Overview papers

Known, absent and potential mineral deposit types in Australia 1
  D I Groves, R R Large and G N Phillips

Key trends in Australian mineral resources and production 7
  G M Mudd and S M Jowitt

Geology of Australia 13
  R J Korsch

Geophysics of Australian orebodies 21
  R J Smith, K M Frankcombe, W S Peters and M C Dentith

Geology of the Australian regolith 27
  C R M Butt, R R Anand and R E Smith

Australian resources — innovations in exploration, characterisation and geology 35
  J Law

Managing data for mineral exploration 41
  A Riganti and J R Vearncombe

Mineral discovery and development in Australia 43
  E Eshuys

Use, misuse and change of geological terms — a guide for mineral industry geologists 47
  S P Carey and M J Hughes

Reporting of Resources and Reserves — the JORC Code 51
  P Stoker

Commodity overviews

Western Australia nickel overview 53
  S J Barnes, D R Mole and M A Wells

Iron ore systems in Western Australia 59
  S G Hagemann, T Angerer and P Duuring

Critical metals in Australia 63
  S M Jowitt and G M Mudd

Australian rare element granitic pegmatites 67
  P J Pollard

Gold in Australia 75
  G N Phillips

Heavy mineral sand deposits of Australia 83
  C A Standing, B Hou, M G Teakle, D Klingner and S Harrison
Yilgarn Craton

Yilgarn Craton geology
N L Wyche and S Wyche

Yilgarn Craton — mineral deposits and metallogeny
J R Vearncombe and M Elias

Long—Victor nickel sulfide deposits, Kambalda
S Staude, S Sheppard, P Parker and J Paggi

Deacon nickel sulfide deposit, Tramways Dome, Kambalda
J D Hicks and R G Parkinson

Widgiemooltha nickel deposits
R A Hatfield, P Muscilli and M Muller

Black Swan nickel sulfide deposits
S J Barnes, N Hutchison and S Warriner

Nickel deposits of the Mt Keith and Leinster regions, Agnew—Wiluna Belt
C S Perring, M T Rieuwers, E E Western, M M Menicheli, W F Greenwood and M J Gole

Cosmos nickel sulfide deposit
T Thordarson and A de Joux

Nova—Bollinger Ni-Cu-Co sulfide deposit
P Parker, J Bartlett, K Hodges, A Thompson and J G Standing

Fisher East nickel-sulfide deposits
W Belbin, I Mulholland, L Burley, D R Mole and S J Barnes

Rosie and C2 Ni-Cu-PGE deposits, Duketon
P Parker, J Day and J Paggi

Murrin Murrin and Bulong smectite-hosted nickel laterite deposits
M A Wells and C R M Butt

Greenbushes tin, tantalum and lithium deposit
G A Partington

Mount Mulgine tungsten deposit
J R Vearncombe, S Bright and G Conner

Mount Marion lithium pegmatite deposit
B Smith and J Ross

Mount Weld and Gifford Creek rare earth elements carbonatites
F Pirajno, I Gonzalez-Álvarez, A Border and T M Porter

Teutonic Bore — Jaguar — Bentley volcanogenic massive sulfide field
P Parker, S Belford, R Maier, S Lynn and W Stewart

Golden Grove Zn-Cu-Au deposits
C Gellie, S Neal and N Hughes

Iron ore deposits of the Yilgarn Craton
P Douring, T Angerer and S G Hagemann

Kalgoorlie goldfield — petrology, alteration and mineralisation of the Golden Mile Dolerite
G N Phillips, J Hergt and R Powell

Mount Charlotte deposit, Kalgoorlie goldfield
A G Mueller

Kundana goldfield
D P Cooke, T Ramsey, J M Miller and A B Bath
Coolgardie goldfield
M D Goodz and L A Money

Bullabulling goldfield
G A Partington, T P Davis and T W B Pilcher

Kambalda – St Ives goldfield
S K Oxenburgh, M Falconer, D Douth, P Edmonds, A Foley and M Jane

Mount Monger goldfield including Daisy Milano and Randalls
M D Goodz, L Cogahan, G Thynne, E Summerhayes, J Benton, C McGahan and M Jones

