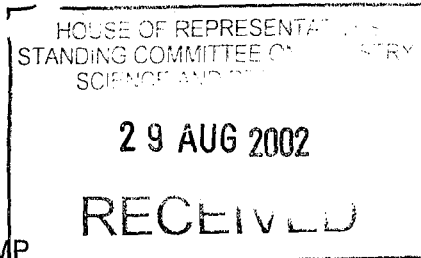


28 August 2002



**MINERALS
COUNCIL**

The Hon Geoff Prosser MP
Chair
Standing Committee on Industry and Resources
*Inquiry into any impediments to increasing investment
in mineral and petroleum exploration in Australia*
House of Representatives
Parliament House
CANBERRA ACT 2600

House of Representatives Standing Committee on Industry and Resources
Submission No: <u>81</u>
Date Received: <u>29 AUGUST 2002</u>
Secretary: <u>B. Forbes</u>

Dear Mr Prosser

**RE: MINERALS COUNCIL OF AUSTRALIA SUBMISSION TO THE INQUIRY INTO
ANY IMPEDIMENTS TO INCREASING INVESTMENT IN MINERAL AND
PETROLEUM EXPLORATION IN AUSTRALIA**

Please find attached a submission from the Minerals Council of Australia to the *Inquiry into any impediments to increasing investment in mineral and petroleum exploration in Australia*.

We sincerely apologise for the delay in making this submission and greatly appreciate the extension of time to do so.

The Minerals Council of Australia welcomes the Committee's Inquiry into impediments to increasing investment in mineral and petroleum exploration in Australia. The Minerals Council of Australia is the national body representing the exploration, mining and minerals processing industry of Australia. Members of the Council are responsible for around 85 per cent of Australian minerals production and a slightly higher percentage of our mineral exports.

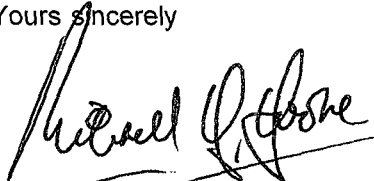
The Australian minerals sector is a diverse, capital intensive, export oriented industry. The minerals industry is an industry of considerable size and economic and social significance, benefiting all Australians both directly and indirectly. To continue to do so in the future, the industry depends on ongoing improvements to the regulatory environment in which it operates – including, importantly addressing policy impediments to on-going minerals exploration in Australian and moreover the revitalisation of Australia's national resource inventory.

In this context, the Council's submission to the Inquiry focuses on three main areas:

- I. The Industry and its National Resource Inventory – a stocktake of the industry and its importance and issues around the national resource inventory;
- II. Impediments to Minerals Exploration – an identification of the economic circumstances and regulatory factors that are impediments to resource exploration; and
- III. Remedies – policy recommendations to address the impediments identified in Part II.

The Council would very much welcome the opportunity to meet with you and the other Committee members to discuss these issues should you wish.

Yours sincerely


MITCHELL H. HOOKE
CHIEF EXECUTIVE

MHH:DMD

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**SUBMISSION BY THE MINERALS COUNCIL
OF AUSTRALIA**

TO THE

**HOUSE OF REPRESENTATIVES STANDING
COMMITTEE ON INDUSTRY AND RESOURCES**

***INQUIRY INTO ANY IMPEDIMENTS TO
INCREASING INVESTMENT IN MINERAL
AND PETROLEUM EXPLORATION
IN AUSTRALIA***

AUGUST 2002



**MINERALS
COUNCIL**
OF AUSTRALIA

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EXECUTIVE SUMMARY AND RECOMMENDATIONS

INTRODUCTION

This submission to the House of Representatives Standing Committee on Industry and Resources *Inquiry into any Impediments to Increasing Investment in Mineral and Petroleum Exploration in Australia* is made by the Minerals Council of Australia.

The Minerals Council of Australia is the peak, national organisation representing the exploration, mining and minerals processing industry in Australia. The membership of the Council accounts for in the order of 85 per cent of Australian minerals production and a slightly higher percentage of Australia's mineral exports.

The Council's development of this submission was informed by a set of fundamental policy principles that were used to test its recommendations and proposed actions.

THE IMPORTANCE OF MINERALS TO AUSTRALIA

National and regional importance

The minerals industry is an industry of considerable size and economic and social significance, benefiting all Australians both directly and indirectly.

The industry is vital for the well being of remote and regional Australia. This is evident from the activity in, for example, coal, iron ore, gold, bauxite, manganese and other minerals that are typically mined in remote areas. Many people are apt to assume that the benefits of such national development are transient. They are not, for the wealth created by successful mineral discoveries often provides the capital and improved infrastructure for other developments and they enhance the health, education and welfare of our most crucial resource – people.

In addition, there are strong links between the operations of the minerals industry and the lives of ordinary Australians living, for the most part, in the cities and urban centres.

Minerals industry distinctive characteristics

The industry the Council represents is diverse, commodity oriented, technologically advanced, capital intensive, characteristically high risk / high reward, heavily export oriented and increasingly profoundly globally aware and internationally integrated.

Many of the industry's operational characteristics are synonymous with other commodity sectors, but it does have unique, differentiating characteristics.

A strategic producer in a global market

Australia's minerals industry has successfully demonstrated its capacity to operate in highly competitive international markets and an increasingly globalised economy. The industry's future performance will depend in part on economic conditions in Australia maintaining that competitive edge given increased globalisation of the industry. This will see established and emerging producers elsewhere looking to achieve the same economic success that Australia has had for an expanding minerals industry. Its future performance will also depend on continuing improvements to the regulatory environment in which the industry operates – including, importantly addressing policy impediments to on-going minerals exploration in Australian and moreover the revitalisation of Australia's national resource inventory.

AUSTRALIA'S MINERAL RESOURCES – THE NATIONAL INVENTORY

Australia's mineral resources and the rates at which they are being 'drawn down'

Geoscience Australia, Australia's national agency for geoscience research and information, has reported on Australia's mineral resource levels (the national resource inventory) for a range of minerals since 1975. The most recent report notes Australia continued its position as one of the world's leading minerals nations.

Australia has the world's largest economic demonstrated resources (EDR, mineral resources for which profitable extraction or production is possible) of lead, mineral sands, nickel, tantalum, uranium and zinc. In addition, its level of EDR is in the top six worldwide for bauxite, black coal, brown coal, cobalt, copper, gold, iron ore, lithium, manganese ore, rare earth oxides and gem/near gem diamond. This contrasts with Australia's EDR of platinum group metals, which are extremely small. In addition, Australia lacks substantial resources of chromium.

Geoscience Australia's estimates and the role of the JORC Code

Geoscience Australia's work is based on a collation of public company reports (supplemented by Geoscience Australia's own internal assessments). These reports in turn are based on the requirements of the 1999 *Code for Reporting of Mineral Resources and Ore Reserves* (the JORC Code) which sets out a minimum standard for reporting of exploration results, Mineral Resources and Ore Reserves in Australasia. The JORC Code is widely regarded as a world leader and has significantly influenced the development of similar codes in Canada, South Africa, South America, the United Kingdom, Ireland and Europe.

Australia's national resource inventory

Geoscience Australia's assessments over the period since 1975 reveal:

- EDR for all major mineral commodities have, on average, either increased or been maintained despite substantial levels of production; and
- EDR has not have decreased significantly for any major commodity.

The national resource inventory and the future viability of commodity sectors

Australia is a major producer and exporter of over twenty mineral commodities. Australia is among the top three producers of ten of the most valued mineral commodities, including gold, diamond, zinc, tantalum and nickel.

Estimates of EDR/production ratios provide an indication of how many years it will take to exhaust the current levels of EDR if current production rates are maintained. In this way, the ratios provide a partial indicator of the future viability of sectors of the minerals industry.

The EDR/production ratio is a national level parameter that is based on an overall assessment rather than the current commercial objectives of the companies holding the resource. Thus, while Geoscience Australia's EDR/production ratios provide information at a national level, in the Council's view they represent an overestimate (or at best a maximum estimate) of the national resource inventory for a particular mineral commodity.

Australia has major resources of coal, bauxite, and iron ore. By contrast, resources of zinc and particularly gold have a significantly lower EDR/production ratio, indicating these known resources are not sufficient to support current production levels beyond the medium-term. Clearly, major new discoveries of these commodities are required to sustain production on a long-term basis.

The Council notes that any tendency to just look at existing resources for existing mines would not take into account the long lead times involved in bringing an operation into production and the fact that discoveries are becoming harder and harder to find.

In addition, the Council notes there are a number of reasons to not be complacent about the state of Australia's national resource inventory and Australia's future prospectivity without ongoing exploration.

The importance of the public provision of geoscience data

Public provision of geoscience data plays a vital role in minerals exploration in Australia. The Minerals Council of Australia supports the valuable role of Geoscience Australia in this area.

The private market for so-called "pre-competitive" geoscience data is characterised by a number of "market failures", including positive externalities, public good attributes and the presence of high levels of uncertainty and risk. These market failures mean private provision of "pre-competitive" geoscience data will be lower than is socially desirable. The public provision of such geoscience data acts to correct this market failure.

In addition, the provision of geoscience data is a key way in which Australia maintains its international competitiveness in mineral exploration. All major mineral nations provide public geoscience data as a means to maintain or stimulate exploration expenditure.

Therefore, the Minerals Council of Australia recommends:

- **increased funding be provided for Geoscience Australia from the 2003-04 Commonwealth Budget (and over the forward estimates period); and**
- **that this increased funding be conditional on formal consultation with the minerals industry to focus the increased funding on the areas of Geoscience Australia's work program that will provide the greatest direct benefit to the minerals exploration industry in Australia.**

MINERAL EXPLORATION IN AUSTRALIA

The mineral exploration process

Exploration involves the search for new ore occurrences and/or appraisal intended to delineate or extend the limits of known deposits of minerals by geological, geophysical, geochemical, drilling or other methods. Information relating to these ore occurrences can be collected directly, through drilling for example, or indirectly, through data analysis using resource estimation software, for example.

Australia's recent mineral exploration history

Gold has accounted for the major share of real mineral exploration expenditure over the past two decades. The share of gold exploration expenditure in total Australian exploration expenditure was 53 per cent in 2000-01, slightly below the average share of 57 per cent in the 1990s but higher than the average share of 42 per cent in the 1980s. The share of base metals and nickel increased to 26 per cent in 2000-01, compared with an average of 23 per cent in the 1990s and 1980s. Over the past two decades, the shares for mineral sands and iron ore have increased, while the shares for coal and uranium, diamonds and the other category have decreased.

Recent trends, Australian mineral exploration 1990-91 to 1999-2000

Exploration for minerals (non-petroleum) steadily increased between 1992-93 and 1996-97 (increasing by 83 per cent during this period) but has fallen since then (by 41 per cent between 1996-97 and 2000-01).

Changes in expenditure on exploration for gold has been the driver behind the overall exploration expenditure results. Since 1996-97, mineral exploration expenditure in Australia has declined by 44 per cent to \$683 million in 2000-01, the lowest level since 1978-79. The outcome in 2000-01 is \$41 million lower than the 1991-92 trough and \$91 million lower than the 1985-86 trough.

The recent downturn is largely due to reduced spending on exploration for gold and base metals, although exploration expenditure has also declined in recent years for coal and uranium, diamonds and iron ore.

Factors affecting the decline in mineral exploration expenditure since 1996-97

A number of factors contributed to the decline in exploration expenditure that has taken place since 1996-97. The decline reflects the impact of a number of economic circumstances and the impact of a number of regulatory factors. While the impact of the economic circumstances facing the industry are undoubtedly fundamental, the regulatory factors deserve special attention, as they may in some cases provide evidence of "market failure" and policy impediments to the efficient level of mineral exploration expenditure in Australia and thus be amendable to policy interventions and/or corrections.

Economic circumstances

Some of the major economic circumstances contributing to the significant fall in exploration expenditure that has taken place since 1996-97 include:

- changes in commodity prices;
- access to capital, particularly venture capital for "junior" exploration companies;
- the relatively low profitability of the minerals industry in Australia during this period; and
- the relative 'maturity' of the Australian exploration environment.

Regulatory factors

Some of the major regulatory factors contributing to the significant fall in exploration expenditure that has taken place since 1996-97 include:

- native title legislation;
- environmental legislation;
- legislative, policy and decision-making developments related to protected areas;
- cultural heritage legislation;
- operating requirements for exploration activities relating to tenements, the environment and cultural heritage; and
- fiscal arrangements.

Global exploration – Australia in context

Any analysis of exploration expenditure trends in Australia must place these trends in the context of global exploration experiences. The recent downturn in mineral exploration in Australia has coincided with a substantial fall in global mineral exploration.

Importantly, within this overall trend there are a number of features of the downturn in minerals exploration in Australia that are unique. These include:

- minerals exploration expenditure in Australia has experienced a structural change in recent years, with most of the current exploration expenditure on relatively more 'mature' leases, involving later stage exploration;
- later stage exploration is typically significantly more "expensive" (in terms of total financial resources committed to this stage of an exploration project) than early stage exploration – this structural shift may be masking the magnitude of the decline in some jurisdictions; and
- the result in recent years has been that more and more of this early stage exploration expenditure is occurring overseas – this implies that future mining developments will also occur overseas rather than in Australia.

Overseas Exploration Expenditure by Australian minerals companies

Also relevant to the global nature of competition for exploration expenditure is expenditure by Australian minerals companies on overseas exploration.

The major areas for overseas exploration in 2000-01 were South America, North America, Africa and Asia.

Decisions to explore in Australia or overseas are based on a comparison of a range of factors. These include prospectivity, fiscal and regulatory arrangements, sovereign risk and the cost of access to land. Analysis of the broad allocation of exploration expenditure shows that the increase in overseas exploration expenditures has been particularly marked in the first half of the 1990s, with the proportion of total expenditure by the larger companies devoted to overseas exploration rising significantly. 2000-01 represents only the second fall in the proportion of overseas exploration expenditure in total exploration expenditure since 1990-91.

AUSTRALIA'S MINERAL EXPLORATION INDUSTRY

The Australian minerals industry is an increasingly globalised industry characterised by rationalisation and reconsolidation (to the circumstances of the 1970s) of businesses and operations, increased concentration of ownership, intensified competition and convergence to global sourcing of materials to supply global markets.

These trends have also impacted in a number of ways on the mineral exploration industry in Australia. Most clearly, this has impacted on the structure of the industry, with the large number of mergers and acquisitions in recent years. More subtly, the trends have manifested themselves in the way in which the industry undertakes mineral exploration in Australia, particularly the role of the "junior" exploration companies in this process.

The structure of Australia's mineral exploration industry

The following definitions, based on market capitalisation, can be used to distinguish major sectors of the mineral exploration industry. While the Council has a number of qualifications to these definitions, they do provide a useful starting point in understanding the nature of the industry in Australia:

- "major" production companies: these are large capitalisation mining companies that are major producers and that typically engage in some exploration activity of their total activities;
- mid-sized production companies: these are medium-sized mining companies that are significant producers and that also engage in some exploration activity; and

- “junior” exploration and production companies: these are small capitalisation mining companies that are engaged primarily in exploration.

Most of the Council’s member companies fit into the first two sectors. However, all three sectors of the industry have a vital role to play and a number of important interdependencies.

In considering these definitions, however, the Council considers there to be at least two important qualifications:

- a definition based on market capitalisation does not include unlisted companies, some of which are large and significant entities that undertake significant exploration; and
- based on information held by the Council, many junior exploration and production companies are owned or controlled by the major or mid-size production companies.

Numerically, the vast number of companies in the industry fits into the second or third category. This contrasts with the source of exploration expenditure, with around 80 per cent of exploration expenditure in Australia coming from the major production companies.

The role of “junior” exploration companies and their interaction with larger companies

The industry has reacted also to a poor level of profitability in recent years in a number of ways. One of the key responses was to fundamentally re-examine the performance of exploration expenditure and re-assess the most appropriate structures for undertaking exploration in Australia. Importantly, this has meant that the production majors are increasingly supporting “junior” exploration companies as part of their exploration strategy. This is an acknowledgment of the important role that “junior” exploration companies can and do play in the industry.

The implication of this trend is that the exploration future of the Australian minerals industry depends partly on the ongoing viability of the “junior” exploration sector. To the extent that the “junior” exploration companies face particular policy impediments or market failures specific to their circumstances, policy actions by Government to overcome these impediments or correct these market failures are important.

LAND ACCESS

Access to land for exploration and development is critical to the present and future operations of the Australian minerals industry. Any policies developed, or decision made in relation to land access must provide fair, consistent, effective and equitable access to, and use of land and resources. While access to land and resources is critical, the timeframe within which any decisions are made, and ultimately access is granted, are also of significance. Decision-making processes, in relation to land access, that are timely, transparent and provide certainty are in the interests of all stakeholders.

Native title legislation

The common law recognition of the rights and interests of Australia’s Indigenous peoples has created profound uncertainty and difficulty for the Australian minerals industry. As a result of the native title legislation the processing and granting of tenements that have native title implications has come to a virtual standstill in most Australian jurisdictions. Of particular and immediate concern are the backlogs of tenement applications with native title implications in Queensland and Western Australia.

Similar to the native title legislation, the *Aboriginal Land Rights (Northern Territory) Act 1976* (ALRA 1976) establishes an unduly complex legislative framework that all stakeholders agree is not delivering the intended or required outcomes. Of particular concern with the operation of the ALRA 1976 is the cumbersome nature of the land council structure, which is causing significant delays

in the processing of applications for exploration licences. This ultimately has a detrimental impact on Indigenous peoples and the community as a whole.

