Department of Infrastructure Energy and Resources
MINERAL RESOURCES TASMANIA

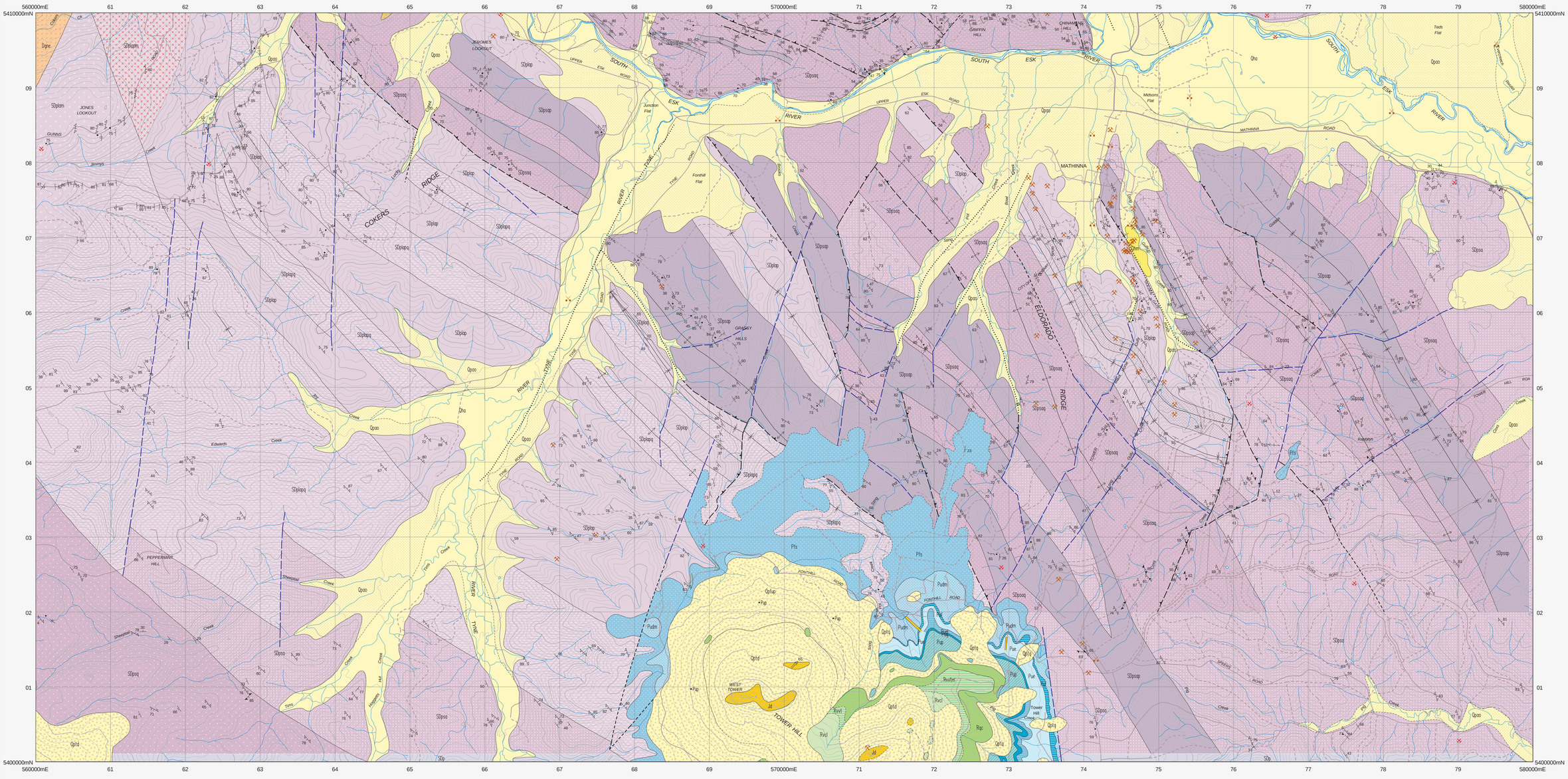
DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
MATHINNA, SHEET 5640

MATHINNA

Scale: 1:25 000

0 500 1000 1500 2000 2500m

Tasmania
Explore the possibilities



CENOZOIC

QUATERNARY – HOLOCENE

- **Qhm** – Mine tailings and disturbed ground (Qhm).
- **Qha** – Stream alluvium, swamp and marsh deposits (Qha).
- **Qpao** – Older alluvium of river terraces (Qpao).

