MINERAL RESOURCES TASMANIA

Tasmania

DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES

MINERAL RESOURCES TASMANIA

GEOLOGY OF NORTHEAST TASMANIA

SCALE 1:250000

0 5 10 15 20 25km

AGD66 - AMG Zone 55.

CAINOZOIC

QUATERNARY — HOLOCENE

Qh — Sand, gravel, and mud of alluvial, lacustrine and littoral origin (Qh).

PLEISTOCENE

Qpt — Talus, vegetated and active (Qpt), coastal sand and gravel (Qps), and limestone (Qpl) indicated.

Qps

Qpl

Erosional surface

TERTIARY

Tm — Dominantly non-marine sequences of gravel, sand, silt, clay and regolith (Ts); marine limestone (Tm); conglomerate (Tc); ferricrete, laterite and derived lag deposits (Tf); basalt (tholeiitic to alkalic) and related volcaniclastic rocks (Tb).

Ts

Tc

Tb

Erosional surface.

MESOZOIC

TRIASSIC — Undifferentiated fluviolacustrine sequences of sandstone, siltstone and mudstone (R); dominantly lithic volcaniclastic sandstone (Rv); lithic sandstone, siltstone, mudstone and felsic tuff with some coal and basal quartz sandstone (Rvc); alkali olivine basalt/hawaiite (St Marys area) (Rb); dominantly siltstone, lithic sandstone and mudstone (Rvv); dominantly quartz sandstone (Rq).

R — Rvc — Rvv — Rq

PERMIAN–LATE CARBONIFEROUS — Undifferentiated glacial, glaciomarine and non-marine sedimentary rocks (P); freshwater sandstone with coal measures (Pc); upper glaciomarine sequences of pebbly mudstone, pebbly sandstone and limestone (Pu); freshwater and paralic sandstone and mudstone with some coal measures (Pf); lower glaciomarine sequences of mudstone, pebbly mudstone, pebbly sandstone, minor limestone and tasmanite oil shale (Pl); basal tillite (Pt).

P — Pc — Pu — Pl — Pt

UPPER PARMEENER SUPERGROUP

LOWER PARMEENER SUPERGROUP

Angular unconformity.

PALAEOZOIC

EARLY DEVONIAN –SILURIAN — Undifferentiated shallow marine quartz sandstone, siltstone and shale (Eldon Group and correlates) (SD).

SD

Faulted contacts on this sheet.

ORDOVICIAN — Dominantly shallow marine limestone and minor siltstone (Flowery Gully Limestone, correlate of Gordon Group) (Ol).

Ol

LATE CAMBRIAN — Shallow marine sandstone–mudstone +/– conglomerate +/– limestone sequences, typically grey, Ordovician fossils and trace fossils in places. Eaglehawk Gully and Salisbury Hill Formations (Os).

Os

Undifferentiated or poorly constrained conglomerate–sandstone sequences of Late Cambrian to Ordovician age (CO).

CO

WURAWINA SUPERGROUP

Angular unconformity of CO on Cds, Cdsv, Po, Pt.

MIDDLE CAMBRIAN — Dominantly sedimentary sequences with minor volcanic and volcaniclastic units (Cds); some dominantly andesitic volcanics indicated (Cda); dominantly felsic volcano–sedimentary sequences (Cdsv). Probably structurally emplaced at Beaconsfield. (Cds, Cda, Cdsv: in part correlates of Mt Read Volcanics).

Cds — Cda — Cdsv

Angular unconformity of Cds on Ptp, Pts; contacts with Cs faulted.

? EARLY CAMBRIAN — Layered peridotite, serpentinite and associated rocks (Andersons Creek Ultramafic Complex) (Cs). Structurally emplaced.

Cs

LATE NEOPROTEROZOIC — Strongly faulted succession of pyritic, carbonaceous and cherty shale chert, greywacke, laminated siltstone, dolomite and basalt, structurally emplaced (Port Sorell Formation and possible correlates) (Pdp).

