MINERAL RESOURCES TASMANIA
DIGITAL GEOLOGICAL ATLAS 1:25 000 SERIES
SHEFFIELD, SHEET 4441

SHEFFIELD

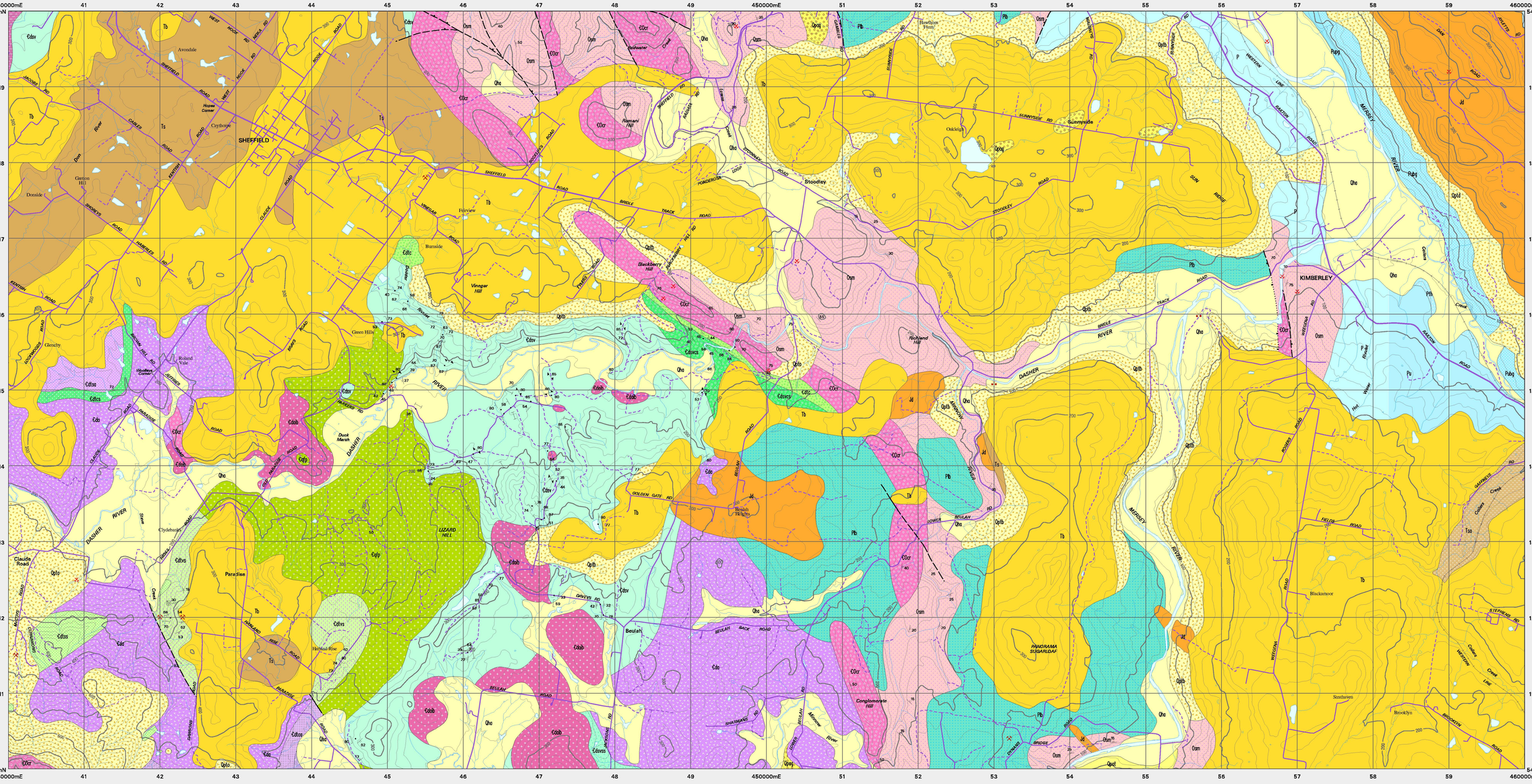
Scale: 1:25 000

0 500 1000 1500 2000 2500m

MINERAL RESOURCES TASMANIA

Tasmania

DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES



CAINOZOIC

QUATERNARY

HOLOCENE

- **Qha** — Stream and river alluvium (Qha).
- **Qprg** — Older alluvium, dominantly of river terraces, dominantly cobble–boulder gravel (Qprg).

