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Non-financial Barriers to Mineral and Energy Resource Exploration in Australia

Submission
By
Resource Futures Pty Ltd

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EXECUTIVE SUMMARY

Resource Futures Pty Ltd ("RFPL") is a management consulting firm that through principal consultant, Dennis O'Neill, has over 30 years experience in all Australian jurisdictions in various aspects of mineral and energy resource exploration and operations – technical, commercial, policy, advocacy, land access, environmental, general management, capital raising and governance.

This submission addresses largely personal perceptions of changes that have occurred over several decades and which now drive the process through which contractual rights are awarded to permit exploration for publicly owned minerals.

It provides a series of general observations across subjects such as ownership of mineral rights, the distinction between exploration and mining, the challenges of winning a social licence to operate, the modern challenge of science communication, the rise of bureaucratic micro-management, the changed market for venture capital, measuring impacts and undertaking better risk management.

This submission concludes that the complexity and delay in, and hence cost of, securing access to land for exploration has increased appreciably over the past 30-40 years.

Re-engineering of approvals processes and a more rigorous and realistic risk weighted approach to exploration approvals may deliver improvements. The Nordics and Ireland have done this to the betterment of their ranking in investment attractiveness surveys.

However, exploration investment decisions cannot be assessed without linking potential geological success to the ease with which eventual mining may occur.

By not being able to examine the full resource investment process, through constrained Terms of Reference, the Commission may read only half the Australian story.

INTRODUCTION

Resource Futures Pty Ltd ("RFPL") is a management consulting firm that was formed in 1987 to provide commercial, advocacy and strategic planning services to the resource and infrastructure sectors. Principal consultant, Dennis O'Neill, has over 30 years experience in all Australian jurisdictions in various aspects of mineral and energy resource exploration and operations – technical, commercial, policy, advocacy, land access, environmental, general management, capital raising and governance. This experience was accumulated through RFPL and also in full time roles with major and junior resource companies, with industry associations and in public service roles.

These included exposure to different aspects of exploration approval systems and processes in most Australian jurisdictions as well as in overseas jurisdictions such as New Zealand, Papua New Guinea, Vanuatu, Fiji, Zimbabwe, Eritrea, Ireland and Poland.

As managing director of a listed ASX junior exploration company, Mr O'Neill also made investment decisions about preferred jurisdictions for exploration investment and complied with regulatory processes necessary to facilitate exploration activity.

Commodities encountered in this range of experience include black and brown coal (lignite), uranium, coal seam gas, geothermal energy, base metals, bauxite, gold, diamonds, rare earth metals, tantalum, lithium, iron ore (hematite and magnetite), phosphate, platinum group metals and industrial minerals such as heavy mineral sands, silica, garnet and china clays.

In 2012 RFPL undertook a study for the NSW Government of barriers to resource sector investment in New South Wales. This involved a series of interviews with investors, explorers, operators, legal practitioners, financiers, bureaucrats, consultants and other professionals associated with investment in and management of resource projects in that State and distillation of their received critique into recommendations for change. The report has not been released publicly at this stage and will be submitted separately to the Commission on a "Commercial-In-Confidence" basis.

The current submission will address largely personal perceptions of changes that have occurred over several decades and which now drive the process through which contractual rights are awarded to permit exploration for publicly owned minerals.

As such, these perceptions may be seen simply as assertions but RFPL is not in a position to research and quantify the impact of policy and process changes over the decades and how they have contributed to complexity, delay and higher cost for the exploration sector. Not all of the comments made in this submission relate to all jurisdictions but the remarks and observations are necessarily generalised except where specific examples are given.

Before addressing specific Terms of Reference, RFPL offers some general observations of a more philosophical nature about mineral rights and the exploration process which in turn may better inform the later comments.

OWNERSHIP OF MINERAL RIGHTS

With only minor exceptions, Australian landowners own only the surface of their land, with all minerals existing below the surface owned by the jurisdiction where the land lies, State or Territory. This is expressed as “Crown” or “State” ownership of minerals.

The premise underpinning State mineral ownership appears to have been that Governments could regulate access to and economic development of minerals in return for royalty payments to General Revenue, ultimately to the benefit of all residents of the jurisdiction. The Commonwealth, although not an owner of terrestrial mineral rights, also benefits through other revenue streams from mineral development, such as corporate and personal income taxes.

