Report for

Australia Mongolia Extractives Program

EXPLORATION LICENCES LEGISLATION & PROCESSES

Western Australia & Queensland

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Australian Aid

AMEP
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Australia Mongolia Extractives Program is supported by the Australian Government and implemented by Adam Smith International.

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Context and purpose

This report was commissioned by the Australia Mongolia Extractives Program 2 (AMEP 2), a partnership between the Government of Mongolia and the Australian Government, funded by the Australian Government's Department of Foreign Affairs and Trade (DFAT) and implemented by Adam Smith International. The intended end-of-program outcome of AMEP 2 is to improve the enabling environment for investment in the extractives sector that is essential to future growth of Mongolia's resource sector. AMEP was asked to provide this research by the Ministry of Mining and Heavy Industry (MMHI) to inform its review of the process for granting exploration licences with the aim of attracting investment and increasing exploration activity.

This report intends to provide guidance for the Mongolian MMHI by providing information on the systems for granting mineral (metalliferous, industrial minerals, coal and construction materials) exploration licences in Australia's two leading mining states of Western Australia and Queensland. In Australia, state and territory governments (eight in total) have the authority to manage land and the resources within their borders and make laws relating to exploration and mining. State governments own the resources until they are mined and manage these administrative systems.

State governments in Australia want exploration licences to result in active, high quality exploration to add to the State's existing geoscience data and knowledge of its resources and ultimately to make discoveries of resources. The criteria to get a licence are not onerous but conditions on licence holders to keep their licences are strictly monitored and enforced under the "use it or lose it" principle. Licences are renewed only if annual work and exploration expenditure commitments over the term have been met, and all licences are subject to a legislated mid-term reduction in area (statutory partial relinquishment) to encourage focussed exploration rather than 'land-banking'[1].

The licencing systems in Australia have not changed much over time except to increase the obligations on licence holders for environmental and Aboriginal heritage protection. The most common method for allocating exploration licences in Australia is 'first-come first-served' (FCFS) i.e. an 'over the counter' application process which is clearly prescribed in Acts and Regulations.

1 *Refers to licensees undertaking minimal or no exploration and seeking to transfer the licence at a high price to another explorer.*

Executive summary and key findings

There are many similarities between the Western Australia and Queensland systems of mining legislation and tenement management and particularly in their use of the first come – first served (FC-FS) method for allocating exploration rights.

Queensland uses the method for most exploration permits for minerals, and WA for all mineral and coal exploration licences. The FC-FS process has many advantages over tender based systems that allocate rights using competitive exploration work program and exploration expenditure commitments or use cash bidding.

Table 1 summarises the advantages and disadvantages of the methods of allocating exploration rights in Australia.

The Australian Productivity Commission[2] conducted an inquiry into Australian exploration in 2013-14 which considered the three possible methods of allocating licences. Its report supports the observations in Table 1 and contained a number of examples where tender-based and auction-based systems for allocating exploration rights in different Australian jurisdictions had resulted in less than desirable outcomes in terms of few bids, slow administrative decisions, allegations of corruption, and poor exploration performance by the selected licensee.

The most attractive elements of the first come-first served system from a Mongolian perspective are as follows:

1. Would give local companies and individuals an equal opportunity to compete with overseas companies for exploration rights. Tender- or auction-based systems could mitigate against Mongolian applicants that do not have the technical expertise and financial resources of overseas entities.
2. Easy for applicants who do not have to submit a detailed geological rationale for exploration and instead rely on a broad exploration program and minimum expenditure commitment based on the area of the licence.
3. Easy and quick for the Government to process applications and grant licences in a transparent manner.
4. Compliance, based on licensee meeting expenditure commitments, supplying annual or semi-annual reports on exploration activity, expenditure, environmental management and geoscience results, is easy for government to monitor and initiate licence forfeiture action against the licensee.

2 *The Commission is an agency of the Australian Government that conducts public inquiries and research at the request of the Government on key policy or regulatory issues bearing on Australia's economic performance and community wellbeing.*

Table 1 Comparing exploration rights allocation methods.

