Australian Government

Geoscience Australia

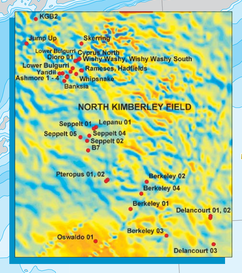
Australian Diamond Deposits, Kimberlites, and Related Rocks

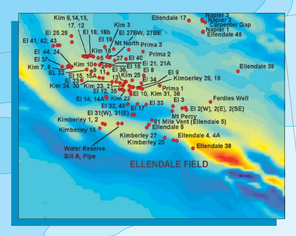
SCALE 1:5 000 000

100 0 100 200 300 400 500

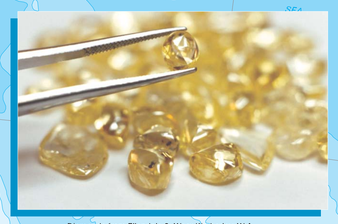
Kilometres

LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian : 134°E Standard Parallels : 18°S, 36°S
Geocentric Datum of Australia 1994





Mining operations at Ellendale, West Kimberley, W.A.
(Photo courtesy of Kimberley Diamond Company NL).



Diamonds from Ellendale 9, West Kimberley, W.A.
(Photo courtesy of Kimberley Diamond Company NL).

Diamonds from Argyle Mine, East Kimberley, W.A.
(Photo courtesy of Argyle Diamonds).

Rio Tinto's Argyle diamond mine in the East Kimberley region of W.A. produces ~22% of the world's supply of natural diamonds. Mining at the Argyle AK1 pipe commenced in 1985.
(Photo courtesy of Argyle Diamonds).

Jungiila Bunajina, Australia's largest diamond weighing 104.73 carats, recovered from Merlin (Gareth pipe), N.T., in 2002.
(Photo courtesy of Argyle Diamonds).

Diamond deposits

PIPE
- Mine - operating
- Mine - undeveloped

ALLUVIAL
- Mine - operating
- Mine - closed
- Mine - historic
- Occurence

Intrusions

RECENT
- Alkali basalt

TERTIARY
- Alkali basalt

MIOCENE
- Lamproite
- Leucitite

MESOZOIC
- Alkali basalt
- Kimberlite
- Lamprophyre

JURASSIC
- Alkali basalt
- Kimberlite
- Lamprophyre

PERMIAN
- Alkali basalt

DEVONIAN
- Kimberlite

ORDOVICIAN
- Lamprophyre

NEOPROTEROZOIC
- Carbonatite
- Kimberlite
- Lamprophyre

MESOPROTEROZOIC
- Alkali basalt
- Kimberlite
- Lamproite
- Lamprophyre

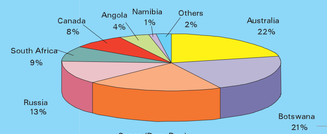
PALAEOPROTEROZOIC
- Carbonatite
- Kimberlite
- Lamprophyre

ARCHAEAN
- Lamprophyre

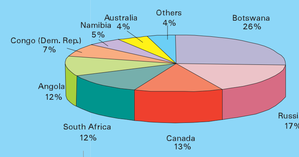
Note: Alkali basalt locations are restricted to those where garnet-peridotite xenoliths or xenocrysts have been reported in the literature

Known diamondiferous fields and locations on the main map are labelled in italic type

World Natural Diamond Production 2003 (carat)



World Natural Diamond Production 2003 ($US)



Others: Ghana, Brazil, Central African Republic, Sierra Leone, Guinea, Tanzania

Source: (Diamond facts - 2004 Diamond Industry Report. Northwest Territories, Canada.)

http://www.gov.nt.ca/RWED/diamond/industry.htm

GDA

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The magnetic image was derived from the Magnetic Anomaly Map of Australia grid (Tarlovski, C., Milligan, P.R., and Mackey, T.E., 1996, Magnetic Anomaly Map of Australia, Second Edition, 1:5 000 000 scale map, Geoscience Australia, Canberra). It is a grey-scale total magnetic intensity image of Australia enhanced using a sun angle illumination from the northeast. The permission of the Northern Territory Department of Business, Industry and Resource Development, New South Wales Department of Primary Industries, Queensland Department of Natural Resources and Mines, Department of Primary Industries and Resources South Australia, Department of Infrastructure, Energy and Resources Tasmania, Department of Primary Industries Victoria, and Department of Industry and Resources Western Australia for the incorporation of their data in the magnetic image is gratefully acknowledged. The image has been overlain by major geological regions, labelled in brown text, to assist with positional context of deposit localities. Insets show individual locations overlain on a colour image of the total magnetic intensity.

Locational and other information for the diamond deposits and kimberlites, lamproites, ultramafic lamprophyres, carbonatites, and garnet-peridotite facies alkali basalts is taken from published information, and unpublished information provided by Rio Tinto Ltd (formerly CRA Exploration Pty Ltd), De Beers Australia Exploration Ltd, Striker Resources NL and Kimberley Diamond Company NL, data from the WADME Minedex, the NTGS Modat database, and the Queensland Department of Natural Resources and Mines.

It is recommended that this map be referred to as:
Jaques, A. L., 2004, *Australian diamond deposits, kimberlites, and related rocks* 1:5 000 000 scale map, Geoscience Australia, Canberra.

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