALPA BASIN

MT FROME

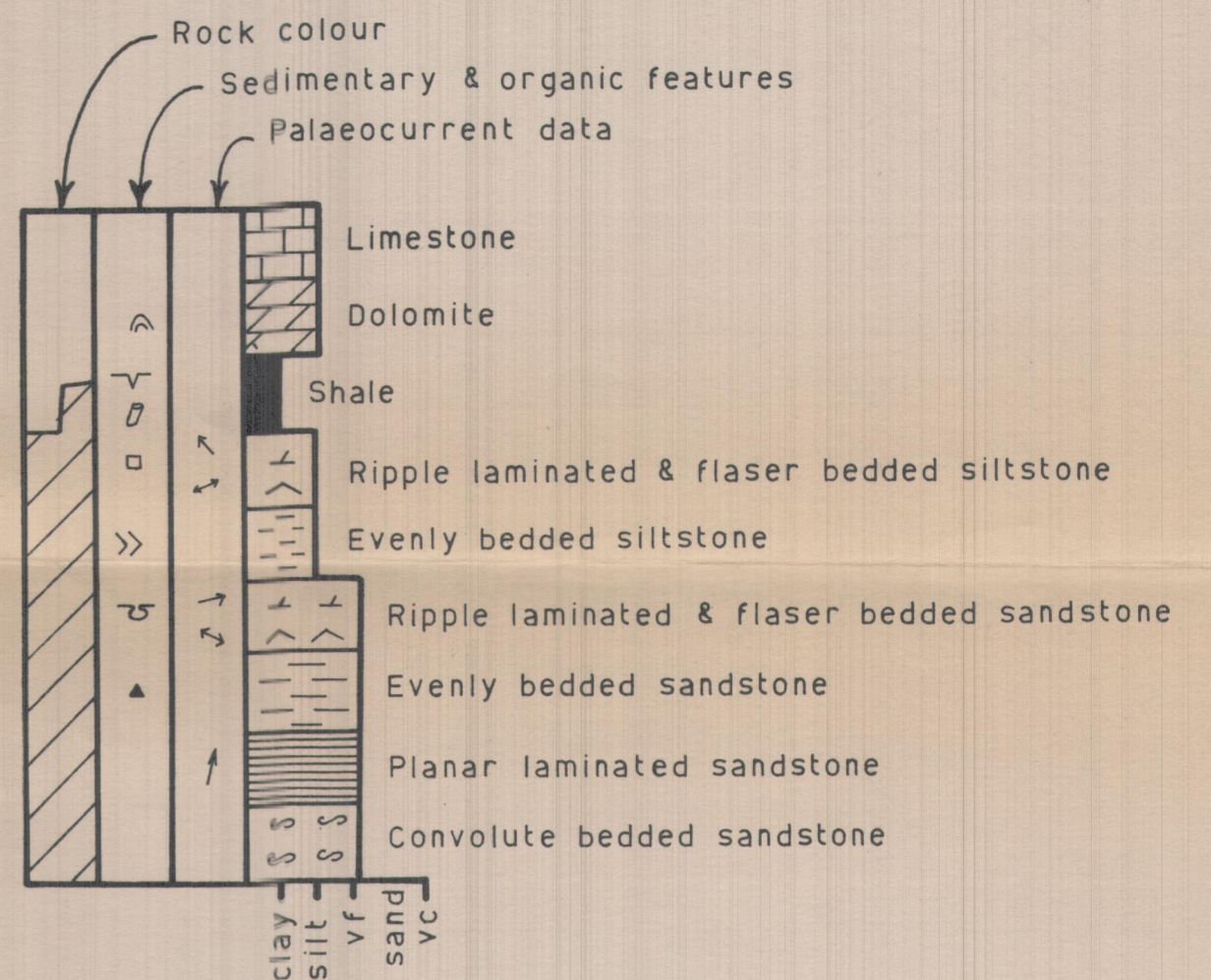
