

QUATERNARY	CENOZOIC	PALEOCENE - NEOGENE
Qhm	Undifferentiated Cenozoic sediments (Qc), Undifferentiated Quaternary sediments (Q)	Undifferentiated Palaeogene - Neogene (T)
Qw	Aeolian and locally derived sand (Qw), Holocene (Qh) aeolian dune and sheet sands (Qhd), Pleistocene generally with Holocene disturbed fringe and cover deposits (Qpw)	Basalt (Tb)
Qhd	Colluvium - clayey gravel derived from dolerite (Qhd), sandy, derived from Upper Permian rocks (Qhpc)	Sub-basalt very poorly-consolidated well sorted sandstone, siltstone, clayey sandstone and subordinate claystone (Tsp)
Qh	Alluvial gravel sand and clay (Qa), alluvial fans (Qaf), Holocene alluvium (Qha), alluvial and marsh deposits of modern flood plains - gravel, sand, silt and clay commonly with organic top layer (Qham), Low alluvial terrace deposits 1-2m above modern floodplain, consists of sandy clay and basal brown sand or cobble gravel, Apicote geomorphic unit (Qhag)	Dominantly plastic poorly-consolidated light cream, grey or tan coloured mudstone, siltstone and sandstone with some soft, friable sandstone (Tsed)
Qh	Probable Pleistocene low gradient alluvial fan and alluvial terrace deposits (Qhp)	Dominantly plastic poorly-consolidated light grey, green or brown mudstone, siltstone and sandstone with some friable sandstone, may include beds with gravels and pebbles, common ferruginous cemented beds and laminae, leaf fossils at places (Tser)
Qp	Alluvial terrace deposits (Qpa) of sandy clay and basal rounded cobble gravel, generally overlies Palaeogene - Neogene basalt and is 5-10m above modern flood plain, soil profile lacks Pleistocene? sand infill, Coal geomorphic unit (Qpc), bright brown or yellow brown sandy clay and basal well-rounded pebble or cobble gravel commonly overlies Tertiary basalt 0.7m above modern flood plain soil profile lacks Pleistocene? sand infill, Richmond geomorphic unit (Qpr)	
Qp	Talus and remobilised talus deposits (Qpt), basalt talus (Qpb), talus predominantly of Upper Permian sandstone and sand (Qps), and talus dominantly of dolerite boulders and in places subordinate Permian rocks (Qpd)	
Qc	Undifferentiated Cenozoic deposits with possible subsurface Palaeogene - Neogene basalt (TQcb)	
TQ	Late Cenozoic alluvial terrace deposits with well-rounded gravel derived predominantly from Permian and Palaeogene - Neogene rocks including basalt, some dolerite clasts, overlain by sand, sandy clay and clayey sand or alluvial/clayey origin (TQha), probable Pleistocene? sand infill, Late Cenozoic alluvial terrace deposits consisting of sandy clay and cobbles including clasts of basalt and Lower Permian rocks, soil profile with Pleistocene? sand infill, Entele geomorphic unit (TQhe)	
TQ	Late Cenozoic pediments of sandy clay soil profile with Pleistocene? sand infill - with basal gravel on slopes of 4-6 degrees, derived by gully sheet and rill erosion from predominantly Palaeogene - Neogene deposits, Carrington geomorphic unit (TQpc) - with basal rounded gravel including basalt and other locally derived clasts on slopes of 2 degrees and commonly overlies basalt, Nugent geomorphic unit (TQpn)	
TQ	Cenozoic or other strata inferred from close uniform bedding traces visible on aerial photographs (TQc)	
	△ TQbs Poorly-sorted clay to boulder derived, variable proportion of clasts, predominantly Permian and occasionally dolerite derived, matrix of clay, sandy clay or sand (TQbs)	

MESZOZOIC	TRASSIAC	PERMIAN
Rv	Undifferentiated Permian Supergroup rocks (PR), Undifferentiated Upper Permian Supergroup rocks (Ri), Thick to thin-bedded volcanic lithic sandstone, siltstone, mudstone and coalesces, fossil plants on some horizons (Newton Coal Measures in part) (Rvq), Undifferentiated Upper Permian below unit Rvq (R), Dominantly medium-coarse-grained sandstone, minor mudstone minor mica and felspar content, sandstone to mudstone ratio is $\leq 3:1$, contains clay pellet conglomerate (Rp)	Pua
Rv	Intervally cross-bedded white quartzose sandstone, quartz-rich lithic sandstone, siltstone and mudstone, upper interval with much dark grey carbonaceous mudstone, thin lenticular coalesces and fossil plants in places (Newton Coal Measures in part) (Rvc)	Pur
Rv	Intervally cross-bedded white quartzose sandstone, quartz-rich lithic sandstone, siltstone and thin to thick-bedded quartz-rich lithic, arkosic sandstone, some fossil plants, common siltstone paleosols (Rv)	Pum
Rv	Predominantly fine-grained quartz sandstone, commonly partly siltified, interbedded with mudstone and lithic sandstone at places (Rv)	
Rv	Predominantly brown, buff, grey carbonaceous and green siltstone and mudstone, interbedded with lithic sandstone, quartz sandstone and thin beds of siltified sandstone, horizons of crowded vertical burrows, siltstone paleosols, and plant fossils at places (Rv)	
Rv	Lenticular variable medium- to coarse-grained sandstone, generally containing quartz granules or pebbles, crowded vertical burrows at places (Rv)	
Rv	Freshwater predominantly cross-bedded quartzose to felspathic sandstone commonly with overturned cross-bedding and subordinate micaceous siltstone with some redpurple beds, sparse plant and vertebrate fossils (Rvq) (Knocklofty Formation) (Rq), intervals predominantly of siltstone, shale, mudstone and sandstone indicated (Rq), intervals of thickly bedded medium-coarse-grained quartz sandstone and minor usually black shale layers and sandstone to shale ratio normally >1:1 (Rq)	
Rv	Undifferentiated Permian-Carboniferous sediments (P), Generally unfossiliferous, glauconitic interbedded non-fossil and fossil siltstone and silty sandstone, common bioturbation, concretion (Aoba Bay Formation) (P)	
Rv	Cliff forming massive, bioturbated to homogeneous, moderately well-sorted felspathic quartz sandstone with thin pebbles and sub-100 layers (Riston Sandstone) (P)	
Rv	Generally poorly fossiliferous interbedded glauconitic fine- to medium-grained sandstone and fissile to non-fossiliferous siltstone with common iron stones and pebble non-patches, top beds rarely fossiliferous (Mabina Formation) (P)	