Kanowna Belle gold deposit
A Ball, J Rogers, A Ross and G Tripp

Gold deposits of the Leonora district
S A Jones and W K Witt

Red October gold deposit
W K Witt and T Laneyrie

Carsoue Dam gold deposits
W K Witt and D Mills

Sunrise Dam gold deposit
M Nugus, N H S Oliver, T G Blenkinsop, E J Hill, S Finlayson and J S Cleverley

Gold deposits of the Granny Smith – Wallaby district
R B Tully, H K Platt, A R Chirnside and A L Murray

Moolart Well, Garden Well and Rosemont gold deposits
J Balkau, T French and T Ridges

Gruyere gold deposit, Yamarna

Jundee gold deposit
S Smith, R Haese and M W Grigson

Sandstone goldfield
R S Davies, D Ryan, D I Groves, A Trench, J P Sykes, J G Standing, C Jia and W Robertson

Andy Well gold deposit, Meekatharra
T Wellman, M Cossom, R Hingston and S Stephens

Boddington–Wandoo gold-copper deposit
T M Porter

Yilgarn gold deposits in higher metamorphic grade domains
R Powell and G N Phillips

Tropicana gold deposit
M G Doyle, B Catto, D Gibbs, M Kent and J Savage

Plutonic goldfield
M F Gazley, G Duclaux, M A Pearce, L A Fisher, E du Plessis, S Murray and R M Hough

Big Bell gold deposit and its precursors
G N Phillips, R Powell and C D de Nooy

Glenburgh goldfield
L K Roche, S P Johnson, M Dunbar and J Goldsworthy

Carbonate-related uranium deposits of the north-east Yilgarn
G J Shirtliff, S Kneer and R A Cox
Pilbara Craton

Pilbara Craton geology and metallogeny
D L Huston, N L Wyche, A Hickman and M Norman

Munni Munni platinum group element mineralisation, west Pilbara Craton
D M Hooton

Pilgangoora lithium-tantalum pegmatite deposit
M T Sweetapple, J Holmes, J Young, M W Grigson, L Barnes and S Till

Spinifex Ridge molybdenum-copper deposit
B Cummins and B Cairns

Banded iron formation-hosted iron ore deposits of the Pilbara Craton
P Duuring, Y Teitler and S G Hagemann

Chichester and Solomon bedded and channel iron deposits
J M F Clout, C Counsell and C Simpson

Nyidinghu and Eliwana – Flying Fish bedded iron deposits
D Kepert, S Robinson, N Clarke and N Nitschke

Mt Tom Price, Paraburadoo and western Hamersley iron ore deposits
W Thorne, H Dalstra, J Gordon, M Paine and S G Hagemann

BIF-hosted high-grade iron ore deposits in the eastern Hamersley Province
T Angerer, S G Hagemann, D Lascelles and H Reichardt

Channel iron deposits of the Pilbara
E Ramanaidou, M A Wells, R Morris, G Duclaux, N Evans and M Danišík

Woodie Woodie manganese deposits
S A Jones

Proterozoic – west

Regional geology and metallogeny of the Albany–Fraser Orogen
C V Spaggiari, C L Kirkland and R H Smithies

Geology and metallogeny of the Capricorn Orogen
S P Johnson, H N Cutten, F J Korhonen and N L Wyche

DeGrussa copper-gold deposit
P Hilliard, K E Adamszcyk and M L Hawke

Paroo Station (Magellan–Cano) supergene lead deposits, Capricorn Orogen
F Pirajno, N Sergeev, R Burlow and S Tesselina

Yangibana rare earth elements deposit
A Border, K Whittock and S Coxhell

Paulsens gold deposit
J O H Fielding, S P Johnson, J R Rogers and L K Elliott

Paterson Orogen geology and metallogeny
D W Maidment, D L Huston and T Beardsmore

Telfer gold-copper deposit
T M Porter

Nifty and Maroochydore copper deposits
T M Porter
Kintyre uranium deposit
P Sinclair, D Ewington and D Thomas

Geology and metallogeny of the Kimberley Province
S Occhipinti, M Lindsay, J Tyler and A Aitken

Savannah nickel sulfide deposits
J D Hicks, S J Barnes, M Le Vaillant and D R Mole

Zn-Pb-Ag deposits of the Lennard Shelf, Canning Basin
N A Reynolds and I A Copp

Admiral Bay Zn-Pb-Ag deposit of the Canning Basin
N A Reynolds and I A Copp

Manyingee uranium deposit
A Wilde, J-C Corbin and J Thom

Proterozoic — north

Pine Creek Orogen geology and metallogeny
J A Whelan, D F Close and I R Scrimgeour

