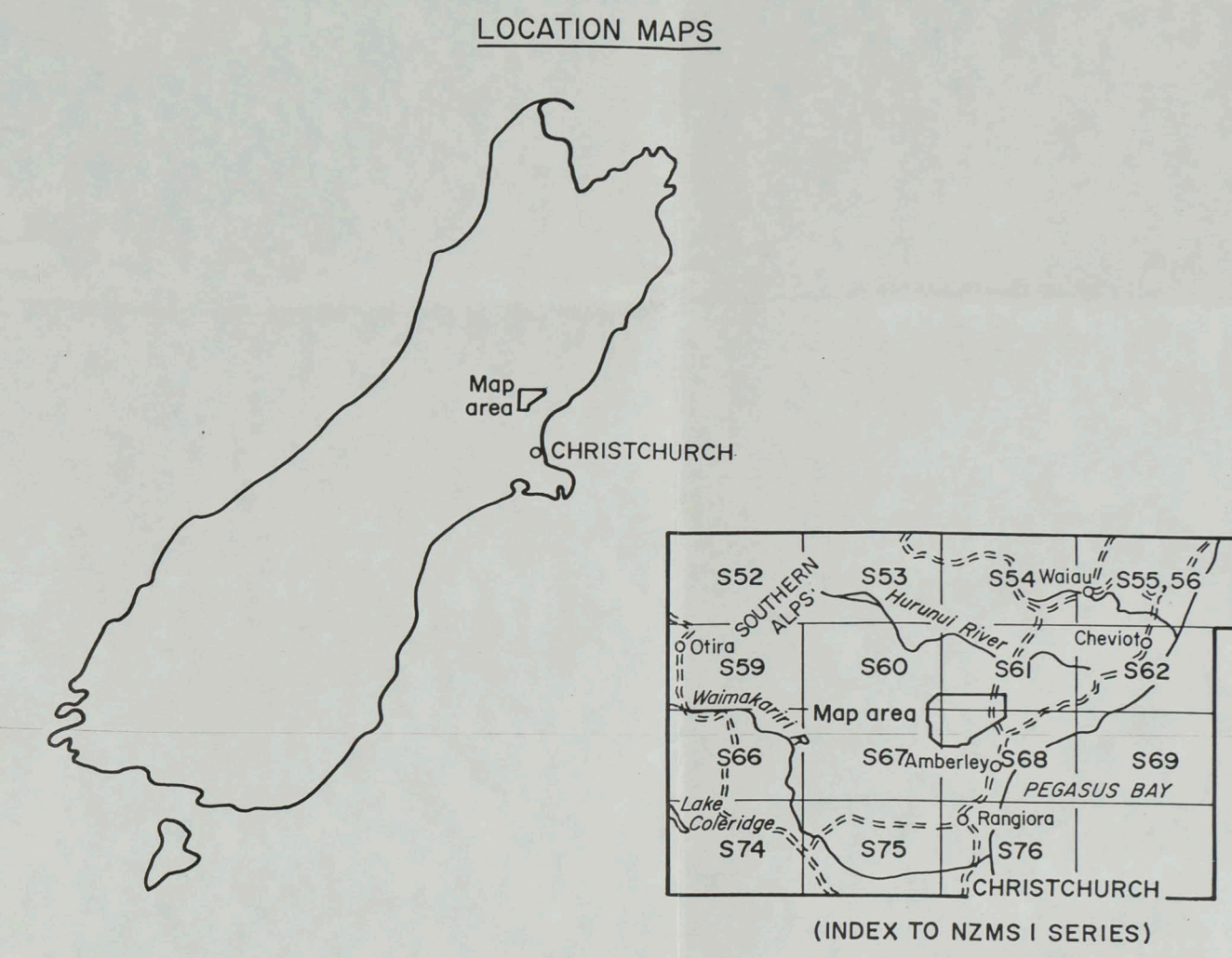
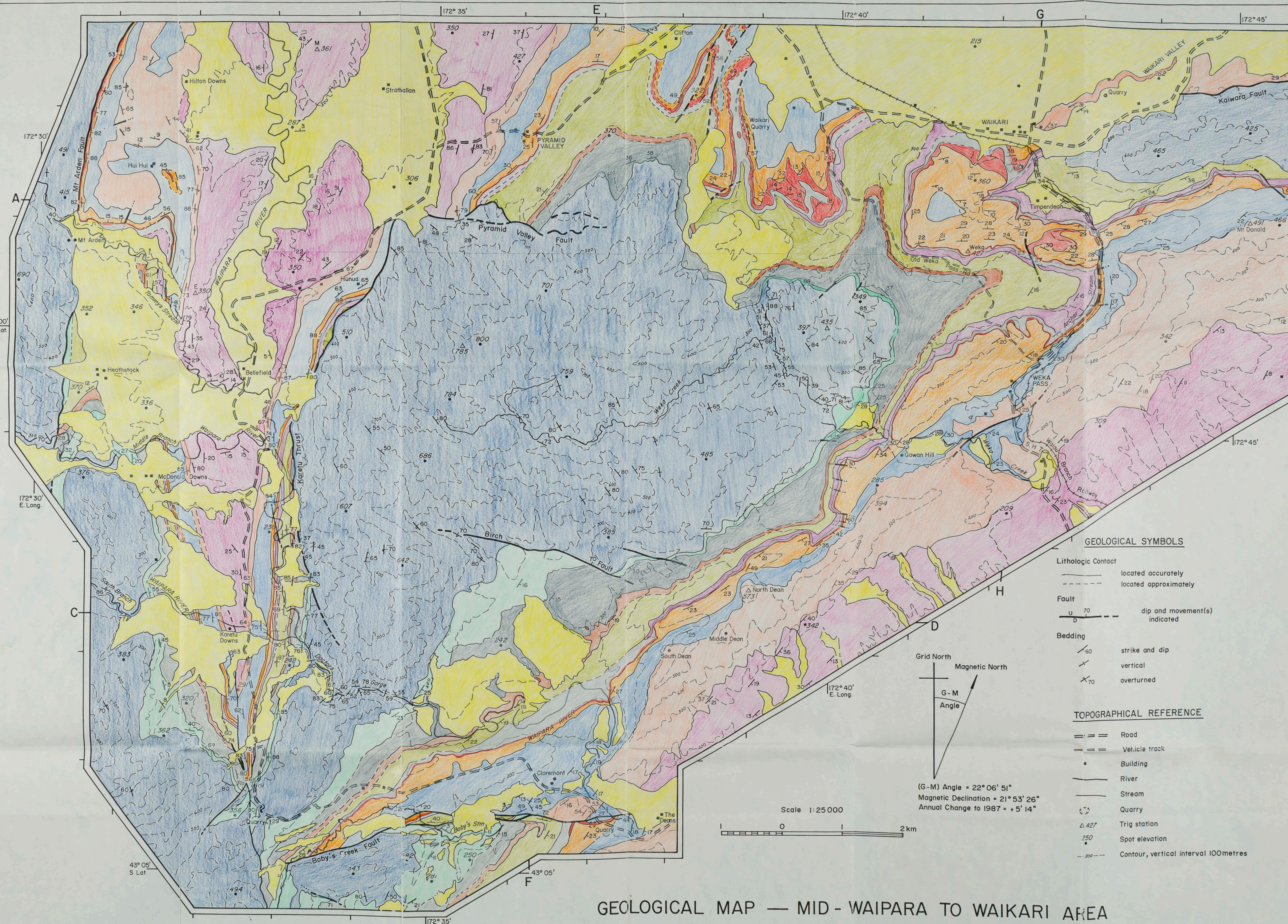