Method of allocating	Advantages Considerations exploration rights	
First come-first served	• Gives Mongolian companies and individuals an equal opportunity to compete with overseas companies for exploration rights • Quick and easy application process for companies. • Objective and transparent criteria for assessment of financial and technical capability make it easy and quick for public servants to determine an application. • Minimum expenditure based on area of licence application makes compliance monitoring easy and transparent.	• Needs a robust compliance regime coupled with fines and/or forfeiture of licence if licensee does not meet minimum expenditure commitment, submit activity and technical reports, meet environmental standards, or pay rents. • Less emphasis on applicants to have a robust geoscientific rationale for exploration program.
Work program and expenditure commitment-based tenders	• Would result in probably fewer and better resourced licensees and fewer licences in the first instance. • Supports broad policy objectives and outcomes by favouring the "best" applicant technically and financially.	• Mongolian companies potentially disadvantaged relative to better funded and technically advanced overseas applicants. • In Government, requires much planning andis a slow process to administer, requiring fine judgements to be made by public servants and decision makers. • Requires high technical capability in Government assessors who would need to understand exploration geoscience and exploration costs. Less transparent and expenditure commitments may be inflated. • Needs a robust compliance regime as for first come-first served. •
Cash bidding or auctions	• Immediate return to Government in terms of revenue. • Can be appropriate for ground known to be highly prospective, with good pre-competitive geoscience data and a known resource.	• Mongolian companies potentially disadvantaged relative to better funded and technically advanced overseas applicants and potentially few bids. • In Government, requires much planning and is a slow process to administer. • Less transparent with frequently unclear reasons for decision. • More money for cash bid can lead to less money invested into exploration. • High risk and perceptions of corruption may result. • High quality pre-competitive geoscience data are required. •

FINDINGS

Exploration is associated with enormous financial and technical risks and is funded by company shareholders, not by debt. The risk slowly decreases after a resource discovery is made and pre-feasibility studies begin, but remains high relative to agriculture, manufacturing, and retail activities.

This desk-top review of the regulatory systems and practices applying to resources exploration within Australia's two most competitive mining jurisdictions — Western Australia and Queensland — revealed best practice principles common to both and which are shared with most of the top mining jurisdictions around the world.

These best practice principles include:

1. **Attracting explorers and investors by minimising the risks involved in exploration**
   This includes providing online access and free download of geological information (geological maps and reports) and online access to an accurate, up-to-date mining and petroleum cadastre. The geological information includes, after a period of confidentiality specified in legislation, reports on exploration submitted to government by licensees. The resource cadastre is linked to the online register described below. Such information is invaluable to potential explorers that wish to joint venture with existing licensees and need to be sure that the license is in good standing with government.

2. **Providing industry with certainty regarding rights to resources**
   Australian resources legislation provides for holders of exploration licences or permits to have the right to apply for, and to have granted to them, rights over the lands covered by their licences. A secure title register established under legislation is fundamental to this principle and ideally should feed into an online map-based resource cadastre system. The title register provides details on each licence such as ownership, dates of application, grant, expiry or surrender, legal area, and transfers.

   Fundamental to most mineral exploration titles in Australia is the 'first come – first served' principle for their application and approval. This means the land will be allocated to the individual or company that first lodges a valid application for eligible land that is not subject to an existing title. There are relatively uncommon circumstances where this principle does not apply in the minerals sector. In the case of petroleum, and in some States, coal, competitive tender processes are the norm with a focus on the quality of the exploration rationale and exploration expenditure the applicant proposes.

   In Mongolia's situation, adoption of the "first come – first served system would also give Mongolian companies and individuals an equal opportunity to compete with overseas companies for exploration rights. Tender-based systems could mitigate against Mongolian applicants that do not have the technical expertise and financial resources of overseas entities.

   The titles system also needs to encourage exploration activity, through requiring minimum levels of exploration expenditure per area of title, and thereby discouraging land banking.

3. **Provide a clear and consistent regulatory framework and administrative systems**

A clear and consistent regulatory framework is essential for providing the industry with the certainty required to make investment decisions, as well as providing the community and other stakeholders with the confidence that the industry is complying with its title, environmental and occupational health and safety obligations. All Australian jurisdictions apply quality process systems to ensure approvals take into account relevant regulations and policy and are consistent for all approvals of the same title type.

Ensuring licensees comply with regulations and title conditions is a particular focus, with some jurisdictions establishing organisational structures with different senior managers in charge of approving licence applications, and compliance activities, each with their own key performance indicators. This is particularly important when most exploration title compliance in Australian jurisdictions is based on licensees meeting minimum exploration expenditure, work program commitments, and environmental management proposals.

Western Australia and Queensland support transparency across government and publish a wide range of information on their websites regarding exploration applications and activities, such as environmental conditions on titles including approved mining proposals, and annual environmental reports.

INTRODUCTION TO EXPLORATION

The Mongolian government has recognised the need to improve the regulatory environment in order to attract new investment in the mining sector. Achieving this objective and building a mining industry for the future starts with attracting exploration companies. Exploration is the essential foundation for a mining industry, and it is also an industry in itself, generating immediate income and employment, if expenditure and activity requirements are mandated and enforced.

In order to fully reap the benefits of a burgeoning exploration and mining sector, it is important to understand the nature of mineral exploration. Mineral exploration is intrinsically high-risk. The exploration process is scientifically complex, lengthy, and expensive, and rewards for the effort may only materialise decades later — if at all. Using international data, the Colorado School of Mines concludes that "it takes 500-1,000 grassroots exploration projects to identify 100 targets for advanced exploration, which lead in turn to 10 development projects, only one of which becomes a profitable mine". Therefore, from a policy standpoint, it becomes a case of attracting as many explorers as possible especially given the fact that the majority of Mongolia is underexplored ('greenfield').

