
The Parliament of the Commonwealth of Australia

Exploring: Australia's Future

— impediments to increasing investment in minerals and
petroleum exploration in Australia

House of Representatives
Standing Committee on Industry and Resources

21 August 2003
Canberra

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Foreword

“Who’d have thought geology could be so compelling” (book review of Krakatoa by Simon Winchester in Good Weekend 7 June 2003)

This House of Representatives Standing Committee on Industry and Resources inquiry was about geology, or more descriptively, investment in Australia’s exploration geosciences leading to discovery. It was not about mining!

Resources exploration is about predicting where concentrations of valuable minerals or hydrocarbons may be located within the earth’s crust. A good deal of the resources exploration process involves abstract thinking - the construction of concepts. Exploration continues with observation, characterisation, the testing of ideas, and the screening and correlation of measurements. Good explorers dedicate themselves to unravelling the apparent vagaries of nature.

The discovery task is clearly not easy because there are many exploration programs that come to nothing. The risks are high, but the potential rewards can be huge. Good exploration ultimately is an exercise in risk reduction.

The Terms of Reference for this inquiry were received by the Committee in May 2002 and in the period since then, a balanced spread of submissions and witness evidence were received from Australia’s minerals and petroleum companies, government agencies, community groups, industry peak bodies, research institutions and individuals.

The Committee’s task was to investigate impediments to investment in minerals and petroleum exploration. Aggregate expenditure on resources exploration has been falling away since the mid 1990s and perhaps as a result, significant new discoveries are not being made.

In contrast, the minerals mining and the oil and gas production side of the resources industry, the downstream side, has been steaming along at full pace. However, the message was clear, in order to sustain the current significant levels of Australian resources industry output and resultant exports, there has to be a continuing feed of new discoveries into the production stream.

Whilst recognising the inevitable link between the resources exploration process and mining, and despite being plied with a lot of mining data, the Committee strictly limited its deliberations to the upstream (exploration) end of the resources continuum.

The Committee noted niches of despair in the resources exploration industry. Explorers said they just could not get on to the ground. If they eventually gained access, they found they had insufficient funds to test their sites adequately for the target mineral concentrations or petroleum accumulations.

There is no doubt that the exploration industry has been hit by the brutal realisation that it has experienced a paradigm shift in the way it must do things to have a chance of making new discoveries. Exploration ground rules have changed profoundly over the last decade or so; globalisation, Native Title, lack of investment funds, competition for speculative investment dollars; they have all played roles in reducing investment support for an industry portrayed by some as “old economy”, a tag roundly rejected by the Committee.

Governments too are facing significant change in their interactions with the resources industry. They are increasingly taking responsibility for the redressing of the exploration downturn by providing, *inter alia*, upgraded regional geoscientific datasets.

The thrust of the Committee’s recommendations has been to build industry recovery on good science through a collaborative approach with the Northern Territory, the States and the industry. The approach is directed at optimising technical research output and investment in the intellectual skills of the exploration geoscientists. There is not much point in perfecting issues of an administrative nature, like policy and legislation, if the technical challenges are not mastered and the science is not first class.

Exploration is a confidence thing for practitioners and investors alike.

As well as canvassing the issues included in the Terms of Reference, resources endowment and drawdown, industry structure, capital supply, land access and project approvals, data availability, Indigenous community relations and regional development, the inquiry also touched on geoscience R&D, professional education and what could be termed as the “discovery culture”.

One fundamental that emerged during the course of the inquiry was that if there are some world-class resources discoveries, or even just one, in a short space of time in Australia, the resultant exploration momentum generated would be such that the problem of insufficient investment flowing into the resources exploration industry would probably evaporate.

With solid long-term investment support, the industry's problems will substantially disappear.

My sincere thanks are directed to my Committee colleagues who have worked diligently to master the complexities of exploration geoscience. Together the Committee members have come up with recommendations of substance that, if implemented, can make a difference to Australia's resources exploration future.

The staff of the secretariat have been hugely supportive throughout the inquiry process and I express my appreciation to them too.

As a final word, my assessment is that the Committee, after wrestling with a diverse array of technical jargon during the course of the inquiry, found "geology to be surprisingly compelling".

