MINERAL RESOURCES TASMANIA
DIGITAL GEOLOGICAL ATLAS 1:25 000 SERIES
LOONGANA, SHEET 4041

LOONGANA

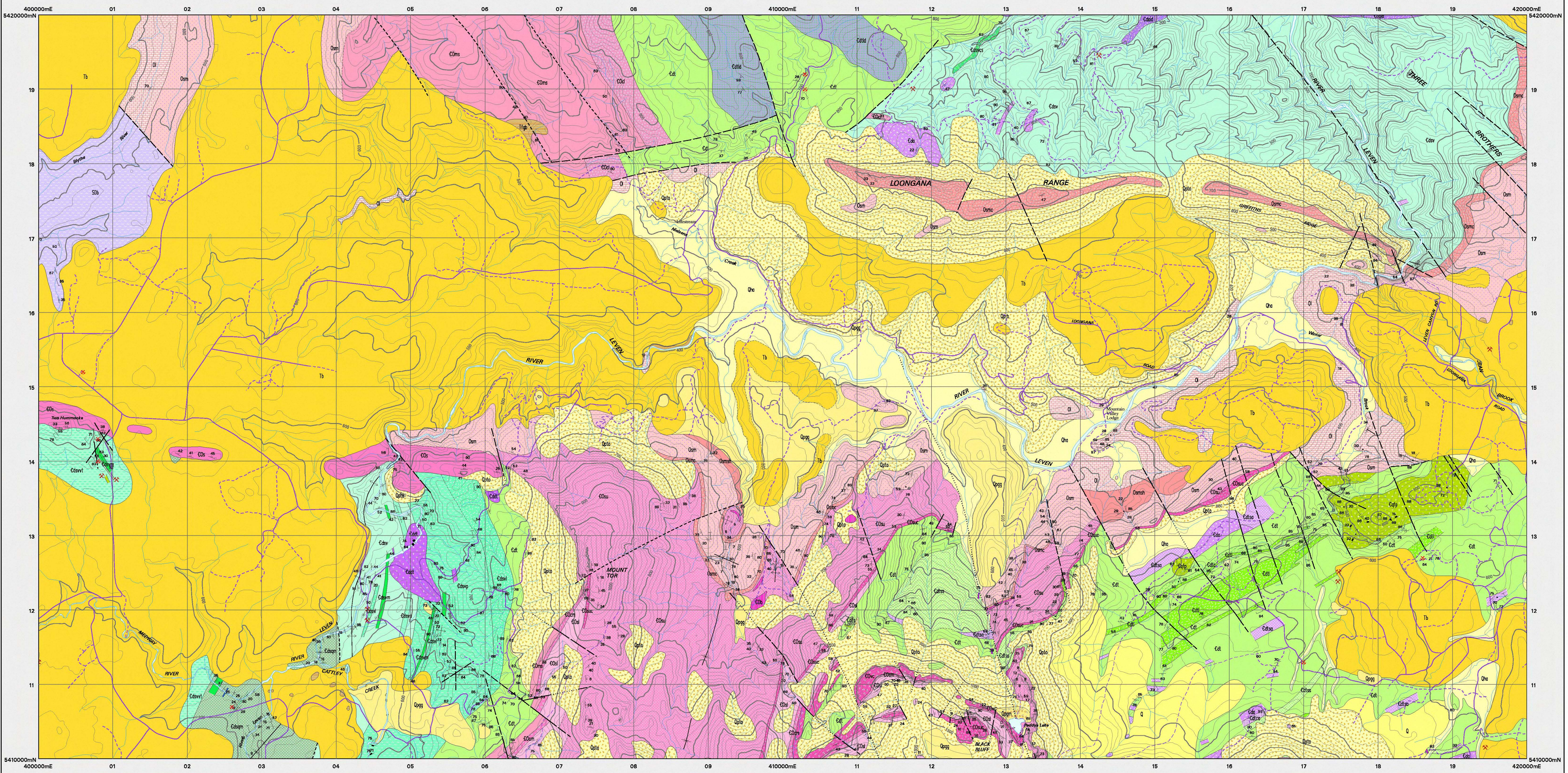
Scale: 1:25 000

0 500 1000 1500 2000 2500m

MINERAL RESOURCES TASMANIA

Tasmania

DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES



CAINOZOIC — QUATERNARY (Q)

Holocene

- **Qha** — Alluvium, swamp and marsh deposits (Qha).
- **Qpt** — Talus (Qpt).
- **Qptb** — Basalt talus (Qptb).
- **Qpto** — Quartzite and conglomerate talus (Qpto).