PLEISTOCENE

- **Qpt** — Quartz sandstone and conglomerate talus (Qpto). Basalt talus and landslide debris (Qptb). Dolerite talus (Qpto).
- **Qpat** — Till, talus and alluvial gravels (Qpat).

Erosional surface.

TERTIARY

- **Tb** — Basalt (Tb).
- **Ts / Tso** — Sands clays and conglomerate (Ts). Sand, quartzite gravel and clay, including Interbasalt deposits (Wesley Vale Sand) of Oligocene age (Tso).

Erosional surface.

PALAEOZOIC

CARBONIFEROUS - PERMIAN

Pu

- **Pubg** — Undifferentiated Permo–Carboniferous sediments (P). Upper glaciomarine sequences of pebbly mudstone, pebbly sandstone and limestone (Pu). Sandstone, mudstone and pebbly mudstone with marine fossils (Pubg).

P

- **Pupg** — Sandstone, mudstone and pebbly mudstone with marine fossils (Poatina Group) (Pupg).
- **Pfh** — Quartz sandstone and shale, carbonaceous in places, and minor conglomerate (Pfh).
- **Pfb** — Poorly sorted pebbly mudstone, sandstone and minor conglomerate, marine fossils present in places (Pfb).

LOWER PARMENER SUPERGROUP

Angular unconformity

ORDO-CAMBRIAN VICIAN

LATE CAMBRIAN

- **Osm** — Pale grey to pink, commonly cross–bedded quartz– sandtone, coarse and pebbly towards base and with tubicolor trace fossils in upper sequences (Moina Sandstone and correlates) (Osm).
- **€Ocr** — Pink pebble–cobble to cobble–boulder conglomerate, thick bedded to massive, with minor sandstone lenses (Roland Conglomerate and correlates) (€Ocr).

OWEN GROUP — WURAWINA SUPERGROUP

Angular unconformity

PALAEOZOIC

MIDDLE CAMBRIAN

CORRELATES OF TYNDALL GROUP

- **€dtc** — Volcaniclastic conglomerate and sandstone with clasts of andesite, felsic volcanics and rare granite (€dtc).
- **€dtss** — Dominantly massive volcaniclastic sandstone and pebble conglomerate, typically quartz–feldspar–rich with clasts of quartz–phyric rhyolite and rare quartzite clasts (€dtss).
- **€dtvs** — Dominantly crystal–rich volcaniclastic sandstone derived from andesitic and dacitic volcanics, with interbeds of vitric and pumiceous volcaniclastic sandstone and finely banded micaceous siltstone (€dtvs).
- **€dtcs** — Andesitic volcaniclastic conglomerate and sandstone, typically crystal–rich with plagioclase and pyroxene and abundant andesite clasts. Minor quartz and quartzite clasts in places (€dtcs).

MOUNT READ VOLCANICS

- **€da** — Andesitic lava and breccia, typically massive, plagioclase–pyroxene–phyric with minor plagioclase–phyric dacite lava and volcaniclastic sandstone (€da).
- **€dtcs** — Siliciclastic conglomerate, with quartzite and chert clasts, generally interbedded with coarse sandstone (€dtcs).
- **€dtsa** — Mainly andesitic volcaniclastic sandstone, typically massive with plagioclase, quartz, clinopyroxene and magnetite crystals with interbedded siltstone. Clasts of andesitic lavas and quartzite (€dtsa).

