Department of State Growth
MINERAL RESOURCES TASMANIA

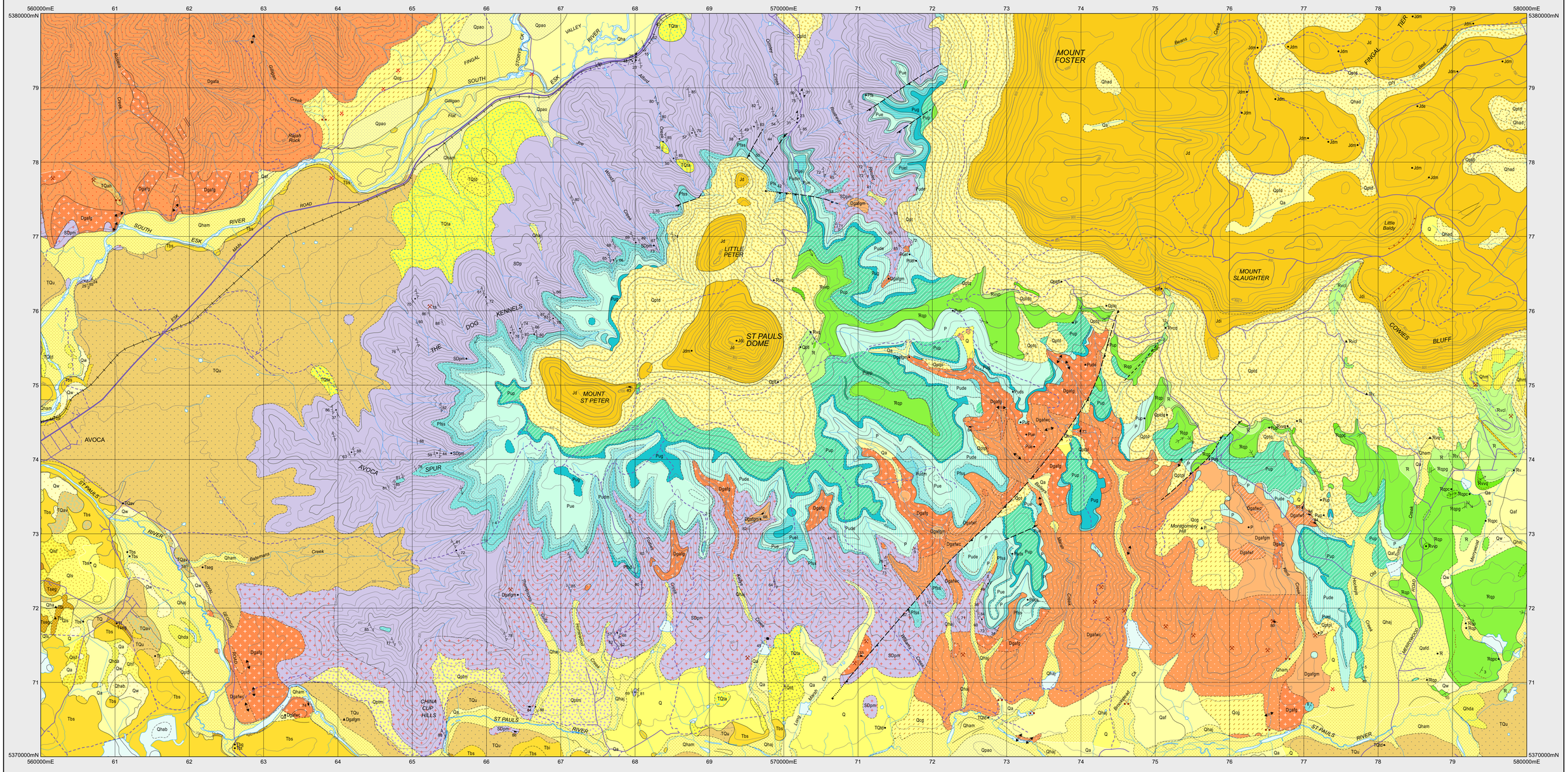
DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
ST PAULS DOME, SHEET 5637