With regard to amending the current legislative framework under the *Native Title Act 1993* to provide improved land access for mineral exploration, **the Council makes the following recommendations:**

- **amend existing assessment and decision making processes under the *Native Title Act 1993* in relation to right to negotiate provisions to provide a streamlined assessment and decision making process for providing access to land subject to a native title claim;**
- **provide increased funding for both the National Native Title Tribunal and the Native Title Representative Bodies, particularly in relation to the necessary resources to eliminate the backlog of native title claims and in particular exploration applications;**
- **amend the expedited procedure provisions to limit possible objections (this would also serve to free up resources within the National Native Title Tribunal that are allocated towards assessing objections to the notice stating that the act attracts the expedited procedures); and**
- **amend the provisions in relation to the registration of voluntary agreements (bilateral agreements between industry and Indigenous communities developed outside of the legislative process) as Indigenous Land Use Agreements to remove unnecessary impediments to the registration of such agreements.**

In consideration of the issues associated with the ALR Act, **the Council makes the following recommendation:**

- **amend the *Aboriginal Land Rights (Northern Territory) Act 1976* provisions requiring the full Land Council's ratification of the traditional owners' decisions in relation to exploration submissions to provide that Regional Councils can ratify the decisions of the traditional owners.**

Environmental legislation

Environmental legislation is increasingly being used as *de facto* decision-making processes that have the potential to significantly restrict or prohibit the granting of access to land for mineral exploration (and mining) purposes. Clear differentiation must be made between the purpose of granting a tenement, which is to provide land access, and the purpose of granting an environmental authority, which is to set non-prescriptive conditions that require the activity to be carried out in accordance with certain standards.

There is considerable concern over the potential time delays and costs associated with any duplication of assessment requirements and decision-making processes for exploration applications that may be created by the overlap of Commonwealth and State and Territory environmental legislation.

To address the concerns raised above in relation to the potential for environmental legislation to impact on access to land for mineral exploration, **the Minerals Council makes the following recommendations:**

- **the Commonwealth Government develop guidelines to provide direction to State and Territory Governments to address the potential creation of *de facto* grants for land access through their respective environmental regulatory framework; and**
- **as a matter of urgency, the Commonwealth Government commence the negotiation of bilateral agreements with each State and Territory Government.**

Protected areas

Legislative, policy and decision making developments (particularly at the international level) are increasingly implying, or stating, that exploration (and mining) and protected areas are mutually exclusive.

The minerals industry considers that the impact of any exploration development would be dependent on the exploration (and mining) and rehabilitation technologies to be employed as well as the ecological, cultural or landscape values of the area. In most cases it should be possible to protect these values, yet allow the exploration development to proceed. Regulatory arrangements should therefore not embody the presumption of incompatibility.

The Minerals Council therefore makes the following recommendations:

- **exploration (and mining) and protected areas not be considered as mutually exclusive, and this should be reflected in all relevant legislation;**
- **decisions regarding access to land be based on rigorous scientific assessment and contemporary community attitudes, and be undertaken in such a way that the options for future generations are not foreclosed;**
- **transparent environmental impact assessment processes be used to evaluate exploration (and mining) development proposals and to seek to establish frameworks for the maintenance of identified ecological, cultural or landscape values;**
- **the Commonwealth and State and Territory Governments apply multiple land use principles to exploration and protected areas and develop legislative frameworks that provide for assessment of applications to carry out exploration activities within protected areas on a case by case basis; and**
- **that the Commonwealth and State and Territory Governments establish mechanisms for regulatory offsetting to provide for exploration in protected areas while ensuring there is no net loss of ecological, cultural or landscape values.**

Cultural heritage legislation

The increasing complexity of cultural heritage legislation in Australia, both Indigenous and non-indigenous, has the potential to be a significant impediment to access to land for the Australian minerals industry. Many industry representatives now see the potential for the approval processes and assessment requirements under the relevant cultural heritage legislation to be a bigger issue for land access than native title legislation.

The Minerals Council therefore makes the following recommendations:

- **the Commonwealth negotiate bilateral agreements with the State and Territory Governments to address concerns regarding duplication of assessment processes for cultural heritage;**
- **in developing the criteria to determine whether or not a cultural heritage place is listed as matter of national environmental significance under the *Environment Protection and Biodiversity Conservation Act 1999*, overriding consideration should be given to the legitimate operation of existing mines that are in close proximity to areas of cultural heritage; and**
- **the Commonwealth develop guidelines, in consultation with stakeholders, to provide direction on carrying out cultural heritage surveys. Issues to be addressed include appropriate qualifications, general costs, appropriate survey area and cross cultural awareness.**

OPERATING REQUIREMENTS FOR EXPLORATION ACTIVITIES

The Council recognises that the relevance and importance of operating requirements for exploration activities will vary from state to state, as the relevant assessment and approval processes also vary. The Council's comments are directed at general principles and the Council expects that each State and Territory Chamber or Council will cover these issues in more detail and in the context of their particular circumstances.

Operating requirements relating to tenements

The compulsory relinquishment of exploration tenures over the life of the lease can be seen as an unnecessary restriction to the effective operation of exploration projects. This is in recognition that the purpose of relinquishment is to free up land for exploration.

The Minerals Council makes the following recommendations:

- **legislative requirements in relation to the compulsory relinquishment of exploration tenements should not place unnecessary restrictions on the effective operation of exploration projects; and**
- **State and Territory Governments provide for compulsory grant of mining leases to the company that held the exploration tenement over the area of the proven resource. Such provisions should not limit the ability for the explorer to allocate properties to other companies for development.**

Environmental conditions imposed on exploration approvals

The potential exists for environmental aspects (conditions imposed on exploration approvals) of exploration operations to negatively impact on the operation.

The Minerals Council makes the following recommendations:

- **all rehabilitation bonds should reflect the potential for environmental harm to occur, which in most instances for exploration activities would be very minimal, if not zero**
 - **this is particularly the case given that the administrative cost to Government in collection and holding the bond is likely to be more than the bond; and**
- **the setting of conditions on an environmental approval should not limit the legitimate operation of an exploration activity or restrict the manner in which they meet their legal obligations, that is, conditions should establish standards not prescribe methodologies.**

Cultural heritage surveys

The Council considers that the lack of guidelines or accreditation requirements for persons carrying out cultural heritage surveys can contribute significantly to the costs and time delays associated with carrying out cultural heritage surveys. In consideration of the significant resourcing issues associated with cultural heritage surveys, **the Minerals Council makes the following recommendation:**

- **State and Territory Governments develop guidelines in relation to the carrying out of cultural heritage surveys. The guidelines would address, for example, appropriate qualifications (anthropologist, Indigenous etc), general costs, appropriate survey area and cross cultural awareness.**

TAXATION TREATMENT OF EXPLORATION EXPENDITURE

The treatment of exploration expenditure for tax purposes is an important fiscal parameter. It impacts on an investor's estimate of expected project value prior to the exploration stage and, to a lesser extent, at the development stage, when carried forward exploration expenditures act to reduce the tax liability.

The importance of the taxation treatment of mineral exploration expenditure has been recognised in a number of official reports over the last three decades.

The taxation treatment of exploration expenditure in Australia

Historical treatment

Deductions for exploration expenditure were introduced into the Australian taxation system in 1947, and have undergone a number of amendments since then.

Prior to the enactment of the new Uniform Capital Allowances (UCA) regime from 1 July 2001, subject to a number of conditions, expenditure, whether capital or not, on exploration or prospecting for minerals (including petroleum) and quarry materials, was immediately deductible.

Current treatment

Following extensive discussion with the Minerals Council (discussions that have been ongoing since 1999), the new UCA regime, which came into effect from 1 July 2001, retained the immediate deductibility for expenditure on exploration for minerals obtainable by mining operations.

The new treatment, however, represented three changes to the previous law:

- expenditure on depreciating assets, such as drilling rigs, can still qualify for immediate deduction, but under the general provisions of the UCA regime rather than having unique provisions;
- expenditure on acquiring mining, quarrying information for the purposes of exploration or prospecting is to be immediately deductible; and
- the new treatment does not retain the requirement that, to qualify for the immediate deduction, the taxpayer must carry on, or propose to carry on, eligible operations, or carry on a business of exploration or prospecting for minerals obtainable by eligible operations in relation to the resource.

The Minerals Council strongly supports the continued immediate deductibility of exploration expenditure (subject to our recommendations in this submission), which fits well with the Council's fundamental policy principles. In particular:

- the treatment recognises the high levels of risk associated with exploration and aims to encourage the discovery of new deposits and provide a competitive fiscal regime. The immediate deductibility of exploration expenditure acknowledges that such expenditure is an ongoing and necessary expense of a minerals company;
- the deductibility of exploration and prospecting expenditure can also be seen as an attempt to correct the non-neutral implications of company income tax on the expected rate of return to exploration compared to other activities. Successful exploration expenditure results in a productive asset. Unsuccessful exploration does not. The low success rate of exploration means that only a small part of exploration expenditure would be deductible in the absence of a provision of this nature
 - this would result in a reduction in the post-tax expected rate of return on exploration compared to the post tax return on a less risky investment with a similar pre-tax expected return. The

current treatment of exploration costs recognises the distinction between identification of asset potential and asset creation;

- exploration has a number of attributes that may lead to market failure in the absence of Government intervention. It has both public good and positive externality attributes
 - the immediate deductibility of exploration costs provides some recognition that market failure does not allow an investor to internalise the benefits of exploration, which in association with risk may result in less than optimal market allocation of resources for the minerals industry;
 - once a discovery is made the prospectivity of that area may increase. This increased prospectivity leads to greater activity and increased cost of obtaining adjacent areas. The initial investor does not receive any preferential treatment when bidding for adjacent areas.

International taxation treatment of exploration expenditure

Most economies with large mineral industries allow exploration expenditure to be deducted as incurred. Australia's tax treatment of exploration expenditure is broadly comparable with the treatment in Canada (although, importantly, flow-through shareholder arrangements also exist in Canada). South Africa and Chile also effectively permit immediate expensing of mineral exploration expenditure.

Treatment of exploration costs in the United States and New Zealand are more circumscribed than Australia. Broadly, they allow exploration to be immediately deducted but subject to recapture in the event of successful development. In New Zealand's case, tax credits for unsuccessful exploration are added back as assessable income when a project goes to commercial production.

Options for reform of taxation treatment of exploration expenditure

Flow-through shares

One option for reform discussed in recent years is the (re)introduction into Australia of flow-through shares. This proposal would provide a flow-through of the exploration deduction to the entity that subscribes capital to the explorer. A fiscal arrangement of this nature has existed, in various forms, for many decades in Canada.

In effect, this arrangement provides for the explorer to forego an exploration deduction and transfer it to an investor. The outcome of such a fiscal arrangement is that the after-tax cost of the equity investment is reduced thereby encouraging the investment community to increase their investment in exploration companies.

Such an arrangement would be particularly important to junior exploration companies to the extent that these companies are unable to utilise income tax deductions for exploration expenditures.

Flow-through shares have a number of advantages when assessed against the Council's fundamental policy principles.

To a certain extent, arrangements with a similar effect to flow-through shares type are already available in Australia.

Exploration tax credits

Under current taxation arrangements, eligible mineral exploration expenditure is deductible against income earned in the same financial year by the minerals company. However, for junior exploration companies that do not have adequate taxable income in a given financial year, the company that incurred the expenditures may carry exploration deductions forward in nominal terms. This "tax credit" may be utilised when the junior exploration company earns income, or when the company merges with or is acquired by another company.

The inability to immediately deduct exploration expenditure increases industry costs and reduces mineral exploration activity below its optimal level from an economy-wide perspective. It is a structural flaw in the taxation system facing the minerals industry that results in an inefficient outcome – a regulation-induced market failure.

A system of trade in these “tax credits” would directly address this market failure. Under this fiscal arrangement, junior exploration companies would be able to sell “tax credits” to other companies with sufficient company income tax to utilise those deductions. Such an approach would enable junior exploration companies to gain immediate access to those tax deductions.

Deductibility of native title costs

Notwithstanding the on-going tax reform process of recent years, a significant “blackhole” expenditure remains relating to certain native title costs – specifically, a range of native title costs are incurred in the process of mineral exploration in Australia but are not deductible as a legitimate business expense.

An efficient market outcome (involving an optimal level of exploration) cannot be achieved unless all expenditure incurred in the mineral exploration is deductible against income earned by mineral companies.

A 125 per cent deduction for “greenfields” exploration

It can be argued that exploration has many of the characteristics of research and development, for which a 125 per cent tax deduction is available in certain circumstances. To the extent that exploration generates positive externalities, there may be a case for recognising this via a 125 per cent deduction. These positive externalities are most likely to be generated during “greenfields” exploration. Greenfields exploration would need to be appropriately defined for the purposes of the deduction.

Recommendations

To prevent market failures from impeding access to venture capital for junior exploration companies and distorting exploration expenditure decision-making by minerals companies, **the Minerals Council recommends a suite of fiscal arrangements introduced. Each will, if appropriately implemented, correct the market failures identified and thereby add to Australia’s economic welfare:**

- **a system of flow-through shares that addresses a distortion inherent in the current business taxation system that prevents nontaxpaying junior exploration companies from claiming an immediate deduction for their exploration expenditure and address market failures that inhibit the efficient flow of venture capital to junior explorers;**
- **a system of trade in exploration tax credits to address a distortion inherent in the current business taxation system that prevents nontaxpaying junior exploration companies from claiming an immediate deduction for their exploration expenditure;**
- **appropriately recognise the deductibility of certain native title expenditures under the Uniform Capital Allowance regime would address a remaining blackhole expenditure in the taxation system (that inefficiently increases business costs) and give effect to the Government’s policy position in this area; and**
- **a 125 per cent deduction for eligible “greenfields” exploration expenditure to recognise the positive externalities associated with such activity.**

SECTION 1 — INTRODUCTION

1.1 *Development of this submission*

This submission to the House of Representatives Standing Committee on Industry and Resources *Inquiry into resources exploration impediments* is made by the Minerals Council of Australia.

The Minerals Council of Australia¹ is the peak, national organisation representing the exploration, mining and minerals processing industry in Australia. The membership of the Council accounts for in the order of 85 per cent of Australian minerals production and a slightly higher percentage of Australia's mineral exports.

The Council's charter is to promote the development of a safe, profitable and environmentally responsible minerals industry that is internationally competitive and attuned to community expectations.

The industry the Council represents is diverse, commodity oriented, technologically advanced, capital intensive, high risk/high reward characterised, heavily export oriented and increasingly profoundly globally aware and internationally integrated.

The Council's development of this submission was informed by a set of fundamental policy principles that were used to test its recommendations and proposed actions. A copy of these fundamental policy principles can be found in Box 1.1.

Box 1.1 MINERALS COUNCIL OF AUSTRALIA – FUNDAMENTAL POLICY PRINCIPLES

The Minerals Council of Australia's policies for an internationally competitive business and operating environment conducive to investment, growth and profitability are founded in the following fundamental policy principles:

- Globalisation demands open and competitive markets, a free enterprise system and market-oriented economy conducive to competition and risk-taking – competitive markets are more likely to deliver efficient and effective resource allocation, investment, innovation and technological development.
- Open and effectively functioning markets provide the best form of discipline on the behaviour of businesses – community expectations and customer/consumer markets endorse concepts of corporate responsibility, integrity, self-reliance and open fair conduct in business practice.
- Minimum and necessary government regulatory intervention only – government's primary responsibility is to provide a sound framework that facilitates private sector decision-making, and individual choice and responsibility.
- Evidence of "market failure" and the capacity of governments to effect demonstrably beneficial change on the economy.
- The need for and effectiveness of fiscal measures that are incentives for "pre-competitive" conduct.
- Any legitimate fiscal incentives should be size, ownership and commodity neutral, that is, non-discriminatory and non-distortionary.

¹ Further details about the Council can be found at our web site, at www.minerals.org.au.

- The primary goal for Australian economic policy and of industry policy should be achieving high levels of sustainable economic growth for industry and Australians.
- Intervention justified on "market failure" grounds should not be viewed or officially documented as assistance.
- Interventions (for example, taxes on business inputs) which constrain industry development should be evaluated against the same market failure principles.

SECTION 2 — THE IMPORTANCE OF MINERALS TO AUSTRALIA

2.1 National and regional importance

The minerals industry is an industry of considerable size and economic and social significance, benefiting all Australians both directly and indirectly. The mining and minerals processing sector accounted for:

- around 8.6 per cent of national gross domestic product in 1999-2000;
- in 2000-01, around \$42 billion of Australia's total export revenues, representing approximately 37 per cent of total merchandise exports and 28 per cent of Australia's total exports of goods and services
 - in 2000-01, the share of each sector in Australia's total exports of goods and services of \$153 billion was:
 - : 28 per cent for minerals and metals;
 - : 9 per cent for oil and gas;
 - : 21 per cent for the rural sector;
 - : 22 per cent for other merchandise goods; and
 - : 21 per cent for services
- exports of mining technology, equipment and services of approximately \$1.7 billion in 2000-01.² This includes a wide range of minerals exploration related technology, equipment and services
 - given further strong export potential in mining related goods and services, on 6 June 2001 Senator the Hon Nick Minchin, then Minister for Industry, Science and Resources, announced the development of the Mining Technology Services Action Agenda.³ Background to the Action Agenda is provided at the Department of Industry, Tourism and Resources web site, at http://www.industry.gov.au/content/controlfiles/display_details.cfm?ObjectID=A30B060F-D2A2-4403-80914DFF5CD2C98E;
- directly and indirectly, some 240,000 jobs, representing 4.6 per cent of total employment in 2000-01, many of which are in sparsely populated, remote and regional Australia;
- 20.9 per cent of private new capital expenditure in Australia in 2000-01;
- total Government revenue payments of \$4.3 billion in 2000-01, comprising \$1.1 billion, \$1.1 billion, \$1.7 billion and \$0.5 billion for mineral royalties, Government port and rail charges, income tax expense and indirect taxes, respectively. Between 1982-83 and 2000-01, total tax payments (in 2000-01 prices) ranged between \$2.0 billion (in 1983-84) and \$4.9 billion (in 1989-90) with an average of \$3.2 billion. By contrast, net profit ranged between \$0.6 billion (in 1997-98) and \$5.5 billion (in 1989-90), with an average of \$2.2 billion over the period; and
- significant infrastructure development – since 1967, the industry has built 25 towns, 12 ports and additional port bulk handling infrastructure at many existing ports, 25 airfields and over 2,000 kilometres of rail line. The industry is often the sole provider of social infrastructure – health, education and welfare – in remote areas of Australia; this infrastructure often enduring long past the completion of mining activities.

² Department of Industry, Tourism and Resources (2001), *Mining Technology Services Action Agenda: Background paper on issues affecting the sector*, AusInfo, Canberra.