Pleistocene

- **Qpgg** — Glacial deposits (Qpgg).
- **Qpgm** — Mostly morainal deposits (Qpgm).

CAINOZOIC — TERTIARY

- **Tfgb** — Grey-billy and silcrete (Tfgb).
- **Tb** — Basalt (Tb).
- **Ts** — Dominantly non-marine sequences of gravel, sand, silt, clay and regolith (Ts).

PALAEOZOIC — SILURIAN-DEVONIAN (ELDON GROUP)

- **SDb** — Mudstone minor siltstone, minor fine-grained sandstone and rare limestone (correlate of Bell Formation) (SDb).

PALAEOZOIC — ORDOVICIAN (GORDON GROUP; WURAWINA SUPERGROUP)

- **Ol** — Limestone with siltstone in some areas (Ol).
- **Osm** —
  - **Osmsh** — Calcareous siltstone and sandstone. Transitional unit from Moina Sandstone to Gordon Limestone (€Ouml).
  - Pale grey to pink commonly cross-bedded quartz sandstone, coarse and pebbly toward base and with tubicular trace fossils in horizons of upper sequences (correlate of Moina Sandstone) (€Oum).
  - **Osmc** — Grey to pink/purple granule-pebble conglomerate and coarse sandstone. Chert clasts common. Some bioturbated horizons (Osmc).

PALAEOZOIC — LATE CAMBRIAN (OWEN GROUP)

- **€Os** —
  - **€Osu** — Mostly pink sandstone and granule-pebble conglomerate with minor siltstone. Clasts of chert common (€Osu).
  - **€Ob** — Basalt, typically hemitite-altered, fine grained, purple weathering. Massive to brecciated, generally well cleaved, vesicular, rare pillow structures (€Ob).
  - **€Osuc** — Pink pebble to pebble-cobble conglomerate with minor lenses of coarse sandstone (€Osuc).
  - **€Osl** — Thin bedded pink to grey sandstone, minor siltstone, calcareous sandstone and pebble conglomerate. Some bioturbated horizons (€Osl).
- **€Ocm** — Pebble-cobble to cobble-boulder conglomerate thick bedded to massive, with minor sandstone lenses. Pink to pale grey (correlate of Middle Owen Conglomerate) (€Ocm).
- **€Oms** — Interbedded micaceous sandstone, siltstone and siliciclastic pebble conglomerate, mostly grey in colour (correlate of Newton Creek Sandstone) (€Oms).
- **€Ocl** — Lower sequence of siliciclastic pebble to cobble grade conglomerate with sandstone interbeds (€Ocl).
- **€Ovc** — Volcaniclastic conglomerate, breccia and sandstone. Correlate of Jukes Conglomerate (€Ovc).

PALAEOZOIC — MIDDLE CAMBRIAN (TYNDALL GROUP CORRELATES; MOUNT READ VOLCANICS)

- **€dt** — Mixed sequences of volcaniclastic and felsic to intermediate volcanic rocks (€dt).
  - **€dtc** — Volcaniclastic conglomerate and sandstone (€dtc).
  - **€dtca** — Andesitic volcaniclastic conglomerate (€dtca).
  - **€dtss** — Volcaniclastic sandstone and siltstone, typically quartz–feldspar +/– biotite-phyric, with minor felsic lava (€dtss).
  - **€dtsa** — Andesitic volcaniclastic sandstone (€dtsa).
  - **€da** — Andesitic lava and breccia, typically feldspar–hornblende-phyric (€da).
  - **€dtl** — Felsic quartz–feldspar-phyric lava, commonly flow-banded and autobrecciated (€dtl).
  - **€dtld** — Dacitic lavas and related intrusives, typically feldspar–ferromagnesian-phyric, commonly flow-banded (€dtld).