CORRELATES OF WESTERN VOLCANO-SEDIMENTARY SEQUENCE

- **€dsv** — Mixed sedimentary and volcano–sedimentary sequences of massive to bedded greywacke sandstone, siltstone and conglomerate, with some felsic to intermediate volcanics. Includes 'Gog Range Greywacke' (€dsv).
  - **€da** — Andesitic lavas, breccias and volcaniclastic rocks, typically plagioclase–pyroxene–phyric, with minor plagioclase–phyric dacite lava (Beulah Andesite) (€da).
  - **€dsvss** — Dominantly non–volcanic lithic sandstone with some interbedded laminated siltstone (€dsvss).
  - **€dsvcs** — Siliciclastic conglomerate and sandstone, typically pebble to cobble grade, with clasts of quartzite and chert (€dsvcs).
  - **€qfp** — Quartz–feldspar +/– pyroxene porphyry, typically massive, grey to pale pink. Ferromagnesian phenocrysts completely altered to chlorite. Mostly intrusive but may be partly extrusive. Includes 'Minnow Keratophyre' (€qfp).
  - **€fqp** — Plagioclase–clinopyroxene–quartz porphyry lava or intrusive, massive to brecciated (€fqp).

TEARY CAMBRIAN

ALLOCHTHONOUS SEQUENCE

- **€cwc** — Chert, pale to dark grey, faintly banded to massive or brecciated (Barrington Chert) (€cwc).

INTRUSIVE ROCKS

PALAEOZOIC

JURASSIC

- **Jd** — Dolerite (Jd).

MIDDLE CAMBRIAN — MOUNT READ VOLCANICS

- **€dalb** — Andesitic monzodioritic intrusives with biotite, hornblende, pyroxene, feldspar and quartz. Typically massive, pink to brown–weathering. Zircon U–Pb radiometric age 493.5 +/– 3.9 Ma from 447425mE 5410865mN (Beulah 'Granite') (€dalb).
- **€qfp** — Quartz–feldspar +/– pyroxene porphyry, typically massive grey to pale pink. Ferromagnesian phenocrysts completely altered to chlorite in many areas. Zircon U–Pb radiometric age 499.6 +/– 5.6 Ma from 444530mE 5408830mN. Includes 'Minnow Keratophyre' (€qfp).
- **€fqp** — Plagioclase–pyroxene–quartz porphyry lava or intrusive, massive to brecciated (€fqp).

Geological boundary – position accurate or approximate.

Fault – position accurate or approximate.

Fault – normal – position accurate or approximate (with downthrown side indicated).

Fault – normal – position concealed (with downthrown side indicated).

Strike–slip fault (dextral) – position accurate or approximate.

(white line) Limit of mapping of sub–unit within undifferentiated rock unit.

Strike and dip of bedding facing known, right way up; vertical (facing indicated by single tic).

Strike and dip of bedding, facing unknown – dipping vertical.

Strike and dip of cleavage or foliation, relative local age S2: vertical.

Strike and dip of cleavage, type and relative age unspecified – dipping; vertical.

Fossil location.

Mineral deposit location – hardrock

Mineral deposit location – alluvial

Construction materials location –

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

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Compiled by M.P. McClenaghan, 2004 from the following sources (see Responsibility Diagram):

A Geological Atlas 1:63360 Series, sheet 37 (8115S) Sheffield Tasmanian Department of Mines.

B Geological Atlas 1:63360 Series, sheet 38 (8215S) Frankford Tasmanian Department of Mines.

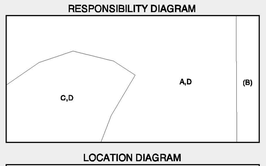
C McClenaghan, M.P. 2002. Reconnaisance geological mapping. Mineral Resources Tasmania, and Brown, A.V. 1992. Reconnaisance geological mapping. Mineral Resources Tasmania.

D Modified and updated by K.D. Corbett, 2004 as part of the Western Tasmanian Regional Minerals Program.

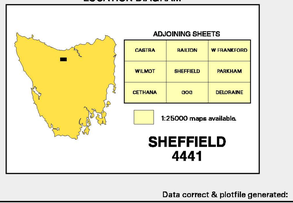
Digital base information from Information and Land Services Division, Department of Primary Industries, Water and Environment.

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



LOCATION DIAGRAM



Data correct & plotfile generated: 10-AUG-2005

WARNING: INKS ARE LIGHT SENSITIVE