³ Minchin, Senator the Hon N. (2001), 'Minchin Announces Mining Technology Services Action Agenda', *Media Release*, 6 June (available at http://www.minister.industry.gov.au/minchin/releases/2001/june/cmr300_per_cent2D01.doc).

The industry is vital for the well being of remote and regional Australia. This is evident from the activity in, for example, coal, iron ore, gold, bauxite, manganese and other minerals that are typically mined in remote areas. **Attachment 1** displays a map of Australia's mines and major minerals deposits. The remote and regional location of these operations is evident in this map.

Many people are apt to assume that the benefits of such national development are transient. They are not, for the wealth created by successful mineral discoveries often provides the capital and improved infrastructure for other developments and they enhance the health, education and welfare of our most crucial resource – people.

In addition, there are strong links between the operations of the minerals industry and the lives of ordinary Australians living, for the most part, in the cities and urban centres. On one estimate, the Australian minerals industry spends around \$15 billion per annum on goods and services, about 80 per cent of that by value being sourced from domestic suppliers.

2.2 Minerals industry distinctive characteristics

Many of the industry's operational characteristics are synonymous with other commodity sectors, but it has unique, differentiating characteristics, including:

- **profoundly externally integrated and reliant upon international markets**, arguably more so than any other industry. This exposes the industry to:
 - fluctuations in demand, prices and exchange rates – many metal prices are cyclic in the short-to medium-term. Prices for metals have been falling in real terms for many years. Export price contracts are typically fixed in US dollars (offset to some extent by borrowings, which are usually in the same currency, and hedging arrangements);
 - changes in market access conditions through tariffs, quotas, fuel taxes and other government policy instruments – just as for other processed products, tariff escalation (a higher rate of tariff with increasing levels of industrial transformation of the raw commodity) is a feature of the minerals products market; and
 - competition from alternative suppliers and alternative materials.
- **an increasingly globalised industry** characterised by:
 - rationalisation and reconsolidation (to the circumstances of the 1970s) of businesses and operations;
 - increased concentration of ownership;
 - intensified competition; and
 - convergence to global sourcing of materials to supply global markets.
- **few companies have earned their real cost of capital**, and even less, have delivered above average shareholder returns in the past 15 years:
 - over the period 1985 to 2000, the average return for “western world” resource companies of 4.8 per cent and for Australian companies of 5.7 per cent was significantly less than the average return of 7.3 per cent investment in US bonds; and
 - over the last 25 years net profit return on average shareholders' funds has averaged 10.1 per cent, was severely depressed in the three years 1997 to 2000 at 1.8 per cent, 3.7 per cent and 4.0 per cent respectively, but recovered strongly in 2000-01 to post a net profit return on shareholders' funds of 13.9 per cent.

- **The industry's terms of trade have continued to decline** on a long-term trend basis by around 2 per cent per annum – reflecting a decline in prices in real terms of the same order – competition between minerals companies has been so fierce that productivity gains of the past have been transferred almost entirely to customers (and likely to consumers) in the form of lower real prices.
- **Mining operations are capital intensive.** This partly explains the industry's high productivity but carries with it the disadvantage of heavy interest and loan repayment commitments.
- **Development costs are high.** A large amount of debt funds required to develop any new major mining project has to be borrowed from overseas lenders, with currency and other risks. The reason for this is that the size of most of the projects is beyond the capacity of the Australian capital markets to finance. Furthermore, costly investigation and proving up of each ore body is necessary to reduce risks associated with development.
- **High wages and good conditions** are necessary to compensate labour for the nature of the work and often the isolated location. Operating costs are consequently high.
- **Replacement and incremental investment is high** in order to maintain production levels after the early years because of declining head grades and deeper mining levels.
- **Each mine is unique.** The mine and associated processing facilities must be designed to cater for the unique features of each ore body.
- **High cash flows are necessary in the early years to fund high loan repayments** because lenders perceive the high risk in mining and lend on short-term bases.
- **A mine is a wasting asset.** Thus, the industry requires high-risk funds, which are best obtained from cash flows, to be applied in the search for new ore deposits. The establishment, expansion and replacement of operations depend on the success of this unique, costly (it has been estimated that it typically costs \$US 50 million to find a 'world class' deposit), high-risk exploration activity.
- **Mine closure costs must be recovered.** These include severance costs for labour and rehabilitation costs (for example, revegetation costs).
- **Competition for capital both within Australia and globally is intense:**
 - within Australia, for much of the past five years other industries such as biotechnology and the so-called "dotcoms" have appeared to offer the prospect of better returns than mineral exploration and may have attracted speculative capital away from minerals exploration; and
 - globally, the growth in mineral exploration activity in Latin America and other developing country regions largely reflects the economic and political reforms undertaken in these regions over the past decade. Further, many of the countries in these regions have implemented policies specifically aimed at encouraging foreign mining investment.
- **Mine locations are frequently in remote, inhospitable areas** with poor transport, communications, town and port facilities which must be upgraded, enhanced or, more generally, built to maximise economies for the transport of low value, high volume products.
- **Minerals companies are often required to provide social and industrial infrastructures** that would normally be provided by government for other industries.

2.3 A strategic producer in a global market

Australia's minerals industry has successfully demonstrated its capacity to operate in highly competitive international markets and an increasingly globalised economy.

However, Australia's comparative advantage in natural geological wealth is in itself insufficient to maintain competitive strength in an increasingly globalised economy and industry. A company's ability to internationalise its operations is as significant as its ability to trade globally. This has already taken many forms through consolidation, subsidiaries, joint ventures and/or strategic partnerships in and across many countries with geological wealth and/or strong demand for mineral products. Trans-national businesses are under increasing pressure to justify Australia as a strategic location for corporate mining and minerals processing, irrespective of whether they are Australian or foreign owned.

There are no guarantees that Australia's comparative advantages will secure its inclusion in any international company's global consideration of where best to strategically locate its operations to supply global markets.

The Australian minerals industry has based, but not relied upon, its comparative advantage in raw materials to, in effect, cross-subsidise its competitive strength in value-added industrial transformation of raw commodities to mineral/metal products. As globalisation deepens and trade liberalisation expands, differentials in commodity prices will "pan out", increasingly shifting the determinants of global competitiveness to conversion cost efficiency. Plant capacity utilisation, economies of scale, labour productivity, factor input costs, processing systems technology, in particular, continue to challenge Australian operations' competitiveness and growth, both on- and off-shore.

This focus on improving companies' financial performance in increasing production and improving conversion cost efficiency has been founded on improved access to capital and its utilisation through significant technological advancement.

Latterly though, the focus on improving margins has transcended the traditional sources of resource and labour productivity gains to increase pricing power through the greater strategic employment of capital. In an increasingly globalised economy and industry, that means, in general at least, supply control globally.

The industry's future performance will depend in part on economic conditions in Australia maintaining that competitive edge given increased globalisation of the industry. This will see established and emerging producers elsewhere looking to achieve the same economic success that Australia has had for an expanding minerals sector.

Its future performance will also depend on continuing improvements to the regulatory environment in which the industry operates – including, importantly addressing policy impediments to on-going minerals exploration in Australian and moreover the revitalisation of Australia's national resource inventory.

SECTION 3 — AUSTRALIA'S MINERAL RESOURCES – THE NATIONAL INVENTORY

3.1 Introduction

As was noted by the Council in its *2001 Minerals Industry Survey* (MIS) report,⁴ Australia continued its position as one of the world's leading minerals producing nations in 2000-01.

This position should be maintained well into the future, as official estimates by Geoscience Australia note that Australia has the world's largest economic demonstrated resources (EDR, mineral resources for which profitable extraction or production is possible) of lead, mineral sands, nickel, tantalum, uranium and zinc. In addition, its level of EDR is in the top six worldwide for bauxite, black coal, brown coal, cobalt, copper, gold, iron ore, lithium, manganese ore, rare earth oxides and gem/near gem diamond. This contrasts with Australia's EDR of platinum group metals, which are extremely small. In addition, Australia lacks substantial resources of chromium.

Within this overall picture of relative prospectivity, there are, however, a number of notes of caution. These are considered in more detail in Section 3.2.3.

3.2 Australia's mineral resources and the rates at which they are being 'drawn down'

Geoscience Australia, Australia's national agency for geoscience research and information, has reported on Australia's mineral resource levels (the national resource inventory) for a range of minerals since 1975. The most recent report, *Australia's Identified Mineral Resources*, was published in October 2001.⁵ This publication provides a detailed description of Australia's national resource inventory, and so only an overview will be provided in this Section.

3.2.1 Geoscience Australia's estimates and the role of the JORC Code

Geoscience Australia's work in this area is based on a collation of public company reports (supplemented by Geoscience Australia's own internal assessments, particularly for bulk commodities). These reports in turn are based on the requirements of the 1999 *Code for Reporting of Mineral Resources and Ore Reserves* (the JORC Code)⁶ which sets out a minimum standard for reporting of exploration results, Mineral Resources and Ore Reserves in Australasia, and aims to ensure that public reports on these matters contain all the information that investors and their advisers would reasonably require for the purpose of making a balanced judgement regarding the results and estimates being reported. The JORC Code was first released in 1989 and was immediately incorporated into Australian Stock Exchange (ASX) listing rules, thereby becoming binding on companies listed on the ASX. It was similarly incorporated into the New Zealand Stock Exchange (NZSE) listing rules in 1992. It is the only externally written section of the ASX and NZSE listing rules.

The Joint Ore Reserves Committee, established by the (then) Australian Mining Industry Council in 1971, and now a joint committee of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Minerals Council of Australia, develops the JORC Code. The JORC Code is widely regarded as a world leader and has significantly influenced the development of similar codes in Canada, South Africa, South America, the United Kingdom, Ireland and Europe. Further details on the JORC Code can be found at its web site, at <http://www.jorc.org/main.php>.

⁴ PricewaterhouseCoopers/Minerals Council of Australia (2001), *Minerals Industry Survey*, Report for the Minerals Council of Australia, Canberra, December, p. 14 (available at [https://mcasurvey.com.au/ABAS/miningsupub.nsf/pages/images/\\$file/2001_percent20MIS.pdf](https://mcasurvey.com.au/ABAS/miningsupub.nsf/pages/images/$file/2001_percent20MIS.pdf)).

⁵ Geoscience Australia (2001), *Australia's Identified Mineral Resources 2001*, AusInfo, Canberra (available at <http://www.ga.gov.au/pdf/RR0019.pdf>).

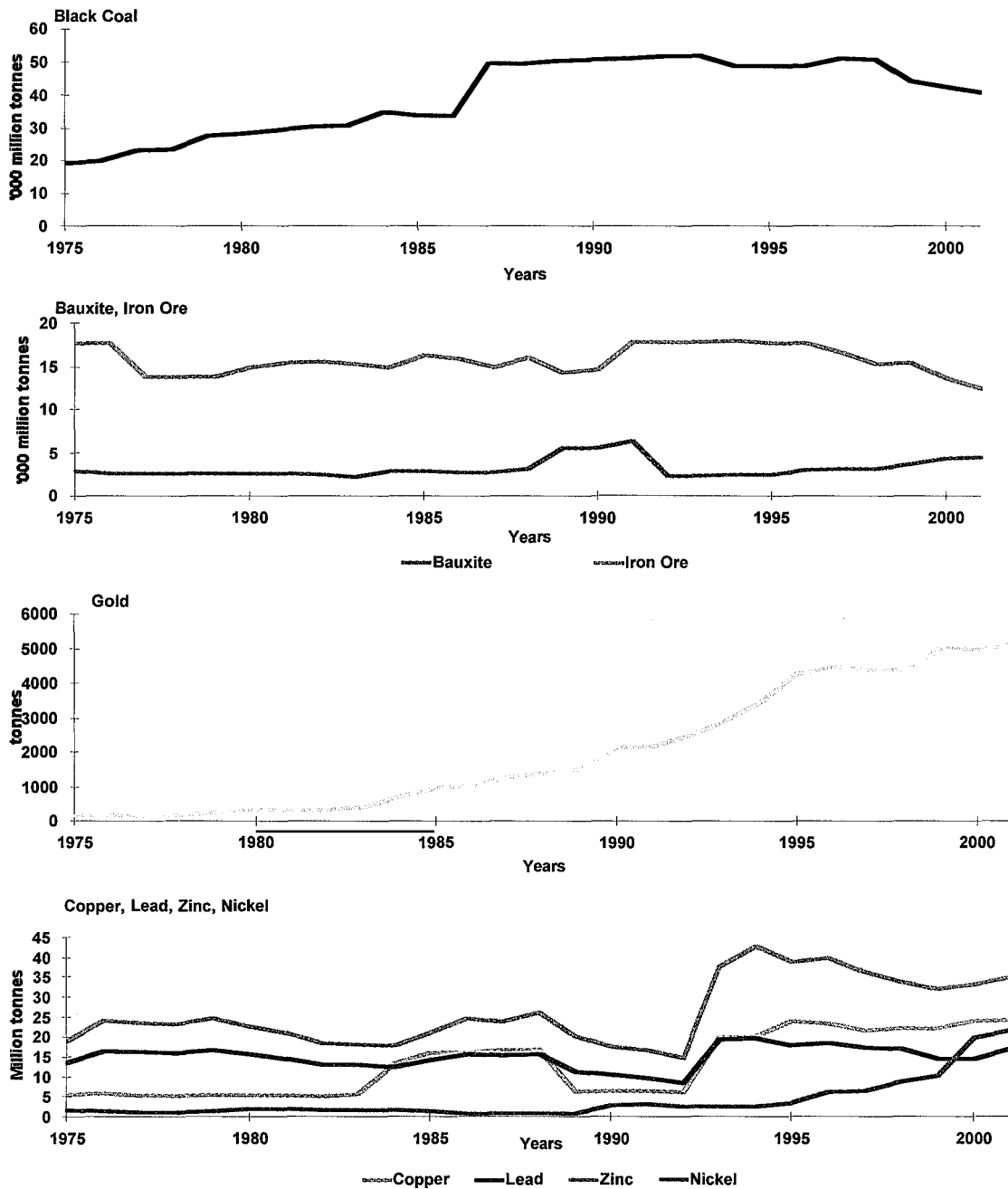
⁶ Joint Ore Reserves Committee (1999), *Code for Reporting of Mineral Resources and Ore Reserves*, prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC) (available at <http://www.jorc.org/JORC-code.pdf>).

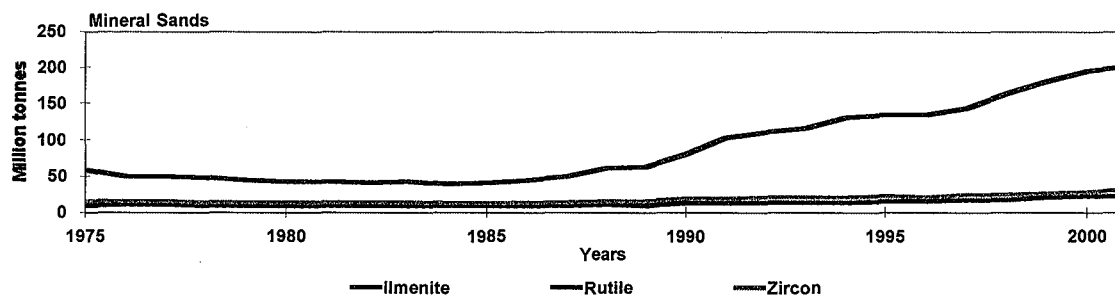
3.2.2 Australia's national resource inventory

These company reports, plus assessments by Geoscience Australia itself, are used to produce estimates of the national resource inventory, which are classified in various categories based on the degree of geological assurance of occurrence and the degree of economic feasibility of exploitation, with EDR considered to have the highest geological and economic assurance.

Chart 3.1 sets out the trends in EDR for a range of mineral commodities for the period 1975 to 2000.

Chart 3.1 Trends in EDR for major mineral commodities, 1975-2000





Source: Geoscience Australia (2002)⁷

Geoscience Australia's assessments over the period since 1975 reveal:

- EDR for all major mineral commodities have, on average, either increased or been maintained despite substantial levels of production; and
- EDR has not have decreased significantly for any major commodity.

Table 3.1, reproduced from *Australia's Identified Mineral Resources 2001*, sets out the inventory of Australia's identified mineral resources as they existed in 2000.

Table 3.1 Australia's identified mineral resources, 2000

COMMODITY	UNITS	AUSTRALIA					WORLD		
		Demonstrated			Inferred		Mine production ^a	Economic demonstrated resources	Mine production ^c
		Economic	Sub-economic		Economic	Sub-economic			
		Para-marginal	Sub-marginal						
Asbestos									
Chrysotile ore	Mt	-	46	-	-	-	75	-	large
Crocidolite fibre	Mt	-	0.4	-	-	-	2	-	large
Bauxite	Gt	4.4	2.6	1.7	-	-	1.4	0.05	25
Black coal									
In situ	Gt	62.6	1.4	12.5	-	-	very large		
Recoverable	Gt	42.6	1	8.3	-	-	very large	0.301 ^e	770 ^f
Brown coal									
In situ	Gt	42	43.4	18.1	-	-	113.6		
Recoverable	Gt	37.7	39	16.3	-	-	102.2	0.066	189 ^f
Cadium	kt Cd	108.7	6.7	21.8	19.6	0.8	2.9	na	600
Cobalt	kt Co	1,286	122	162	-	-	1,534	1.1	5,106
Copper	Mt Cu	24.1	14.4	1.2	1	2.2	11.8	0.83	340
Diamond									
Gem & near gem	Mc	92.6	225	0.1	1.2	20	1.1	26.6	-
Industrial	Mc	96.1	233	0.3	-	35.1	0.4	-	580
Fluorine	Mt F	-	0.2	23.2	-	-	59.1	-	107 ^h
Gold	t Au	4,959	1,021	117	-	-	2,717	296.4	48,959
Iron ore	Gt	13.6	2.1	1.4	-	-	14.2	0.168	135.6
Lead	Mt Pb	14.6	3.4	9.6	6.2	15.3	0.8	0.7	64
Lithium	kt Li	157	78	26	-	-	7	81.9 ^p	3,400
Magnesite	Mt MgCO ₃	267	27	35	-	-	1,080	0.35	8,900
Manganese ore	Mt	128	23	167	-	-	198	1.6	1,871
Mineral sands									
Ilmenite	Mt	196	51	0.1	-	-	97	2.2	671
Rutile	Mt	22	12	0.1	-	-	19	0.2	49.3
Zircon	Mt	28	19	0.2	-	-	23	0.4	69.3
Molybdenum	kt Mo	-	6.3	3.2	-	-	379	-	5,500
Nickel	Mt Ni	20.0	3.1	1.6	-	-	20	0.17	58.2
Niobium	kt Nb	29	29	132	-	-	1,996	-	3,500

⁷ Geoscience Australia (2002), *Australia's Identified Mineral Resources 2002*, (in press).

