

QUATERNARY

- Qa Clay, silt, sand gravel; floodplain alluvium
- Qb Silty clay, clay (swamp) deposits in alluvial plain
- Qc Sand, silt, clay, silt/clay, meander-belt deposits
- Qd Sand, mud, silt, clay, gravel; mainly active stream-channel deposits
- Qe Sand, silt, clay, gravel; soil, residual and colluvial deposits

MINING SYMBOLS

- Mine
- Active abandoned
- Prospect abandoned
- Mineral occurrence

TERTIARY - QUATERNARY

- Ta Residual soil and colluvium, gravel and sand
- Tb Sandstone, conglomerate, gravel, sand, silt and mud, siliceous non-stone, some interbedded beach and unconsolidated residual soil, colluvium and alluvium

JURASSIC

- Jn Quaternary sandstone, conglomerate
- Jm Medium to coarse-grained quartzite and quartzite/sandstone and conglomerate

EARLY TRIASSIC

- Et Coarse to very coarse-grained sandstone, conglomerate and minor micro-synclinal, marginal porphyritic leucocratic and monocratic, green, medium-grained, massive

PERMIAN - TRIASSIC

- Pt Moderately porphyritic leucocratic, minor andesitic
- Pt1 Unexposed non-magnetic granitoid intrusion

LATE PERMIAN

- Pt2 Fine to dark grey or pinkish grey, medium to fine-grained biotite-hornblende and hornblende-biotite granodiorite, minor monocratic-quartz monodiorite, monocratic, syenogranite