Pdp

Faulted contacts of Cs, and Pdp against Po attributed to major thrusting.

NEOPROTEROZOIC – MESOPROTEROZOIC — Relatively unmetamorphosed quartzwacke turbidite sequence, possibly structurally emplaced. (Badger Head inlier) (correlate of Donah Formation) (Po).

Po

PROTEROZOIC

Ptp — Pts — Dominantly greenschist facies rocks: pelitic sequences (Ptp); quartzite sequences (Pts). (Native Hop Hill inlier, The Avenue Road inlier). (Possible equivalents of Tyennan Region metasedimentary rocks).

Strike and dip of bedding: right way up; overturned; facing unknown; vertical with facing unknown.

Strike and dip of cleavage: dipping; vertical.

Strike and dip of crenulation cleavage: dipping; vertical.

Direction and plunge of minor fold hinge line, unspecified age.

Strike and dip of igneous mineral foliation; dipping; vertical; trend of foliation trace on horizontal surface.

Geological boundary.

Fault.

Concealed fault.

Fault with relative downthrown side indicated.

Thrust or reverse fault, teeth on upper plate.

WEST OF RIVER TAMAR

EAST OF RIVER TAMAR

Angular unconformity.

Dp — Felsic pyroclastic rocks (St. Marys Porphyrite) (Dp).

Angular unconformity.

MATHINNA SUPERGROUP

OD — ODq — ODp — Early Ordovician to early Devonian micaceous quartzwacke turbiditic sequences (ODq); mudstone sequences (ODp).

IGNEOUS ROCKS

TERTIARY — Tb — Basalt (tholeiitic to alkalic) and related volcaniclastic rocks (Tb).

CRETACEOUS — Ka — Appinitic lava and intrusive rocks associated with lamprophyre dykes (Cape Portland area) (Ka).

JURASSIC — Jd — Dolerite (tholeiitic) with locally developed granophyre (Jd).

TRIASSIC — Rb — Alkali olivine basalt/hawaiite (St Marys area) (Rb).

Dd — Dolerite dykes (Dd).

LATE –EARLY DEVONIAN — Undifferentiated alkali–feldspar granite/granite/adamellite, I–type (Dgg); S–type (Dgas); dominantly alkali–feldspar granite, I–type (Dgal); S–type (Dgafs); dominantly adamellite/granite, I–type (Dgaa); S–type (Dgaas).

Dgal — Dgafs — Dgas — Dgaa

Dgn — Dominantly granodiorite/adamellite, (I–type) (Dgn).

Dgr — Dominantly granodiorite, (I–type) (Dgr).

Dgd — Dominantly diorite (Dgd).

Dgf — Dominantly felsic pyroclastic rocks (St Marys Porphyrite, volcanic equivalent of I–type granodiorite) (Dgf).

MIDDLE CAMBRIAN — Cda — Dominantly andesitic volcanics (Golden Valley area) (Cda).

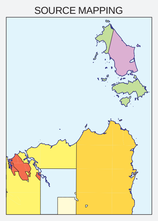
Cdai — Major andesitic intrusive bodies (Cdai).

Cdd — Tholeiitic basalt (Golden Valley area) (Cdd).

? EARLY CAMBRIAN — Cs — Layered peridotite, serpentinite and associated rocks (Andersons Creek Ultramafic Complex) (Cs).

NEOPROTERO–OZOIC — Pdd — Dolerite dykes (Port Sorell area) (Pdd).

SOURCE MAPPING



- Geological Survey mapping (1:25,000 or more detailed scale).
- Geological Survey mapping (1:50,000 scale) and unpublished compilation Geological Survey mapping (1:10,000 –1:50,000 scale).
- Geological Survey mapping (1:63,360 scale) after 1965.
- Geological Survey mapping (1:63,360 scale) before 1965.
- Other mapping (1:63,360 or more detailed scale).
- Geological Survey mapping (1:100,000 scale).
- Reconnaissance scale mapping, and/or interpretation based on air photo and/or geophysical data without ground control from various sources.