Petroleum (recoverable)¹									
Crude oil	GL	227	-	37	-	-	-	33.3	
Natural (sales) gas	10 ⁹ m ³	2,219	-	1,027	-	-	-	31.1	
Condensate	GL	282	-	62	-	-	-	7.4	
LPG naturally occur.	GL	262	-	88	-	-	-	4.2	
Phosphate rock	Mt	77	981	-	-	-	1,155	0.806	12,000
PGM (Pt, Pd, Os, Ir, Ru, Rh)	t metal	22.6	5.3	20.3	11.9	94.6	2.4	1	71,000
Rare earths (REO & Y₂O₃)	Mt	0.9	2.8	10.1	-	-	5.5	-	100
Shale oil	GL	4.6	197.5	3,719	-	-	41,425	0.006	16,373 ^o
Silver	kt Ag	32.1	11.1	11.5	15.8	12.3	2.7	2.1	280
Tantalum	kt Ta	29	30	0.23	-	-	60.4	0.6 ^q	32.3
Tin	kt Sn	107.4	24.2	166.1	3.1	324.7	8.9	9.1	9,600
Tungsten	kt W	7	44	28	6	43	-	-	2,000
Uranium¹	kt U	654	13	30	185	49	-	7.612	1,570 ^m
Vanadium	kt V	188	1,736	491	81	3,550	-	0.28 ^r	10,000
Zinc	Mt Zn	33	8	17	9	11	2	1.42	190

Abbreviations: t = tonne; m³ = cubic metre; L = litre; kt = 10³t; Mc = 10⁶ carat; Mt = 10⁶ t; Gt = 10⁹ t; GL = 10⁹ L; na = not available

(a) Source: ABARE

(b) Based on Geoscience Australia, UGS and other sources

(c) World mine production for 2000, mostly UGS estimates

(d) Includes crocidolite production

(e) Raw coal

(f) Geoscience Australia estimate

(g) Saleable coal

(h) Excludes Morocco

(i) Excludes USA

(j) Source: Petroleum Resources Branch, Geoscience Australia (as at 31 December 1997)

(k) Platinum and palladium only

(l) Refer to text for comparison of resource categories in the national scheme with those of the international scheme for classifying uranium resources

(m) Source: OECD/NEA & IAEA (2000). Compiled from the most recent data for resources recoverable at <US\$40/kg U. Data for USA and France not available for this category

(n) Source: NUKEM Market Report, 04/2001

(o) WEC Survey of Energy Resources, 1996

(p) Li₂O

(q) Ta₂O₅

(r) Source: Vanadium Australia Pty Ltd

Source: Geoscience Australia (2001)

3.2.3 The national resource inventory and the future viability of commodity sectors

Both the 2001 MIS and estimates by the Australian Bureau of Agricultural and Resource Economics (ABARE) have noted production of many mineral commodities (for example, iron ore) was at record levels in 2000-01. Australia is a major producer and exporter of over twenty mineral commodities. Australia is among the top three producers of ten of the most valued mineral commodities, including gold, diamond, zinc, tantalum and nickel.

Both Geoscience Australia and ABARE have produced estimates of EDR/production ratios, which provide an indication of how many years it will take to exhaust the current levels of EDR if current production rates are maintained. In this way, the ratios provide a partial indicator of the future viability of sectors of the minerals industry.

The Council notes the EDR/production ratio is only a partial indicator of the future viability of a particular commodity sector because the ratio can be influenced by:

- further discoveries of EDR;
- changes in production levels;
- upgrading or downgrading of resources through ongoing assessments of what are known in the JORC Code as "modifying factors" (mining, metallurgical, economic, marketing, legal, environment, social and governmental factors)⁸; and
- upgrading of resources through ongoing assessments that results in an increasing level of geological knowledge or confidence.

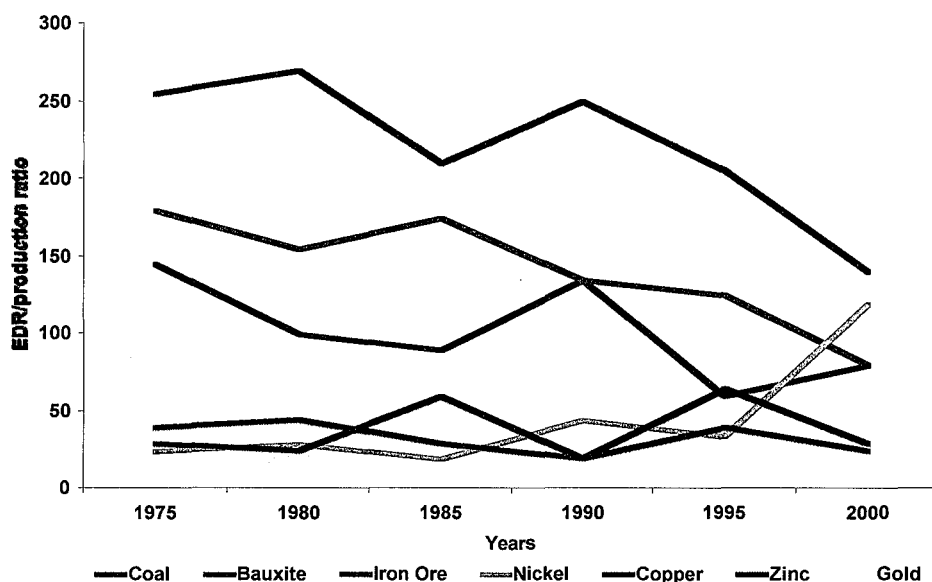
As has been noted by Geoscience Australia, the EDR/production ratio is a national level parameter that is based on an overall assessment rather than the current commercial objectives of the companies holding the resource.

⁸ see JORC (1999), *Code for Reporting of Mineral Resources and Ore Reserves*, p. 12.

Commercial decisions are made by companies on the basis of their own reports, which are based on the estimates prepared in accordance with the JORC Code and not Geoscience Australia's EDR estimates. Thus, while Geoscience Australia's EDR/production ratios provide information at a national level, in the Council's view they represent an overestimate (or at best a maximum estimate) of the national resource inventory for a particular mineral commodity.

Chart 3.2 sets out the EDR/production ratio for a number of mineral commodities.

Chart 3.2 EDR/production ratio for major mineral commodities, 1975 to 2000



Source: Geoscience Australia, ABARE (2001).

This Chart indicates Australia has major resources of coal, bauxite, and iron ore. By contrast, resources of zinc and particularly gold have a significantly lower EDR/production ratio, indicating these known resources are not sufficient to support current production levels beyond the medium-term. Clearly, major new discoveries of these commodities are required to sustain production on a long-term basis.

In addition, the Council notes there are a number of reasons to not be complacent about the state of Australia's national resource inventory and Australia's future prospectivity without ongoing exploration:

- as is outlined in more detail below, costs of discovery have increased and Australia is relatively 'mature' in a minerals exploration sense, with most of the accessible surface deposits already known; and
 - recent history shows that a large number of deposits which have been developed over the last decade were discovered many years beforehand
 - as one of a number of examples, Mt Keith, WMC Resource Limited's nickel project in Western Australia, was discovered in 1968 but did not begin production until 1994.⁹

⁹ Mt Keith Nickel Operations are located 720 kilometres north east of Perth, Western Australia. The Mt Keith ore body was discovered in 1968 by local pastoralist Mr Jim Jones and forms part of the Agnew-Wiluna greenstone belt. WMC acquired full interest in Mt Keith in 1993. Production and shipment of nickel concentrate began in October 1994. The Mt Keith nickel deposit has a total nickel resource of 503 million tonnes; 229 million tonnes are measured, 132 million tonnes inferred and 142 million tonnes indicated, all at a cut-off grade of 0.55 per cent nickel. The size and shape of the deposit makes it amendable to open pit mining, with an expected mine life at current production levels of 32 years. In 2001, Mt Keith produced a record 47,930 tonnes of nickel-in-concentrate. For further details, see <http://www.wmc.com/about/ourbusiness/nickel.htm#mtkeith>.

Any tendency, therefore, to just look at existing resources for existing mines would not take into account the long lead times involved in bringing an operation into production and the fact that discoveries are becoming harder and harder to find.

The importance of the ongoing mineral exploration process in Australia is discussed in more detail in Section 4.

3.3 The importance of the public provision of geoscience data

Public provision of geoscience data plays a vital role in mineral exploration in Australia. The Minerals Council of Australia supports the valuable role of Geoscience Australia in this area.

The private market for so-called "pre-competitive" geoscience data is characterised by a number of "market failures", including:

- positive externalities: a positive externality is a benefit that accrues to the economy as a whole but is not included in the market price of a good or service;
- in general terms, knowledge about the geology of a new deposit may lead to the enhancement of geological models that may increase the probability, or reduce the costs, of discovering further deposits;
- for example, the provision of geoscience data in a "greenfields" area that results in a significant new discovery by one exploration company may signal the prospectivity of the area to other exploration companies;
- in addition, discovery of a new type of deposit provides information to other exploration companies. In the presence of such positive externalities, an exploration company does not capture fully the benefits of its activity, resulting in an inefficiently low level of activity from the perspective of the general economy. The public provision of such geoscience data acts to correct this market failure;
- public good: geoscience data has a significant public good value that underpins a range of public policy decision-making processes in Australia; and
- uncertainty and risk: as is discussed in more detail in Section 4 below, exploration is a high-risk investment in information gathering. If this risk is too high, and mineral exploration companies cannot appropriately manage this risk, the level of exploration will be inefficiently low. The availability of geoscience data reduces this risk across the entire mineral exploration industry.

These market failures mean private provision of "pre-competitive" geoscience data will be lower than is socially desirable. The public provision of such geoscience data acts to correct this market failure.

In addition, the provision of geoscience data is a key way in which Australia maintains its international competitiveness in mineral exploration. All major mineral nations provide public geoscience data as a means to maintain or stimulate exploration expenditure. The public provision of geoscience data is therefore a key facet of the competitive edge of Australia's minerals industry.

In this respect, the Council is concerned that over recent years the budget of Geoscience Australia has been progressively reduced, thereby limiting the ability of the agency to contribute to the minerals exploration industry. Going forward, the 2002-03 Budget indicates Commonwealth Government funding of Geoscience Australia is expected to fall from \$89.0 million in 2002-03 to \$85.9 million in 2003-04, \$86.9 million in 2004-05 and \$87.9 million in 2005-06.¹⁰

¹⁰ Commonwealth of Australia (2002), *Part C: Agency Budget Statements — Geoscience Australia*, AusInfo, 14 May, p. 86 (available at http://www.industry.gov.au/library/content_library/Budget02GA.pdf).

Therefore, the Minerals Council recommends:

- **increased funding be provided for Geoscience Australia from the 2003-04 Commonwealth Budget (and over the forward estimates period); and**
- **that this increased funding be conditional on formal consultation with the minerals industry to focus the increased funding on the areas of Geoscience Australia's work program that will provide the greatest direct benefit to the minerals exploration industry in Australia.**

SECTION 4 — MINERAL EXPLORATION IN AUSTRALIA

4.1 *The mineral exploration process*

Exploration involves the search for new ore occurrences and/or appraisal intended to delineate or extend the limits of known deposits of minerals by geological, geophysical, geochemical, drilling or other methods. Information relating to these ore occurrences can be collected directly, through drilling for example, or indirectly, through data analysis using resource estimation software, for example.

As has been noted by ABARE in a forthcoming report that examines linkages between exploration, subsequent production and flow-on benefits to the national, state and territory economies, as well as to examine policy measures that may facilitate future mineral exploration activity in Australia

... exploration is a high risk process that is comprised of a number of sequential information-gathering steps. A decision to initiate an exploration program or proceed to the next stage of an existing program implies that the expected benefits of obtaining additional information outweigh the expected costs, taking into account the risks. When a company is assessing whether exploration should take place, an implicit or explicit assessment is made of the probability of discovering an economic mineral deposit.¹¹

A range of factors influence this assessment, including:

- prevailing, and more importantly, expected, commodity prices;
- availability and placement of venture capital;
- land access issues;
- cultural heritage issues;
- environmental issues;
- fiscal arrangements; and
- broader economic policy processes such as microeconomic reform and macroeconomic policy settings.

A number of these factors is discussed in this submission.

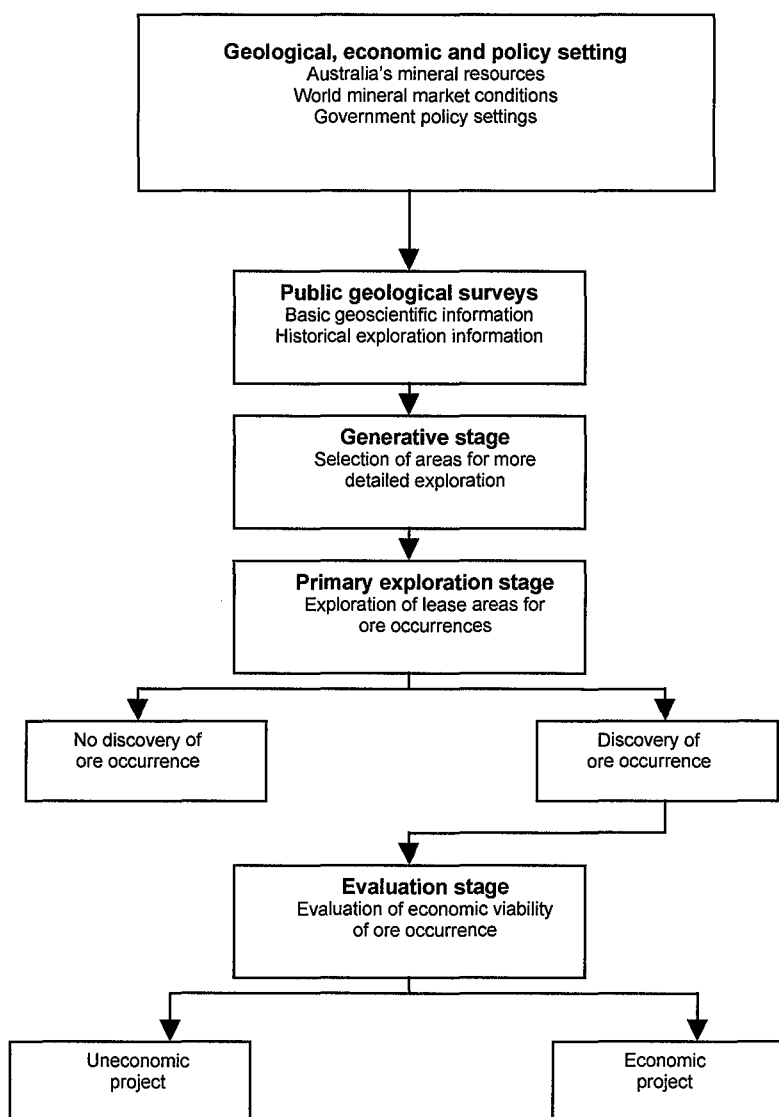
Exploration is a high risk activity and expenditure on exploration is an ongoing and necessary expense of a minerals company. Exploration rarely leads to a mine being developed and it typically costs approximately \$US 50 million to discover and assess the feasibility of a world class ore body. This typically takes five to fifteen years to develop from initial discovery (depending, among other things, on the size of the mine).

Key stages in exploration process are outlined in Chart 4.1. The mineral exploration process has been discussed in detail in several papers in recent years¹² and so only a broad overview will be provided here.

¹¹ Hogan, L., Harman, J., Thorpe, S., Maritz, A., Copeland, A., Berry, P., Peel, M. and Simms, A. 2002, *Mineral exploration in Australia: trends, economic impacts and policy issues*, ABARE Research Report, Canberra (forthcoming).

¹² Including Williams, N. and Huleatt, M. (1996), 'The importance of regional geological mapping in minerals exploration', in *Outlook 1996, Proceedings of the National OUTLOOK Conference*, 6-8 February, vol. 3, ABARE, Canberra, pp. 51-59; PMSEIC (Prime Minister's Science, Engineering and Innovation Council) (2001), *Australia's Mineral Exploration*, Canberra, 28 June; and Hogan, L., Harman, J., Thorpe, S., Maritz, A., Copeland, A., Berry, P., Peel, M. and Simms, A. (2002), *Mineral exploration in Australia: trends, economic impacts and policy issues*, ABARE Research Report, Canberra (forthcoming).

Chart 4.1 Stages in the mineral exploration process



Source: Based on ABARE (2002).

4.2 Australia's recent mineral exploration history

Gold has accounted for the major share of real mineral exploration expenditure over the past two decades. The share of gold exploration expenditure in total Australian exploration expenditure was 53 per cent in 2000-01, slightly below the average share of 57 per cent in the 1990s but higher than the average share of 42 per cent in the 1980s. The share of base metals and nickel increased to 26 per cent in 2000-01, compared with an average of 23 per cent in the 1990s and 1980s. Over the past two decades, the shares for mineral sands and iron ore have increased, while the shares for coal and uranium, diamonds and the other category have decreased.