QUATERNARY – PLEISTOCENE

- **Qpt** – Talus consisting dominantly of dolerite boulders (Qptd). Talus consisting of dolerite and subordinate Upper Parmeener rocks (Qptup); of dominantly Upper Parmeener quartz sandstone (Qpta).

PALEOGENE – NEOGENE

- **Tcm** – Conglomerate with rounded clasts of Mathinna Supergroup and very rare weathered dolerite, often patially cemented by iron oxides (Tcm).

Unconformity

MESOZOIC – PALEOZOIC

TRIASSIC

- **Rvcl** – Dominantly lithic sandstone with minor mudstone and coal (Rvcl).
- **Rvvt** – Quartz–rich lithic sandstone and minor quartz sandstone (Rvvt), with mudstone and carbonaceous mudstone (Rvvtm).
- **Rqc** – Cross–bedded quartz sandstone (Rqc).

PERMIAN

- **Pcj** – Fine–grained, slightly feldspathic quartz sandstone, micaceous shale and minor carbonaceous mudstone (Pcj).
- **Pup** – Poorly–sorted grey mudstone, siltstone and rare sandstone, unfossiliferous except for rare forams (Pup). (Pup: Prospect Creek Mudstone).
- **Pug** – Thick–bedded, usually poorly sorted pebbly sandstone passing up into interbedded sandstone, siltstone and mudstone with marine fossils abundant in places (Pug). (Pug: Mistletoe Sandstone).
- **Puet** – Dominantly bioclastic limestone (Puet). (Puet: Burnt Gully Limestone).
- **Pue** – Marine fossiliferous mudstone, siltstone and minor sandstone and bioclastic limestone (Pue).
- **Put** – Fine–grained pebbly sandstone with phosphatic nodules. Marine fossils present in some areas (Put). (Put: Fonthill Sandstone Member).
- **Pudm** – Mudstone, siltstone and minor poorly sorted sandstone. Uncommon marine fossils (Pudm). (Pue, Put, Pudm: Castle Carey Mudstone).
- **Pfs** – Dominantly well–sorted quartz sandstone usually cross–bedded or laminated and commonly with interbedded and laminated carbonaceous shale, lesser conglomerate and rare coal (Pfs). (Pfs: Aberfoyle Formation).
- **Plb** – Poorly sorted pebbly mudstone, sandstone and minor conglomerate, marine fossils present in places (Plb). (Plb: Stricklan Gorge Formation).

Unconformity

UPPER PARMEENER SUPERGROUP

LOWER PARMEENER SUPERGROUP

PALEOZOIC

SILURIAN (?) – DEVONIAN – LUDLOW (?) – LOWER DEVONIAN

MATHINNA SUPERGROUP – PANAMA GROUP

- **SDpsap** – Dominantly medium– to fine–grained turbiditic quartz–rich sandstone, with some interbedded siltstone. Rare vascular plant fossils (SDpsa).
- **SDpsaq** – Dominantly interbedded medium– to fine–grained turbiditic quartz–rich sandstone and siltstone (SDpsaq).
- **SDpsap** – Mappable siltstone horizon within SDpsaq (SDpsap). (SDpsa, SDpsaq, SDpsap – possible correlates of Sideling Sandstone).
- **SDplaq** – Thin–bedded siltstone, with interbedded quartz–rich sandstone, contact metamorphosed by granitic intrusion (SDplam).
- **SDplam** – Dominantly thin–bedded siltstone with minor quartz–rich sandstone (SDplaq), contact metamorphosed by granitic intrusion (SDplam).
- **SDplaq** – Fine– to medium–grained quartz–rich sandstone unit within SDplap (SDplaq).
- **SDplapq** – Interbedded thin–bedded siltstone and fine–grained quartz–rich sandstone unit within SDplap (SDplapq). (SDplam, SDplap, SDplaq, SDplapq, SDplaq, SDplapm – possible correlates of Lone Star Siltstone).

SILURIAN (?) – DEVONIAN – LUDLOW (?) – LOWER DEVONIAN

BURNS CREEK – BLESSINGTON AREA

MATHINNA SUPERGROUP – PANAMA GROUP

- **SDpsq** – Quartzite turbidite sequence of interbedded sandstone, siltstone and mudstone with sandstone dominant (SDp). Medium– to fine–grained turbidilic, quartz–rich sandstone with interbedded laminated siltstone (SDpsq – possible correlates of Sideling Sandstone).

IGNEOUS ROCKS

MESOZOIC – JURASSIC

- **Jd** – Dolerite (Jd).