EARLY PERMIAN

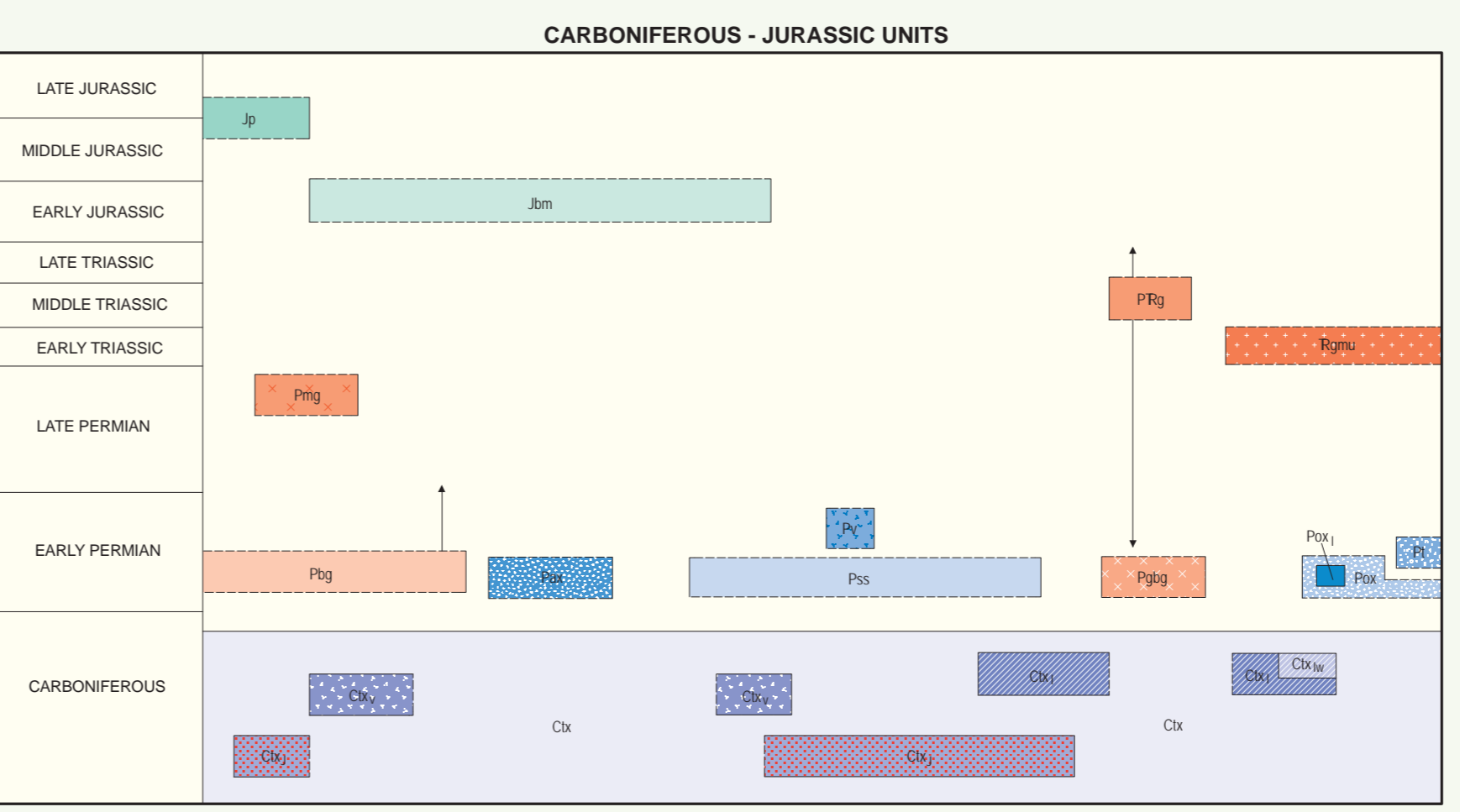
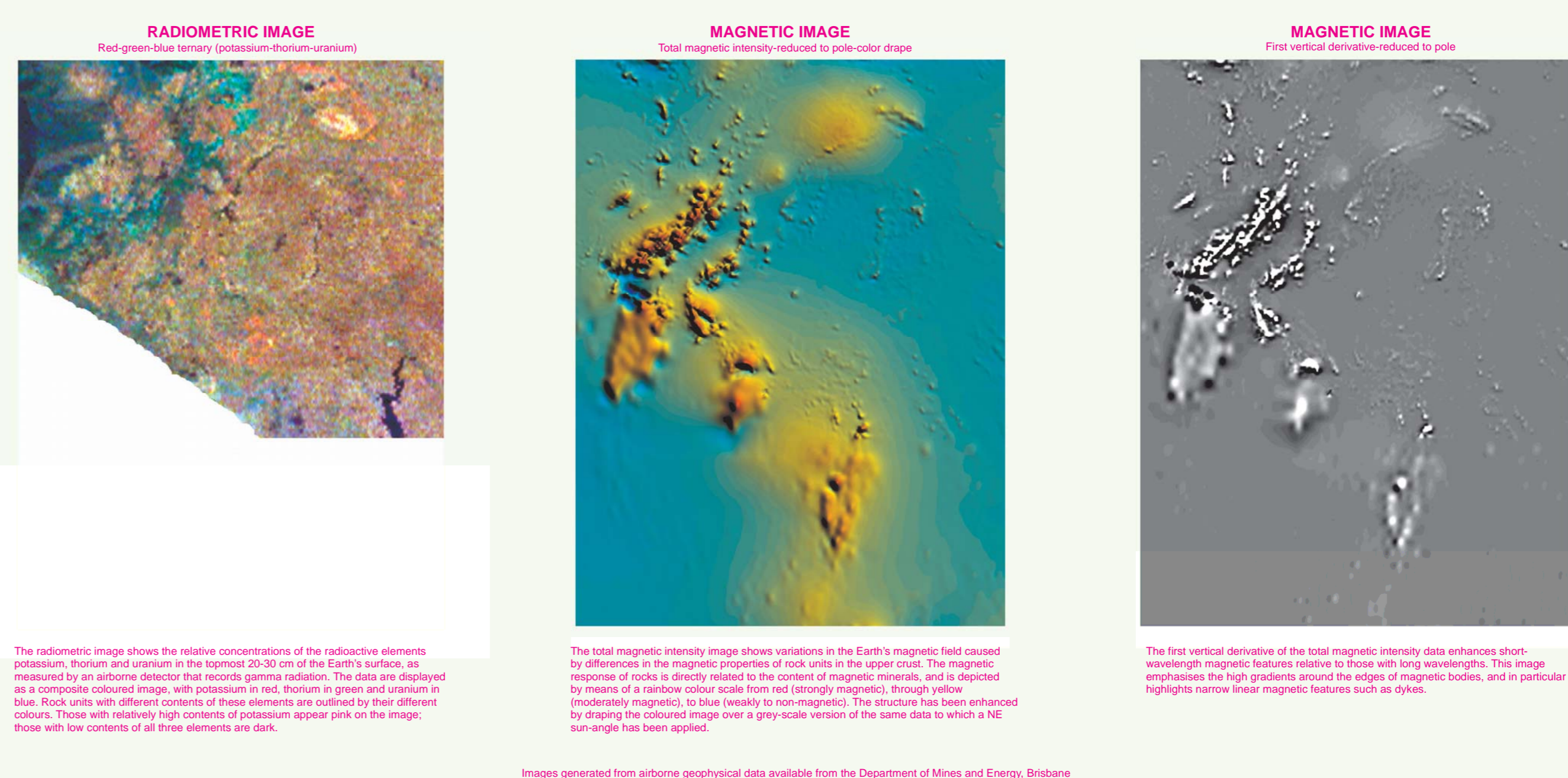
- Pt3 Coarse to very coarse-grained, porphyritic and equigranular biotite/muscovite (garnet/cordierite) granite and leucocratic K-feldspar megacryst abundant in places, some pale grey, fine-grained porphyritic (altered) cordierite-muscovite-biotite monocratic
- Pt3a Fine pink to pale brownish pink, medium-grained, uneven-grained, leucocratic biotite syenogranite; rare to high magnetic response