4.2.1 Recent trends, Australian exploration 1990-91 to 1999-2000

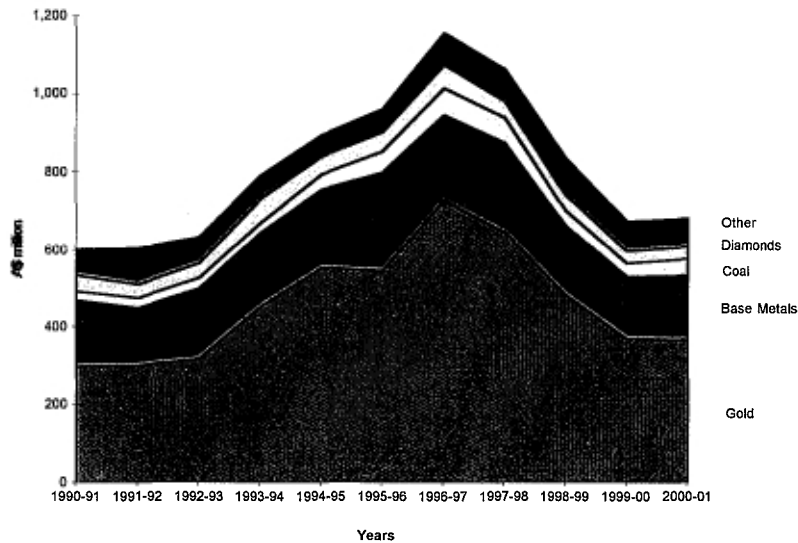
Charts 4.2 and 4.3 display Australian exploration expenditure by major mineral type for 1990-91 to 2000-01. Over this period, around \$8.3 billion was spent on minerals exploration in Australia.

Exploration for minerals (non-petroleum) steadily increased between 1992-93 and 1996-97 (increasing by 83 per cent during this period) but has fallen since then (by 41 per cent between 1996-97 and 2000-01).

Changes in expenditure on exploration for gold has clearly been the driver behind the overall exploration expenditure results.

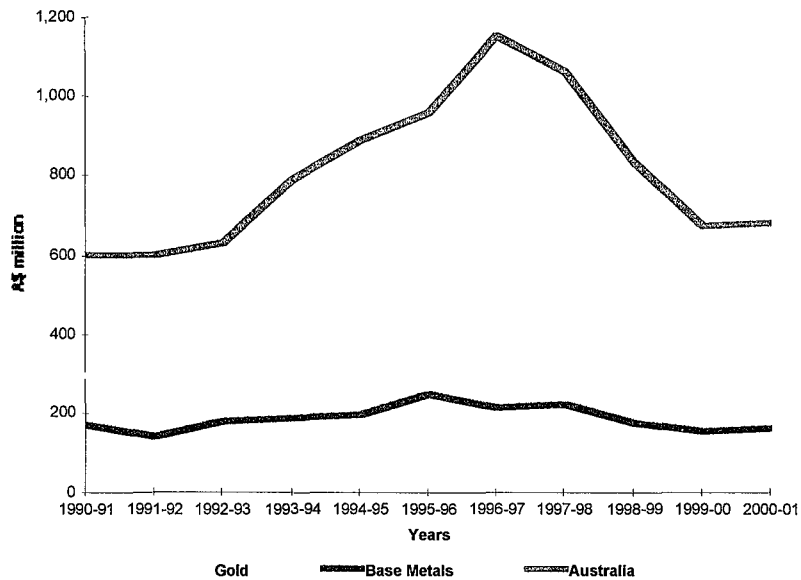
Exploration for gold rose from approximately 50 per cent of total Australian mineral exploration expenditure in 1990-91 to 63 per cent in 1996-97 before falling again to represent around 54 per cent in 2000-01. In real terms, expenditure on gold in that year was the lowest since 1992-93.

Chart 4.2 Mineral exploration expenditure by major mineral type



Source: ABS, Cat. No. 8412.0 (2002).

Chart 4.3 Mineral exploration expenditure: gold and base metals



Source: ABS, Cat. No. 8412.0 (2002).

Table 4.1 shows that expenditure on gold exploration has typically accounted for a very large proportion of the growth in Australian minerals exploration since 1993-94.

The majority of the expenditure for gold has occurred in Western Australia with that State also accounting for between 55 and 62 per cent of total Australian mineral exploration expenditure.

Since 1996-97, mineral exploration expenditure in Australia has declined by 44 per cent to \$683 million in 2000-01, the lowest level since 1978-79. The outcome in 2000-01 is \$41 million lower than the 1991-92 trough and \$91 million lower than the 1985-86 trough.

It can be argued that to the extent there have been efficiency gains in exploration activity, which is almost certainly the case, the effective exploration effort may be higher in the latest downturn compared with the previous downturns. These efficiency gains, through for example the adoption of new technologies or improved management techniques do, however, need to be assessed against the decline in the quality of new mineral ore discoveries.¹³

The recent downturn is largely due to reduced spending on exploration for gold and base metals, although exploration expenditure has also declined in recent years for coal and uranium, diamonds and iron ore.

Table 4.1 Expenditure on gold exploration, 1990-91 to 2000-01

	Exploration expenditure: Gold (A\$ million)	Change in exploration expenditure: Gold (A\$ million)	Contribution by gold to the change in total Australian expenditure (per cent)	per cent growth in Australian exploration expenditure (per cent)
1990-91	300.8	N/A	N/A	N/A
1991-92	304.7	3.9	59.0	0.4
1992-93	320.1	15.4	180.5	4.6
1993-94	453.7	133.6	120.4	25.5
1994-95	554.5	100.8	99.9	12.7
1995-96	547.1	-7.4	-904.1	7.5
1996-97	728.2	181.1	108.7	19.6
1997-98	648.4	-79.8	1449.9	-7.1
1998-99	486.1	-162.3	-516.2	-21.5
1999-2000	374.8	-111.3	-145.1	-19.3
2000-01	370.2	-4.6	-152.2	-1.2

Source: ABS, Cat. No. 8412.0 (2002).

Data from the Australian Bureau of Statistics (ABS) show there was a steady increase in exploration on production leases during the period 1990-91 to 1996-97 with the production lease drilling as a share of total drilling activity increasing from 28 to 35 per cent. Since then, the share has fallen, to stand at 28 per cent in 2000-01.

4.3 Factors affecting the decline in mineral exploration expenditure since 1996-97

A number of factors contributed to the decline in mineral exploration expenditure that has taken place since 1996-97. The decline reflects the impact of a number of economic circumstances and the impact of a number of regulatory factors. While the impact of the economic circumstances facing the industry are undoubtedly fundamental, the regulatory factors deserve special attention, as they may in some cases provide evidence of "market failure" and policy impediments to the efficient level of mineral exploration expenditure in Australia and thus be amendable to policy interventions and/or corrections.

¹³ See, for example, Parry, J. (2001), *The Future of Mineral Exploration in Australia*, presentation to the CPA Resources Convention, Perth, August, p. 2.

4.3.1 Economic circumstances

The following are some of the major economic circumstances contributing to the significant fall in exploration expenditure that has taken place since 1996-97:

- *commodity prices* have clearly played a key role. For example, while the relationship is not fixed, there is a fairly strong positive correlation between gold prices and gold exploration expenditure. Chart 4.4 shows the nominal world gold price (in \$US/ounce) for the period 1990-91 to 1999-2000. The gold price increased from a low in early 1993 through to mid 1996. Since then, it has fallen, reaching a low of \$US 255/ounce in August 1999.

Chart 4.4 Gold spot price, 1990-91 to 2000-01 (\$US/ounce)



Source: Reserve Bank of Australia (2002), at www.rba.gov.au/Statistics/Bulletin/F12hist.xls.

- *access to capital*, particularly venture capital for "junior" exploration companies, has been increasingly difficult to obtain in recent years. There are a variety of reasons for this, including:
 - competition from biotechnology and information and communication technology companies (the so-called "dot.com" boom of the late 1990s) that, for a brief period at least, offered the prospect of better investment returns and capital growth than did mineral exploration companies;
 - gold sales by central banks, including importantly the Reserve Bank of Australia, during 1997, 1998 and 1999, which served, to an extent, to reinforce negative perceptions about mineral, including mineral exploration, investments; and
 - "market failures" in the market for venture capital for junior exploration companies, particularly related to information asymmetries and risk and uncertainty.
- *relatively low profitability* of the minerals industry in Australia during this period. The average return on shareholders funds during the period 1996-97 to 2000-01, was 5.3 per cent.¹⁴ This compares to the average return on a 10-year Commonwealth Treasury bond (an essentially "risk-free" investment) of 6.3 per cent¹⁵ over the same period

¹⁴ PricewaterhouseCoopers/Minerals Council of Australia (2001), *Minerals Industry Survey*, Report for the Minerals Council of Australia, Canberra, December (available at [https://mcasurvey.com.au/ABAS/miningsupub.nsf/pages/images/\\$file/2001_per cent20MIS.pdf](https://mcasurvey.com.au/ABAS/miningsupub.nsf/pages/images/$file/2001_per cent20MIS.pdf)).

¹⁵ Reserve Bank of Australia (2002), at <http://www.rba.gov.au/Statistics/Bulletin/F03hist.xls>.

- the financial pressures placed on the industry by this consistently low rate of return manifest themselves in a number of ways
- one of the key financial pressures placed on the industry was for a fundamental reassessment of the returns provided by expenditure in "discretionary" areas like mineral exploration and mineral research and development. In the case of mineral exploration, an assessment of the exploration expenditure/discovery rate ratio over the period 1980-2000 shows that average discovery costs have increased significantly during this period.
- the *relative 'maturity'* of the Australian exploration environment. Australia's strong minerals heritage means that many of its mining districts are relatively mature in a global sense. "Greenfields" exploration in a mature district is generally thought to be unlikely to provide substantial economic return unless a new technology or innovative technique is involved

4.3.2 Regulatory factors

The following are some of the major regulator factors contributing to the significant fall in exploration expenditure that has taken place since 1996-97:

- *native title legislation*: the common law recognition of the rights and interests of Australia's Indigenous peoples has created profound uncertainty and difficulty for the Australian minerals industry. These issues are considered in more detail in Section 6.2.
- *environmental legislation*: the increasing use of environmental legislation as a *de facto* decision-making process in relation to the granting of mineral exploration (and mining) tenements has the potential to significantly restrict access to land for the Australian minerals industry. These issues are discussed in more detail in Section 6.3.
- *protected areas*: legislative, policy and decision making developments (particularly at the international level) are increasingly implying, or stating, that exploration (and mining) and protected areas are inherently mutually exclusive. These issues are discussed in more detail in Section 6.4.
- *cultural heritage legislation*: the increasing complexity of cultural heritage legislation in Australia, both Indigenous and non-indigenous, has the potential to be a significant impediment to access to land for the Australian minerals industry. These issues are discussed in more detail in Section 6.5.
- *operating requirements for exploration activities relating to tenements, the environment and cultural heritage*: the Council recognises that the relevance and importance will vary from state to state, as the relevant assessment and approval processes also vary. The Council's comments are directed at general principles and the Council expects that each State and Territory Chamber or Council will cover these issues in more detail and in the context of their particular circumstances. These issues are discussed in more detail in Sections 7.2 to 7.4.
- *fiscal arrangements*: there are a number of features of the current Australian taxation system that impede minerals exploration. These issues are discussed in more detail in Section 8.4.

4.4 Global exploration: Australia in context

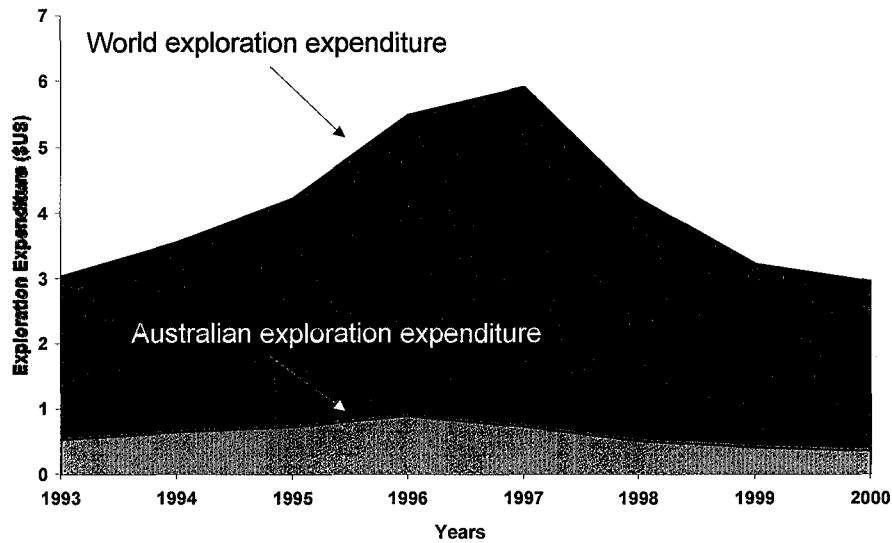
Any analysis of exploration expenditure trends in Australia must place these trends in the context of global exploration experiences. Mining and minerals processing is one of the oldest global industries. For example, the global mobility of London-based capital in the late nineteenth century played a critical role in the development of many mineral deposits in Australia, Africa and the Americas.¹⁶

¹⁶ Parry, J. (2001), *The Future of Mineral Exploration in Australia*, presentation to the CPA Resources Convention, Perth, August.

The Metals Economics Group (MEG), a minerals information and consulting company based in Canada, undertakes an annual survey of global nonferrous minerals exploration expenditure.¹⁷ This survey data shows that the recent downturn in mineral exploration in Australia has coincided with a substantial fall in global mineral exploration.

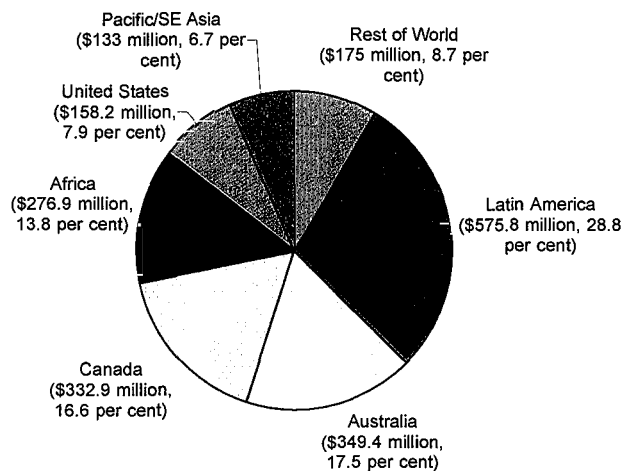
The most recent MEG *Corporate Exploration Strategies* survey found worldwide allocations for commercial precious and nonferrous metals exploration expenditure peaked at about \$US 5.2 billion in 1997. Since that time, the total amount allocated to this sector has declined for four years in a row to an estimated \$US 2.2 billion in 2001, a drop of almost 15 per cent since 2000 and almost 58 per cent since 1997. Exploration expenditure for 2001 was the lowest in nine years.

Chart 4.5 Recent trends in global exploration expenditure, 1993 to 2000



Source: MEG (2001), ABS (2002).

Chart 4.6 Worldwide allocations for commercial precious and nonferrous metals exploration expenditure, 2001 (\$US)



¹⁷ Metals Economics Group (2001), *Corporate Exploration Strategies* (available at <http://www.metalseconomics.com>).

Source: Metals Economics Group (2001) at www.metalseconomics.com/catalog/pages/press2001.htm.

According to the MEG survey, there has been considerable variation in the experience of individual countries or regions over the past decade:

- Australia's share of global nonferrous mineral exploration expenditure has increased marginally over the decade, falling from 15 per cent in 1991 to a low of 13 per cent in 1997 before recovering to 18 per cent in 2001;
- North America's share declined from 33 per cent in 1991 to a low of 15 per cent in 1998, but has since increased to 25 per cent in 2001;
- Latin America has experienced a major increase in its share from 9 per cent in 1991 to 29 per cent in 2001;
- Africa's share declined from 14 per cent in 1991 to 4 per cent in 1993 but has recovered to 14 per cent in 2001; and
- Other countries have recorded an overall increase in share from 9 per cent in 1991 to 15 per cent in 2001.

The average shares of global expenditure between 1991 and 2001 are 15 per cent for Australia, 22 per cent for North America, 20 per cent for Latin America, 11 per cent for Africa, 14 per cent for other countries and 18 per cent for origin unknown.

The growth in mineral exploration activity in Latin America and other developing country regions partly reflects the economic and political reforms undertaken in these regions over the past decade. Further, many of the countries in these regions implemented policies specifically aimed at encouraging foreign mining investment. This emphasises both the global nature of the industry and the competition for global exploration investment.

Importantly, within this overall trend there are a number of features of the downturn in minerals exploration in Australia that are unique. These include:

- minerals exploration expenditure in Australia has experienced a structural change in recent years, with most of the current exploration expenditure on relatively more 'mature' leases, involving later stage exploration. Much of the decline in exploration expenditure has been in early stage exploration;
- later stage exploration is typically significantly more expensive (in terms of financial resources applied to this stage of the process) than early stage exploration – this structural shift may be masking the magnitude of the decline in some jurisdictions (such as Western Australia and Queensland in particular); and
- the result in recent years has been that more and more of this early stage exploration expenditure is occurring overseas – this implies that future mining developments will also occur overseas rather than in Australia.

4.5 Overseas Exploration Expenditure by Australian minerals companies

Also relevant to the global nature of competition for exploration expenditure is expenditure by Australian minerals companies on overseas exploration. The MIS collects information on exploration expenditure in Australia and overseas. The latter information is sought by commodity and by overseas region.

The Table below detailing average annual growth rates for a 'constant group' of respondents to the Council's annual survey over a ten year period shows growth in overseas exploration expenditure by

larger minerals companies was significantly higher than the growth in Australian exploration expenditure (which fell slightly over the period in question).

In 2000-01 MIS respondents spent \$702 million on exploration, 16 per cent lower than the \$832 million spent in 1999-2000. The share of gold in total overseas exploration expenditure fell slightly, from 42 per cent in 1999-2000 to 41 per cent in 2000-01. The decline in gold prices has contributed to the fall in expenditure on gold exploration and a shift towards base metals exploration in recent years (the share of exploration expenditure directed towards gold was 53 per cent in 1997-98). Base metals exploration rose from 33 per cent to 36 per cent.

The major areas for overseas exploration in 2000-01 were:

- South America, 38 per cent (up from 27 per cent in 1999-2000);
- North America, 24 per cent (up from 17 per cent in 1999-2000);
- Africa, 17 per cent (down from 21 per cent in 1999-2000); and
- Asia, 13 per cent (down slightly from 14 per cent, but well down on the levels of recent years).