MESZOZOIC	JURASSIC	PALEOCENE - NEOGENE
Tb	Basalt (Tb), alkali olivine basalt (Tba), transitional olivine basalt (Tbt), nepheline basalt (Tbn), tholeiite (Tth), quartz tholeiite (Ttq), olivine tholeiite (Tto), inferred basalt beneath soil or Cenozoic deposits (Tb)	
Tbn	Olivine nephelinite (Tbn)	
Jd	Dolerite (Jd), with orthopyroxene (Jdo), dolerite inferred beneath soil or Cenozoic deposits (Jdi), Dolerite of grainsize: 0.7 - 1.5mm (Jdf), 1.5 - 3mm (Jdm), >3mm (Jdg) indicated.	

CONTACTS	FAULTS	LINEARS
Geological contact	Fault	Scarp
Geological contact - inferred	Fault - inferred	Slope break
Igneous intrusive contact	Fault - concealed	Lineament - visible on aerial photographs
Limit of mapping of sub-unit within undifferentiated rock unit	Normal fault (downthrown side indicated)	
	Normal fault (downthrown side indicated) - inferred	
	Normal fault (downthrown side indicated) - concealed	
	Intrusive boundary along pre-existing fault, downthrown side indicated	

IGNEOUS ROCKS

Strike and dip of bedding, right way up.

Field station for adjacent readings on the map.

Notable small outcrop or rockflag occurrence with rock unit indicated.

Construction material/industrial mineral/gemstone location.

CONTACTS

Geological contact

Geological contact - inferred

Igneous intrusive contact

Limit of mapping of sub-unit within undifferentiated rock unit.

FAULTS

Fault

Fault - inferred

Fault - concealed

Normal fault (downthrown side indicated)

Normal fault (downthrown side indicated) - inferred

Normal fault (downthrown side indicated) - concealed

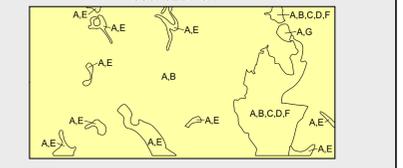
Intrusive boundary along pre-existing fault, downthrown side indicated.

LINEARS

Scarp

Slope break

Lineament - visible on aerial photographs.



SOURCE DIAGRAM

Highly detailed (eg. more detailed than 1:25 000 scale mapping).

Detailed systematic (eg. 1:25 000 map or equivalent detail).

Regional systematic (eg. 1:50 000, 1:63 360 map or equivalent detail).

Regional mapping less detailed than 1:63 360 map or equivalent (all other scales).

Reconnaissance mapping with sparse ground traverses.

Remote sensing and/or geophysical interpretation with limited or no ground information.

Compiled by S.M. Forsyth, B.Sc.(Hons), 2002 from the following sources (see source diagram):

A. LEAMAN, D.E. & LEGG, P.J. 1975. Geological Atlas 1:50 000 Series. Sheet 75 (837N), Brighton, Tasmania Department of Mines.

B. S.M. Forsyth. Road-side geological observations and aerial photo interpretation - 2000.

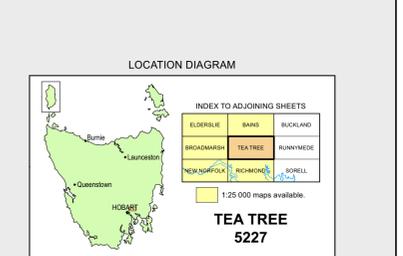
C. HOLZ, G.K. 1987. Soils of part of the Lower Coal River Valley Tasmania. Department of Agriculture Tasmania.

D. HOLZ, G.K. 1993. Principles of Soil occurrence in the Lower Coal Valley, Southeast Tasmania. Ph.D. thesis, University of Tasmania.

E. S.M. Forsyth. New 1:25 000 geological mapping - 2000.

F. J.L. EVERARD. Pers comm. - 2000.

G. SUTHERLAND, F.L. Carbonic volcanic rocks. In LEAMAN, D.E. 1977. Geological Atlas 1:50 000 Series Expl. Rep. Sheet 75 (837N), Brighton, Tasmania Department of Mines.



LOCATION DIAGRAM

INDEX TO ADJOINING SHEETS

BLICKLAND

BROADMARSH

NEWSPARK

TEA TREE

RUNNEMERE

1:25 000 maps available.

TEA TREE 5227

Map generated: 23-APR-2024