Traditionally most modern exploration in Australia was carried out by medium to large mining companies ('majors'). This has changed in the last 40 years and since 2000, junior companies ('juniors') account for 71% of all discoveries in Australia[3]. From this, it can be concluded that juniors generally have high technical capabilities and should be a major target of investment attraction activities.

Since the 1990s, a large part of the majors' exploration expenditure has been focussed on near mine (or 'brownfield') exploration. Activity for this type of exploration poses less of a risk and tends to be less affected by the commodity cycle.

Whilst a junior company may not have experience in financing, developing, and operating a mine – it is not a significant impediment. Juniors do develop small to medium sized projects and purchase the required specialist services they need by expanding their capital base, usually by issuing more shares initially and borrowing a portion of the funds required for mine development. If they make a big discovery, it is likely that the project will be acquired and developed by a major company, with the junior often retaining some equity in the project. Conversely, if a major company makes a small discovery, the project may not meet corporate objectives for size and profitability. Consequently, it is likely that they will sell the project to a junior- or moderate-sized company.

The challenge for government is that the spending patterns of the junior sector are volatile and cyclical and are very much driven by their ability to raise capital from their shareholders.

Figure 1 shows the 2020 World-wide investment pool of approximately US $8.7 billion that Mongolia should be competing for to attract exploration investment.

The exploration sector is increasingly globalised, and as Figure 2 shows, some developing regions enjoy a substantial share of expenditures. However, while geologic and economic considerations are important factors in mineral exploration, a region's policy climate and regulatory framework are also critical to investment.

3 http://minexconsulting.com/the-current-state-of-play-for-exploration-in-australia/

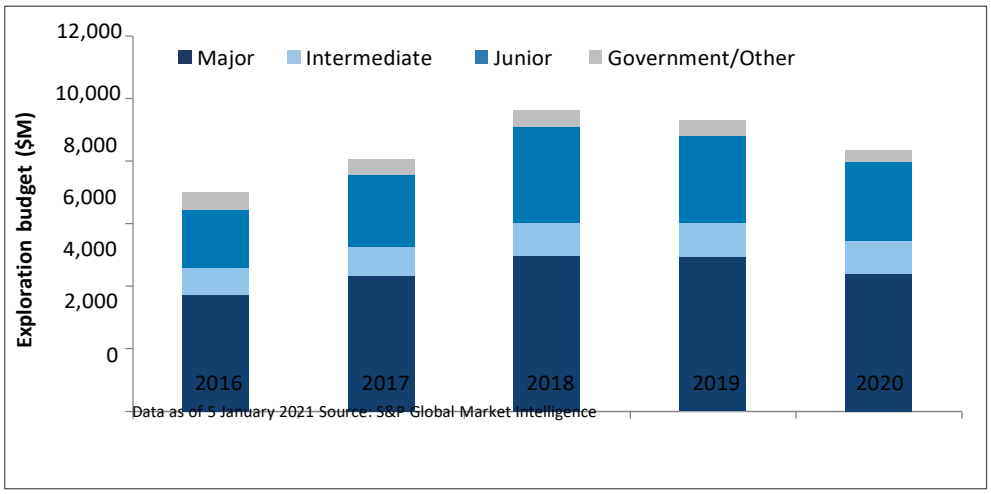

Figure 1 *Exploration expenditure 2020.*

Ref: S&P Global Market Intelligence, 2021. PDAC Special Edition: World Exploration Trends 2021. S&P Global, New York.

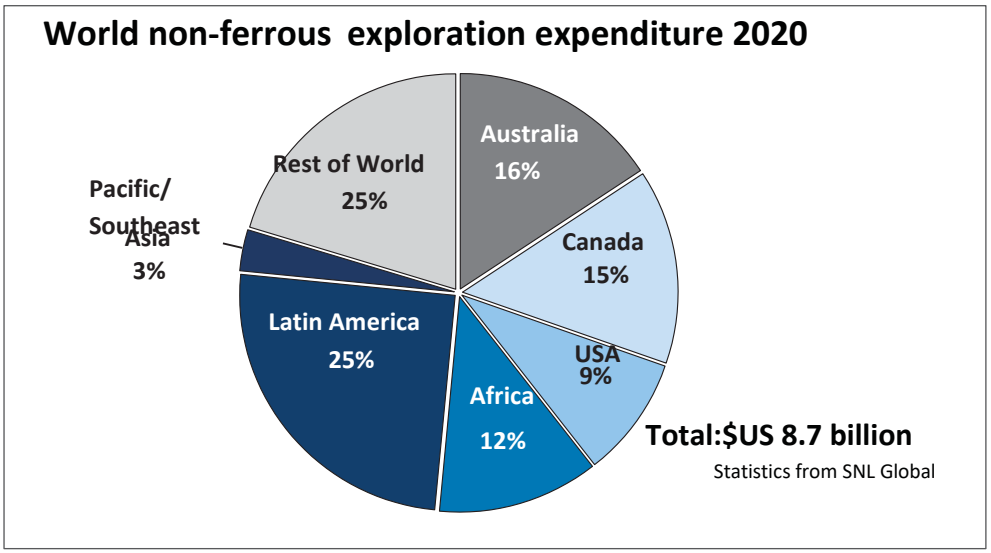

Figure 2 *World non-ferrous exploration expenditure totally $8.7 billion.*

Statistics from SNL Global Market Intelligence 2021.

