

HOBART ENGINEERING GEOLOGY MAP SERIES

LEGEND

Hard rock types: (Materials which when fresh, can only be excavated by explosives or hammer methods).

Class 1		Includes dolerite, massive basalt
Class 2		Limestone
Class 3		Coarse siltstone fine sandstone and mudstone
Class 4		Quartz sandstone with quartz mudstone shale (proportion ss/md indicated)
Class 5		Lithic sandstone and shale, coal bearing
Class 6		Volcanic materials; scoria, tuff, breccia, rubbly basalt.

Soft rock types: (Materials which can be excavated by shovel, ripping methods).

Class 7		Sandstone, claystone, alluvium
Class 8		Talus, scree, boulder beds
Class 9		Sand, windblown, sheet or dune

SHADING INDICATES A REGION IN WHICH THE SOIL THICKNESS IS GENERALLY LESS THAN 1 METRE

Classes by order of quality when fresh

	Rock-class boundary, position approximate
	Rock-class boundary, position inferred
	Fault, position approximate (* indicates major fault)
	Fault, position inferred
	Fault, concealed; position approximate
	Dip and strike of sedimentary rocks
	Principal joint directions, thickness of line reflects dominance of direction.
	Extinct volcanic neck
	Cliff exposed
	Cliff buried
	Borehole
	Spring
	Form of resistivity depth probe (scale used 100, 10, 10 ⁰ Ra 100 log scale)

Stevenson Tech. Rep. 12 p.116 Reference dealing with same aspect of geology site investigation

All other references standard abbreviations

A soil is defined as a surface weathered rock material to which organic content has been added during weathering.

Note: This is not a geological map, although so derived but a material and properties map.

ADVICE ON USE: This map should be used to provide an indication of the likely nature of, and problems in, the materials to be encountered in a given project. As such it is intended to guide the detailed project study in appropriate directions and does not in any way replace the need for particular site investigations by competent specialists.

INDEX to MAPS:

Quadrants at 1:25,000 Inset at 1:10,000

Grid lines are N-S, E-W approx.



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Base maps adapted from Lands Department Air Photo Plots and Town Plans

Geological Survey of Tasmania
Department of Mines—Hobart

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Table of abbreviations used on map:

cl	clay
dol	dolerite
E	Young's modulus
f/fos	fossiliferous
G	Rigidity modulus
jf	joint frequency (joints/metre)
v	joints/m of width
h	joints/metre of height
K	Bulk modulus
LLd	Liquid limit (%), d = depth of sample in metres
lm ₃	limestone
md	mudstone
o/c	outcrop
ppm	parts per million groundwater quality
P	permeability (metres/year)
p	porosity
PI _d	plasticity index (%), d = depth of sample in metres
q	quarry; qd = disused, qf = now filled
Q	Quantity of water recovered (litres/hour)
qu	quartz
Ra	apparent resistivity (ohm-metre)
ss	sandstone
sh	shale
sls	siltstone
t ₇	thickness in metres of class 7
t _{7/3}	t metres of class 7 overlies rock class 3
Tb	Average bed thickness (metres)
Tbv	Very variable bedding
Td	Total depth of borehole
Tech. Rep.	Technical Report Department of Mines Tas.
trav	Travertine (CaCo ₃)
unw	unweathered rock
V ₁	longitudinal seismic velocity (m/sec)
V ₁₍₃₎	longitudinal velocity, class 3 material
V ₂	transverse seismic velocity (m/sec)
V ₃	vertical component velocity (m/sec)
w	weathered rock
WT	approx. depth of water table or piezometric surface in metres (+ indicates artesian)
4	rock class 4
4/3	rock class 4 overlies rock class 3
ρ	density (gm/cm ³)
σ	Poisson's ratio

Proportions indicated:

~	approx. equivalence
x > y	x more than y
x >> y	x much more, dominance