PALAEOZOIC — MIDDLE CAMBRIAN (CORRELATES OF MT CHARTER GROUP; MOUNT READ VOLCANICS)

- **€dsv** — Mixed sequence of volcano-sedimentary, sedimentary and volcanic rocks (€dsv).
  - **€dsvcs** — Siliciclastic conglomerate and sandstone, with some volcanic detritus in places (€dsvcs).
  - **€da** — Andesitic lavas, breccias and related intrusives (€da).
  - **€dsvp** — Upper sequences of pumice-bearing volcaniclastic sandstone and breccia in Mt Tor area (correlate of Southwell Subgroup) (€dsvp).
    - **€dsvm** — Coarse polymict volcaniclastic breccia units, typically graded, of mass-flow origin (€dsvm).
    - **€dsvl** — Felsic lava, typically quartz–feldspar-phyric (€dsvl).
  - **€dsvs** — Bedded sandstone–siltstone unit (€dsvs).
  - **€dsvm** — Coarse polymict volcaniclastic breccia units, typically graded, of mass-flow origin (€dsvm).
  - **€dsvl** — Felsic lava, typically quartz–feldspar-phyric (€dsvl).
  - **€dsqm** — Micaceous quartzwacke sandstone with siltstone and granule conglomerate (correlate of Animal Creek Greywacke) (€dsqm).
    - **€dsvm** — Volcaniclastic mass-flow units (€dsvm).
    - **€dsvvt** — Vitric ash units (€dsvvt).
    - **€dsvb** — Mafic intermediate lava unit (€dsvb).
  - **€dsvvt** — Dominantly fine-grained vitriclastic siltstone with some mass-flow deposits, shale and greywacke (correlate of Black Henry Beds) (€dsvvt).
    - **€dsvm** — Volcaniclastic mass-flow units (€dsvm).
    - **€dsvs** — Bedded sandstone–siltstone unit (€dsvs).

INTRUSIVE ROCKS

PALAEOZOIC — MIDDLE CAMBRIAN (MOUNT READ VOLCANICS)

- **€dbc** — Basaltic dykes, usually chlorite–carbonate altered (€dbc).
- **€qfp** — Quartz–feldspar porphyry (€qfp).
- **€dfs** — Feldspar–quartz porphyry, commonly spherulitic, usually intrusive (€dfs).
- **€daid** — Massive plagioclase–hornblende phyric dioritic, andesite and dacitic intrusives (€daid).
- **€ddt** — Ophitic textured mafic–intermediate rocks of uncertain affinity, feldspar–pyroxene–chlorite–quartz-bearing (€ddt).

Strike and dip of bedding – right way up; overturned; facing unknown.
Strike of vertical bedding facing unknown.
Strike and dip of cleavage of unspecified type and relative age; vertical.
Trend and plunge of hinge line of minor antiform, unspecified relative age.
Trend of horizontal minor fold hinge line – unspecified relative age: relative local age F2.
Strike and dip of dominant joint set; vertical.
Strike and dip of igneous banding or platy alignment; vertical.
Field station for adjacent readings on the map.
Glacial striae, sense of movement unknown.
Mineral deposit location – hardrock; Mineral deposit location – alluvial — Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.
Construction materials location – Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.

Geological boundary – position approximate
Geological boundary – position inferred
Fault – position approximate
Fault – position inferred
Fault – position concealed
Axial surface trace of major fold, antiform
Axial surface trace of major fold, synform
Moraine ridge crests

Compiled by J. Pemberton and J. McKibben, 1996 from the follwing sources (see responsibility diagram):

A Pemberton, J and Vicary, M.J. 1988. Mt Read Volcanics Project Map 8. Tasmania Department of Mines.

B Baillie P.W. et al, 1986. Geological atlas 1:50,000 series. Sheet 36 (8015N) St Valentines. Tasmania Department of Mines.

C Pemberton, J and Vicary, M.J. 1989. Mt Read Volcanics Project Map 9. Tasmania Department of Mines.

D Jennings, I.B. et al, 1959. Geological atlas 1 mile series. Zone 7 Sheet 37 Sheffield. Tasmania Department of Mines.

E Modified and upgraded by K.D. Corbett, 2004 as part of the Western Tasmanian Regional Minerals Program, with additional information from:

F Vicary, M.J. 1994 and 1995. Unpublished company mapping, RGC Exploration Pty Ltd. TCR 94-3565 and TCR 95-3728.

Digital base information from Information and Land Services Division, Department of Primary Industries, Water and Environment.

Map produced by the Data Management Branch of Mineral Resources Tasmania using G.I.S. software. AGD66 - AMG Zone 55. Contour Interval: 20 metres.

RESPONSIBILITY DIAGRAM

B,E	F,E	
		D,E
A,E		C,E

LOCATION DIAGRAM

ADJOINING SHEETS

PARRAWE	LOYETEA	CASTRA
GUILDFORD	LOONGANA	WILMOT
PEARSE	LEA	CETHANA

1:25000 maps available.

LOONGANA
4041

WARNING: INKS ARE LIGHT SENSITIVE

Data correct & plotfile generated: 22-MAR-2005