ST PAULS DOME

Scale 1:25 000

0 500 1000 1500 2000 2500m

Tasmanian Government



CENOZOIC

QUATERNARY

HOLOCENE

- **Qhm** — *Undifferentiated Cenozoic sediments (TQ). Undifferentiated Quaternary sediments (Q). Selected mine tailings and man disturbed ground indicated (Qhm).*
- **Qw** — *Aeolian dune and sheet deposits, including locally derived sand and silt (Qw).*
- **Qhda** — *Photo-interpreted dune form (Qhda).*
- **Qhab** — *Swamp deposits including lunette lagoon deposits (Qhab).*
- **Qhf** — *Lag deposits, after ferricrete (Qhf), after Tertiary silicified rock (Qls).*
- **Qhsf** — *Lag deposit of mixed Tertiary ferruginous fragments or pisoliths and Tertiary silicified fragments or quartz granules (Qlsf).*
- **Qhc** — *Colluvium (Qhc), piedmont colluvium of clayey quartz-granule gravel derived from granitic rocks (Qcg).*
- **Qhad** — *Alluvial gravel sand and clay (Qa), stream alluvium, swamp and marsh deposits, locally associated with wind blown deposits (Qha), alluvial fans (Qaf). Highland marsh deposits with common protruding dolerite outcrops and boulders (Qhad).*
- **Qhaj** — *Holocene alluvium (Qhaj), alluvial and marsh deposits of modern flood plains, - gravel, sand, silt and clay commonly with dark coloured top layer in stable environments and loose sand and gravel near major active channels (Qham).*
- **Qpao** — *Alluvial terrace deposits (Qpao).*
- **Qafd** — *Alluvial fans with clasts dominantly of dolerite (Qafd).*

PLEISTOCENE

- **Qpt** — *Talus and remobilised talus deposits (Qpt), basalt talus (Qptb), dominantly of dolerite boulders (Qptd), dominantly of Upper Parmeener lithic sandstone (Qptl), dominantly of Upper Parmeener quartz sandstone and sand (Qpts), dominantly of Lower Parmeener rocks (Qptp), and talus of mixed clasts of dolerite and Upper Parmeener lithic sandstone (Qptdl) and of dolerite and Upper Parmeener quartz sandstone (Qptdq).*
- **Qptm** — *Talus dominantly of Mathinna Supergroup rocks (Qptm).*
- **TQta** — *Talus and possible alluvial deposits of probable pre-last glacial age (TQta).*
- **TQtd** — *Talus deposits with boulders consisting dominantly of dolerite, of probable pre-last glacial age (TQtd).*
- **TQu** — *Aeolian, alluvial and piedmont deposits in floors of major valleys, with basement thinly covered in some areas (TQu).*
- **TQav** — *Alluvium of dominantly quartzose granule- to cobble-size clasts, partly consolidated and commonly located supra-basalt (TQav).*
- **TQah** — *Alluvium with boulder-sized clasts (TQah).*

PALEOGENE - NEOGENE

- **Tf** — *Undifferentiated Tertiary (T). Ferricrete (Tf).*
- **Tb** — *Basalt (Tb), tholeiitic basalt (Tba), quartz tholeiite (Tbq), olivine tholeiite (Tbt). Inferred basalt beneath soil or Cenozoic deposits (Tbi).*
- **Tseg** — *Dominantly poorly-consolidated mudstone, sandstone and quartzose granule sandstone, locally may include some undifferentiated poorly-consolidated quartzose conglomerate (Tseg); some areas of coarser beds indicated (Tsegc).*

Erosional surface.