Exploration in Papua New Guinea and the Pacific more than halved, from 6.0 per cent to 2.6 per cent. Exploration in Eastern Europe and Western Europe also fell, and accounts for less than 1 per cent of total expenditure.

Table 4.2 Overseas Mineral Exploration expenditure — all respondents^a

By Commodity	2000-01 \$ million	1999-2000 \$ million	By Overseas Region	2000-01 Per cent	1999-2000 Per cent
Gold and platinum	77.2	117.3	Papua New Guinea / Pacific	2.6	6.0
Base metals	61.8	82.8	Asia	13.2	13.8
Mineral sands	2.4	1.8	South America	38.4	27.2
Diamonds	33.1	26.3	North America	24.2	16.7
Coal	0.0	11.8	Eastern Europe (inc. Russian Federation)	0.2	0.8
Other	6.1	10.0	Western Europe	0.0	1.1
			Africa	17.3	21.2
Total overseas	180.7	250.0	Other and general	4.0	13.1
Australia	521.5	582.2			
Total	702.2	832.2			
Gold (per cent)	40.9	42.1			
Non-gold (per cent)	59.1	57.9			

(a) The Australian Bureau of Statistics (ABS) also conducts surveys of exploration expenditure by the minerals industry. Its quarterly surveys provide a wider coverage of Australian exploration expenditure than shown here. While respondents to the Council's 2001 survey accounted for around 72 per cent of total minerals exploration expenditure in Australia in 2000-01 (as reported to ABS in *Actual and Expected Private Mineral Exploration, Australia*, Cat. No. 8412.0), they represented the bulk of the exploration spending by Australian companies overseas. The Council's survey is recognised as a more accurate time series of overseas expenditure than the ABS overseas survey, which has now ceased to be collected.

Source: Minerals Council of Australia/PricewaterhouseCoopers (2001).

As has been noted earlier, decisions to explore in Australia or overseas are based on a comparison of a range of factors. These include prospectivity, fiscal and regulatory arrangements, sovereign risk and the cost of access to land.

To enable a comparison and to establish trends over a longer period of time, those respondents that have provided overseas exploration expenditure figures over the past decade are separately reported as a 'constant group' in the MIS report.

Constant group respondents' exploration expenditure in Australia fell from \$344 million in 1999-2000 to \$327 million in 2000-01. Overseas exploration expenditure by the constant group fell from \$190 million to \$154 million, and now accounts for 32 per cent of constant group exploration expenditure, down from 36 per cent in 1999-2000.

When the Minerals Council established the survey of overseas exploration over ten years ago, relatively few companies (about twenty) were exploring overseas. These tended to be the larger minerals companies. Over the intervening period, more Australian based operations have embarked on overseas exploration programs.

Analysis of the broad allocation of exploration expenditure shows that the increase in overseas exploration expenditures has been particularly marked in the first half of the 1990s, with the proportion of total expenditure by the larger companies devoted to overseas exploration rising significantly. 2000-01 represents only the second fall in the proportion of overseas exploration expenditure in total exploration expenditure since 1990-91.

In 2000-01, for the constant group, the survey shows:

- Asia accounted for 12.2 per cent of overseas spending, North America 28.3 per cent and South America 42.0 per cent; and
- gold and platinum exploration accounted for 36.6 per cent of the total overseas spending by respondents. This is an increase on 1999-2000, but well below the peak 79 per cent share recorded in 1988-89. This is also below the share of gold in total group overseas exploration expenditure. The constant group spends a smaller share of overseas exploration expenditure on gold and platinum and a larger share on base metals than does the total group.

Chart 4.7 Overseas exploration by Major Commodity — Constant Group

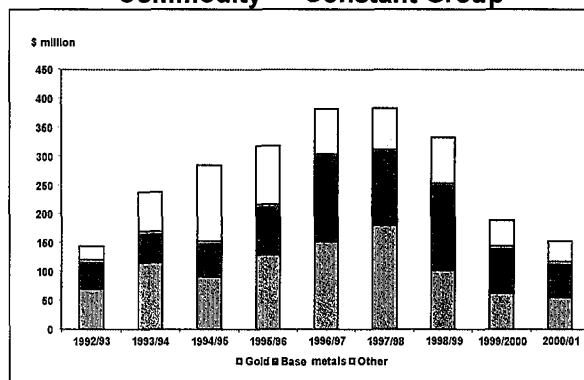
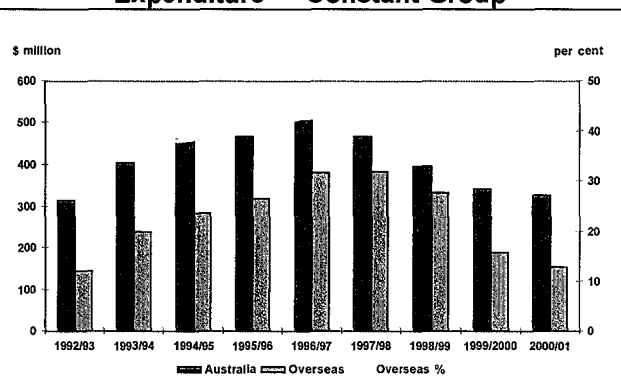


Chart 4.8 Broad Allocation of Exploration Expenditure — Constant Group



Source: Minerals Council of Australia/PricewaterhouseCoopers (2001).

Table 4.3 Broad Allocation of Mineral Exploration Expenditure — Constant Group

Year	2000-01	1999-2000	1998-99	1997-98	1996-97	1995-96	10 Year Average Annual Growth (per cent)
	\$ million						
Australia	326.8	344.4	396.7	468.4	506.2	468.7	-0.3
Overseas	154.2	190.3	333.1	384.1	381.5	319.1	2.8
Total exploration	481.0	534.7	729.8	852.5	887.7	787.8	0.6
Overseas percentage	32.1	35.6	45.6	45.1	43.0	40.5	

Source: Minerals Council of Australia/PricewaterhouseCoopers (2001).

Table 4.4 Overseas Exploration Expenditure by Commodity Sought — Constant Group

Year	2000-01	1999-2000	1998-99	1997-98	1996-97	1995-96	1994-95	1993-94
	Percentage							
Gold & platinum	36.6	33.1	30.6	47.3	40.0	40.5	31.8	48.7
Base metals	39.5	43.0	45.8	34.1	39.7	27.6	22.0	22.6
Mineral sands	1.6	0.4	0.0	2.7	1.0	2.0	1.6	1.7
Diamonds	21.5	13.8	10.1	6.9	5.2	15.6	27.7	15.2
Coal	0.0	5.9	0.0	1.5	3.1	1.7	2.4	1.9
Other & general	0.8	3.8	13.5	7.5	11.0	12.6	14.5	9.9
Total (\$m)	154.2	190.3	333.1	384.1	381.5	319.1	285.8	238.3

Source: Minerals Council of Australia/PricewaterhouseCoopers (2001).

Table 4.5 Minerals Exploration Expenditure by Overseas Region — Constant Group

Year	2000-01	1999-2000	1998-99	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93
	percentage								
Papua New Guinea	0.7	0.4	0.3	0.2	2.4	3.7	2.8	4.4	11.1
Asia	12.2	13.2	28.0	15.3	21.8	23.4	21.9	18.4	16.9
Pacific	0.9	0.3	0.2	0.1	9.4	1.7	0.3	0.3	1.0
North America	28.3	19.7	27.2	35.1	21.2	29.4	33.8	33.6	25.9
South America	42.0	35.7	24.5	25.7	27.6	22.3	16.8	17.5	14.1
Eastern Europe (inc. Russian Federation)	0.3	1.0	0.6	7.2	3.7	3.6	5.0	3.4	3.5
Western Europe	0.0	1.4	0.0	2.6	0.2	2.8	1.8	2.7	4.1
Africa	134.	15.5	11.5	9.1	6.2	7.5	15.3	13.3	11.3
Other and general	2.2	12.9	7.7	4.7	7.5	5.6	2.3	6.4	12.1
Total (\$m)	154.2	190.3	333.1	384.1	381.5	319.1	285.8	238.3	146.1

Source: Minerals Council of Australia/PricewaterhouseCoopers (2001).

SECTION 5 — AUSTRALIA'S MINERAL EXPLORATION INDUSTRY

5.1 Introduction

As was outlined in Section 2.2 above, the Australian minerals industry is an increasingly globalised industry characterised by rationalisation and reconsolidation (to the circumstances of the 1970s) of businesses and operations, increased concentration of ownership, intensified competition and convergence to global sourcing of materials to supply global markets.

These trends have also impacted in a number of ways on the mineral exploration industry in Australia. Most clearly, this has impacted on the structure of the industry with the large number of mergers and acquisitions in recent years. More subtly, the trends have manifested themselves in the way in which the industry undertakes mineral exploration in Australia, particularly the role of the "junior" exploration companies in this process.

5.2 The structure of Australia's mineral exploration industry

In its analysis of the industry, ABARE has sought the use the following definitions, based on market capitalisation, to distinguish major sectors of the mineral exploration industry. While the Council has outlined a number of qualifications to these definitions in its discussions with ABARE (these are summarised below), they do provide a useful starting point in understanding the nature of the industry in Australia:

- "major" production companies: these are large capitalisation mining companies that are major producers and that typically engage in some exploration activity. For the purpose of this classification, major production companies are defined as mining companies with market capitalisation greater than \$1 billion. Many of these are foreign companies operating in a global marketplace with Australia accounting for only a proportion of their total activities;
- mid-sized production companies: these are medium-sized mining companies that are significant producers and that also engage in some exploration activity. For the purpose of this classification, mid-sized production companies have market capitalisation between \$200 million and \$1 billion. Their activities tend to be concentrated in Australia, but they are also likely to be engaged in significant exploration and/or production overseas; and
- "junior" exploration and production companies: these are small capitalisation mining companies that are engaged primarily in exploration. For the most part, junior exploration companies have market capitalisation less than \$200 million. They include listed companies that have raised external equity financing via an initial public offering (IPO) and small unlisted explorers. Their activities tend to be concentrated in Australia, but a significant number are engaged in exploration overseas.

Most of the Council's member companies fit into the first two sectors. However, as is outlined below, all three sectors of the industry have a vital role to play and a number of important interdependencies.

In considering these definitions, the Council considers there to be at least two important qualifications:

- a definition based on market capitalisation does not include unlisted companies, some of which (for example, the Worsley Alumina and Robe River Mining Company joint ventures) are large and significant entities that undertake significant exploration; and
- based on information held by the Council, at least 106 junior exploration and production companies are owned or controlled by the major or mid-size production companies.

Numerically, the vast number of companies in the industry fits into the second or third category. For example, according to the Minmet Ozmine database¹⁸ around 80 per cent of all companies listed have a market capitalisation of less than \$50 million and about 65 per cent have a market capitalisation of less than \$20 million.

This contrasts with the source of exploration expenditure, with, according to the Minmet Ozmine database, **around 80 per cent of exploration expenditure in Australia coming from the major production companies.**

5.3 The role of "junior" exploration companies and their interaction with larger companies

As was noted in Section 2.2, in the past 15 years few minerals companies have earned their real cost of capital, and even less, have delivered above average shareholder returns. Over the period 1985-2000, the average return for western world resource companies of 4.8 per cent and for Australian companies of 5.7 per cent was significantly less than the average return of 7.3 per cent investment in US bonds.

The industry has reacted to this poor level of profitability in a number of ways, many of which were discussed earlier in this submission. From the perspective of the production majors, one of the key responses was to fundamentally re-examine the performance of exploration expenditure and re-assess the most appropriate structures for undertaking exploration in Australia.

Importantly, this has meant that the production majors are increasingly supporting "junior" exploration companies as part of their exploration strategy. This is an acknowledgment of the important role that "junior" exploration companies can and do play in the industry. For example, in April 1999, BHP Billiton Limited (then BHP Limited), a Minerals Council member company, restructured its exploration and development activities, reducing direct exploration expenditure and seeking to participate in high-quality, later-stage opportunities brought to the BHP Billiton Limited by third parties, often "junior" exploration companies.¹⁹

Among the possible explanations for this trend is that:

- production majors may value a degree of certainty regarding the supply of resource
- that is, it may be more appropriate for them to buy or farm-in to successful third party exploration discoveries as and when required, rather than relying exclusively on an internal exploration capability
- this has some parallels to a more established trend in the industry to use mining contractors to supply equipment and carry out mining operations at sites rather than maintain a large internal capability in this area;
- reflecting their particular characteristics (including a high degree of flexibility and a capacity for rapid decision-making) smaller companies may be better able to conduct certain exploration activities; and
- some re-focussing by major production companies from an internal exploration capacity to better servicing the needs of their end customers.²⁰

¹⁸ The Minmet OzMine is web database covering every publicly listed resources company and their local and overseas projects. It is updated daily from source information provided by the Australian Stock Exchange. The database is a subscription service, and can be found at <http://www.ozmine.com.au/>.

¹⁹ BHP Billiton Limited (2001), *Annual Report 2001*, BHP Billiton Limited, Melbourne, p. 63 (available at http://www.bhpbilliton.com/bbContentRepository/Reports/2001BHPBillitonLtdAnnualReport_partC.pdf).

²⁰ These issues will be discussed in more detail in Hogan, L., Harman, J., Thorpe, S., Maritz, A., Copeland, A., Berry, P., Peel, M. and Simms, A. (2002), *Mineral exploration in Australia: trends, economic impacts and policy issues*, ABARE Research Report, Canberra (forthcoming).

The implication of this trend is that the exploration future of the Australian minerals industry depends vitally on the ongoing viability of the "junior" exploration sector. To the extent that the "junior" exploration companies face particular policy impediments or market failures specific to their circumstances, policy actions by Government to overcome these impediments or correct these market failures are particularly important. These issues are considered in more detail in Sections 6 to 8.

SECTION 6 — LAND ACCESS

6.1 Introduction

As was noted in Section 4.3.2, in terms of policy impediments to achieving the socially optimal level of minerals exploration in Australia, land access issues loom large.

Access to land for exploration and development is critical to the present and future operations of the Australian minerals industry. Any policies developed, or decision made in relation to land access must provide fair, consistent, effective and equitable access to, and use of land and resources.

While access to land and resources is critical, the timeframe within which any decisions are made, and ultimately access is granted, are also of significance. Decision-making processes, in relation to land access, that are timely, transparent and provide certainty are in the interests of all stakeholders.

Table 6.1 Exploration title applications granted and pending by jurisdiction in Australia^a

	NSW	VIC ^b	QLD	SA ^c	WA ^d	TAS	NT	TOTAL
Exploration titles pending								
1991-92	194	194	95	17	1,211	427	0	2,138
1992-93	208	249	94	61	1,236	530	0	2,378
1993-94	337	309	78	175	1,515	638	0	3,052
1994-95	388	259	118	0	1,439	745	0	2,949
1995-96	324	366	162	69	1,430	695	0	3,046
1996-97	285	388	447	231	2,052	728	0	4,131
1997-98	132	87	824	0	2,012	831	0	3,886
1998-99	162	70	1,096	0	2,684	898	0	4,910
1999-00	92	92	1,218	0	2,775	1,194	21	5,392
2000-01 ^e	84	110	1,181	0	3,099	1,310	25	5,809
Exploration titles granted								
1991-92	300	150	535	52	955	271	0	2,263
1992-93	157	235	433	56	1,104	231	0	2,216
1993-94	161	220	514	107	1,498	307	0	2,807
1994-95	201	239	319	148	1,159	220	0	2,286
1995-96	205	311	359	97	1,306	282	0	2,560
1996-97	273	292	226	187	1,231	190	0	2,399
1997-98	178	274	48	142	1,124	39	0	1,805
1998-99	90	77	19	205	363	46	20	820
1999-00	162	39	98	124	971	18	9	1,421
2000-01 ^e	80	33	113	92	582	88	15	1,003

- (a) Exploration applications include title applications for mineral exploration only.
- (b) Between 1996-97 and 1997-98 Victoria revised the basis on which figures are determined for exploration applications pending. They believe the more recent figures are more accurate.
- (c) There is no delay under the South Australian scheme for the granting or registration of exploration authorisations (that is, exploration licenses and mineral claims). However, after the grant or registration of the exploration authorisation it is the responsibility of the holder of the mineral claim or exploration license to negotiate with the relevant native title parties if the activity proposed on the tenement is on native title land and will affect native title.
- (d) Western Australian figures are for exploration licenses only (that is, prospecting licenses are excluded)
- (e) Latest figures to 31 March 2001

Source: Hogan, L., Harman, J., Thorpe, S., Maritz, A., Copeland, A., Berry, P., Peel, M. and Simms, A. 2002, *Mineral exploration in Australia: trends, economic impacts and policy issues*, ABARE Research Report, Canberra (forthcoming).

This section sets out a number of recommendations on suggested areas for improvement in the management of land access issues to, address the problems identified in Section 4.3.2 above. In the Council's view, these recommendations have the greatest potential to provide short- to medium-term solutions to the current decline in exploration expenditure in Australia.

6.2 Native title legislation

The common law recognition of the rights and interests of Australia's Indigenous peoples has created profound uncertainty and difficulty for the Australian minerals industry. While the subsequent introduction of the Commonwealth *Native Title Act 1993* (NT Act) was intended to bring certainty to all stakeholders, it established a complex legal framework, and the uncertainty remained. Substantial amendments were made to the NT Act in 1998, following the High Court's decision in the *Wik* case,²¹ however the NT Act remains overly complex and unworkable. Uncertainty has increased.

As a result of the native title legislation the processing and granting of tenements that have native title implications has come to a virtual standstill in most Australian jurisdictions. Of particular and immediate concern are the backlogs of tenement applications with native title implications in Queensland and Western Australia, where there are approximately 1,000 and 11,000 applications awaiting processing respectively.

Specific issues to be addressed with regard to the NT Act include:

- the future act provisions of the NT Act as they relate to exploration, particularly low impact exploration;
- the considerable costs and time delays involved in going through the mediation and arbitration, or Indigenous Land Use Agreement²² (ILUA) processes under the NT Act;
- the considerable costs and time delays passed onto industry as a result of disputes associated with overlapping claims by Indigenous parties;
- the underfunding of Native Title Representative Bodies,²³ effectively meaning they only deal with native title claims rather than future acts and also as a matter of course make objections under the expedited procedure provisions of the NT Act;
- the backlog of native title claims and exploration applications;
- impediments to using the expedited procedures; and
- the unwillingness of Government to acknowledge or remedy the many problems with the NT Act, and the impact they are having on the Australian minerals industry.