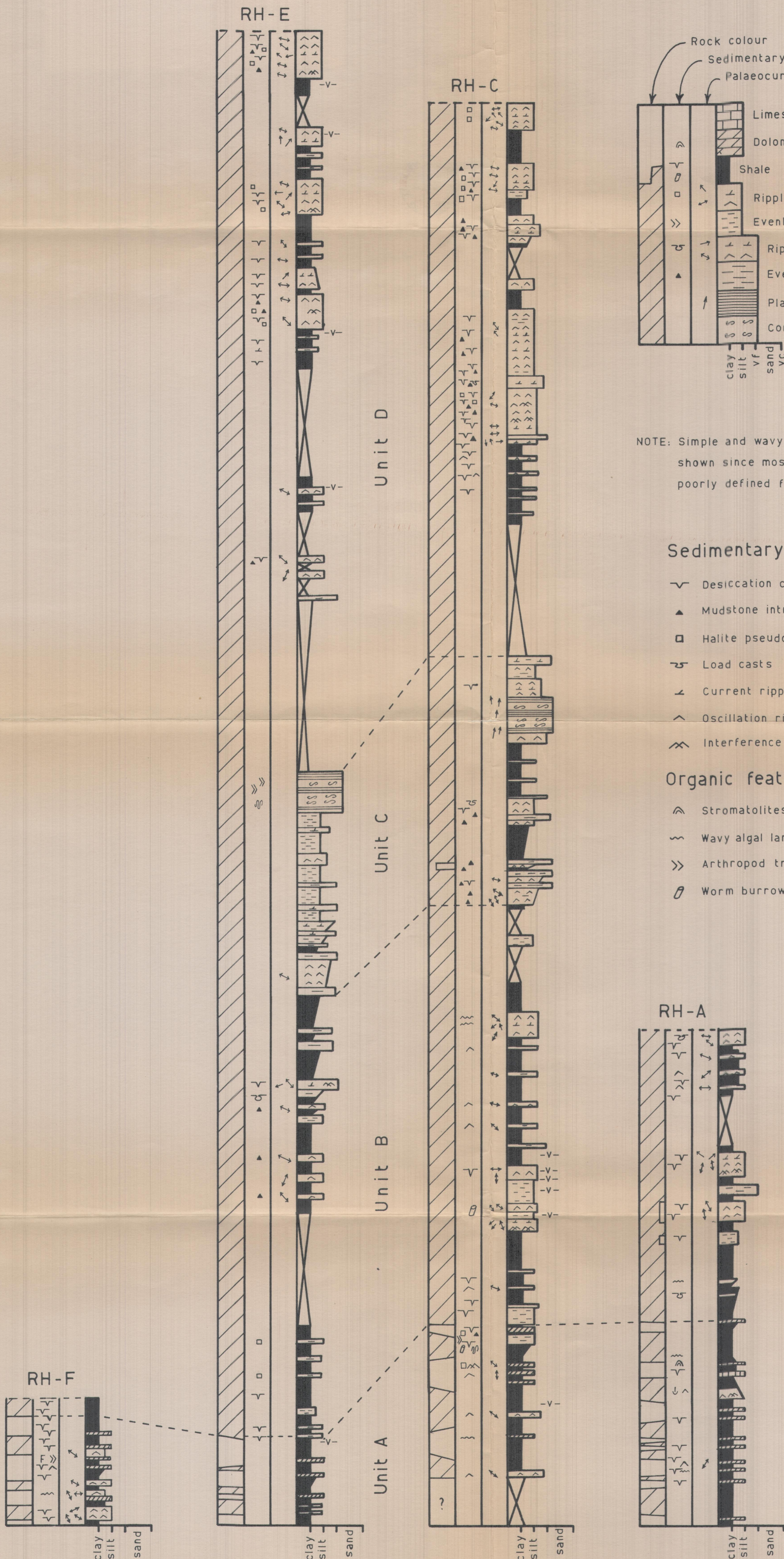
CHAMBERS GORGE