The exploration sector is also marked by competition between countries as highlighted by the annual investment attractiveness survey by the Fraser institute of Canada which ranks different mining jurisdictions based on mineral endowment, public policy, taxation and the regulatory environment of exploration. In 2017, the last time Mongolia was listed in the Fraser Institute survey, it was ranked 53rd out of 91 countries (Figure 3). However, Mongolia's rating increased by 26 points in 2017 and its ranking improved from 101st (of 104) from 2016 to 70th (of 91) in 2017 as survey respondents' ratings showed decreased concern over its geological database (-39 points), availability of labour and skills (-32 points), and uncertainty concerning protected areas (-27 points).

In 2017, WA and Queensland were 5th and 12th respectively, the highest ranked states in Australia and in the 2020 survey, WA was ranked 4th in the World.

To inform the consideration of options for processes and systems for allocating exploration licences in Mongolia, this report outlines exploration licensing processes in two Australian jurisdictions: Western Australia (WA) and Queensland. These states were chosen because they are Australia's leading mining jurisdictions, and WA consistently ranks in the top 5 jurisdictions in the world for investment based on the Investment Attractiveness Index in the Fraser Institute's annual global mining survey[4].

State governments in Australia compete with each other to have policy and regulatory frameworks attractive to exploration investment. In both WA and Queensland, key principles in the assessment and approval of exploration licences include:

Transparency, consistency, certainty

- Certainty of process, timing (i.e. decision-making timeframes) and scope (i.e. relevant criteria)
- Consistency in the implementation of:
  - ¬ Legislation
  - ¬ Regulations
  - ¬ Policies and guidance material

  Clear systems, processes (policies and guidelines) communicated to all stakeholders
- Transparency around decision making e.g. strict vs substantial compliance
- Easy to access, good quality geoscience data
- Obligations on licence holders to ensure active, quality exploration and the reporting of geo-science data to the government and other explorers
-

Transparency minimises unnecessary legislative uncertainty for both regulators and investors, and ensures all licence holders operate under the same rules that are clearly stated in legislation.

4 *https://www.fraserinstitute.org/studies/annual-survey-of-mining-companies-2020.*