Access to those minerals by individuals or companies seeking to discover and develop economic quantities is regulated by State and Territory mining and petroleum legislation and further impacted and conditioned by planning, environmental, water, native title, health and safety and similar legislation and regulations. Such legislation has long embedded protections from or limitations to exploration and mining for urban and built-up areas, for some types of intensive agriculture and for areas of environmental and cultural or social significance.

For many decades, however, in most if not all Australian jurisdictions, Governments have tended to promote the issue of licences and leases for exploration and mining based on simple efficiency grounds that the economic benefit per land unit obtained from mineral development was vastly superior to the alternative surface-only economic uses of that unit. Where existing surface use of the land is disrupted by exploration or mining activity and economic loss is experienced by the surface landowner, all jurisdictions have appropriate mechanisms to ensure that this loss is compensated.

In some there are mechanisms to arbitrate the failure of explorers and land owners to reach agreement on access and compensation. The notion of a surface land owner “veto” over exploration and mining access is generally limited.

In the main, these processes seem to be little different from the “public good” principles that allow for sequestration of land for transport corridors, pipeline and transmission easements and other public works deemed essential by Governments for the benefit of the wider community.

A major difference with resources, however, is that there are mechanisms to ensure that, after cessation of exploration or mining, the land may be returned to its surface owner for recommencement of prior economic use or, failing that, it is returned to a use satisfactory to regulators and the owner.

In the four decades of resource development witnessed by this observer, the stewardship of resources by the State on behalf of all citizens appears to have weakened in practice, if not in law, and other complex factors, often localised and socially and environmentally

inspired, now stay the hands of political decision makers in favour of narrower, short-term outcomes.

Arguably, the broader public, due to the structure and ownership of the exploration and mining sectors, increasingly see resource development as a private good rather than as an outsourced public good licensed to the private sector by governments.

If that is the case, the concept of State mineral ownership may have developed subtle flaws and may require redefinition, if only to clarify for investors the evolving nature of the sovereign risk they are increasingly facing and to reinforce to the wider community that the economic benefits of resource development may be constrained by the planning and development preferences of local and regional communities.

In other words, the "Public Good" now may have an altered meaning, more oriented to the desires of local communities than to the needs of the wider community. In other words, a creeping "veto" power is emerging that was not intended by the original legislators.

EXPLORATION IS NOT MINING

There appears to be limited understanding in the wider community of the distinction between exploration and mining. Public maps that show large tracts of landscape covered by exploration licences can drive a misunderstanding of the ultimate impact of mining operations that may take place if the exploration is successful. An exploration licence of, say, 1000 square kilometres may reduce to a mining lease of, say, 5-10 square kilometres, or even less. A licence to explore does not imply a right to mine, but this is often not well understood. Very few exploration licences transform over time into mining leases, possibly fewer than one in a hundred or even a thousand.

At a basic level, exploration is the equivalent of scientific research and development. In the hands of government resource agencies it leads to the acquisition of pre-competitive geological and other scientific information that is made publicly available, essential technical "bait" to attract investors to undertake commercially inspired and more detailed investigation of the possibilities. Such information is also used by other government agencies in essential services – water resource management, emergency services, mapping, flood mitigation, earthquake sensing and so on.

Opposition to exploration seems to have grown, even in communities that historically have hosted mining because opinion has shifted against perceived "old-fashioned" and "dirty" industries and opposition to exploration provides an easier target to prevent ultimate mining should the exploration be successful. There may also be community fears, in an infrastructure constrained era, that local mining will further burden overloaded infrastructure.

Community aesthetics have also changed – a resident of Parkes (NSW) recently remarked to this observer that it was great that the town hosted an underground mine with a limited surface footprint and not an "ugly" open-pit mine such as one of the Hunter

Valley's coal mines. Consequently these days there may be greater opposition to exploration that conceivably may lead to open-pit mining, with communities believing it better to halt the investment as early as possible in the development cycle.