While there will be a long-term decline in the number of native title claims, there is a considerable backlog of existing claims and numbers are expected to increase over the short-term. The potential for ongoing problems with the NT Act is of major concern to the Australian minerals industry, it is therefore imperative that remedies focus on achieving real outcomes in clarity, certainty and workability.

²¹ *Wik Peoples v The State of Queensland & Others* B8/96; *Thayorre People v The State of Queensland & Others* B9/96 High Court of Australia (unreported), 23 December 1996 (available at http://www.austlii.edu.au/au/cases/cth/high_ct/unrep299.html).

²² An ILUA is a voluntary agreement about the use and management of an area of land or waters, made between one or more native title groups, and others (such as miners, pastoralists, governments). A registered ILUA is legally binding on the people who are party to the agreement and all native title holders for that area. For further details, see <http://www.nntt.gov.au/4825642b003b24e5/fd1ad26716839d734825642e000445f2/9e385c1fc31e8a4048256a9d002fe855?OpenDocument>.

²³ A NTRB is an organisation approved by the Commonwealth Minister to represent the native title interests of Aboriginal or Torres Strait Islander people within a particular region. A NTRB may help Indigenous people to research, prepare or apply for native title or compensation, help resolve disagreements among claimants, or represent claimants in negotiations or other proceedings that affect native title. For further details, see <http://www.nntt.gov.au/482564ad0022856f/536e07be2b1c3c0b4825640600062098/3773cf83228b08164825655b00120de8?OpenDocument>.

Table 6.2 Number of Native Title Claims by State and Territory

NSW	ACT	VIC	TAS	NT	SA	QLD	WA	TOTAL
69	0	20	1	157	29	188	126	590

Source: Neate, G. (2002) *Native Title Ten Years On: Getting on with the job or sitting on the fence?*, National Native Title Tribunal, May 2002

Similar to the NT Act, the *Aboriginal Land Rights (Northern Territory) Act 1976* (ALR Act) establishes an unduly complex legislative framework that all stakeholders agree is not delivering the intended or required outcomes. Of particular concern with the operation of the ALR Act is the cumbersome nature of the land council structure, which is causing significant delays in the processing of applications for exploration licences. This ultimately has a detrimental impact on Indigenous peoples and the community as a whole.

The Council considers there is significant scope to canvass proposed improvements to the current legislative framework with Indigenous representatives, and to work cooperatively to remedy the impediments to exploration, particularly low impact exploration, and ultimately provide more certain and timely access to land for explorers.

With regard to amending the current legislative framework under the *Native Title Act 1993* to provide improved land access for mineral exploration, the Council makes the following recommendations:

- amend existing assessment and decision making processes under the *Native Title Act 1993* in relation to right to negotiate provisions to provide a streamlined assessment and decision making process for providing access to land subject to a native title claim;
- provide increased funding for both the National Native Title Tribunal²⁴ and the Native Title Representative Bodies, particularly in relation to the necessary resources to eliminate the backlog of native title claims and in particular exploration applications;
- amend the expedited procedure provisions to limit possible objections (this would also serve to free up resources within the National Native Title Tribunal that are allocated towards assessing objections to the notice stating that the act attracts the expedited procedures); and
- amend the provisions in relation to the registration of voluntary agreements (bilateral agreements between industry and Indigenous communities developed outside of the legislative process) as Indigenous Land Use Agreements to remove unnecessary impediments to the registration of such agreements.

In consideration of the issues associated with the ALR Act, the Council makes the following recommendation:

- amend the *Aboriginal Land Rights (Northern Territory) Act 1976* provisions requiring the full Land Council's ratification of the traditional owners' decisions in relation to exploration submissions to provide that Regional Councils can ratify the decisions of the traditional owners.

²⁴ The National Native Title Tribunal is a Commonwealth Government body that facilitates the making of agreements among Aboriginal and Torres Strait Islander people, governments, industry and others whose rights or interests may co-exist with native title rights and interests. The Tribunal is not a court and does not decide whether or not native title exists. For further details, see the NNTT's web site at <http://www.nntt.gov.au/nntt/home.nsf/area/homepage>.

6.3 Environmental legislation

The increasing use of environmental legislation as a *de facto* decision-making process in relation to the granting of mineral exploration (and mining) tenements, has the potential to significantly restrict, and in some cases prohibit, access to land for mineral exploration. Clear differentiation must be made between the purpose of granting a tenement, which is to provide land access, and the purpose of granting an environmental authority, which is to set non-prescriptive conditions that require the activity to be carried out in accordance with certain standards.

There is considerable concern over the potential time delays and costs associated with any duplication of assessment requirements and decision making processes for exploration applications that may be created by the overlap of Commonwealth and State and Territory environmental legislation. This is highlighted by fact that only one bilateral agreement, between the Commonwealth and Tasmania, has been negotiated under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

To address the concerns raised above in relation to the potential for environmental legislation to impact on access to land for mineral exploration, **the Minerals Council makes the following recommendations:**

- **the Commonwealth Government develop guidelines to provide direction to State and Territory Governments to address the potential creation of *de facto* grants for land access through their respective environmental regulatory framework; and**
- **as a matter of urgency, the Commonwealth Government commence the negotiation of bilateral agreements with each State and Territory Government.**

6.4 Protected areas

Legislative, policy and decision making developments (particularly at the international level) are increasingly implying, or stating, that exploration (and mining) and protected areas are mutually exclusive. The minerals industry acknowledges that there are some areas where exploration (and mining) developments are inconsistent with protection of the ecological, cultural or landscape values of the area. However, the industry has strong reservations over whether or not those areas always coincide with, or are representative of, the values being protected, including those identified under the IUCN Protected Areas Management Categories I-IV. The industry is not however advocating access to existing protected areas where such access is currently prohibited.

The minerals industry considers that the impact of any exploration development would be dependent on the exploration (and mining) and rehabilitation technologies to be employed as well as the ecological, cultural or landscape values of the area. In most cases it should be possible to protect these values, yet allow the exploration development to proceed. Regulatory arrangements should therefore not embody the presumption of incompatibility.

Instead, the minerals industry considers that any decision on whether or not to grant access for mineral exploration (or mining) should be based on:

- The current ecological, cultural or landscape values of the area;
- The current level and causes of any degradation;
- The capacity of the explorer to manage any impacts associated with the exploration development, and the potential for those impacts to be irreversible; and
- The potential for the explorer (and the exploration development) to enhance the ecological, cultural or landscape values of the area, if allowed.

The Minerals Council therefore makes the following recommendations:

- **Exploration (and mining) and protected areas not be considered as mutually exclusive, and this should be reflected in all relevant legislation;**
- **Decisions regarding access to land be based on rigorous scientific assessment and contemporary community attitudes, and be undertaken in such a way that the options for future generations are not foreclosed;**
- **Transparent environmental impact assessment processes be used to evaluate exploration (and mining) development proposals and to seek to establish frameworks for the maintenance of identified ecological, cultural or landscape values;**
- **The Commonwealth and State and Territory Governments apply multiple land use principles to exploration and protected areas and develop legislative frameworks that provide for assessment of applications to carry out exploration activities within protected areas on a case by case basis; and**
- **That the Commonwealth and State and Territory Governments establish mechanisms for regulatory offsetting to provide for exploration in protected areas while ensuring there is no net loss of ecological, cultural or landscape values.**

6.5 Cultural heritage legislation

The increasing complexity of cultural heritage legislation in Australia, both Indigenous and non-indigenous, has the potential to be a significant impediment to access to land for the Australian minerals industry. Many industry representatives now consider the approval processes and assessment requirements under the relevant cultural heritage legislation to be a bigger issue for land access than native title legislation.

While most existing cultural heritage legislation requires a cultural heritage survey and an associated approval, conditional access is usually granted. However, much of the new legislation has stricter assessment requirements and there is likely to be significant increases in associated costs and time delays, and greater potential for access to be denied.

Many Australian jurisdictions are currently reviewing their cultural heritage legislation, and it is therefore difficult to accurately determine the present or future impacts that cultural heritage legislation will or may have on the Australian minerals industry in relation to land access. However, that does not diminish the role that this Inquiry has in identifying and addressing the concerns raised, and recommendations made, in relation to cultural heritage legislation in Australia.

It is critical that the State and Commonwealth Governments work together to ensure that there is no overlap or duplication of assessment requirement for exploration applications with regard to cultural heritage. Particular consideration must be given to the potential duplication of State and Territory, and Commonwealth requirements during the development of the Commonwealth's new heritage regime.

The Minerals Council therefore makes the following recommendations:

- **the Commonwealth negotiate bilateral agreements with the State and Territory Governments to address concerns regarding duplication of assessment processes for cultural heritage;**
- **in developing the criteria to determine whether or not a cultural heritage place is listed as matter of national environmental significance under the *Environment Protection and Biodiversity Conservation Act 1999*, overriding consideration should be given to the legitimate operation of existing mines that are in close proximity to areas of cultural heritage; and**

- **the Commonwealth develop guidelines, in consultation with stakeholders, to provide direction on carrying out cultural heritage surveys. Issues to be addressed include appropriate qualifications, general costs, appropriate survey area and cross cultural awareness.**

SECTION 7 — OPERATING REQUIREMENTS FOR EXPLORATION ACTIVITIES

7.1 Introduction

The Council recognises that the relevance and importance of operating requirements for exploration activities will vary from state to state, as the relevant assessment and approval processes also vary. The Council's comments are directed at general principles and the Council expects that each State and Territory Chamber or Council will cover these issues in more detail and in the context of their particular circumstances.

In recognition that the responsibility for the issues raised in relation to operating requirements for exploration activities mainly rests with State and Territory Governments, and the limited scope of the Inquiry to address the relevant concerns, the Council makes the following comments and recommendations.

7.2 Operating requirements relating to tenements

The Council recognises and supports the intent of requirements (preventing anti-competitive behaviour and "warehousing" to ensure available land for exploration) for explorers to compulsorily relinquish their exploration tenures over the life of a project. However, the Council has concern with the rigidity of such requirements and considers there is scope to introduce a degree of flexibility into the regime in mitigating circumstances.

The Minerals Council makes the following recommendations:

- **legislative requirements in relation to the compulsory relinquishment of exploration tenements should not place unnecessary restrictions on the effective operation of exploration projects; and**
- **State and Territory Governments provide for compulsory grant of mining leases to the company that held the exploration tenement over the area of the proven resource. Such provisions should not limit the ability for the explorer to allocate properties to other companies for development.**

7.3 Environmental conditions imposed on exploration approvals

The Council considers that some aspects of current legislation and regulation in relation to environmental requirements placed on exploration developments (for example conditions imposed on exploration approvals) have the potential to negatively impact on the development, including:

- the subjectivity and inconsistency in many Australian jurisdictions in setting rehabilitation bonds (particularly for low impact exploration) and the potential to restrict market access for junior companies;
- the negative impact of imposing unnecessarily high rehabilitation bonds or security deposits (and associated difficulties in raising the necessary bond or insurance premium) on the flexibility of exploration companies and their ability to create competitive advantages; and
- the negative impact of imposing overly prescriptive conditions on exploration permits on the implementation of effective environmental management practices by exploration companies.

The Minerals Council makes the following recommendations:

- **all rehabilitation bonds should reflect the potential for environmental harm to occur, which in most instances for exploration activities would be very minimal, if not zero**

- this is particularly the case given that the administrative cost to Government in collection and holding the bond is likely to be more than the bond; and
- the setting of conditions on an environmental approval should not limit the legitimate operation of an exploration activity or restrict the manner in which they meet their legal obligations, that is, conditions should establish standards not prescribe methodologies.

7.4 Cultural heritage surveys

The Council considers that the lack of guidelines or accreditation requirements for persons carrying out cultural heritage surveys can contribute significantly to the costs and time delays associated with carrying out cultural heritage surveys.

In consideration of the significant resourcing issues associated with cultural heritage surveys, **the Minerals Council makes the following recommendation:**

- State and Territory Governments develop guidelines in relation to the carrying out of cultural heritage surveys. The guidelines would address, for example, appropriate qualifications (anthropologist, Indigenous etc), general costs, appropriate survey area and cross cultural awareness.

SECTION 8 — TAXATION TREATMENT OF MINERAL EXPLORATION EXPENDITURE

As was noted in Section 4.1, exploration represents the first stage in the mining and minerals processing sequence and the exploration expenditure necessary to discover minerals deposits are unique to the minerals (and oil and gas) industries.

Moreover, because a mine is a wasting asset, exploration is crucial to the continued existence of the industry in the long-term. The industry constantly requires high-risk funds to be applied in the search for new ore deposits. The establishment, expansion and replacement of operations depend on the success of this unique, costly, high-risk exploration activity. To operate in a highly competitive, global market, the industry therefore requires an overall legal and regulatory framework that provides for appropriate access to land and established rules for environmental approvals, taxation and the utilisation of economic infrastructure.

8.1 Background

The treatment of mineral exploration expenditure for tax purposes is an important fiscal parameter. It impacts on an investor's estimate of expected project value prior to the exploration stage and, to a lesser extent, at the development stage, when carried forward exploration expenditures act to reduce the tax liability.

The importance of the taxation treatment of mineral exploration expenditure has been recognised in a number of official reports over the last three decades:

- in 1975, the Asprey Committee, in the *Taxation Review Committee – Full Report*,²⁵ concluded that all exploration and prospecting expenditure should be immediately deductible against income derived from any source. This conclusion was based on the Committee's view that the expenditure is a normal operating expense of a mining enterprise and should be treated as such;
- the Productivity Commission (then the Industry Commission) has accepted that exploration is more important to the industry (in a relative sense) than R&D is to other industries. The Commission's last major review of the minerals industry was in 1991. Its view was that although the immediate deduction for exploration expenditure may involve an element of assistance, this 'concession' is the least distorting tax treatment in terms of the efficient allocation of resources in the economy;²⁶ and
- in 1999, the Review of Business Taxation noted in its final report, *A Tax System Redesigned*, that applying its recommended treatment of expenditure and assets without recognising the valuation difficulties associated with the results of exploration and prospecting expenditure would mean that the tax treatment of this expenditure would depend on the results of the exploration or prospecting activity. Unsuccessful expenditure would be deductible at the time the activity was abandoned, while successful expenditure would enter the cost base of the project. This is the accounting approach. It has been a longstanding feature of the current law to allow an immediate deduction for exploration and prospecting expenditure. The Review found that allowing continuation of immediate deductibility is justified on the basis that the value of the associated asset cannot be reliably measured.²⁷

²⁵ Asprey, K. (Chairman) (1975), *Taxation Review Committee – Full Report*, AGPS, Canberra, January, pp. 293-294.

²⁶ Industry Commission (1991), *Mining and Minerals Processing in Australia*, Industry Commission Inquiry Report Number 7, AGPS, Canberra (available at <http://www.pc.gov.au/ic/inquiry/07mining/finalreport/index.html>).

²⁷ Review of Business Taxation (1999), *A Tax System Redesigned*, AusInfo, Canberra, July, p. 167 (available at <http://www.rbt.treasury.gov.au/publications/paper4/index.htm>).

8.2 The taxation treatment of mineral exploration expenditure in Australia

8.2.1 Historical treatment

Deductions for exploration expenditure were not part of the *Income Tax Assessment Act* (ITAA 1936) when it was first introduced in 1936. The *Income Tax Assessment Bill 1947* amended the ITAA 1936 to include an immediate deduction for exploration expenditure for a range of minerals. The Second Reading Speech to the House of Representatives, delivered by the then Prime Minister and Treasurer, the Hon Ben Chifley MP, described the arrangements as follows:

*The cost of exploration and prospecting on mining tenures will also be made deductible from income from mining operations, but this concession will not extend to expenditure on exploration or prospecting for gold and petroleum, or in locating coal deposits. Gold-mining profits are already exempt from income tax, and provision has already been made in the income tax law in regard to expenditure incurred in the search for petroleum in Australia and New Guinea. The location of coal deposits is not regarded as justifying any special taxation allowance in respect of the cost incurred ... The amendments will apply in assessments based on income derived during the year ending the 30th June 1947.*²⁸

The exclusion of exploration for coal deposits was removed in 1951, while the exclusion for gold was removed in 1991 (when the exemption from company tax under paragraph 23(o) of the ITAA 1936 was terminated).

Prior to the enactment of the new uniform capital allowances (UCA) regime from 1 July 2001, subject to a number of conditions, expenditure, whether capital or not, on exploration or prospecting for minerals (including petroleum) and quarry materials, was immediately deductible.

There were two conditions for the deduction:

- the minerals, petroleum or quarry materials needed to be obtainable by eligible operations in respect of the resource. Broadly, this required that the minerals, petroleum or quarry materials were in their natural site and any income derived as a result of their extraction was assessable; and
- the taxpayer carried on eligible operations, proposed to carry on such operations, or was carrying on a business of exploration or prospecting for minerals, petroleum or quarry materials obtainable by eligible operations in relation to the resource.

The meaning of exploration or prospecting was not defined exhaustively and so, in common with the treatment of such terms under the income tax legislation, took its ordinary meaning. However, it was defined to include a number of actions that commonly are undertaken in performing exploration activities, such as geological mapping, geophysical surveys, exploratory drilling, studies to evaluate the economic feasibility of mining or quarrying, and so on. It does not, however, include expenditure on developing or operating a mining or quarrying field or site. The point at which a decision to proceed to actual mining operations has been made, is the dividing line between exploration and prospecting on the one hand, and development and operation on the other.

8.2.2 Current treatment

Following extensive discussion with the Minerals Council in 1999 and 2000, the new UCA regime, which came into effect from 1 July 2001, **retained the immediate deductibility for expenditure on exploration** for minerals obtainable by mining operations.