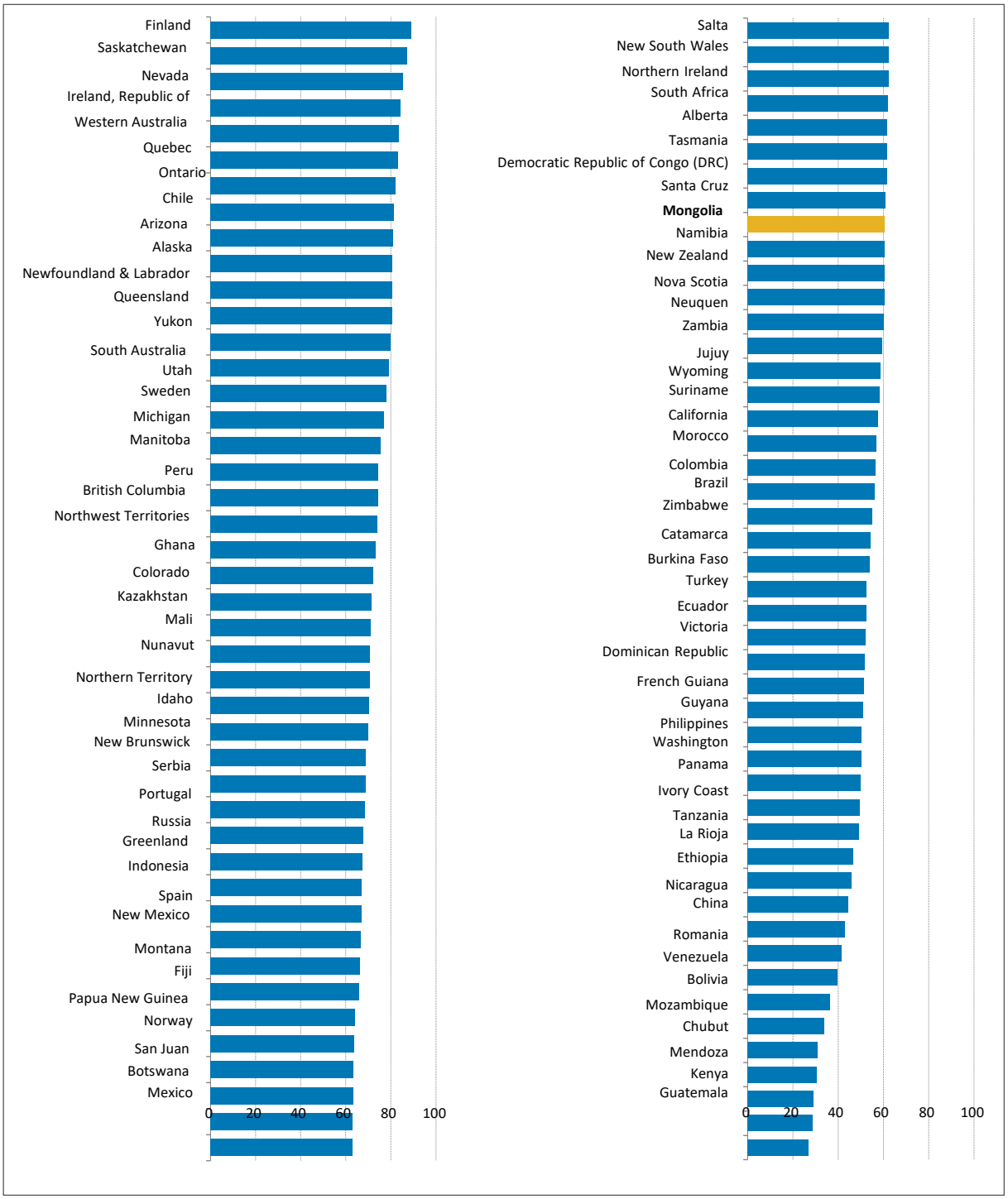

Figure 3 *Fraser attractiveness index 2017 (last time Mongolia was included in the survey).*

Ref: Steman, A. and Green, K., 2018. Fraser Institute Annual Survey of Mining Companies 2017. Fraser Institute, Vancouver.

WHERE TO EXPLORE?

AN OVERVIEW OF DECISION-MAKING PROCESS USED BY EXPLORATION COMPANIES

To promote and encourage exploration, government organisations need to take into account the decision-making process used by exploration companies. Deciding where to explore generally involves three steps, including the assessment of:

- Geological potential and prospectivity, including the likelihood and ease of identifying targets (i.e. mineral potential).
- 'Policy perception' i.e. potential uncertainties in the administration of government legislation (mining, environmental, tax etc.) and security of tenure.
- Access to the area of interest, including information on current granted tenements[5], their holders and expiry dates, and the nature of the licence application process.

Geological potential and prospectivity

This involves assessing the potential of an area to host an economic ore body. Most companies have their own geological models for assessing mineral potential and this requires detailed existing data on the following:

- Known mineral occurrences (and their size), their locations and characteristics, and
- Detailed (if available):
    - ¬ Geological maps (showing the age and type of rocks)
    - ¬ Structural maps
    - ¬ Geophysical data (in a digital format)
    - ¬ Geochemical data (in a digital format)

An assessment is also carried out on the extent of exploration to date and how intensively an area has been explored and drilled. To do this, a company will consider:

- The amount and what type of work was done. This provides information about geological models and whether efforts were focussed in the wrong areas using an inappropriate geological model; geological models change over time as new data is acquired and technology changes.
- Results from prior exploration programs.
- The location and depth of drill holes, including drill logs and assays (to identify geological structures and indicator minerals).

Most Western-based exploration teams (in both major and junior companies) prefer to do their own interpretations of the raw geophysical, geochemical and structural mapping data provided by the geological survey or previous explorers.

An additional factor is the ease and likelihood of identifying targets, which is driven by the cost and effectiveness of existing exploration technologies, particularly in areas of deep cover (a significant challenge in Australia). Large, relatively shallow or outcropping mineralised systems will be easier to find than smaller systems under 200 metres of cover.

5 *Tenement is a general term for all types of exploration and mining tenure – prospecting, exploration mining and infrastructure.*

Policy perception

Whilst the geological prospectivity is important in deciding where to invest, an exploration company will also consider the level of certainty (or uncertainty) around the administration of mining laws etc. through a risk assessment. A commercial team may make an assessment based on the following:

- The likely size and quality of a discovery; depth of cover (which has cost implications).
- Access to infrastructure (power, water, roads etc).
- Tax and investment rules, including the ability to repatriate profits and potential trade barriers.
- Socioeconomic and community development conditions.
- Personal safety.
- Security of tenure.
- Political stability and perceptions around corruption and business risk.

