Tasmanian Government

Department of State Growth

MINERAL RESOURCES TASMANIA

GEOLOGY OF NORTHEAST TASMANIA

SCALE 1:250 000

0 5 10 15 20 25km

CENOZOIC

QUATERNARY (NEO-GENE)

PLEISTOCENE-HOLOCENE

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

Qpt, Qps, Qpl — Glacial, periglacial and fluvioglacial sediments including till and interglacial deposits (Qp); talus, vegetated and active (Qpt), coastal sand and gravel (Qps), and limestone (Qpl) indicated.

Erosional surface

PALEO-GENE

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

Erosional surface.

MESOZOIC

TRIASSIC

UPPER PARMEENER SUPERGROUP

R, Rvy, Rvc, Rb, Rvv, Rq — Undifferentiated fluviolacustrine sequences of sandstone, siltstone and mudstone (R); dominantly lithic volcaniclastic sandstone (Rvy); 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).

PERMIAN

LOWER PARMEENER SUPERGROUP

P, Pu, Pc, Pl, Pf, Pt — 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).

PALEOZOIC

WEST OF RIVER TAMAR

Angular unconformity.

MIDDLE DEVONIAN

LOWER DEVONIAN

SDp — Turbidtic sandsone and siltstone (Panama Group - includes Corn Hill beds) (SDp).

Discontinuity

SD — Undifferentiated shallow marine quartz sandstone, siltstone and shale (Eldon Group and correlatea) (SD).

Faulted contacts on this sheet.

WILBAWNA SUPERGROUP

GORDON GROUP

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

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

Undifferentiated or poorly constrained conglomerate-sandstone sequences of Furongian to Ordovician age (€O).

Angular unconformity of €O on €ds, €dsv, Po, Pt.

FURONGIAN

CAMBRIAN SERIES 3

CAMBRIAN SERIES 2

€dt, €ds, €da — Dominantly sedimentary sequences with minor volcanic and volcaniclastic units (€ds); upper sequence of felsic to intermediate volcaniclastic and volcanic rocks, with sedimentary units, of late Middle Cambrian age. Tyndall Group and correlates (€dt); some dominantly andesitic volcanics indicated (€da). Probably structurally emplaced at Beaconsfield. (€dts, €dsb, €dt: in part correlates of Mt Read Volcanics).

Angular unconformity of €ds on Ptp, Pts; contacts with €s faulted.

€s — Layered peridotite, serpentinite and associated rocks (Andersons Creek Ultramafic Complex) (€s). Structurally emplaced.

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

Faulted contacts of €s, and Ptp against Po attributed to major thrusting.

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

Pts — Dominantly greenschist facies rocks: pelitic sequences (Pts); quartzite sequences (Pts).

(Native Hop Hill inlier, The Avenue Road inlier). (Possible equivalents of Tyennan Region metasedimentary rocks).

MESOPROTEROZOIC NEOPROTEROZOIC

CRYOGENIAN - EDIACARAN

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.

CONTACTS

Geological contact.

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

FAULTS

Fault.

Fault - concealed.

Normal fault (downthrown side indicated).

Normal fault (downthrown side indicated) - concealed.

Thrust fault (teeth on upper plate).

Thrust fault (teeth on upper plate) - concealed.

Strike-slip fault (sinistral).

LINEARS

Axial surface trace of major antiform.

Axial surface trace of major synform.

Axial surface trace of major overturned antiform.

Lithological trend line, including bedding trace.

EAST OF RIVER TAMAR

Angular unconformity.

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

Angular unconformity.

MATHINNA SUPERGROUP

SDp, Dpsf, SDps, SDpl, SDpm, SDpr, SDpy — Turbidtic sandstone and siltstone (Panama Group) (SDp); dominantly turbidtic mudstone (SDpm). Turbidtic quartz-rich sandstone with minor siltstone-mudstone (Scamander Formation) (Dpsf).

Turbidtic quartz-rich sandstone with some interbedded siltstone (Sideling Sandstone) (SDps). Dominantly siltstone, with interbedded quartz-rich sandstone increasing towards top (Lone Star Siltstone) (SDpl).

Interbedded turbidtic quartz-rich sandstone and subordinate siltstone-mudstone (Retreat Formation) (SDpr). Interbedded mudstone and subordinate siltstone (Yarrow Creek Mudstone) (SDpy).

Faulted contacts

Ott, Ottl, Ots — Phyllitic slate (Turquoise Bluff Slate) (Ott).

Interbedded slate and quartz-rich sandstone (Industry Road Member) (Ottl).

Turbidtic quartz-rich sandstone and minor slate (Stony Head Sandstone) (Ots).

IGNEOUS ROCKS

CENOZOIC

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

MESOZOIC

TRIA-JURA-CRETA-PALEOGENE-NEOGENE

SSIC SSIC CECIUS

Ka — Shoshonitic to latitic lava and intrusive rocks (Cape Portland area) (Ka).

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

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

PALEOZOIC

DEVONIAN - CARBONIFEROUS

LOWER EFOXIAN - MISSISSIPPIAN

Dd — Dolerite and similar dykes (including Tebrakunna Dyke Swarm) (Dd).

Dgaf, Dgafs, Dgas, Dgaas, Dgass — Undifferentiated alkali-feldspar granite/granite/monzogranite, I-type (Dga); S-type (Dgas); dominantly alkali-feldspar granite, I-type (Dgaf); S-type (Dgafs); dominantly granite/syenogranite/monzogranite, I-type (Dgas); S-type (Dgaas).