Alligator Rivers uranium province
A L L Browne

Ranger 3 Deeps uranium deposit
S Pevely, M Hinman and A McLellan

Browns Cu-Pb-Zn-Co-Ni deposit
G F Johansen and A Johnston

Pine Creek gold province including Cosmo and Maud Creek
M J Edwards and S P Hitchman

Mount Isa Cu-Pb-Zn deposit including George Fisher deposit
R Lilly, D Taylor and N Spanswick

McArthur River Zn-Pb-Ag deposit
T M Porter

Teena zinc-lead deposit
M I Taylor, N E McMillan, J J Dalrymple and N Hayward

Century Zn-Pb-Ag deposits
A J O’Rourke, B N B Johnson and S King

Dugald River Zn-Pb-Ag deposit
J Broome and D Corley

Mount Watson copper deposit
B Godsmark, B Dennis, L Cole, S Ryan and D Webb

Valhalla uranium deposit
A Wilde and W L Andrews

Ernest Henry iron oxide copper-gold deposit
R Lilly, G Case and B Miller

Cannington Ag-Pb-Zn deposit
K Wright, B James and E Pucko

Selwyn mineral field
M A McGeough and I L Faulkner
Merlin molybdenum-rhenium deposit
I L Faulkner and K G Phillips 519

Mineral deposits in the Einasleigh district
T Lees and P Buckle 523

Argyle (AK1) diamond deposit
G L Boxer, A L Jaques and M J Rayner 527

Merlin diamond deposit
T H Reddicliffe and M S Kammermann 533

Georgina Basin phosphate deposits
J N Dunster and T J Munson 535

**Proterozoic — centre**

Tennant Creek copper-gold deposits including Gecko, Goanna and Rover
A L G Cuison, G A Osborne, R T Bills, S C Russell, N Donnellan, R Burke and C G Drown 539

Groote Eylandt and Bootu Creek manganese deposits
J D Harvey, C T Reddell and E P W Swindell 543

Gold deposits of the Tanami gold province
A S Wygralak, D L Huston and T P Mernagh 547

Dead Bullock Soak including Callie
W J Pendergast, M S Baggott and S Schneider 551

Jervois Cu-Ag-Pb-Zn-Au mineral field
M R Bennett, M V McGloin, S Schmid and P Schaub 557

Nolans Bore REE-P-U deposit
K J Hussey and J Goulevitch 561

Molyhil tungsten-molybdenum deposit
M V McGloin and R S Brad 565

Amadeus and Ngalia Basins — geology and metallogeny
C J Edgoose 567

Bigryl uranium-vanadium deposit
W R Taylor and S Schmid 571

Chandler salt deposit
J Livesey 575

Musgrave Province regional geology and metallogeny
H M Howard, R A Dutch, D F Close and N L Wyche 577

Nebo—Babel and Succoth Ni-Cu — platinum group element deposits, west Musgrave Province
Z Seat, B A Grguric, J M A Hronsky and G J Miles 581

**Gawler and Curnamona Cratons**

Geology and metallogeny of the Gawler Craton
A J Reid 589

Granulite-hosted Challenger gold deposit
A G Tomkins 595

Olympic Dam iron oxide Cu-U-Au-Ag deposit
K Ehrig, V S Kamenetsky, J McPhie, N J Cook and C L Ciobanu 601
Prominent Hill copper-gold deposit
P Williams, H Freeman, I Anderson and R Holcombe

Carrapateena iron oxide Cu-Au-Ag-U deposit
M Sawyer, B Whittaker and J de Little

Graphite deposits of the Eyre Peninsula
J L Keeling

Iron ore deposits of the Hutchison Group, Eyre Peninsula
D E Cronin

Menninnie Dam Pb-Zn-Ag and Paris Ag-Pb deposits
B E Nicolson, J A Anderson and K C Cross

Hillside iron oxide copper-gold deposit
G S Teale, P Say, N Green, H Forgan, C Went, M Twining and L Cole

Curnamona Province — geological history and mineral systems
J A Fitzherbert and P M Downes

Broken Hill Pb-Zn-Ag deposit
I Groves and I Plimer

Copper-gold deposits of the Benagerie Ridge, Curnamona Province
C Giles and T Just