Access to the area of interest

In the first instance, a company will need accurate and up-to-date information on the tenement holding within the area, which includes data on the current holders and tenement expiry and relinquishment dates. An additional concern may be confidentiality in relation to a company's interest in an area to remain competitive and 'ahead of the curve'. For this reason, it is highly desirable if the geological survey's publicly available data can be accessed anonymously, and applications made online.

OVERVIEW OF GOVERNANCE AND LEGAL STRUCTURES

Key points

- All exploration and mining in Australia is undertaken by individuals or companies — Australian governments do not have any equity in exploration or mining companies or projects.
- The Australian Constitution does not specifically mention minerals and land; mineral resources and land are managed by the States and Territories.
- Ownership of mineral resources rests with the States and Territories until the minerals are mined by a licensee.
- To gain the sole right to explore for and extract minerals, a company or individual must apply for a licence under the relevant State's mining legislation.
- Each State determines the legal regimes governing mineral exploration and mining.
- In Canada and Australia the doctrine of multiple land-use applies. This means that exploration and mining are temporary uses of most land and in some areas can co-exist with other land uses and when
- exploration and mining finish, another land use can take over the land.
- The 'use it or lose it' principle applying to tenements means that if a licensee does not actively explore or mine the tenement, the Government can revoke it. This prevents 'land-banking'.
-

Governance

Australia's mining laws cannot be understood without referring to the Australian constitutional system and the powers of the Commonwealth, state and territory governments. The power to legislate for minerals and their extraction sits with the states, not the Commonwealth government. However, the Commonwealth Government has the power to make laws with respect to international trade (export and imports), taxation, immigration etc. In relation to onshore minerals, each jurisdiction has its own legislation.

Mineral and energy resources are owned by the States and Territories and therefore indirectly by the Australian people. State and territory governments have a responsibility to ensure that the nation's mineral and energy resources are managed in a way that benefits the Australian population.

The Australian and state governments undertake their own data acquisition (pre-competitive geoscience) through Geoscience Australia and the geological surveys in each state. Governments require information about the location and nature of resources in order to make informed decisions about their management and best use and to help manage potential conflicts between different land users. Each state also has established legal frameworks outlining when and where exploration can occur, and on what basis.

Exploration licences provide explorers with the exclusive right to search areas for the presence of (typically sub-surface) mineral or energy (coal and uranium) deposits. Exploration often occurs on land that is used for other purposes, such as farming, or in areas of Aboriginal heritage or environmental importance. Various regulations, policies and procedures have been developed to resolve or arbitrate on issues arising from competing land uses.

Government organisational structures

All Australian jurisdictions have government organisations for managing and promoting exploration and mining. In most (if not all) government resource departments, the accountabilities are split between the regulators responsible for implementing mining legislation, geological surveys and policymakers.

The regulatory function is accountable for granting tenements and regulating environmental impacts and the safety of mining operations. The geological survey's role is focussed on acquiring and managing technical and geological information, which is made publicly available. Reviewing publicly available geological data is often the first step in assessing the prospectivity of an area, hence the geological surveys play a key role in attracting investment and promoting exploration.

Structure of legal influences

Mining law in Australia comprises three linked components which are all considered in a court of law; these include statutes, regulations, and policies and guidelines. Powers must cascade from statutes, to regulations and to policy and guidelines. They are not considered in isolation and all three are required for the effective administration of mining legislation.

What	Statutes (Acts)
How	Regulations
When/If	Policies and guidelines (to guide decision-making and assist with the administration of statutes and regulations)

A statute is an Act of Parliament which specifies everything affecting the administration of that Act. The statue will specify the 'what'. For example, what:

- Types of mining or exploration can take place within the jurisdiction (e.g. mineral, petroleum, geothermal etc.)
- Permit types, conditions (technical and expenditure reporting, rent etc.), application and surrender processes, conditions etc.
- Minerals affected by the legislation and their definition.
- Land uses (e.g. private land applies to a specified depth).

A statue can also specify whether something "shall" or "must" be done, as opposed to "may" or "might". For "shall" and "must", no regulation, policy or public servant has the discretion to override statute requirements – for "may", there is more discretion, and the regulations and policies provide guidance.

Regulations set out in relatively prescriptive terms, 'how' the statue or Act will be administered. For example, if a statute permits the grant of an exploration licence, the regulations will set out the "prescribed manner" in which it must be applied for, with the prescriptive requirements.

Finally, if the Act and regulations are "silent" as to how a matter is handled, for example the assessment of an application, a Department policy document, guideline or procedure will be written and approved. This ensures consistency in the application assessment and decision-making processes. Policies and guidelines are made publicly available. Polices and guidelines do not require parliamentary input and can therefore be updated and improved without reference to Parliament but care must be taken to specify when new policies start and what happens with applications already submitted under the previous policy or guideline (they are usually processed under the previous guideline or policy).