SOCIAL LICENCE TO OPERATE

With the growth over the past few decades of community amenity and of general wealth, protection of personal rights ahead of community benefit appears to have gained greater traction. With social media and related communication advances, it is easier for individuals and limited interest groups to mobilise and consolidate opposition to potential developments they believe may damage their amenity.

That such developments may deliver a wider community benefit runs second to the local or personal priorities. Political and bureaucratic decision makers appear to have responded accordingly and increasingly assert that it is the role of the investor to win over communities. Arguments that they are the stewards of the resource endowment for all residents increasingly fall on deaf political ears.

Overcoming often narrow community opposition is therefore the key to winning a social licence to operate in a particular community or region. This proposition was recently reflected by NSW Nationals MP Chris Gulaptis in response to the suspension of activities by a coal seam gas company in northern NSW, when he said he was disappointed about job losses, but "public sentiment overrides all interests". This commentary begs the questions "which public sentiment?", "how is it measured?" and "who is the final arbiter?"

SCIENCE COMMUNICATION

Many of the risk communication elements of exploration or resource development are grounded in a clear understanding of the scientific principles involved. While we live in an era that enjoys the benefits of scientific endeavour, many in the community see these technical wonders as "black boxes" and do not understand the functional or scientific detail. Risk aversion seems to have grown apace of the last few decades placing greater demands on governments and companies to communicate more clearly how associated risks will be avoided or mitigated.

This communication process poses increasing challenges in the resources space as new technologies are brought to bear and as perceptions change in relation to environmental and safety threats from resource development.

In a recently published[i] commentary on the *National Audit of Australian Science Engagement Activities, 2012*, funded by the Federal Government's *Inspiring Australia* program, it was suggested that most science communication remains "one-way" and that Australian science communication remains trapped in a 20th century model.

[i] The Conversation 12 March 2103, *Science engagement in Australia is a 20th century toy*, Jenni Metcalfe, UQ

Risk perceptions may frequently be overstated by project opponents, leading to excessive prudence on the part of decision makers. The result, however, is often to prevaricate and delay, leading investors to give up and look elsewhere. More effective engagement and communication mechanisms, involving both resource stewards and resource developers, are needed to diminish the red tape and delay that have grown over the past few decades in soothing community concerns.

Just as the food sector bemoans the loss of community understanding of what happens on the farm and the logistical and manufacturing effort to bring food to the supermarket shelf, so too has the community lost sight of how we obtain gas and electricity and the metals and minerals that sustain a modern economy and lifestyle.

Redressing this situation and the wider community perception of what are reasonable risks to bear in new resource developments probably represents a science communication challenge of significant proportions.

BUREAUCRATIC MICRO-MANAGEMENT

Exploration in the 19th century required only possession of a simple licence (Miner's Right or equivalent) and even up to the 1980's required only the grant of the relevant prospecting or exploration licence, often obtained "over the counter". The additional need to meet land access, work program approval, environmental and social requirements has grown substantially in the past 30 years. The elements now comprise 'conditions precedent' before exploration activity may commence. Even aerial data acquisition, without any ground presence (whether involving soil disturbance or otherwise) may not occur in some jurisdictions without prior consents and agreements subsequent to the grant of the basic licence.

Meeting the consent needs of a wider range of stakeholders, not just the resource regulating agency, now consumes more time and finances. Additionally, there appears to be regulatory 'creep' whereby work program approval processes originally applied to mining are now applied in a relatively unmodified form to exploration programs.

For example, in the NT, annual exploration programs require prior approval under the term "Mine Management Plan" and require extensive detailing of proposed work, siting of drill-holes, etc. In New South Wales regulatory consent for drilling is frequently sought on a hole by hole basis as companies do not trust the regulatory process for whole year work programs. In Victoria, this informant is aware of circumstances where non-invasive geophysical programs required prior regulatory risk assessment and approval, resulting in additional equipment hire costs and delay.

Overall, there is increasing evidence of 'make work' bureaucratic intervention and micro-management of relatively straightforward exploration work programs with no defined risk reduction or community benefit resulting from the regulatory involvement.

In meeting the 'make good' requirements following completion of exploration programs (eg, restoring drilling sumps and pits, capping drill holes), this informant has never been

aware of field verification by regulators that the work was satisfactorily completed. One Is led to wonder even more about the role of the regulator at the exploration stage.

