



Note: The next edition of Geoscience Australia's Minerals Alert will be released in February 2003

Geoscience Australia Minerals Alert
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1. [New Diamond Map – Three decades of diamond exploration on one map](#)
2. [New Yilgarn Craton maps and datasets - data for gold, nickel and base metal explorers](#)
3. [Northeastern Yilgarn seismic survey 2001 - new insights into an important gold province](#)
4. [The tyranny of depth: a three dimensional approach - a aid to gold explorers](#)
5. [New geophysical data West Musgrave region Western Australia](#)
6. [Outlook for mineral exploration](#)

New Diamond Map – Three decades of diamond exploration on one map

This new 1:5 million scale map shows Australia's operating diamond mines, major alluvial occurrences, as well as more than 500 intrusions of kimberlites, lamproites, ultramafic lamprophyres and related rocks, a small number of which carry diamonds. Most of these were discovered in the course of diamond exploration by companies over the last 30 years and this information has been generously provided for incorporation in the map. The map is available in two formats: (A) as a pdf file which you can download free from the Geoscience Australia website (http://www.ga.gov.au/rural/projects/NAP_results_products.jsp) or (B) As a hard copy map for \$55 (\$77 laminated), including GST, from the Geoscience Australia Sales Centre (PH +61 (0)2 6249 9519, Email: sales@ga.gov.au). For further information about the map, please contact Lynton Jaques: Telephone: +61 (0)2 6249 9745, Email: lynton.jaques@ga.gov.au

New Yilgarn Craton maps and datasets - data for gold, nickel and base metal explorers

"Yilgarn Craton aeromagnetic interpretation" and "Leonora-Neale transect solid geology" maps and datasets are now available for free download. The Yilgarn Craton map/dataset principally addresses the distribution of Archaean rocks in southwestern Australia, including undivided gneiss-migmatite-granite, banded gneiss, granite plutons, sinuous gneiss, and greenstone. The Leonora-Neale transect map/dataset, of the Eastern Goldfields of Western Australia, provides a setting for a new 3-D model of the area, and a basis for analysing the seismic reflection lines acquired in 2001. Both maps/datasets provide geological context for significant deposits (gold, nickel, base metals, phosphate, and rare-earth elements). The maps are provided as PDF files, so you can download and print them. More information: http://www.ga.gov.au/rural/projects/20011019_19.jsp#ylg1mag

Northeastern Yilgarn seismic survey 2001 - new insights into an important gold province

This project included the collection of the two deep seismic reflection traverses that crossed the Leonora-Laverton region of Western Australia's Eastern Goldfields Province in the Yilgarn Craton before heading eastwards to the Yamarna greenstone belt and then into the Officer Basin. These traverses provide new information on the crustal architecture of the northern portion of the Eastern Goldfields. The results indicate significant variations in structural style between this region and the Kalgoorlie Terrane. Seismic reflection data for lines 01AGS-NY1 and 01AGS-NY3 are now available. Use the following web address to order the data, view migrated section images and to view acquisition, processing, release and tectonic setting information. More information: http://www.ga.gov.au/rural/projects/pmdcrc.jsp#seis_data

The tyranny of depth: a three dimensional approach - a aid to gold explorers

A highlight from a Geoscience Australia-pmd*CRC-Geological Survey of Western Australia presentation at Mining 2002 Resources Convention was the 3D geological model developed for the Yarmana greenstone belt in the far eastern Yilgarn Craton. This greenstone belt is prospective because it is poorly exposed, has been relatively little explored, and is adjacent to a deep east-dipping crustal-penetrating shear zone. Elsewhere in the Eastern Goldfields, deep crustal shear zones are adjacent to world-class orogenic gold deposits. More information: http://www.ga.gov.au/rural/projects/pmdcrc_reshigh.jsp

New geophysical data West Musgrave region Western Australia

The Geological Survey of Western Australia and Geoscience Australia will be releasing airborne geophysical survey data over the West Musgrave region of Western Australia covering parts of the Scott and Cooper 1:250 000 Sheet areas. The data in the release will include new data flown in 2002 (45 000 line km) and private company data flown over the Jamieson Range in 1998 (13 000 line km). Although nickel sulphides have recently been discovered in the West Musgraves, the region has not yet been intensively explored. For more information contact ian.hone@ga.gov.au

Outlook for mineral exploration

Two papers and a conference presentation by Geoscience Australia staff discussing the current state of and outlook for mineral exploration in Australia have been posted on the Geoscience Australia website. All three items are available as pdf files at http://www.ga.gov.au/rural/projects/20011018_17.jsp

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