CARBONIFEROUS

- Ct Thin to thick bedded, volcanoclastic arenite, mudstone, conglomerate and silt; local pyritic, sporadic masses of jasper, chert, ironstone and mafic volcanic, rare conglomerate, low to moderate magnetic response
- Ct1 Strongly magnetized or magnetically altered (red) clay minor jasper, mafic volcanoclastic and later sequence and/or associated magnetically altered strata
- Ct2 Thin bedded to locally massive, pink to brown jasper; subordinate interbedded mudstone, locally grades into grey shales
- Ct3 Widely recrystallized, sparsely fossiliferous limestone; local ironstone/basalt breccia
- Ct4 Limestone intruded by Darwin Lake
- Ct5 Mafic lava and associated pyroclastic deposits, some subvolcanic intrusives; minor chert, jasper and volcanoclastic sediments
- Chert lens

INDEX TO MINES AND PROSPECTS

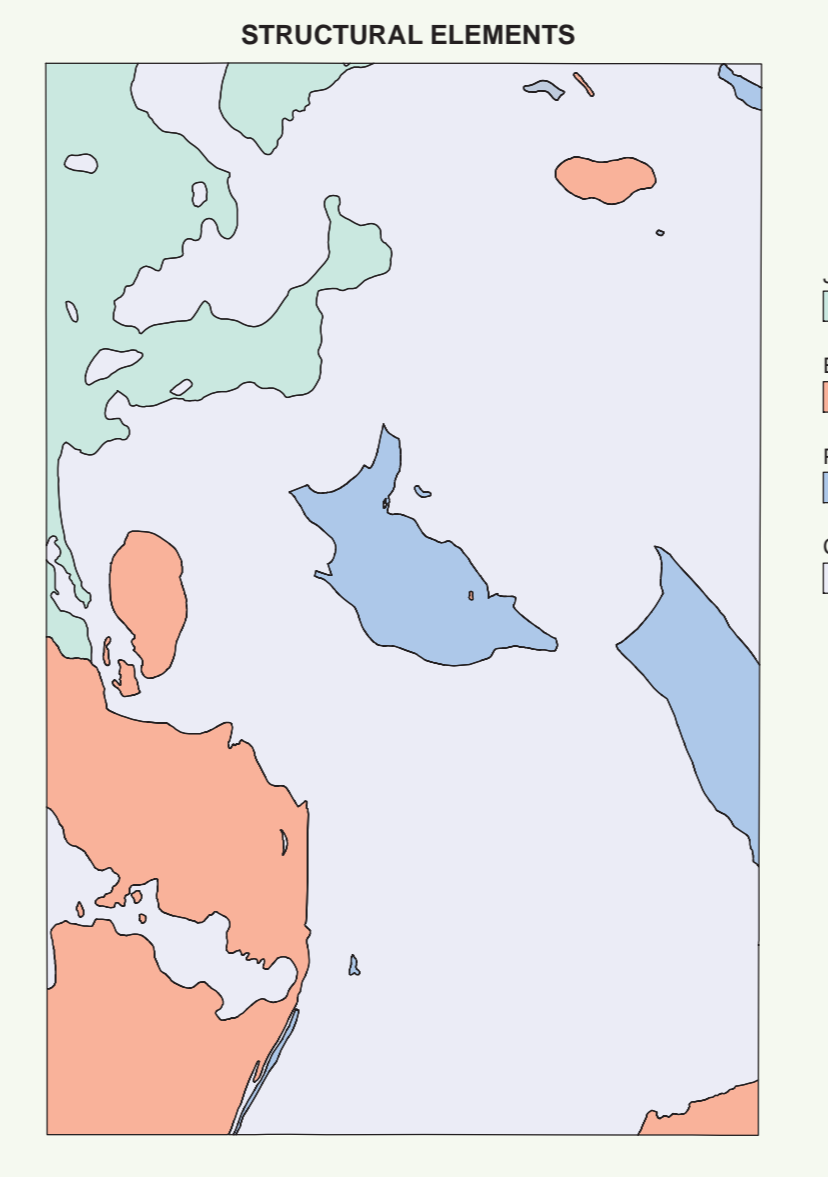
No.	Name	Location	Coordinates
1	Cathu Copper Gold Prospect	Al, Cu, Zn	181829
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EXPLANATION