ACCESS TO VENTURE CAPITAL

Exploration, a high risk activity like scientific R&D, requires access to venture capital to proceed. Few, if any, ASX listed junior exploration companies can operate on an annual budget of less than $2-3million, assuming administrative overheads of $1 million and an operational budget of, say, $1-2 million. The lower end of this range will not permit any drilling activity and the higher end only a modest drilling program in most parts of remote Australia.

Pre-GFC, capital markets, once a typical IPO had been completed, would fund junior explorers only sufficiently for about two years of forward work. Post-GFC, that has changed and capital for juniors is now exceedingly tight. This is evident also in Canada, traditionally held to have a deeper market for mineral exploration capital.

Investor expectations are that companies will explore and obtain geological information of sufficient quality to justify their request for 'top up' funding. Additional red tape and delay in accessing ground to undertake exploration will thus deny companies the time required to undertake the necessary work to meet investors' information expectations. This adds to the difficulty of raising additional capital.

The challenge is compounded in those parts of the country that are subject to intensive climatic and seasonal variations that compress the field season to, perhaps, only a few months. Thus in a post-GFC world, junior explorers are literally "between a rock and a hard place".

In the NT there is pressure on companies and officials to complete, submit and approve 'Mine Management Plans' during the Wet Season so that a new field season may commence as soon as ground conditions permit. Often these plans cannot be drafted until data from the previous season has been processed and reviewed, frequently several months after the close of that season.

Although the terms of reference of this inquiry preclude any examination of Native Title impacts, it cannot be denied that negotiation of Indigenous Land Use Agreement's are a significant cause of delayed exploration access in many parts of the country.

MEASURING IMPACTS

Overall, it may prove difficult to quantify in cost terms the steady increase in non-financial barriers erected over the past 30-40 years. Getting a like vs like comparison between then and now will vary across jurisdictions. A well researched project whereby land and tenement managers or geologists with experience spanning this period could be interviewed would shed considerable light on the type of barriers that have steadily added to the conditions precedent before surface work could be commenced.

Furhter insight may be obtained from the open file system maintained by State Geological Surveys by comparing issue dates for exploration licences and examining in the first reports returned for those licences the nature of surface work undertaken. Allowance may need to be made for increased use of airborne surveys in the latter decades.

There is likely to be broad anecdotal evidence that the lead time to undertake modern exploration from first access, to discovery hole, to a JORC (Joint Ore Reserves Committee) resource figure of sufficient quality to undertake a bankable feasibility study has blow out considerably over the past 30-40 years. Company managers frequently talk now of 10-15 years of exploration and evaluation before a mine may commence on a particular prospect. In the 1970's the duration more often quoted was about 5-7 years. This proposition may be tested by looking at the development history of new Australian mines over that period.

RISK MANAGEMENT

In the opinion of this observer, exploration related approvals processes have particularly suffered from 'top down' regulatory creep over the decades leading to the insertion of mining-related risk assessment parameters into the exploration process. These range from environmental to OH&S and social consultation standards and processes. Yet performance according to the new parameters is rarely assessed by regulators. The concept of "don't regulate unless you enforce" comes to mind as it merely adds to compliance costs without necessarily improving outcomes.

Officials in regulatory roles who at times do not have sufficient practical industry experience merely adds salt to the wound.

Unravelling the added red tape to understand more specifically what risks are experienced during the exploration process and then to engineer approvals and regulatory processes better matched to such risks would seem a smarter and more cost-effective way to proceed.

INTERNATIONAL COMPETITIVENESS

The annual survey of exploration investment competitiveness by the Fraser Institute in Canada[ii] is often quoted as one of the more comprehensive sources for comparison between geologically attractive investment destinations. With its Canadian origin, it may be exposed to a North American bias in the opinions received, given the strong showing of Canadian provinces, US states and Nordic countries in the top 10 rankings of the last few surveys. Only Ireland is outside these groups.

In the 2012-13 survey, recently released, the jurisdictions in the Australia and Oceania Region were noted as having "uncertainty" and "permitting" issues. Australia's average score declined in the year under survey.