Dgn — Dominantly monzogranite/granodiorite, (I-type) (Dgn).

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

Dgd — Dominantly diorite (Dgd).

Dp — Dominantly felsic pyroclastic rocks (St Marys Porphyry, volcanic equivalent of I-type granodiorite) (Dp).

CAMBRIAN

CAMBRIAN SERIES 3

CAMBRIAN SERIES 2

€da — Dominantly andesitic volcanics (Golden Valley area) (€da).

€dai — Major andesitic intrusive bodies (€dai).

€s — Layered peridotite, serpentinite and associated rocks (Andersons Creek Ultramafic Complex) (€s).

NEOPRO-TEROZOIC

EDIACARAN

€cwb — Tholeiitic basalt (Golden Valley area) (€cwb).

Pdd — Dolerite dykes (Port Sorell area) (Pdd).

SOURCE MAPPING

- 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 inter-pretation with limited or no ground information.

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., D.B. Seymour, B.Sc.(Hons)Ph.D., J.L. Everard, B.Sc.(Hons), D.C. Green, B.Sc.(Hons)Ph.D., M.A. Worthing, B.Sc.(Hons)Ph.D., I.R. Woolward, B.Sc.(Hons) and M.J. Vicary B.Sc.(Hons.) from Tasmanian Geological Survey Geological Atlas 1:63 360 and 1:50 000 series, Digital Geological Atlas 1:25 000 series and other sources.

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GDA94 - MGA Zone 55.

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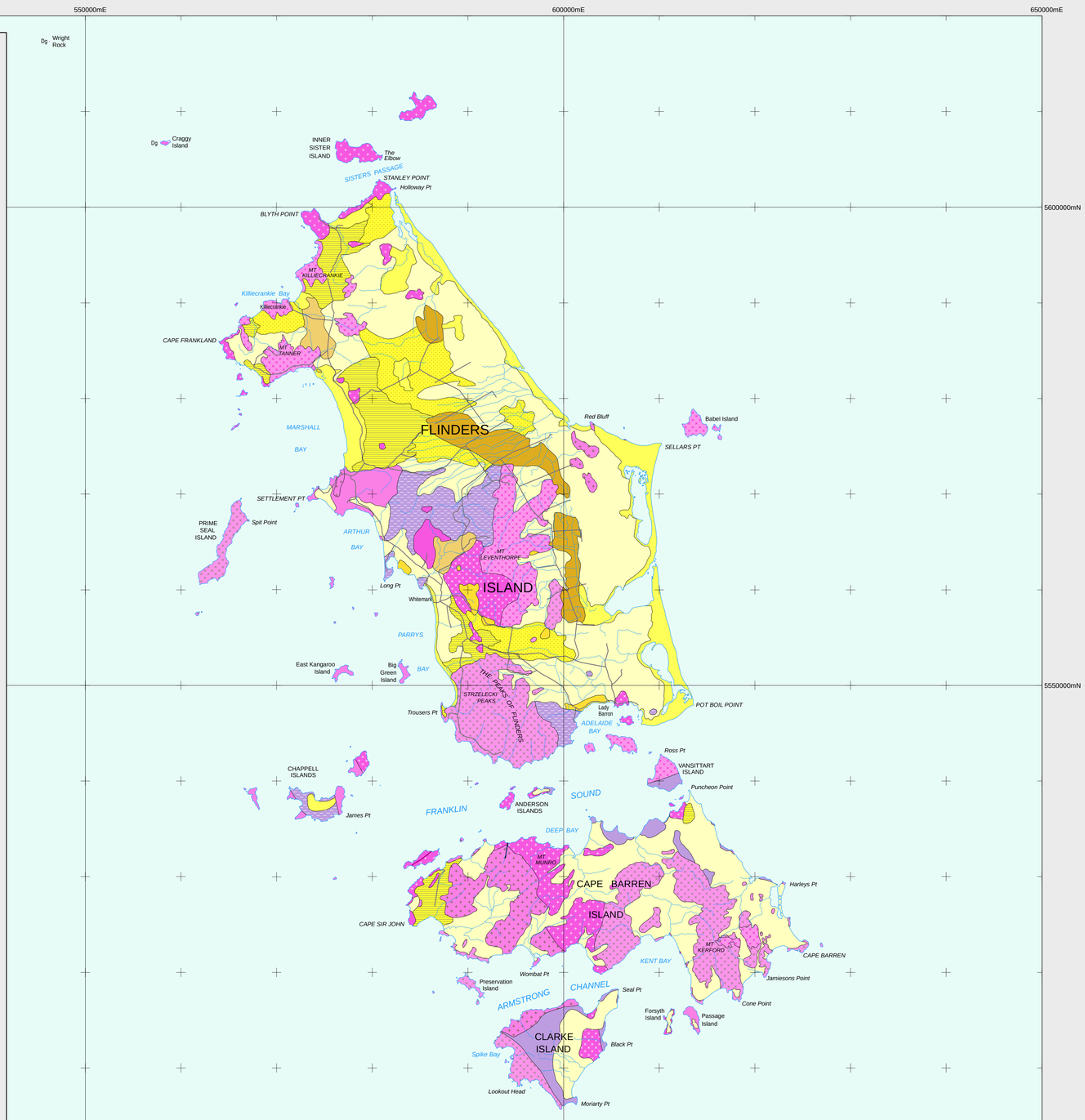
LOCATION DIAGRAM



WARNING: INKS ARE LIGHT SENSITIVE.

THIS MAP IS EDITION 2011.1
BASED ON A STATEWIDE DATASET
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