Department of State Growth
MINERAL RESOURCES TASMANIA

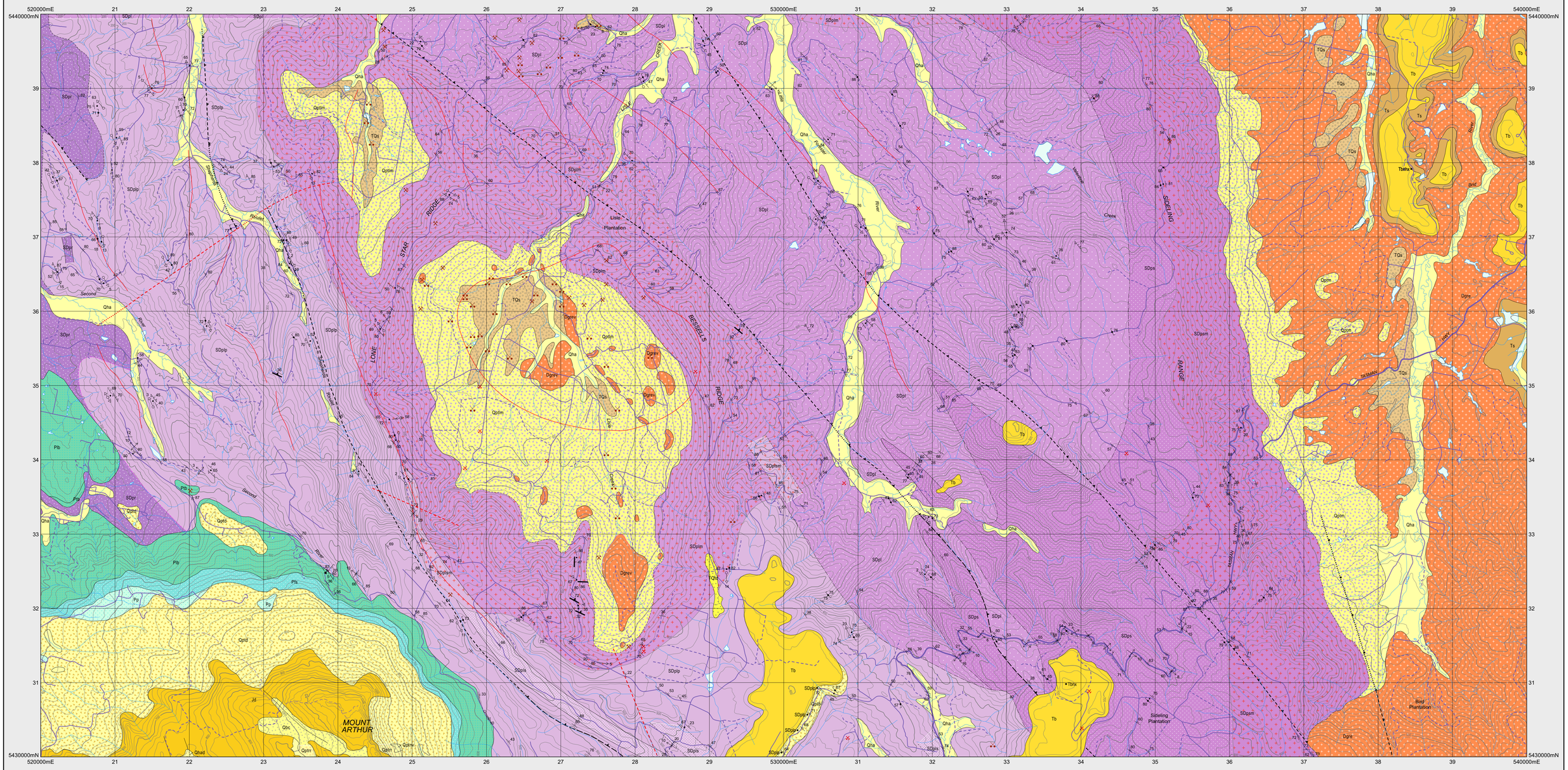
DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
LISLE, SHEET 5243

LISLE

Scale 1:25 000

0 500 1000 1500 2000 2500m

Tasmanian Government



CENOZOIC

QUATERNARY

HOLOCENE

- **Qhad** — *Undifferentiated Quaternary sediments (Q). Highland marsh with peaty clay overlying unsorted dolerite boulders (Qhad).*
- **Qha** — *Stream alluvium, swamp and marsh deposits (Qha).*
- **Qptrr** — *Scree deposit of angular unorientated dolerite boulders and rock masses (Qptrr).*
- **Qptnv** — *Cliff-fall scree deposits of Qptrr type without surficial fined and non-vegetated, includes some autochthonous block field deposits (Qptnv).*

PLEISTOCENE

- **Qptd** — *Dolerite talus (Qptd). Basalt talus (Qptb).*
- **Qptm** — *Mathinna Supergroup talus (Qptm). Talus or lag consisting of hornfelsed Mathinna Supergroup rocks (Qptlm).*
- **Qbc** — *Dolerite block fields, probably underlain by clay from weathered dolerite (Qbc).*

?

