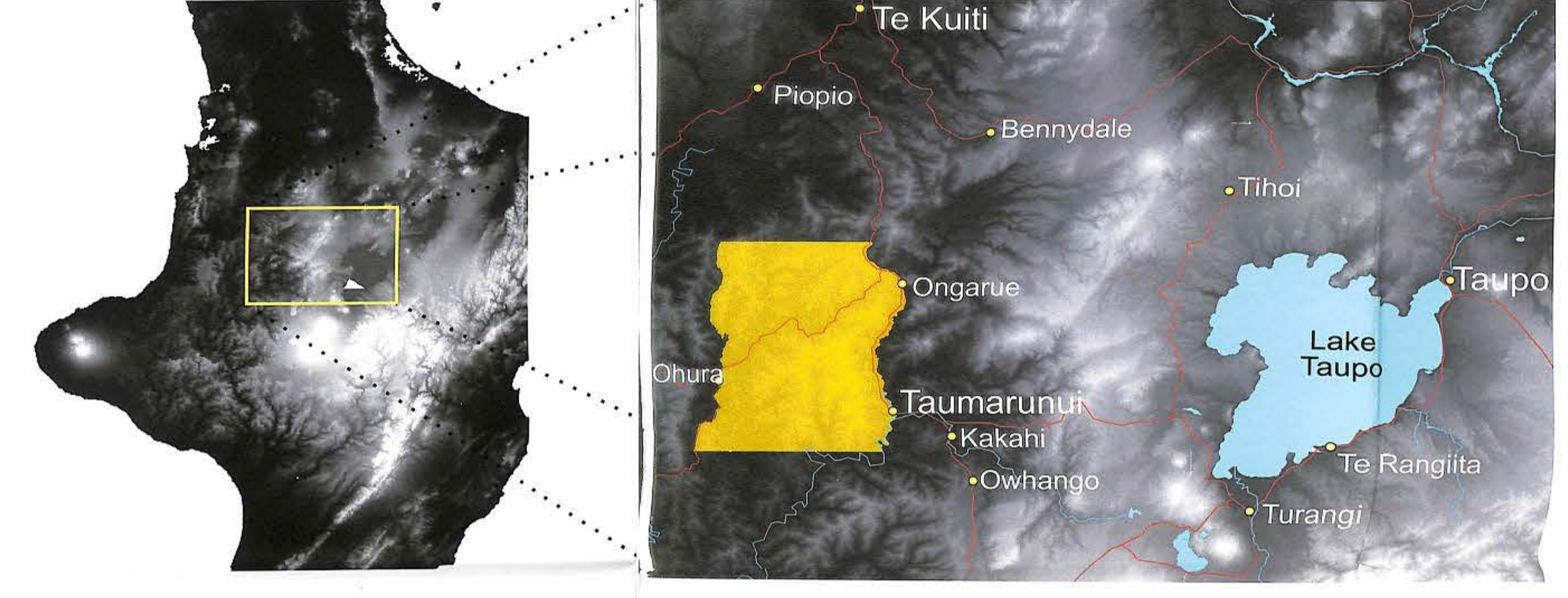
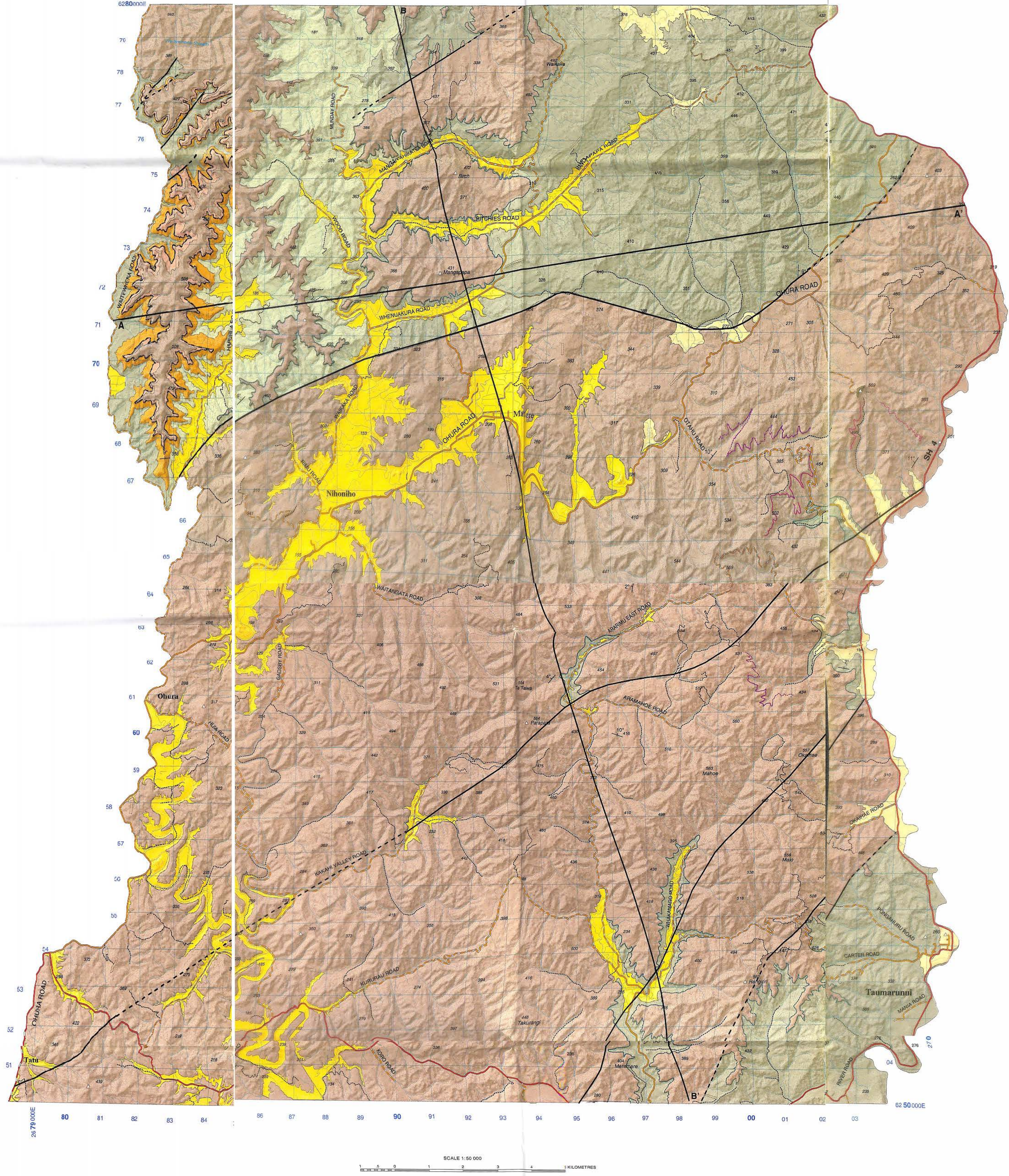