[ii] Survey of Mining Companies 2012-13, Fraser Institute, February 2013

In a recent personal communication with one of the authors of the Fraser Institute Survey, this observer was informed that *"The jurisdictions that have improved their investment attractiveness in recent years and raised their ranking in our survey have all reduced uncertainty for resource investors – by improving transparency, predictability and timelines".* For this to apply to several Nordic countries and Ireland, all subject to intensive EU requirements, speaks volumes about best practice in relation to effective regulatory design and even more efficient implementation.

TERMS OF REFERENCE

Complexity and Time Frames

The degree of intrusive permitting detail for exploration has increased significantly over the past few decades such that it is feasible in some Australian jurisdictions, depending on specific circumstances, to hold a licence for over 12 months before ground access conditions have been negotiated and met. This will necessarily trigger a request from the holder for exemption from work or expenditure commitments. Such delays are not necessarily universal but the overwhelming impression to a longer-term participant in the industry is that it has become distinctly more difficult and time consuming.

In the 1980's most Australian jurisdictions (certainly WA, Queensland and the NT, less so SA, NSW, Vic and Tas) were considered (anecdotally) among the more attractive investment location for mineral exploration. The gradual decline in perception of investment attractiveness for all Australian jurisdictions has been notable. SA's investment in acquiring new pre-competitive geological information in the 1990's boosted that State's reputation and it proceeded to record increased exploration investment with consequent discovery successes.

At the same time SA developed and implemented a licensing regime now, arguably, the most effective in Australia. However, this has been insufficient to lift the SA score appreciably.

SA ranks only 20 in the current survey (with WA 15, below Greenland), most likely a testament, at least partly, to the greater geological challenges in SA. Again, despite the limitations in the Inquiry's Terms of Reference, one cannot avoid noting the role of lengthy Native Title negotiations in constraining the ranking for several Australian jurisdictions.

Duplication

Duplication of process is something that this observer has noted more at the mining approval stage than at the exploration stage, other than for issues related to Aboriginal heritage and Native Title.

However, it is evident that as regulatory oversight of exploration spreads to agencies beyond Mines Departments, there is already an element of duplication between Mines Inspectorates, EPA's, Water Resource agencies, and so on. This varies across jurisdictions and may depend on local sensitivities associated with the area being explored.

Costs of Non-Financial Barriers

Costs are encountered in direct costs of staff and in the less productive use of geological staff in non-geological roles. There are also higher costs than decades ago, associated with the increased use of specialist non-technical consultants, including legal, environmental, title management, government relations, anthropological and archaeological services at a much earlier stage in the exploration process.

To quantify these costs it would be necessary to run a project over specific licences in each jurisdiction to make the necessary assessment.

Options for Improvement

To improve a situation that appears to gradually worsen over intermediate timeframes and which runs with the political cycle presents a challenge that is unlikely to be managed by the Federal Government.

Unless the Federal Government first acknowledges its role in adding to exploration complexity, cost and delay through its own Native Title legislation and proceeds to re-engineer the processes associated with that legislation, it appears pointless and an exercise in political point scoring to expect one or more States or the NT to act first. It is evident that WA, with its change of Government several years did so act and improve its rank in the Fraser Survey. Victoria has done likewise.

Further improvement might be achieved by States taking a more realistic risk weighted approach to the activities undertaken at the exploration licence stage and thereby reduce the ambit of advanced approvals required for work programs and generally eliminate intrusive micro-management by regulators of exploration.

This is not a plea for laissez-faire. There will be circumstance where exploration may require closer regulation, eg, fracking tests in CSG or shale oil/gas wells but let the objectively determined risks dictate the degree of oversight required.

To do otherwise while several European and North American jurisdictions rediscover their geological heritage and welcome new investment merely points to a bleaker future for new exploration activity in Australia.

CONCLUSION

The constraints imposed on the Commission through some exclusions in its Terms of Reference greatly limit the value of this Inquiry.

Exploration investment is also constrained when the investor perceives there to be undue difficulty in progressing a successful discovery to the production phase. It is in the latter phase that many Australian resource projects experience their greatest procedural and permitting challenges, increasingly due to the protracted and duplicative processes generated by Federal Legislation such as the Environmental Protection and Biodiversity Conservation Act.

So, only half the story is likely to be read.