MESOZOIC

TRIASSIC

- **Rv** — *Undifferentiated Parmeener Supergroup rocks (PR). Undifferentiated Upper Parmeener Supergroup rocks (R). Undifferentiated volcaniclastic, quartz-rich lithic and quartzose sandstone, siltstone, mudstone, carbonaceous beds and coal seams (Rv). Mudstone at isolated locality (Rts). Predominantly fine- to very coarse-grained volcaniclastic lithic sandstone with subordinate carbonaceous mudstone, coal seams, silicified wood and in upper parts tuff layers and extrabasinal clasts (Rvcl).*
- **Rvvq** — *Interbedded cross-bedded white quartzose sandstone, quartz-rich lithic sandstone, siltstone and mudstone known from drill holes (Rvcq). Undifferentiated quartz sandstone, in some areas interbedded with quartz-lithic sandstone and mudstone, and generally part of poorly exposed or condensed interval of quartz-rich lithic sandstone and mudstone such that differentiation of Rvcq and Rvvq units has not been made (Rvq = Rvcq or Rvvq).*
- **Rs** — *Interbedded yellow brown or grey carbonaceous siltstone, mudstone and thin- to thick-bedded quartz-rich lithic, arkosic sandstone, some carbonaceous beds (Rvvl).*
- **Rvvq** — *Dominantly quartz sandstone, commonly fine-grained and ripple laminated (Rvvq).*
- **Rvvp** — *Lenticular variable medium- to coarse-grained sandstone, generally containing quartz granules (Rvvp).*

Rv = Rvcl + Rvcq + Rvvl + Rvvq + Rvvp + Rvq.

- **Rqp** — *Dominantly freshwater cross-bedded quartzose sandstone, micaceous siltstone and mudstone (Rqp), selected intervals predominantly of siltstone, shale, mudstone and sandstone indicated (Rqpc), intervals of coarse-grained sandstone and granule sandstone indicated in some areas (Rqpg).*
- **Rcq** — *(Rqp, Rqpc, Rqpg correlates of Ross Formation).*

Freshwater cross-bedded arkosic to quartzose sandstone and micaceous siltstone possible correlate of Jackey Shale) (Rcq).

PERMIAN

- **Pupp** — *Undifferentiated Permo-Carboniferous sediments (P).*
- **Pug** — *Poorly-sorted grey mudstone, siltstone and rare sandstone, unfossiliferous except for rare Foraminifera (Pup). Bed of pebbly sandstone, 1-4m thick, indicated in places (Pupp). (Pup - Prospect Creek Mudstone, Pupp - possible correlate of Palmer Sandstone).*

Thickly bedded, usually poorly-sorted sandstone passing up into interbedded sandstone, siltstone and mudstone. Marine fossils present in places (Pug) (Mistletoe Sandstone).

- **Pude** — *Marine mudstone, siltstone and minor sandstone and bioclastic limestone (Pude); richly fossiliferous beds (Pue); dominantly bioclastic limestone or silicified beds (Puel); well-sorted granule sandstone with rare marine fossils (Puds).*
- **Puf** — *Fine-grained pebbly sandstone with phosphatic nodules. Marine fossils present in some areas (Font Hill Sandstone Member) (Puf). Dominantly mudstone and siltstone with generally sparse marine fossils, and in some places sparse phosphatic nodules typically near the top of the unit (Pudm). Well-sorted granule sandstone with rare marine fossils (Puds).*
- **Pfs** — *Dominantly well sorted quartz sandstone, usually cross-bedded and commonly with interbedded and interlaminated carbonaceous shale lesser conglomerate and rare coal (Pfs), quartz sandstone, arkose and conglomerate (Pfss) (Pfs, Pfss Aberfoyle Formation).*
- **Pibd** — *Interbedded conglomerate, sandstone and mudstone (Pibd).*

Unconformity.

PALEOZOIC

SILURIAN(?) - DEVONIAN

- **SDp / SDpm** — *Undifferentiated Panama Group (sandstone, siltstone and mudstone, primarily turbiditic in origin) (SDp), contact metamorphosed by granitic intrusion (SDpm).*

UPPER PARMEENER SUPERGROUP
LOWER PARMEENER SUPERGROUP
REKUNIAN SERIES: Lymingtonian Stage; Bernacchian Stage; Tamarian Stage
PANAMA GROUP
MATHINNA SUPERGROUP

INTRUSIVE ROCKS

MESOZOIC — JURASSIC

- **Jd** — *Dolerite (Jd), with abundant poorly crystalline metastosis (Jde), dolerite inferred beneath soil or Cenozoic deposits (Jdi). Dolerite of grainsize 0.7-1.5mm (Jdf), 1.5-3mm (Jdm), >3mm (Jdc) indicated.*