Geological Map of Western Taumarunui

Thomas Evans, Department of Earth Sciences, The University of Waikato, Hamilton, New Zealand.



- Towns
 - State Highways
 - Major Rivers
 - Study Area
- 0 20 km

Topographic Legend

- #### ROADS
- Road surface: sealed, unsealed
 - Vehicle track
 - Foot track
 - National State Highway
 - Regional State Highway
 - Bridge, two line
 - Bridge, one line
 - Footbridge

- #### RAILWAYS
- Double or multiple track
 - Single track
 - Station
 - Level crossing
 - Road over railway
 - Railway over road

- #### RELIEF FEATURES
- Index contour
 - Intermediate contour
 - Triangulation station
 - Elevation in metres
 - Cliff, terrace
 - Sandstone
 - Saddle

- #### MISCELLANEOUS
- Large building
 - Residential area
 - Building
 - Homestead
 - Archeological site
 - Historic sites: Monument, Pukepuke, Mine, etc.
 - Fence
 - Power line on poles
 - Power line on pylons
 - Main road, 1:1, 1:2, 1:3
 - Mine, underground opening
 - Cave
 - Burned gas pipeline

- Undifferentiated Alluvium (Al): Poorly sorted gravels and sands, 10 m thick.
 - Taupo Pumice (TP): Undifferentiated Primary and Secondary deposits on the Taupo Igneite. Terrace forming, 10 m to 30 m thick.
 - Ongarue Ignimbrite (Og): Densely welded, crystal rich, pumice absent. Could be unusual facies of Ongatiti Ignimbrite, 20 m thick.
- #### Whangamona Group
- Mt Messenger Formation (Mm): Well-sorted, very fine to fine-grained thin-bedded sandstone and siltstone, with turbidite beds comprising laminated and ripple-laminated sandstone and massive siltstone.
 - Otunui Formation (Ot): Blue-grey, massive, amalgamated sandstone. In the upper parts of the Formation coarser, cleaner sandstone lenses occur, along with some mudstone lenses.
 - Otunui Channel Fill Facies (OCh): Redeposited beds of sandstone, mudstone, and broken faunal material.
 - Otunui Conglomerate Facies (OCo): Pebbles of greywacke, sandstone and mudstone, along with faunal and faunal material.
- #### Mangarara Formation (Mg):
- Varies greatly throughout the area from a yellow-brown to blue-grey fossiliferous, glauconitic unit with sandy lenses, to a conglomeratic, fossiliferous and sandy unit.
- #### Mokau Group
- Tangaraku Formation (Tg): A series of fine grained sandstones, shales, mudstones and conglomerates.
 - Whangamona Coal Measures (WCM): A lower coal seam and an upper coal seam of sub-bituminous coal, separated by 20 m of massive and cross bedded sandstone.
 - Bextley Formation (Bx): Massive, amalgamated and current bedded sandstones. Weathered orange-brown in outcrop. Liesegang rings are formed from concentrations of limonite to give the sandstones pseudo-sedimentary structures.
- #### Mahoenui Group
- Taumarunui Formation (Tm): Sequence of alternating sandstones and mudstone. At the base of the sandstone and the underlying mudstone is a sharp contact. Sand to mud ratio is typically 1:4. Individual beds are 20-40 cm thick, but can be as thin as 5 cm.
 - Taumatamare Formation (Tmt): Sequence of blue-grey, slightly fossiliferous calcareous, massive mudstones with occasional sandier lenses 30-40 cm thick.

INTERNATIONAL		NEW ZEALAND	
Era	Period	Series	Stage
Pleistocene	Wanganui		Hawera
			Castleclyffian
			Wq
			Wc

CENOZOIC	Taranaki		Symbol
	Formation	Stage	
Pleistocene	Tongaporutuan	Tt	
	Waiauian	Sw	
	Lillburnian	Sl	
	Clifdenian	Sc	
Pliocene	Altonian		Pl
	Otaian		Po