However, there were two exceptions:

²⁸ See

<http://law.ato.gov.au/atolaw/view.htm?dbwidetocone=%2204:EXT:1947:Income%20Tax%20Assessment%20Act%201947:Second%20Reading%20Speech%20-%20REPS:%22>

- expenditure that forms part of the cost of a depreciating asset other than mining or quarrying or prospecting information will not be immediately deductible to the extent that you can deduct an amount for the asset under general provisions of the new UCA regime
- the decline in value (that is, the amount deductible) of a depreciating asset used for exploration and prospecting, and not used for development drilling or working operations, is the whole cost of the asset
- for depreciating assets that do not meet that test, for instance, because they are used in production, the deductions are by reference to the usual decline in value calculated for any depreciating asset by reference to its effective life; and
- expenditure on drilling for petroleum or expenditure on operations in the course of working a mining property, quarrying property or petroleum field will not be immediately deductible.

This new treatment represented three changes to the previous law:

- expenditure on depreciating assets, such as drilling rigs, can still qualify for immediate deduction, but under the general provisions of the UCA regime rather than having unique provisions;
- expenditure on acquiring mining, quarrying information for the purposes of exploration or prospecting is to be immediately deductible
- previously, such expenditure was deductible over the shorter of the life of mine/quarry or 10 years
- by comparison, the (capital) cost of such information acquired or created for mining or quarrying purposes will be deductible over the effective life of the information, usually determined by reference to the life of the mine; and
- the new treatment does not retain the current requirement that, to qualify for the immediate deduction, the taxpayer must carry on, or propose to carry on, eligible operations, or carry on a business of exploration or prospecting for minerals obtainable by eligible operations in relation to the resource. This was because it is thought that the requirement added nothing to the law.

The definition of key terms such as 'exploration or prospecting', 'minerals and quarry materials', 'mining operations', 'mining, quarrying or prospecting information' was unchanged from the previous law.

The Minerals Council strongly supports the continued immediate deductibility of exploration expenditure (subject to our recommendations in Section 8.5 below), which fits well with the Council's fundamental policy principles outlined in Box 1.1 above. In particular:

- the treatment recognises the high levels of risk associated with exploration and aims to encourage the discovery of new deposits and provide a competitive fiscal regime. The immediate deductibility of exploration expenditure acknowledges that such expenditure is an ongoing and necessary expense of a minerals company;
- the deductibility of exploration and prospecting expenditure can also be seen as an attempt to correct the non-neutral implications of company income tax on the expected rate of return to exploration compared to other activities. Successful exploration expenditure results in a productive asset. Unsuccessful exploration does not. The low success rate of exploration means that only a small part of exploration expenditure would be deductible in the absence of a provision of this nature
 - this would result in a reduction in the post-tax expected rate of return on exploration compared to the post tax return on a less risky investment with a similar pre-tax expected return. The

current treatment of exploration costs recognises the distinction between identification of asset potential and asset creation.

- as is discussed in more detail below, exploration has a number of attributes that may lead to market failure in the absence of Government intervention. It has both public good and positive externality attributes
- the immediate deductibility of exploration costs provides some recognition that market failure does not allow an investor to internalise the benefits of exploration, which in association with risk may result in less than optimal market allocation of resources for the minerals industry. Exploration rarely leads to a mine being developed and it typically costs approximately \$US 50 million to discover and assess the feasibility of a world class ore body. This typically takes five to fifteen years to develop from initial discovery (depending, among other things, on the size of the mine);
- minerals companies are required to provide certain results of exploration activities to Commonwealth and State and Territory Governments (in respect of areas under their respective jurisdictions). Exploration activity is inherently risky, the outcomes uncertain, information unevenly distributed and strongly skewed in favour of companies with accumulated experience in regions of interest. Once a discovery is made the prospectivity of that area may increase. This increased prospectivity leads to greater activity and increased cost of obtaining adjacent areas. The initial investor does not receive any preferential treatment when bidding for adjacent areas.

8.3 *International taxation treatment of mineral exploration expenditure*

Most economies with large minerals industries allow exploration expenditure to be deducted as incurred. Australia's tax treatment of exploration expenditure is broadly comparable with the treatment in Canada (although, importantly, flow-through shareholder arrangements also exist – these arrangements are discussed further in Section 8.4.1). South Africa and Chile also effectively permit immediate expensing of mineral exploration expenditure.

Treatment of exploration costs in the United States and New Zealand are more circumscribed than Australia. Broadly, they allow exploration to be immediately deducted but subject to recapture in the event of successful development. In New Zealand's case tax credits for unsuccessful exploration are added back as assessable income when a project goes to commercial production.

Table 8.1 briefly describes the taxation treatment of exploration expenditure in seven jurisdictions.

Table 8.1 Taxation treatment of exploration expenditure, selected countries

	ONGOING (that is, off-site and exploration feasibility study costs)	PRE-PRODUCTION EXPLORATION COSTS
Argentina	Up to 200 per cent deduction. Deductible 100 per cent under Mining Law incentives in year incurred and may also be deductible under income tax law as ordinary deductions or depreciation allowances.	Up to 200 per cent deduction. Deductible 100 per cent under Mining Law incentives in year incurred and may also be deductible under income tax law as ordinary deductions or depreciation allowances.
Australia	100 per cent immediately deductible	100 per cent immediately deductible
Canada (Ontario)	100 per cent	100 per cent
Chile	100 per cent in first year of production	16.7 per cent SL from first year of production

Indonesia	If in area covered by Contract of Work (COW) 100 per cent deductible - but if in non-COW area same as for pre-production stage.	Pre-production stage - generally amortised over a period of time dictated by the Contract of Work (COW) covering the area.
South Africa	100 per cent in first year of production	100 per cent in first year of production
United States (Arizona, Nevada, Colorado)	70 per cent in first year; 30 per cent over 5 years on SL basis	70 per cent in first year; 30 per cent over 5 years on SL basis

SL/DB Straight Line or Diminishing Balance method.

Source: Otto, J. (2000), *Global Mining Taxation Comparative Study (2nd Ed.)*, Institute for Global Resources Policy & Management, Colorado School of Mines; PricewaterhouseCoopers (2000), *Mining Taxation Regimes*, London Mining Journal, 8 December, pages 450-52; and Council member companies.

8.4 Options for reform of taxation treatment of exploration expenditure

This Section describes a number of options that exist to reform the taxation treatment of minerals exploration expenditure in Australia, to correct a number of market failures that exist in the current system. Each of these options is assessed against the fundamental policy principles set out in Box 1.1 above.

8.4.1 Flow-through shares

One notable option for reform discussed in recent years is the (re)introduction into Australia of flow-through shares. This proposal would provide a flow-through of the exploration deduction to the entity that subscribes capital to the explorer. A fiscal arrangement of this nature has existed, in various forms, for many decades in Canada.²⁹ The Canadian arrangement has been considered by a number of commentators in recent years. In addition, the Council is aware that a number of mineral industry associations have proposed the (re)introduction of flow through shares into Australia.³⁰

In effect, this arrangement provides for the explorer to forego an exploration deduction and transfer it to an investor. The outcome of such a fiscal arrangement is that the after-tax cost of the equity investment is reduced thereby encouraging the investment community to increase their investment in exploration companies.

Such an arrangement would be particularly important to junior exploration companies to the extent that these companies are unable to utilise income tax deductions for exploration expenditures.

Flow-through shares have a number of advantages when assessed against the Council's fundamental policy principles outlined in Box 1.1 above. These include:

- producing minerals companies are able to write-off exploration expenditure against income, whereas junior exploration companies, to the extent they do not have income, cannot claim a deduction. **Flow-through shares would be one way to address this distortion inherent in the current system;**
- flow-through shares provide a way to **address market failures that inhibit the efficient flow of venture capital to junior exploration companies.** These market failures include information

²⁹ The Canadian flow-through taxation system is outlined in detail on the Prospectors and Developers Association of Canada web site, at <http://www.pdac.ca>. Papers assessing the Canadian system include Parry, J. (2001), *The Future of Mineral Exploration In Australia*, presentation to the CPA Resources Convention, Perth, August; Harper, G. (2001), *Boosting the discovery of new mineral deposits by attracting investments: The Canadian experience*, a paper presented at EXPOSIBRAM 2001, Brazil, on April 25; and PricewaterhouseCoopers (2002), *Tax Prescription for a Healthy Canadian Mining Sector*, at <http://www.pwcglobal.com/extweb/indissue.nsf/DocID/432EC0AEF10DE0A7852568DA00683CA9>.

³⁰ Including the Chamber of Mines and Energy of Western Australia, the Australian Gold Council and the Association of Mining and Exploration Companies.

asymmetries³¹ that impact on decision-making by venture capital suppliers and the impact of risk and uncertainty;³²

- **in the presence of positive externalities in mineral exploration,**³³ a system of flow-through shares takes account of flow on benefits of exploration to other explorers by allowing investors to potentially gain a tax deduction in excess of the company tax rate;
- the introduction of flow-through shares **does not raise major revenue implications** for Government because this is a “timing” issue (in terms of the “wash out” of tax effects)
 - the exploration deduction transferred from the junior exploration company to the investor is essentially a “timing difference” (that is, the expenditure would be deductible anyway, but over time rather than immediately). The cost to revenue then, relates only to the “time value of money” apply to the difference between immediate deductibility of exploration expenditure and some theoretical benchmark of deductibility over time – the exact cost would depend on the extent of this timing difference and the composition of investors utilising the deduction (that is, the marginal tax rate faced by these investors) and the “wash out” of tax effects through the franking credit system
 - in addition, this estimate of a cost to revenue should be offset by capital gains taxes that would apply to flow-through shares, income taxes paid by those employed and over the longer-term the royalty and tax burdens of the successful mines discovered directly or indirectly.

To a certain extent, arrangements with a similar effect to flow-through shares type are already available in Australia. Two recent Product Ruling cases demonstrate the extent to which flow-through shares are currently available:

- in a recent attempt to gain an immediate tax deduction for exploration expenditure, the listed company Charters Towers Gold Mines launched a prospectus to raise \$25 million to fund mineral exploration (the Brilliant Reef Gold Project near Charters Towers in Queensland) where investors are able to claim a 100 per cent deduction for their contribution. The company achieved this outcome through a new ATO Product Ruling;³⁴ and
- Metex Resources Ltd has also attempted to gain a similar tax ruling to Charters Towers but has not yet succeeded.³⁵

The approach taken by Charters Towers Gold Mines is similar to a system of flow-through shares. However, in Australia, each company that pursues this approach requires a tax ruling on a case by case basis. As a consequence, legal costs are incurred for an uncertain outcome. The introduction of a flow-through shares system would avoid the uncertainties and costs associated with this alternative informal approach.

8.4.2 Exploration tax credits

As noted in Section 8.3, under current taxation arrangements, eligible mineral exploration expenditure is deductible against income earned in the same financial year by the minerals company. However, for

³¹ Information asymmetries relate to a situation where potential buyers or sellers do not have enough information to strike mutually satisfactory deals.

³² Risk and uncertainty is where investors may avoid socially beneficial projects due to risk aversion or an inability to spread risk.

³³ For example, exploration in a “greenfields” area that results in a significant new discovery by one exploration company may signal the prospectivity of the area to other exploration companies. In addition, discovery of a new type of deposit provides information to other exploration companies. In each case, exploration companies benefit from the exploration costs incurred by the original company.

³⁴ A copy of this Product Ruling can be found at <http://law.ato.gov.au/pdf/pr01-085.pdf>. For details of the Brilliant Gold Reef Project, see <http://www.goldreef.com.au/index.html>.

³⁵ Metex Resources Ltd is a Western Australian based gold explorer. It has positioned itself as a player in the Laverton Belt region of Western Australia’s North Eastern Goldfields and has a significant landholding in the Pinjin/Roe area east of Kalgoorlie. For further details, see <http://www.metex.com.au/Index.htm>.

junior exploration companies that do not have adequate taxable income in a given financial year, the company that incurred the expenditures may carry exploration deductions forward in nominal terms. This "tax credit" may be utilised when the junior exploration company earns income, or when the company merges with or is acquired by another company.

The inability to immediately deduct exploration expenditure increases industry costs and reduces mineral exploration activity below its optimal level from an economy-wide perspective. It is a structural flaw in the taxation system facing the minerals industry that results in an inefficient outcome – a regulation-induced market failure.

A system of trade in these "tax credits" would directly address this market failure. Under this fiscal arrangement, junior exploration companies would be able to sell "tax credits" to other companies with sufficient company income tax to utilise those deductions. Such an approach would enable junior exploration companies to gain immediate access to those tax deductions.

A similar approach is adopted in the Northern Territory for the treatment of exploration expenditure for mineral royalty purposes. Under this system, expenditure for work actually carried out in the Northern Territory is deductible from the profit of any mine operating under this royalty system. The proof of expenditure is a transferable exploration expenditure certificate (EEC). Transferable EEC's allow unsuccessful explorers to recoup part of their exploration expenditure, whilst enabling successful miners who purchase certificates to lower their royalty liability.³⁶

8.4.3 Deductibility of native title costs

Notwithstanding the on-going tax reform process of recent years a significant "blackhole" expenditure remains relating to certain native title costs – specifically, a range of native title costs are incurred in the process of mineral exploration in Australia but are not deductible as a legitimate business expense.

One of the Council's long held principles of business taxation is that the taxation system should avoid the double taxation of business income and provide relief for all business expenses. The Ralph Review of Business Taxation's final report supported this view on non-deductible business expenditure (so-called "blackhole" expenditure).³⁷

Following consideration of the Ralph Report, the Federal Government announced on 11 November 1999 that all blackhole expenditure was to be appropriately addressed.³⁸

The Minerals Council also welcomed the reconfirmation of the Government's commitment "to giving recognition in the tax law to 'blackhole' expenditure" declared in the Treasurer's Press Release of 22 March 2001.³⁹ This statement advised that while the new capital allowance system commences the process of recognising these expenditures "... where other blackholes are identified, they will be considered on a case-by-case basis". This position was reiterated on 14 May 2002 in the 2002-03 Budget.⁴⁰

Notwithstanding reform initiatives in recent years to address blackholes, through the enactment of the UCA regime from 1 July 2001, a number of blackhole expenditure problem areas for companies remain. In the case of exploration, the significant blackhole expenditure relates to certain native title costs – a range of native title costs are incurred in the process of mineral exploration in Australia but are not deductible as a legitimate expense. The Government advised it would

³⁶ For more detail, see the Northern Territory Treasury home page at <http://www.nt.gov.au/nt/revenue/overmra.html>.

³⁷ Review of Business Taxation (1999), *A Tax System Redesigned*, AusInfo, Canberra, July, p. 187 (available at <http://www.rbt.treasury.gov.au/publications/paper4/index.htm>).

³⁸ See <http://www.treasurer.gov.au/tsr/content/pressreleases/1999/074.asp>.

³⁹ See <http://www.treasurer.gov.au/tsr/content/pressreleases/2001/016.asp>.

⁴⁰ Commonwealth of Australia (2002), *2002-03 Budget: Budget Paper No. 2 — Budget Measures 2002-03*, AusInfo, Canberra, 14 May, p. 22 (available at <http://www.budget.gov.au/2002-03/bp2/html/index.html>).

address some of these concerns in the Treasurer's and Attorney-General's Joint Press Release of 13 February 1998.⁴¹ However, these concerns have not been addressed.

An efficient market outcome (involving an optimal level of exploration) cannot be achieved unless **all expenditure incurred in the mineral exploration** is deductible against income earned by mineral companies.

Unless and until the Government takes additional action to remedy anomalies, Australian minerals companies will continue to pay tax based on a distorted assessment of their trading results. The additional tax impost creates a competitive disadvantage for Australian minerals companies operating in the global market.

8.4.4 A 125 per cent deduction for "greenfields" exploration

A final issue that has been put forward for consideration is whether the current immediate (that is, 100 per cent) tax deduction for eligible exploration expenditure is sufficient. It can be argued that exploration has many of the characteristics of research and development, for which a 125 per cent tax deduction is available in certain circumstances.⁴²

To the extent that exploration, as outlined above, generates positive externalities, there may be a case for recognising this via a 125 per cent deduction. These positive externalities are most likely to be generated during "greenfields" exploration. Greenfields exploration would need to be appropriately defined for the purposes of the deduction.

8.5 Recommendations

Section 8.4 has identified a number of market failures in the taxation treatment of minerals exploration in Australia. Unless they are appropriately addressed, these market failures will continue to impede access to venture capital for junior exploration companies and distort exploration expenditure decision-making by minerals companies, resulting in an inefficiently low level of exploration expenditure. A level of exploration expenditure that is lower than is socially optimal reduces the economic contribution of the minerals industry and the economic welfare of all Australians.

To prevent market failures from impeding access to venture capital for junior exploration companies and distorting exploration expenditure decision-making by minerals companies, the **Minerals Council recommends a suite of fiscal arrangements introduced. Each will, if appropriately implemented, correct the market failures identified and thereby add to Australia's economic welfare:**

- **a system of flow-through shares that addresses a distortion inherent in the current business taxation system that prevents nontaxpaying junior exploration companies from claiming an immediate deduction for their exploration expenditure and address market failures that inhibit the efficient flow of venture capital to junior explorers;**
- **a system of trade in exploration tax credits to address a distortion inherent in the current business taxation system that prevents nontaxpaying junior exploration companies from claiming an immediate deduction for their exploration expenditure;**
- **appropriately recognise the deductibility of certain native title expenditures under the Uniform Capital Allowance regime would address a remaining blackhole expenditure in the taxation system (that inefficiently increases business costs) and give effect to the**

⁴¹ See http://www.law.gov.au/aghome/agnews/1998newsag/Joint_4_98.htm.

⁴² Full details of the 125 per cent R&D Tax Concession can found at the AusIndustry home page, at <http://www.ausindustry.gov.au/content/level3index.cfm?ObjectID=CA33ECF2-724B-44B6-A134C433F093D3E8&L2Parent=AEB901E5-7CB8-4143-A3BF33B2423F9DA6>.

Government's policy position in this area; and

- **a 125 per cent deduction for eligible "greenfields" exploration expenditure to recognise the positive externalities associated with such activity.**

Included with submission no. 81 was the following attachment which has been taken as Exhibit 25:

Attachment 1. Australia's Mines and Major Mineral Deposits (Map), scale 1:10 000 000. (Exhibit 25)