Geoff Prosser MP
Chair



Membership of the Committee

Chair The Hon Geoff Prosser, MP

Deputy Chair The Hon Dick Adams, MP

Members Mr Anthony Byrne, MP (to 21 October
2002)

Mr Don Randall, MP

Mr Joel Fitzgibbon, MP (from 27 June
2002)

Mr Alex Somlyay, MP (to 25 June 2002)

Mr Steve Gibbons, MP (to 24 June 2003)

Mr Cameron Thompson, MP

Mr Barry Haase, MP

Mr Ken Ticehurst, MP (additional member
for this inquiry, from 19 August 2002)

Mr Michael Hatton, MP

Mr David Tollner, MP (from 25 June 2002)

The Hon Leo McLeay, MP (from 24 June
2003)

Dr Mal Washer, MP

Committee Secretariat

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Inquiry Secretary	Mr Fred Cook
Consultant	Mr John Cummins
Research Officer	Mr Alex Stock
Administrative Officer	Ms Maria Pappas



Terms of reference

On 24 May 2002 the Minister for Industry, Tourism and Resources, the Hon Ian Macfarlane MP, referred the following inquiry to the committee.

That the committee inquire into and report on any impediments to increasing investment in mineral and petroleum exploration in Australia, including:

- An assessment of Australia's resource endowment and the rates at which it is being drawn down;
- The structure of the industry and role of small companies in resource exploration in Australia;
- Impediments to accessing capital, particularly by small companies;
- Access to land including Native Title and Cultural Heritage issues;
- Environmental and other approval processes, including across jurisdictions;
- Public provision of geoscientific data;
- Relationships with indigenous communities; and
- Contributions to regional development.



List of abbreviations

3D Seismic	Three dimensional seismic imaging technology
ABARE	Australian Bureau of Agricultural and Resource Economics
ABS	Australian Bureau of Statistics
AGWA	Auditor General for Western Australia
AHC	<i>Australian Heritage Commission Act 1975</i>
AIG	Australian Institute of Geoscientists
ALRA	<i>Aboriginal Land Rights (Northern Territory) Act 1976</i>
AMEC	Association of Mining & Exploration Companies (Inc)
ANAO	Australian National Audit Office
APCRC	Australian Petroleum Cooperative Research Centre
APPEA	Australian Petroleum Production & Exploration Association Ltd
ASX	Australian Stock Exchange
ATO	Australian Taxation Office
BOE	Barrel of Oil Equivalent
CEO	Chief Executive Officer
CRC	Cooperative Research Centre
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DITR	Department of Industry, Tourism and Resources

EDR	Economic Demonstrated Resources
EEZ	Exclusive Economic Zone
EPA	Environment Protection Agency
EPBC	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
GA	Geoscience Australia
Heritage Protection Act	<i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i>
ILUA	Indigenous Land Use Agreement
IPA	Indigenous Protected Area
IPO	Initial Public Offering
IUCN	International Union for Conservation of Nature
JORC	Joint Ore Reserves Committee
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
LTBR	Long Term Bond Rate
MCA	Minerals Council of Australia
mmbbl	million barrels
NNTT	National Native Title Tribunal
P(SL)A	<i>Petroleum (Submerged Lands) Act 1967</i>
PRRT	Petroleum Resource Rent Tax
R&D	Research and Development
SA	South Australia
SMS	Sydney Marine Sand Pty Ltd
UK	United Kingdom
US, USA	United States of America
WA	Western Australia



List of recommendations

3 Corporate Structure, Capital Raising and Taxation

Recommendation 1

The Minister for Industry, Tourism and Resources facilitate meetings between appropriate industry representative bodies and the Australian Stock Exchange to develop quality control and risk assessment guidelines to assist minerals and petroleum exploration companies to assemble high quality Initial Public Offerings that can achieve market acceptance and support.

Recommendation 2

The Minister for Industry, Tourism and Resources in conjunction with the Treasurer investigate the introduction of a Flow-Through Share Scheme for companies conducting eligible minerals and petroleum exploration activities in Australia.