SOURCES
Source information for this map is available as an additional sheet.

The geological data for this map were compiled by M.P. McClenaghan B.Sc. (Hons.) Ph.D., C.R.Calver B.Sc. (Hons.)Ph.D., and M.J. Vicary B.Sc. (Hons.) from Tasmanian Geological Survey Geological Atlas 1:63,360 and 1:50,000 series maps and other sources. Base data from the LIST, © State of Tasmania.

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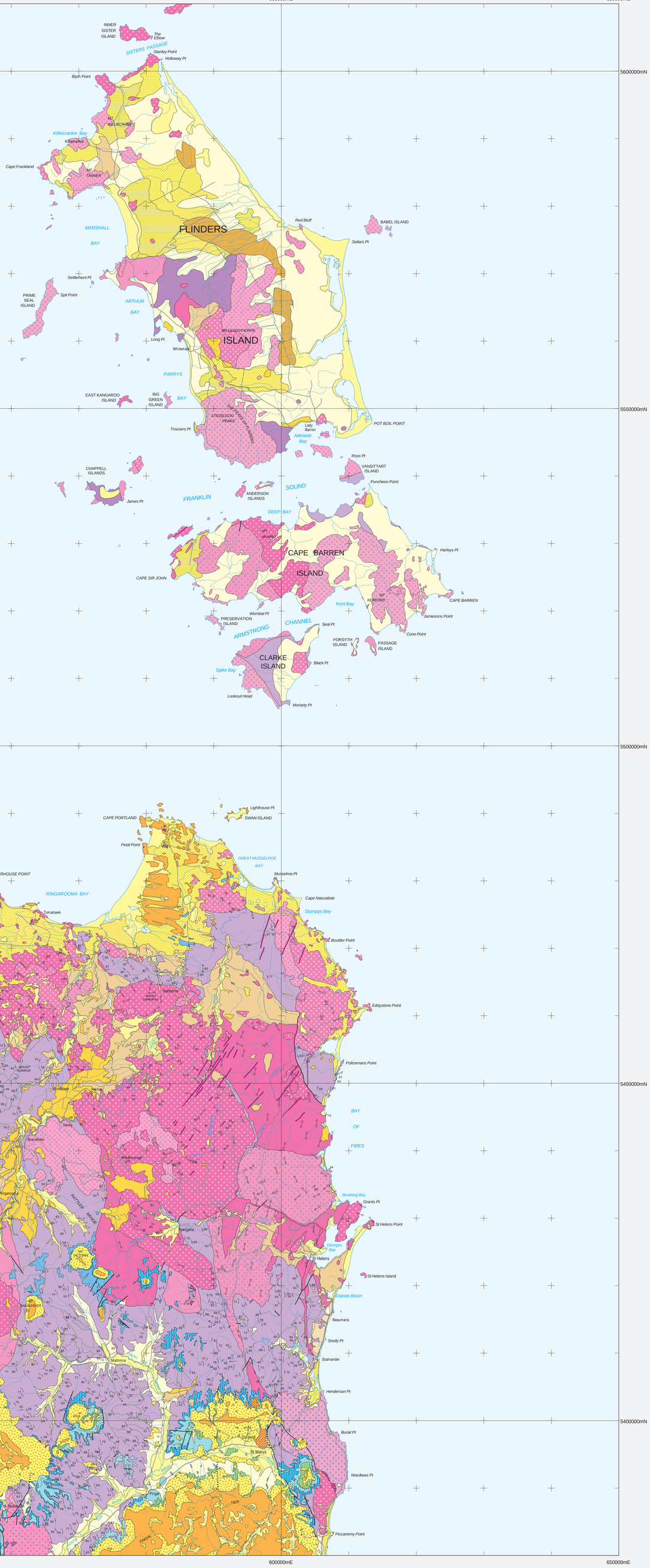
LOCATION DIAGRAM



WARNING: INKS ARE LIGHT SENSITIVE

THIS MAP IS EDITION 2009.2
BASED ON A STATEWIDE DATASET
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