Razorback magnetite deposit
G L England and T Thomas

Honeymoon, Beverley and Four Mile uranium deposits
M Z Abzalov, P K Williams and N A Inwood

Delamerian Orogen

Adelaide Geosyncline, Stuart Shelf, Kanmantoo Trough and Delamerian Orogen
W M Cowley

Angas Zn-Pb-Ag-Au deposit
T M Porter

Kanmantoo copper deposits
P Rolley and M Wright

Sedimentary magnesite deposits, Flinders Ranges
C M Horn, J L Keeling and J G Olliver

Beltana non-sulfide zinc deposit
I Groves and C Carman

Tasmanides of north-east Australia

Northcote and Tregoora gold-antimony deposits in the Hodgkinson Province
V A Lisitsin and T Jackson

Sn–W–Mo mineralisation in north-east Queensland
Z Chang, G Clarke, Y Cheng, J Poblete and K Liu

Polymetallic massive sulfide deposits of the Mount Windsor Subprovince
S D Beams, T Bates, D L Huston and I J Morrison

Ben Lomond uranium deposit
W L Andrews and S Parker
Mount Leyshon gold deposit
P J Wormald

Ravenswood and Mount Wright gold deposits
N Lisowiec and G Morrison

Mount Carlton gold deposit
J Dugdale and N Howard

Pajingo gold deposit
D J Osborne and C D Chambers

Cracow gold deposit
S Pike, B Spence, C Wilson and E Little

Mount Rawdon gold deposit
E Howard

Twin Hills and Mount Gunyan silver deposits
D P Halloran, P M Ashley and J C Cooke

**Lachlan Orogen**

Mineralisation of the Lachlan Orogen
M J Hughes

Cobar district mineral field
R E Brown, J Coffey, J Hosken, C Johnston and M Lenard

Cobar copper-gold field
L Stander and R Berthelsen

Girilambone copper district
P M Downes, C Raymond and J A Fitzherbert

Cadia gold-copper deposits
T M Porter

McPhillamys gold deposit
T French, P Duerden, H Simmons and P Flitcroft

Northparkes copper-gold deposits
J Owens, D Priest, C Jago and A Pacey

Temora copper-gold deposits
D E Cronin, J Kitto, B Mowat, S Munro and M M Scott

Cowal gold deposits, Lake Cowal
P R Balind, J Booth and P McInnes

Toongi rare metal deposit
D I Chalmers, T W Ransted and D G Meates

Woodlawn Zn-Cu-Pb-Ag deposit
P M Downes, S A Jones, D A von Perger and K Hine

Tomingley gold deposits
D G Meates, T W Ransted and D I Chalmers

Darques Reef gold deposit
A Lorrigan and G Cazens

Fosterville gold deposit
S P Hitchman, N J Phillips and O J Greenberger
Costerfield antimony goldfield
C T M Davis, A L Westcott, T A Fromhold, R M Eagle, C J Gniel, B W Cuffley and C J Gregory 797

Stawell gold deposits
T M Porter 801

Recent gold mining and exploration in Victoria
D H Taylor, C E Willman, M J Hughes and R K Boucher 807

Walhalla – Woods Point goldfield
J A C Anderson and S King 811

Avebury nickel sulfide deposit
T Callaghan, M Sloan and B Mackay-Scollay 813

Rosebery Cu-Pb-Zn-Ag-Au volcanogenic massive sulfide deposit
K Denwer, L Garrick and M Robertson 817

Mount Lyell copper-gold silver deposits
K Denwer, L Brown and J Hooper 823

Savage River magnetite deposits
A Webster, V Braniff and R Bottrill 829

Mount Lindsay and the South Meredith tin-tungsten deposits
S R Owen, S C Joughin, A Radonjic and J R K Stein 835

Zeehan tin deposits
T Callaghan, R K Hazeldene and G S Teale 839

King Island scheelite deposits
T Callaghan 843

Henty gold deposit
A Lorrigan, M Blake and G Purvis 847

Tasmania gold deposit, Beaconsfield
P B Hills 851

Additional deposits

Weipa bauxite plateau, Cape York
A Clements, J Bower, M Mills and I Rees 855

Other significant deposits
T M Porter 857

Indexes

Author index 865

Subject index 869