Recommendation 3

The Petroleum Resource Rent Tax be reviewed to investigate the options of:

- Raising the carry forward rate for un-deducted general project related expenditures from the long term bond rate plus five percentage points to a minimum of the long term bond rate plus ten percentage points;
- Allowing undeducted exploration expenditure incurred more than five years prior to the provision of a production licence to be compounded forward at the Long Term Bond Rate plus 15 percentage

points for the first five years and then, for the subsequent years, compounded forward at the Long Term Bond Rate; and

- Reducing the PRRT rate for petroleum production from newly discovered accumulations in waters of greater than 400 meters depth, and according to a production plan deemed by the Minister for Industry, Tourism and Resources to be in the national interest.

Recommendation 4

The administration of retention leases be reviewed to require:

- Work program technical details (excluding financial information), relating to retention leases issued to petroleum exploration companies under the *Petroleum (Submerged Lands) Act 1967*, be made public;
- Holders of retention leases under the *Petroleum (Submerged Lands) Act 1967* applying for re-issue of those retention leases, show cause why those retention leases should not be made contestable after expiry of the first five years of tenure, and any subsequent five years of tenure.

Recommendation 5

The Minister for Industry, Tourism and Resources and appropriate petroleum production and exploration peak bodies, review the feasibility of a “liquids identification” bounty scheme for junior exploration companies to encourage them to explore the margins of on-shore production basins for small accumulations of petroleum liquids.

4 Pre-Competitive Geoscience Data Acquisition

Recommendation 6

The Minister for Industry, Tourism and Resources seek additional funds to enable Geoscience Australia to accelerate onshore pre-competitive data acquisition programs.

Recommendation 7

The Minister for Industry, Tourism and Resources seek the collaboration of the states and the Northern Territory through the Ministerial Council on Minerals and Petroleum Resources, to conduct an airborne gravity gradiometry survey of the Australian landmass.

Recommendation 8

The Minister for Industry, Tourism and Resources seek the collaboration of the states and the Northern Territory through the Ministerial Council

on Minerals and Petroleum Resources, to conduct a series of ground truthing drill programs to definitively test selected geophysical and geochemical anomalies to maximise the worth of existing geoscientific datasets.

Recommendation 9

The Minister for Industry, Tourism and Resources establish an advisory board charged with the oversight of the strategic direction, monitoring of performance and quality control of Geoscience Australia's pre-competitive programs. Such a board should, ideally, include Northern Territory and state government representatives as well as representatives from appropriate minerals sector and petroleum sector peak bodies.

5 Geoscience Research and Education

Recommendation 10

The National Task Force proposed by the CSIRO Division of Exploration and Mining be supported financially and charged with the task of implementing the proposal entitled *Australia's Exploration Future* to provide (in its words) breakthrough concepts, knowledge methods and techniques for transfer to minerals explorers.

Recommendation 11

CSIRO Petroleum, through its membership of the Australian Petroleum Cooperative Research Centre, encourage research into cost-effective innovation of petroleum exploration technologies such as three dimensional seismic imaging technology, for onshore petroleum exploration.

Recommendation 12

The Department of Industry, Tourism and Resources in conjunction with the Department of Education, Science and Training discuss with appropriate peak bodies and professional associations to develop, in collaboration with universities, tertiary-level short courses to encourage excellence in minerals and petroleum exploration management culture, innovative operational approach and optimisation of the national geoscientific knowledge base.

6 Titles

Recommendation 13

The Minister for Industry, Tourism and Resources, through the Ministerial Council on Minerals and Petroleum Resources, collaborate to establish and implement nationally consistent resources exploration title management processes. Attention should be directed towards exploration title type, conditions, tenure, charges, reporting requirements and administration, with the view to having a nationally harmonised regime.

Recommendation 14

The Minister for Industry, Tourism and Resources, through the Ministerial Council on Minerals and Petroleum Resources, work with the Northern Territory and state ministers to establish harmonised and efficient procedures for processing applications for offshore mining and exploration licences under the *Offshore Minerals Act 1994*.

Recommendation 15

The Minister for Industry, Tourism and Resources establish a function in the Department of Industry, Tourism and Resources to take the lead role in coordinating and expediting the Commonwealth, Northern Territory and state (as appropriate) processes for the approval of onshore and particularly offshore petroleum exploration permits.