Regulatory framework

Australia has the significant honour of having the first mining legislation in the world in the form of the *Mines Act 1852* of Victoria, and as a result, all Australian mining acts have common threads. Over time, however, regulation around mineral and energy resources has become more complex; exploration and mining companies are now required to comply with at least twenty state and Commonwealth Acts.

Generally, legislation affecting exploration is defined by resource type (minerals, petroleum etc.) and whether activity is conducted onshore or offshore. Most jurisdictions have at least four Acts and associated regulations. The primary Acts for WA and Queensland are listed in Table 2.

Table 2 Primary Acts WA and Queensland.

State	Onshore mineral	Onshore petroleum	Offshore mineral	Offshore petroleum
Queensland	Mineral Resources Act 1989[6]	Petroleum Act 1923 Petroleum and Gas (Production and Safety) Act 2004	Offshore Minerals Act 1998	Petroleum (Submerged Lands) Act 1982
WA	Mining Act 1978	Petroleum and Geothermal Energy Resources Act 1967	Offshore Minerals Act 2003	Petroleum Submerged Lands Act 1982

Some Australian jurisdictions have additional Acts specific to mineral types such as coal, and activities such as geothermal energy exploration. Separate Acts for resources type and activities allows for overlapping tenure (e.g. an area which is prospective for both petroleum and minerals, may have mineral and petroleum tenure overlapping the same area).

In WA and Queensland, minerals and coal exploration are under one act of Parliament.

Mechanisms for granting mineral exploration licences

The right to explore for mineral resources in Australia is essentially a contract to explore for minerals, for and on behalf of, the Government of the jurisdiction. An exploration licence is a 'proprietary right' (as opposed to outright ownership of land), and governments have processes for allocating exploration licences so there is a clear basis for determining who owns the rights to develop any discoveries made.

There are three main ways of allocating exploration licences:

- First-come first-served i.e. the application process.
- Tenders-based on work programs and expenditure.
- Cash bids (off-shore petroleum Commonwealth water, some coal tenders in Queensland; least used).

Regardless of the tenement allocation mechanism, every jurisdiction currently requires applicants to submit a work program as part of a licence application. Work programs allow the regulation of exploration activities to ensure environmental, Aboriginal heritage and land access obligations are met.

6 *Even though names of Australian Acts may have an initial date after them, they are continually amended to the present.*

Key stages in the assessment and approval process – overview

Each jurisdiction in Australia has slightly different processes for gaining approval to explore; however, there are broad similarities. **Figure 4** provides an overview and stylised description of the key stages in the exploration licence approval process.

In both WA and Queensland, over 80% of exploration licence applications are made on-line by applicants adding data to online forms which pre-populate Departmental tenure databases. These forms are intelligent, and assist applicants to make a valid application and ensure that all information required by the Department is provided.

Applications submitted in hard-copy are stamped with the date and time and immediately scanned into the Departmental tenure system.

It is important to understand that the actual processing of applications requires tenure officers in the Department to call up the application from the tenure database system and assess information on the applicant's capacity to fund the minimum expenditure required on the exploration licence and their technical capacity to undertake the work program. Some states go further and assess the validity of the exploration rationale.

Other assessments or activities that may be undertaken by tenure officers include:

- the extent to which an application may overlap a conservation reserve (in which case the Minister for Environment becomes involved) or other reserve
- the extent to which the application impacts on land owned privately (i.e. not government land)
- referring the application to local government authorities
- dealing with any objections received to the application

The online application systems used by Australian jurisdictions do not assess applications — they are used to ensure all information required for a valid application is received from the applicant, and to act as a secure filing system to hold the application and move it digitally from tenure officer to more senior staff to gain internal approvals.

Tenure officers are generally administrators with non-technical and non-legal backgrounds, though a few senior staff may have legal or para-legal backgrounds. In the case of WA, geologists are not involved in assessing applications.

Fundamental requirements – application

- Financial capacity (able to fund the proposed work program)
- Technical capability
- 'Fit and proper person' requirements (management, board members etc.)
- Robust geological rationale underpinning the proposed work program (some states; WA does not require this)

Conditions (post grant)

Reporting

- Annual:
  - ¬ Activities undertaken
  - ¬ Expenditure
  - ¬ Technical – geological data (which go to Geological Survey)
- Relinquishment, surrender, final reports.

It is important to emphasise that annual activity and technical reports provide evidence for claimed exploration expenditure on the licence. For instance, if a licensee claims to have spent $100,000 on drilling in the expenditure report and 300 metres of rotary airblast drilling in the activity report, the activity report should also indicate geochemical assays being done and the expenditure report should also indicate expenditure on assays. In turn, in the technical report should contain the actual drill logs and geochemical assays.

