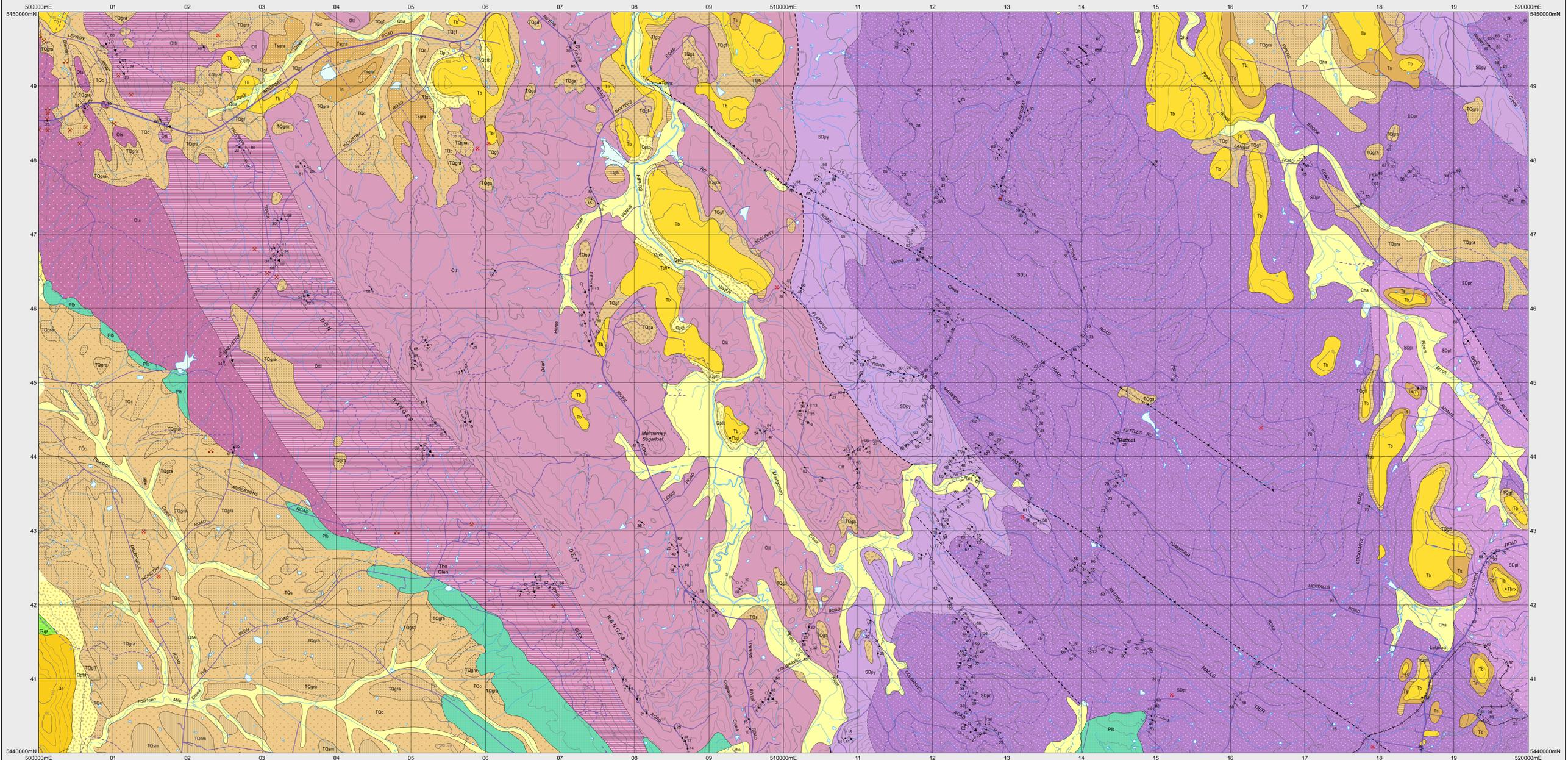


RETREAT

Scale 1:25 000



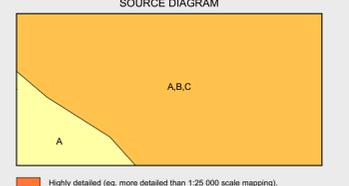
CENOZOIC	QUATERNARY	HOLOCENE	
		Qha	Stream alluvium, swamp and marsh deposits (Qha).
		Qhw	Windblown sand and locally derived sand (Qhw).
		Qps	Silt with rounded clasts of granite, schist, quartzite, conglomerate, derived from Permian strata (Qps).
		Qpb	Basalt talus (Qpb).
		Qpt	Dolerite talus (Qpt).
		TQc	Silt and clay with occasional pebbles (TQc).
		TQg	Ferrous, pisolitic gravel with ironstone blocks (TQg).
		TQh	Ironstone horizons (TQh).
		TQi	Rounded gravel, mainly vein quartz (TQi).
		TQj	Angular gravel, mainly vein quartz (TQj).
		TQk	Rounded and angular gravel, mainly vein quartz (TQk).
		TQm	Medium-grained sand (TQm).
		TQs	Sandstone and conglomerate (TQs).
		Ts	Basaltic rock (Ts).
		Tsgr	Rounded and angular gravel, mainly vein quartz (Tsgr).
		Tsgb	Grey-billy and silcrete (Tsgb).