GEOLOGICAL LEGEND	
LITHOLOGY	UNIT (after Browne and Field 1985)
Alluvial gravels and fan colluvium	Quaternary Deposits
Interbedded conglomerates and sandstones	Kowai Fm
Brown to orange, interbedded sandstones and subordinate limestone horizons	Mt Brown Fm
Blue-grey siltstones and interbedded glauconitic sandstones and concretionary bands	Waikari Fm
Sandy glauconitic foraminifera limestone	Weka Pass Stone Mbr (Omihia Fm)
Micritic coccolith and foraminifera limestone	Amuri Lmst Fm
Glauconitic medium sandstone	Karetu Sst Fm
Blue-grey bentonitic calcareous mudstone	Ashley Mst Fm
Light brown, poorly indurated sandstone	Homebush Sst Fm
Glauconitic coarse sandstone	Waipara Greensand Fm
Dark grey sandy mudstone	Loburn Mst Fm
Grey jarositic and silty sandstone	Conway Sst Fm
Interbedded quartz sandstones, carbonaceous mudstones and coal	Broken River Fm
Interbedded quartzofeldspathic sandstones and mudstones, with sparse calcareous and chert horizons	Torlesse Supergroup
	AGE
	(after Browne and Field 1985)
	Quaternary Deposits
	Pliocene to early Pleistocene (Wn - Wo)
	mid - Miocene (Sw - Po)
	early Miocene (Po - Lw)
	late Oligocene (Lw - Ld)
	mid - Oligocene (Lwh)
	early Oligocene to mid Eocene (Lwh - Ab)
	Oligocene to mid Paleocene (Lwh(?) - Dt)
	mid - late Eocene (Ab - Dh(?))
	mid - Paleocene (Dt)
	mid - Paleocene (Dt)
	mid - Paleocene to late Cret. (Dt - Mh)
	late Cretaceous (Mh)
	early Cretaceous to Jurassic (?)

- GEOLOGICAL SYMBOLS**
- Lithologic Contact
— located accurately
- - - located approximately
- Fault
— dip and movement(s) indicated
- Bedding
/ 60 strike and dip
x vertical
x 70 overturned
- TOPOGRAPHICAL REFERENCE**
- == Road
- - - Vehicle track
• Building
— River
— Stream
△ 427 Quarry
△ 250 Trig station
• Spot elevation
- - - Contour, vertical interval 100metres

Grid North
Magnetic North
G - M Angle
(G - M) Angle = 22° 06' 51"
Magnetic Declination = 21° 53' 26"
Annual Change to 1987 = +5' 14"

Scale 1:25 000
0 1 2 km

Compiled by A. Nicol from field mapping as part of a PhD project undertaken at the University of Canterbury. Torlesse mapping undertaken with D. U. Wise, while some basement bedding is from Wilson (1963)

ACTIVE TECTONICS GROUP
North Canterbury Project

GEOLOGICAL MAP — MID - WAIPARA TO WAIKARI AREA