MOUNT SCOTT RANGE



STRATIGRAPHIC SECTIONS ERUDINA SILTSTONE MEMBER

300m
 275
 250
 225
 200
 175
 150
 125
 100
 75
 50
 25
 0



NOTE: Simple and wavy flaser bedding are not specifically shown since most of the rippled intervals comprise poorly defined flaser bedding.

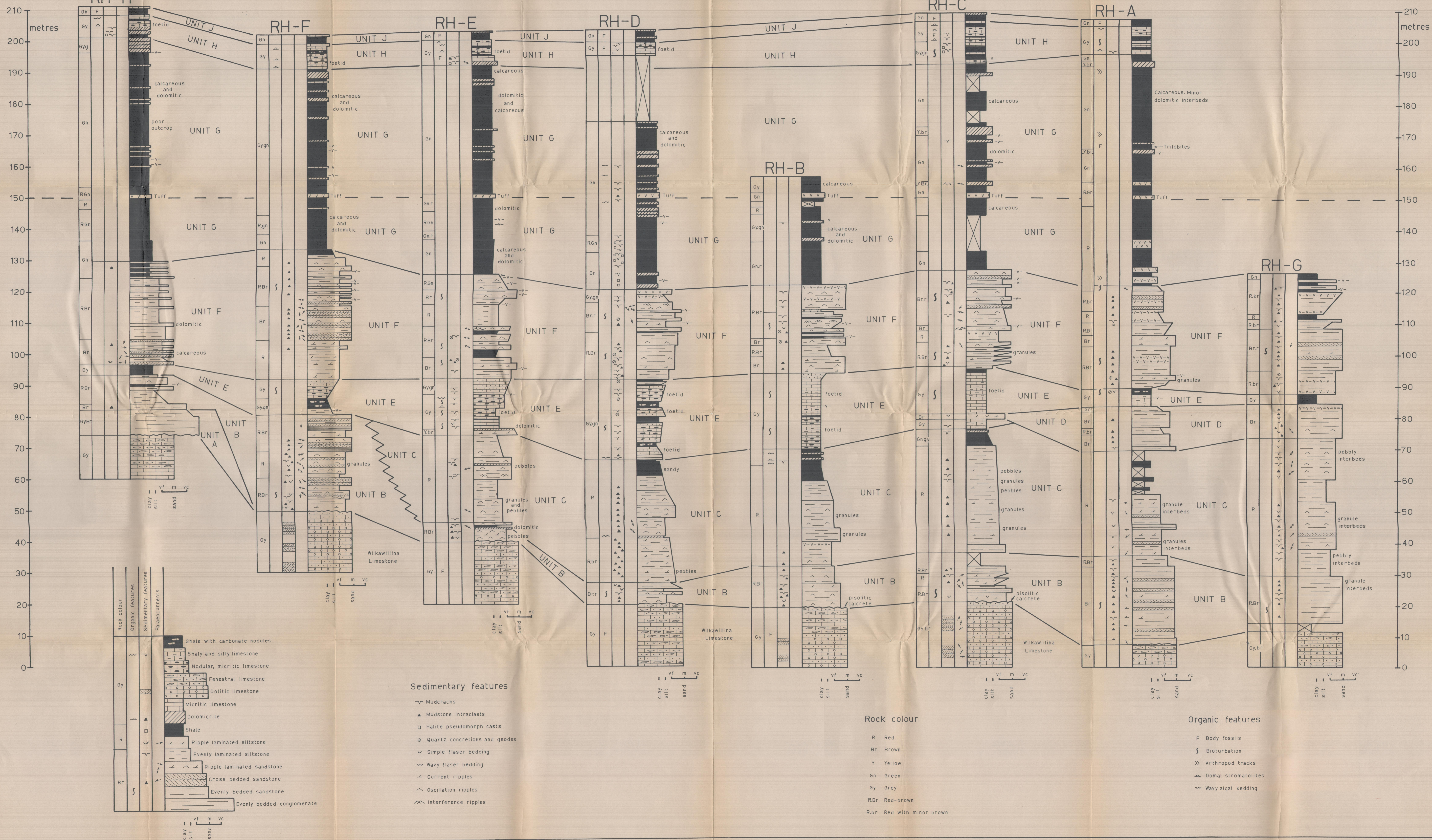
Sedimentary features

- ∩ Desiccation cracks
- ▲ Mudstone intraclasts
- Halite pseudomorph casts
- ∩ Load casts
- ∩ Current ripples
- ∩ Oscillation ripples
- ∩ Interference ripples

Organic features

- ∩ Stromatolites
- ∩ Wavy algal lamination
- ∩ Arthropod tracks
- ∩ Worm burrows

STRATIGRAPHIC SECTIONS—COADS HILL MEMBER



MAJOR STRATIGRAPHIC SECTIONS NORTHEAST COAST OF KANGAROO ISLAND

CARRICKALINGA HEAD FORMATION

SMITH BAY SHALE

WHITE POINT CONGLOMERATE

EMU BAY SHALE

BOXING BAY FORMATION