- Top of stratigraphic column
- Unit appears elsewhere on diagram
- Base of stratigraphic column

In the schematic reference, rock units are shown in their stratigraphic and geographic relationships to the profile. The width of the unit lines and the scale of their slope and level boundaries indicate disproportionately the relative relationships between units. The height of the blocks suggests in age range which is based on isotopic age in the case of some units.



GEOLOGICAL SYMBOLS

- Geological boundary
- Fault
- Thrust fault, Triangle on older rocks
- Dyke or vein: sil - andesite, pp - porphyritic granite

Where location of boundaries, faults and folds is approximate, line is broken; where inferred, opened; where concealed, boundaries and folds are dotted; faults are shown by short dashes.

Strike and dip of strata

Vertical area

Strike and dip of strata, younging unknown

Thin line - Approx. interpretation

Lineament

Strike and dip of cleavage

Vertical cleavage

Strike and dip of platy alignment

Isotopic age in million of years

UR - uranium-lead (Zr/Hf) method
Sm - samarium-neodymium method
K - potassium-argon

Structural symbols shown in unconsolidated to partly consolidated Quaternary and Tertiary sediments on the face of the map, refer to the underlying bedrock which forms sedimentary contact and are not shown.

MAGNETIC INTERPRETATION
Magnetic interpretation is shown in magnets using standard geological lineaments. Areas shaded in magnetic indicate the extent of magnetic units, or anomalies associated with concealed magnetic units, interpreted from airborne magnetic data.

TOPOGRAPHICAL AND CULTURAL SYMBOLS

- Highway
- Secondary road
- Minor road
- Vehicle track
- Railway station
- Hamlet
- Building, small settlement
- Topographical location

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INDEX TO 1:100 000 MAPS

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SCALE 1:100 000

0 1 2 3 4 5 6 7 8 9 10
KILOMETRES

GREY NUMBERED LINES ARE 1:100 000 METRE INTERVALS OF THE MAP GRID OF AUSTRALIA 1994, ZONE 56
NATIONAL TRANSVERSE MERCATOR PROJECTION.
HORIZONTAL DATUM: GEOCENTRIC DATUM OF AUSTRALIA 1994 (GDA94)



Geology: 1989 by R.J. Street (Geological Survey of New South Wales)
2002-2003 by R.J. Bullock (GSD, granite rocks)
2004 by D. Purby, P.J. Donnell and J. Tang (GSD)
Mineral occurrence mapping: 2006-2007 by J.L. Cooper and P.E. Burgess (GSD)
Compiled by D. Purby, P.J. Donnell, Geoscience Service Unit, GSD, Department of Mines and Energy
Cartography by R.J. Dunlop, Geoscience Service Unit, GSD, Department of Mines and Energy

GDA