MESOZOIC	PERMIAN TRIASSIC	LUDLOW	
		Rqs	Cross-bedded quartz sandstone, felspathic sandstone and shale (Rqs).
		Pib	Poorly sorted pebbly mudstone, sandstone and minor conglomerate, marine fossils present in places (Pib).
		SDpl	Dominantly thin-bedded siltstone, with interbedded fine-grained quartz-rich sandstone increasing towards top. Contains Silurian (Ludlow) graptolites (Lone Star Siltstone) (SDpl).
		SDpr	Interbedded turbidite medium- to very fine-grained quartz-rich sandstone and subordinate siltstone-mudstone (Retreat Formation) (SDpr).
		SDpy	Dominantly thin-bedded mudstone, with subordinate cross-laminated siltstone (Yarrow Creek Mudstone) (SDpy).
		Ott	Dominantly dark grey phyllitic slate, with minor thin beds of quartz-rich siltstone. Contains Ordovician graptolites (Tropese Bluff Slate) (Ott).
		Otr	Interbedded phyllitic slate and foliated very fine-grained quartz-rich sandstone (Industry Road Member) (Otr).
		Ots	Thick bedded, turbiditic, graded fine- to very fine-grained quartz-rich sandstone with strip, penetrative cleavage, and minor interbedded slaty pelite (Stony Head Sandstone) (Ots).

MESOZOIC CENOZOIC	PALEOCENE	NEOGENE	JURASSIC	
			Tb	Basalt (Tb); quartz tholeiite (Tbq); transitional olivine basalt (Tbt); hawthornite (Tbh); nepheline hawthornite with tholeiitic xenoliths (Tbth); and olivine nepheline with tholeiitic xenoliths (Tbto) indicated.
			Jd	Dolerite (Jd).

- CONTACTS**
- Geological contact.
 - Geological contact - inferred.
 - Transitional geological contact.
 - Unconformable lithological contact.
 - Igneous intrusive contact.
 - Limit of mapping of sub-unit within undifferentiated rock unit.
- FAULTS**
- Fault - inferred.
 - Normal fault (downthrown side indicated).
 - Thrust fault (with on upper plate) - inferred.
 - Thrust fault (with on upper plate) - concealed.
- LINEARS**
- Subsurface geological boundary projected to surface.
 - Lineament - visible on aerial photographs.
 - Lithological trend line, including bedding trace interpreted from aerial photographs.

- Strike and dip of bedding: right way up; overturned; facing unknown; vertical; facing unknown.
- Strike and dip of cleavage: type and relative age unspecified; penetrative cleavage; vertical penetrative cleavage; crenulation cleavage.
- Trend and plunge of minor fold hinge line, unspecified relative age, with dip and dip direction of axial surface; vergence sinistral; with dip and dip direction of axial surface.
- Trend and plunge of minor fold hinge line, relative local age F₁; recumbent fold.
- Trend and plunge of minor fold hinge line, relative local age F₂; uniform with dip and dip direction of axial surface; with vergence dextral and dip and dip direction of axial surface.
- Trend and plunge of bedding/primary cleavage intersection lineation (L₁); horizontal.
- Trend and plunge of lineation (L₂) formed by intersection of cleavages or foliations of relative local ages S₁ and S₂; crenulation lineation.
- Strike and dip of outcrop-scale fault of unspecified relative age, type unspecified.
- Field station for adjacent readings on the map.
- Notable small outcrop with rock unit indicated.
- Notable small fault or lag occurrence with rock unit indicated.
- Mineral deposit location - hardrock.
- Mineral deposit location - alluvial/tailings.
- Construction material/industrial mineral/gemstone location.



Compiled by M.P. McClenaghan, B.Sc.(Hons), Ph.D., 1995 from the following sources (see source diagram):

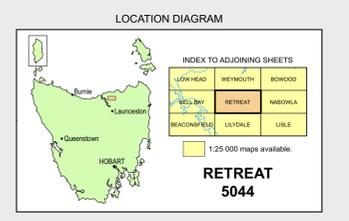
A. MARGSHALL, B.; BARTON, C.M.; JENNINGS, D.J.; NAQVI, I.H. 1965. Geological Atlas 1:63 360 Series, Sheet 31 (8319N), Pipers River. Tasmania Department of Mines.

Updated by:

B. D.B. Seymour 2008-2009. Stratigraphic revision and re-mapping of Mathinna Supergroup supported by interpretation of airborne geophysical, DEM and LiDAR data, as part of the TasExplore Project, Mineral Resources Tasmania.

C. SEYMOUR, D.B.; WOOLWARD, J.R.; McCLENAGHAN, M.P.; BOTTRILL, R.S. 2011. Stratigraphic revision and re-mapping of the Mathinna Supergroup between the River Tamar and the Scottsdale Batholith, northeast Tasmania. 1:25 000 Scale Digital Geological Map Series, Explanatory Report 4.

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SEYMOUR, D.B. and McCLENAGHAN, M.P. (compilers) 2009. Digital Geological Atlas 1:25 000 Scale Series, Sheet 5044 Retreat, Mineral Resources Tasmania.
Base data from the LIST, Copyright State of Tasmania.
Map produced by Spatial Information Services, Mineral Resources Tasmania.
Website: www.mrt.tas.gov.au
GDA94 - MGA Zone 55. Contour Interval: 20 metres.



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