- **TQs** — *Sandstone and conglomerate (TQs).*
- **TQtd** — *Probably older dolerite boulder deposit (TQtd).*

PALEOGENE - NEOGENE

- **Tb / Ts** — *Conglomerate, gravel, sand, silt, mud and clay (Ts). Basaltic rock (Tb).*

~~~~~~~~~~~ *Unconformity.*

PALEOZOIC

CARBON-IFEROUS ? PERMIAN

MISSIS-IPPIAN

- **Pp** — *Sandstone, siltstone and mudstone with marine fossils abundant in places (Pp).*
- **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).*
- **Ptb** — *Poorly sorted pebbly mudstone, sandstone and minor conglomerate, marine fossils present in places (Ptb).*
- **Ptb** — *Tillite and conglomerate (Ptb).*

~~~~~~~~~~~ *Unconformity.*

DEVONIAN

LOWER DEVONIAN

- **SDps / SDpsm** — *Dominantly fine-grained turbiditic quartz-rich sandstone, with some interbedded siltstone. Contains vascular plant fossil fragments (SDps). Metamorphosed by granitic intrusion (SDpsm). (SDps, SDpsm - Sideling Sandstone).*
- **SDpl / SDplm** — *Dominantly thin-bedded siltstone, with interbedded fine-grained quartz-rich sandstone increasing towards top. Contains Silurian (Ludlow) graptolites (SDpl). Metamorphosed by granodioritic intrusion (SDplm).*

SILURIAN

LUDLOW

- **SDpls / SDplsm / SDplp / SDplp / SDpls** — *Basal moderately bioturbated deep marine siltstone with significant shale and mudstone. Contains Silurian (Ludlow) graptolites. (Distinguished in some areas but not distinguished in metamorphosed areas) (SDplp). Thin-bedded siltstone, with significant interbedded fine-grained quartz-rich sandstone (SDpls). Metamorphosed by granodioritic intrusion (SDplsm). (SDpl, SDplm, SDplp, SDpls SDplsm - Lone Star Siltstone).*
- **SDpr** — *Interbedded turbiditic medium- to very fine-grained quartz-rich sandstone and subordinate siltstone-mudstone (SDpr). (SDpr: Retreat Sandstone).*

LOWER, PRIMEMENER SUPERGROUP

PANAMA GROUP

MATHINNA SUPERGROUP

IGNEOUS ROCKS

MESOZOIC CENOZOIC

PALEOGENE - NEOGENE

- **Tb** — *Basalt (Tb); nepheline hawaiite with lherzolite xenoliths (Tbnhx); olivine nephelinite with lherzolite xenoliths (Tbnx) indicated.*

JURASSIC

- **Jd** — *Dolerite (Jd).*

SCOTTSDALE BATHOLITH

PALEOZOIC

DEVONIAN

MIDDLE DEVONIAN

- **Dgrev** — *Medium- to coarse-grained, equigranular, biotite-hornblende granodiorite-tonalite, variably magnetic. Generally very poorly outcropping, concealed by hornfelsed Mathinna Supergroup talus or lag (Dgrev). (Lisle Granodiorite; I-type).*
- **Dgre** — *Medium- to coarse-grained, equigranular, biotite-hornblende granodiorite (Dgre). (Diddleum Granodiorite; I-type).*

CONTACTS

- *Geological contact.*
- *Geological contact - inferred.*
- *Geological contact - inferred from radiometric data.*
- *Transitional geological contact.*
- *Unconformable lithological contact.*
- *Metamorphic contact.*
- *Igneous intrusive contact.*
- *Limit of mapping of sub-unit within undifferentiated rock unit.*

FAULTS

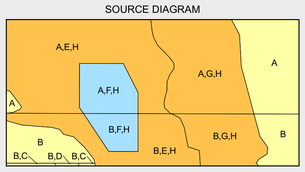
- *Fault - inferred.*
- *Fault - concealed.*
- *Fault - inferred from magnetic data.*
- *Fault - concealed, inferred from magnetic data.*
- *Normal fault (downthrown side indicated) - inferred.*
- *Normal fault (downthrown side indicated) - concealed.*
- *Thrust fault (teeth on upper plate).*
- *Thrust fault (teeth on upper plate) - inferred.*
- *Thrust fault (teeth on upper plate) - concealed.*
- *Thrust fault (teeth on upper plate) - inferred from magnetic data.*