SCOTTSDALE BATHOLITH

PALEOZOIC – DEVONIAN – MIDDLE DEVONIAN

- **Dgne** – Coarse to very coarse–grained, equigranular biotite +/–hornblende monzogranite/granodiorite with pale pink to white feldspar (Dgne – Russells Road pluton; I–type).

- Geological boundary – position accurate or approximate.
- Geological boundary – inferred.
- Fault – position accurate or approximate, based on interpretation of aerial photographs.
- Fault – inferred.
- Fault – concealed.
- Normal fault (downthrown side indicated) – position accurate or approximate.
- Thrust fault (teeth on upper plate) – position accurate or approximate.
- Metamorphic boundary – position approximate.
- Axial surface trace of major antiform.
- Axial surface trace of major synform.
- (Colour boundary) Limit of mapping of sub–unit within undifferentiated rock unit.

- Strike and dip of bedding – right way up; facing unknown; overturned.
- Strike of vertical bedding, facing unknown.
- Strike and dip of cleavage of unspecified type and relative age.
- Strike of dyke or vein, vertical, rock type or mineral specified in digital data.
- Strike of outcrop–scale fault of unspecified type and relative age.
- Strike and dip of cleavage – relative local age S1; vertical.
- Strike and dip of cleavage – relative local age S2; vertical.
- Trend and plunge of bedding/primary cleavage intersection lineation (L1).
- Trend and plunge of chevron–fold hinge line, unspecified relative age.
- Trend and plunge of columnar jointing.
- Strike and dip of kink band with sense of displacement viewed down plunge of associated kink–folds – dextral; sinistral
- Strike of vertical kink band – dextral; sinistral.
- Trend and plunge of minor fold hinge line, unspecified relative age.
- Trend and plunge of minor fold hinge line, unspecified relative age, with dip and dip direction of axial surface; with vertical axial surface.
- Trend and plunge of minor fold hinge line, unspecified relative age with dip and dip direction of axial surface, vergence dextral.
- Trend and plunge of kink–fold hinge line, with dip and dip direction of axial surface, and sense of displacement viewed down–plunge: dextral; sinistral.
- Notable small outcrop with rock unit indicated.
- Field station for adjacent readings on the map.
- Mineral deposit location – hardrock
- Mineral deposit location – alluvial / tailings
- Construction material / industrial mineral / gemstone location

Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.

Compiled by M.P. McClenaghan, B.Sc.(Hons), Ph.D., 1994 from the following sources (see responsibility diagram):

A CALVER, C.R.; EVERARD, J.L.; FINDLAY, R.H.; LENNOX, P.G.; CALVER, C.R. 1993. Geological Atlas 1:50 000 series, sheet 48 (8414N). Ben Lomond. Department of Mines, Tasmania.

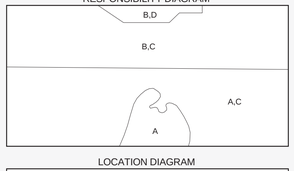
B McCLENAGHAN, M.P.; EVERARD, J.L.; GOSCOMB, B.D.; FINDLAY, R.H.; CALVER, C.R. 1993. Geological Atlas 1:50 000 series, sheet 40 (8415S). Alberton. Department of Mines, Tasmania.

Updated by:

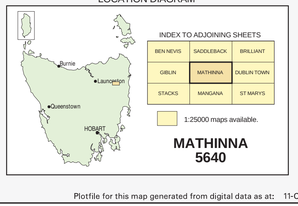
C D.C. Green, 2011. 1:25 000 scale geological mapping and interpretation of airborne geophysical and Lidar data as part of the TasExplore Project, with additional information from Cracknell, M.J. 2009 B.Sc.(Hons) thesis, University of Tasmania.

D M.J. Vicary, 2010. 1:25 000 scale geological mapping and interpretation of airborne geophysical data as part of the TasExplore Project.

RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM



INDEX TO ADJOINING SHEETS

BEN NEVIS	SADDLEBACK	BRILLIANT
GIBLIN	MATHINNA	DUBLIN TOWN
STACKS	MANGANA	ST MARYS

1:25000 maps available.

MATHINNA
5640

REFERENCE THIS MAP AS:

GREEN, D.C. and VICARY, M.J. 2011. Digital Geological Atlas 1:25 000 Scale Series. Sheet 5640. Mathinna. Mineral Resources Tasmania.

Base data from the LIST, Copyright State of Tasmania.

Map produced by the Geoscience Information Branch of Mineral Resources Tasmania using G.I.S. software.

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

GDA

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Plotfile for this map generated from digital data as at: 11-OCT-2011

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