BEN LOMOND BATHOLITH

PALEOZOIC — DEVONIAN — UPPER DEVONIAN

- **Dgafa** — *Medium- to coarse-grained, equigranular to sparsely porphyritic alkali feldspar granite, with variably abundant K-feldspar phenocrysts and surficial pink weathering (Dgafa).*
- **Dgafg** — *Fine- to medium-grained, variably porphyritic alkali feldspar granite, with quartz and K-feldspar phenocrysts (Dgafg). (Dgafa, Dgafg in part - Henbury Granite, I-type).*
- **Dgafgm** — *Fine-grained, equigranular, alkali feldspar granite (microgranite) (Dgafgm).*
- **Dgafwc** — *Medium- to coarse-grained, equigranular to sparsely porphyrytic, alkali feldspar granite, with variably abundant K-feldspar phenocrysts (Dgafwc).*
- **Dgafwl** — *Fine- to medium-grained, equigranular, alkali feldspar granite (Dgafwl). (Dgafgm, Dgafwc, Dgafwl, Dgafg in part - Royal George Granite, S-type).*

CONTACTS

- *Geological contact.*
- *Geological contact - inferred.*
- *Transitional geological contact.*
- *Limit of mapping of sub-unit within undifferentiated rock unit.*
- *Limit of detailed mapping.*

FAULTS

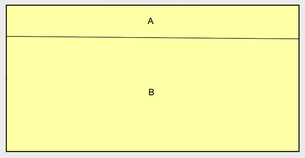
- *Fault - inferred.*
- *Normal fault (downthrown side indicated).*
- *Normal fault (downthrown side indicated) - inferred.*
- *Normal fault (downthrown side indicated) - concealed.*

LINEARS

- *Slope break.*
- *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.*
- *Horizontal bedding.*
- *Strike and dip of cleavage - relative local age S_2; vertical.*
- *Strike and dip of cleavage - relative local age S_2.*
- *Trend and plunge of minor fold hingeline, unspecified relative age; with vertical axial surface.*
- *Palaeocurrent direction, showing sense of movement.*
- *Trend of preferred orientation of K-feldspar phenocrysts in granitic rock.*
- *Strike and dip of dominant joint set; vertical.*
- *Field station for adjacent readings on the map.*
- *Notable small outcrop with rock unit indicated.*
- *Notable small float or lag occurrence with rock unit indicated.*
- *Mineral deposit location - hardrock.*
- *Mineral deposit location - alluvial/tailings.*
- *Construction material/industrial mineral/gemstone location.*

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), 2005 from the following sources (see source diagram):

A CALVER, C.R., EVERARD, J.L., FINDLAY, R.H. and LENNOX, P.G. 1988. Geological Atlas 1:50 000 Series. Sheet 48 (8414N), Ben Lomond. Department of Mines Tasmania.

B GULLINE A.B., FORSYTH, S.M., EVERARD, J.L., CALVER, C.R. and MATTHEWS, W.L. 1991. Geological Atlas 1:50 000 Series. Sheet 55 (8414S), Snow Hill. Department of Resources and Energy.

REFERENCE THIS MAP AS:

GULLINE, A.B., EVERARD, J.L., FORSYTH, S.M. (compiler), LENNOX, P.G. and FINDLAY, R.H. 2006. Digital Geological Atlas 1:25 000 Series. Sheet 5637 St Pauls Dome. Mineral Resources Tasmania.

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Website: www.mrt.tas.gov.au

GDA94 - MGA Zone 55. Contour Interval: 20 metres.

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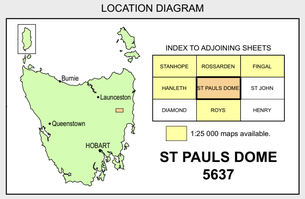
LOCATION DIAGRAM



Map generated: 18-DEC-2023

WARNING: INKS ARE LIGHT SENSITIVE.