

**Submission to the House of Representatives
Standing Committee on Industry and Resources**

By

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**Impediments to increasing investment in
Mineral and Petroleum exploration in Australia**

As an exploration geologist in the minerals industry I write this submission addressing the issues as I have experienced them in the minerals industry, rather than the Petroleum industry.

Summary:

In the last 8 years investment in the minerals industry and particularly in exploration has fallen to an all-time low which has resulted in thousands of skilled and experienced people being currently unemployed or having left the industry altogether. This means that not only have we lost the benefit of all that experience and expertise, but it is unlikely they will all return and when the current trend is turned around we will have a longer harder learning curve, costing more money to get effective exploration started quickly.

The loss of experienced people is only part of the problem; lack of investment now means that as current reserves are used up there is no active exploration searching for replacements. With a normal lead-in time of 8 – 12 years between the discovery drill-hole and the recovery of capital costs, a discovery in most base metals is needed within the next 5 years, to allow a continuation of supply. This is a worldwide dilemma but is especially important to Australia, where mining is the second biggest export earner and one of the largest national employers.

Giant deposits until the 1990s were discovered on average around the world every 10 – 12 years and in most cases as a result of testing new ideas or methodologies. Brown-fields exploration (i.e. around known mineral reserves) has only ever extended known reserves, and giant deposits have invariably been discovered by grass-roots exploration programmes. Current investment levels do not encourage companies to carry out grass-roots exploration that is more expensive, and potentially riskier than brown-fields exploration.

The impediments to investment in exploration at the moment are: -

- Current potential investors are interested in quick returns (2 to 5 years), and the minerals industry is not seen as a good short term investment.
- Native title issues add time to an already protracted lease application process and lead-in time to active exploration.
- The length of processing Native Title claims, the number of claimants, counter claimants and unrealistic financial expectations of the claimants are discouraging speculative investors.
 - These issues have been solved very satisfactorily in the Musgrave block in SA and in the NT with an ongoing consultative process and promised future employment, but not elsewhere.
- Costs involved in initial applications, i.e. minimum expenditure requirements, cost of geoscientific data and access to libraries, are all limiting smaller companies to very specific areas.

- This also means that small companies are reluctant to test new ideas and areas
 - While the large mining houses are contracting out exploration they are not actively involved in research, leaving this to academic institutions, which have different agendas.
- There are less geoscience graduates now than 5 years ago and there are very few positions for them and little opportunity to gain real experience, so we have a shrinking skilled workforce, where Australia once lead the world and indeed was an active exporter of talent because of the caliber of its earth science graduates. Again this increases the learning curve and lead-in time to active exploration.

Potential incentives to invest in exploration:

- All the state governments and several federal authorities have in recent years been carrying out active geoscientific data collection and collation, then marketing this data to potential investors, largely mining houses and established exploration companies.

These data sets are extremely useful and well within the price range of these larger companies, however they represent a large portion of the operating budget of smaller companies with exploration budgets of \$1 – 2M AUD to spread over several projects in Australia. In these situations many companies will chose to invest overseas, especially in Asia, where initial expenditure is lower.

Providing this data at cost would go a long way to encouraging these smaller companies to keep their dollars in Australia.

Providing the option of a low-cost value-added processing, low-level interpretation service would also help. Perhaps a provision to supply the data to companies at no initial cost with a buy-in clause or a pro-rata cost subsequently, based on advanced exploration, such as pattern drilling. The potential payback is enormous and the chances of success very high with more companies using the data.

Providing the data free to academic institutes is also a great idea, however a clause requiring them to provide a portfolio of ideas and / or targets based on the data within 2 years of receipt of the data would prompt them to fully utilize the data. These portfolios could then be used to promote areas, research new ideas and areas, and encourage investment and general interest in exploration.

- While Native title claims and counter claims are debated, regional exploration should continue, and provisions made to allow companies discovering potential targets first refusal after Native Title issues have been settled. This allows all parties to get a better idea of an area's potential. Where there are several Native Title claimants, the debate ties up government funds and discourages investors. Allowing work to go on, and having federal provisions stating that land under claims will not accrue income

for the claimants, except via access payments and apportioned employment, will speed up the process and encourage exploration companies.

Stating that there will be no backdating of payments after claims are settled will encourage the rapid settlement of claims.

- Increased state and federal funding of geoscience undergraduates would encourage future enrolment in these courses. Co-funding vacation employment of undergraduates with mining companies and mapping and engineering projects in areas not yet covered will provide more detailed data over larger areas.

To date approximately 70% of Australia is mapped to a maximum scale of 1:100,000. Co-funded projects would copy data to the government, the co-sponsor and the academic institutes, with the government able to specify data types, i.e. structural data, mineral occurrence data (old and new) and alteration styles, all of which can be added to the products on offer from the government at cost to interested investors / explorers.

Investment can be encouraged via: -

- Emphasizing the gains to be had via direct investment. Overall the resource sector is a steady climber and a good long-term investment, suited to superannuation style schemes.

Creating Government 'Resource Bonds' could be a potential vehicle for this type of investment, with all the money going into the minerals industry. This means that there is a very large money base to operate with encouraging more companies to invest in exploration, particularly grass-roots exploration. The more companies involved the higher the potential for success and better geoscientific data products for on-sale. It also means that both national and international companies are more inclined to invest in Australia.

- To further encourage investment, minimum expenditure requirements for exploration tenements should be lowered for the first 2 years until a company can fully assess the potential of an area and then commit for a further 2 years, at which time the expenditure requirements can be increased.

Easing the reporting requirements would also help, by allowing geoscientists to spend more time exploring rather than in an office compiling reports. Reports need only be in digital form and annual, with minimum reporting standards, i.e. raw data, brief interpretation, planned work, and expenditure. The surrender / final report should be the big report with all the details, progress reports maybe a single A4 sheet (digital) simply stating work done, work planned, expenditure to date.