LINEARS

- *Lineament - visible on aerial photographs.*
- *Lineament - visible in magnetic data.*

- *Strike and dip of bedding - right way up; overturned; facing unknown.*
- *Strike of vertical bedding, facing indicated by single tic; facing unknown.*
- *Strike and dip of cleavage of unspecified type and relative age, parallel to bedding, facing unknown.*
- *Strike and dip of cleavage - relative local age S_2; crenulation.*
- *Strike and dip of penetrative cleavage; vertical.*
- *Trend and plunge of bedding/primary cleavage intersection lineation (L1); vertical.*
- *Trend and plunge of minor fold hinge line - unspecified relative age; with dip and dip direction of axial surface; F_2.*
- *Trend and plunge of hinge line of minor antiform, unspecified relative age; horizontal.*
- *Trend and plunge of hinge line of minor synform, unspecified relative age; horizontal.*
- *Strike and dip of outcrop scale fault of unspecified type and relative age, type unspecified; thrust fault.*
- *Trend and plunge of slickensides, movement sense unspecified; HW relative movement up-plunge.*
- *Field station for adjacent readings on the map.*
- *Notable small outcrop 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 M.P. McClenaghan, B.Sc.(Hons), Ph.D., 2006 from the following sources (see source diagram):

A MARSHALL, B.; BARTON, C.M.; JENNINGS, D.J. and NAQVI, I.H. 1965. Geological Atlas 1:63 360 series, sheet 31 (8315N) Pipers River. Tasmania Department of Mines.

B LONGMAN, M.J.; MATTHEWS, W.L. and ROWE, S.M. 1964. Geological Atlas 1: 63 360 series, sheet 39 (8315s) Launceston. Tasmania Department of Mines.

C S.M. Forsyth, 2006. Aerial photo interpretation.

D Rock scree polygons derived from Tasmania 1:25,000 Series Sheet 5242 Edition 1 Patersonia and Sheet 5243 Lisle.

Updated by:

E I. R. Woolward 2008-2009: Stratigraphic revision and re-mapping of Mathinna Supergroup, and minor adjustment of Permian and Tertiary boundaries, supported by interpretation of airborne geophysical data, as part of the TasExplore Project, Mineral Resources Tasmania.

F I. R. Woolward 2008-2009: Minor re-mapping of Devonian granodiorite, based on widely spaced traverses and supported by interpretation of airborne geophysical data, as part of the TasExplore Project, Mineral Resources Tasmania, with additional information from D. Hall, 1997. Annual report for year ending July 1997. EL2/92, Lisle. Unpublished report Macmin NL (TCR 97-4048).

G M. P. McClenaghan 2008-2009: Stratigraphic revision and re-mapping of Mathinna Supergroup, and minor adjustment of Tertiary boundaries, supported by interpretation of airborne geophysical data, as part of the TasExplore Project, Mineral Resources Tasmania.

H SEYMOUR, D.B.; WOOLWARD, I.R.; McCLENAGHAN, M.P.; BOTTRILL, R.S. 2011. Stratigraphic revision and re-mapping of the Mathinna Supergroup between the River Tamar and the Scottsdale Batholith, northeast Tasmania. 1:25 000 Scale Digital Geological Map Series. Explanatory Report 4.

REFERENCE THIS MAP AS:

WOOLWARD I.R. and McCLENAGHAN, M.P. 2010. Digital Geological Atlas 1:25 000 Scale Series. Sheet 5243 Lisle. Mineral Resources Tasmania.

Base data from the LIST, Copyright State of Tasmania.

Map produced by Spatial Information Services, Mineral Resources Tasmania.

Website: www.mrt.tas.gov.au

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

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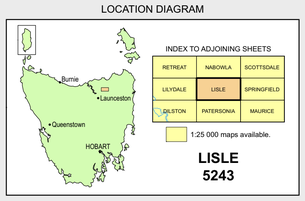
LOCATION DIAGRAM



INDEX TO ADJOINING SHEETS

RETREAT	NABOWLA	SCOTTSDALE
LILYDALE	LISLE	SPRINGFIELD
DELTON	PATERSONIA	MAURICE

1:25 000 maps available.

LISLE
5243

Map generated: 14-NOV-2023

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