Recommendation 16

The Minister for Industry, Tourism and Resources, through the Ministerial Council on Minerals and Petroleum Resources, work with the Northern Territory and state ministers to investigate the feasibility of introducing to all Australian jurisdictions, optional conjunctive exploration/production titles combined with uniform mandatory relinquishment requirements.

Recommendation 17

The Minister for Industry, Tourism and Resources, through the Ministerial Council on Minerals and Petroleum Resources, work with the Northern Territory and state ministers to store all public domain geoscientific data (legacy and pre-competitive) in digital form in a national data repository.

7 Exploration and Native Title

Recommendation 18

Income tax legislation be amended to allow one hundred percent immediate deductions for expenditure incurred in conducting negotiations required by the *Native Title Act 1993* or *Aboriginal Land Rights (Northern Territory) Act 1976*, whichever applies, for the purposes of permitting minerals and petroleum exploration to proceed.

Recommendation 19

The Attorney-General and the Minister for Immigration and Multicultural and Indigenous Affairs, in consultation with relevant state and Northern Territory Ministers, provide additional resources to Native Title representative bodies. The resources should be targeted and limited to support activities that facilitate negotiation processes.

Recommendation 20

The Attorney-General, the Minister for Industry, Tourism and Resources and the National Native Title Tribunal liaise with state and the Northern Territory governments and the resources industry to promote the use and better understanding of the expedited procedures contained in sections 32 and 237 of the *Native Title Act 1993*, for low impact exploration.

Recommendation 21

The Minister for Immigration and Multicultural and Indigenous Affairs implement a simplified and accelerated process for granting exploration licences on land granted under the *Aboriginal Land Rights (Northern Territory) Act 1976* with a view to reducing the economic transaction costs emanating from the existing provisions of the Land Rights Act.

Recommendation 22

The Minister for Environment and Heritage consult with state and Northern Territory counterparts to formulate an action plan to review and amend the legislation governing the management and protection of Indigenous cultural heritage to ensure that it is consistent across all states and the Northern Territory.

Recommendation 23

The Minister for Environment and Heritage ensure that the International Union for Conservation of Nature category related to multiple land use is the adopted conservation management option for Indigenous Protected Areas.

8 Environmental and Other Approval Regimes

Recommendation 24

Environment Australia consult with the resources industry as a matter of urgency to finalise sufficiently detailed sectoral guidelines for mineral exploration activity – both terrestrial and offshore - contained in the *EPBC Act Administrative Guidelines on Significance*.

Recommendation 25

The Minister for Environment and Heritage and the Minister for Industry, Tourism and Resources amend the environmental approval processes under the *Environmental Protection Biodiversity Conservation Act 1999* and the *Petroleum (Submerged Lands) Act 1967* (and associated regulations) to ensure the consistency and harmonisation of requirements.

Recommendation 26

The Minister for Environment and Heritage and the Minister for Industry, Tourism and Resources harmonise Commonwealth, state and Northern Territory environmental and cultural heritage regulatory regimes as they affect the resources exploration (and production) industry.

9 Resources Exploration and the Community

Recommendation 27

The Minister for Industry, Tourism and Resources bring together representatives of Indigenous communities and resources exploration interests to facilitate them developing a better appreciation of the sensitivities of all parties involved in negotiating land access for exploration purposes under the *Native Title Act 1993* and the *Aboriginal Land Rights (Northern Territory) Act 1976*.

Recommendation 28

The Attorney-General and the Minister for Immigration and Multicultural and Indigenous Affairs, in consultation with relevant state ministers, consider introducing transparent accountability processes and guidelines to encourage fair and reasonable compensation outcomes for access to land for exploration purposes in Indigenous Land Use Agreements under the *Native Title Act 1993*. Such accountability mechanisms should form a requirement for acceptance of any additional administrative funding provided to Native Title representative bodies.

The Minister for Immigration and Multicultural and Indigenous Affairs, in consultation with the Northern Territory government, consider introducing transparent accountability processes and guidelines to encourage fair and reasonable compensation outcomes for access to land for exploration purposes in Part IV agreements under the *Aboriginal Land Rights (Northern Territory) Act 1976*.