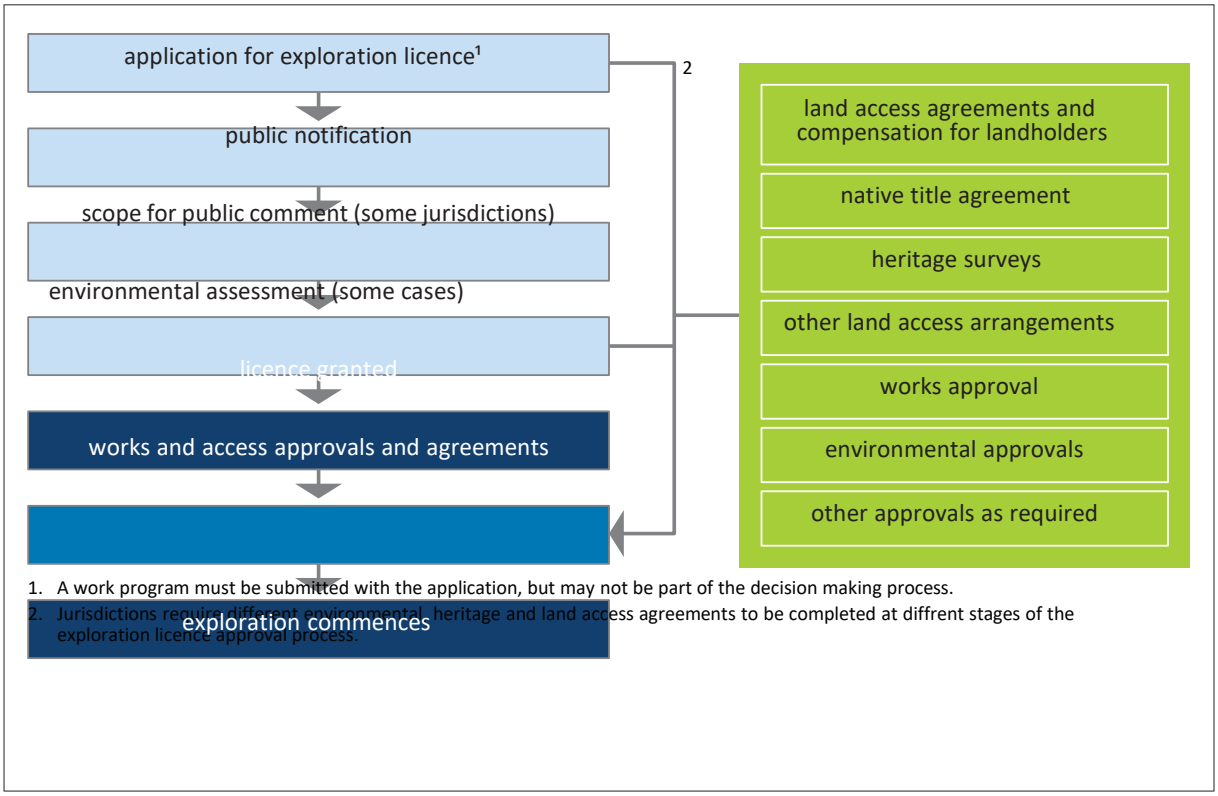

Figure 4 *Overview of licencing and approvals.*

Ref: Mineral and Energy Resource Exploration, Productivity Commission Inquiry Report, No. 65, 27 September 2013).

Obligations

- 'Use it or lose it' – work program outcomes/expenditure annually over the term must be met for renewal (WA).
- Variations/exemptions to conditions etc. must be submitted in advance (if required).
- On-time payment of annual rent and any other fees.

Renewal

- Demonstrated compliance.
- Life of licence is capped (e.g. 15 year cap, made up of three 5-year term renewals.) Renewal beyond cap, only in exceptional circumstances.

Compliance post-grant is very important

No matter what method (FC-FS or tender) is used to allocate licences in the first instance, "use it or lose it" requires reporting by licensees as outlined above as a basis for the Government to determine whether the licensee is complying with the Act and any other relevant Act (e.g. environmental legislation), regulations, guidelines, and conditions on the licence. Failure to provide reports, and to comply with relevant Acts etc. gives rise in Australian jurisdictions to fines and/or forfeiture of the licence. This includes failure to adhere to environmental laws.

Before fines are imposed or forfeiture occurs, the licensee must be given an opportunity to respond to the Department of Mines stating why its licence should not be forfeited. This is part of the "principles of natural justice", well established in administrative law in many countries. These principles are as follows:

- Reasonable notice of the allegation needs to be given to the company or individual.
- An opportunity must be given to them to respond to the allegation.
- The decision-maker (Minister, senior public servant, magistrate etc) should not be biased for or against the person or company responding to the allegation.

In practice, this means that a Department cannot send a letter to a company stating only "The Minister has decided to forfeit your licence at 12 midnight tonight". Notice in this example that there is no allegation (reason) given, and the company has not been given an opportunity to respond to the allegation. We don't know whether there was any bias involved, but we might suspect there is because the first two principles of natural justice were not followed.

Organisational structure for compliance

In most jurisdictions in Australia, the number of staff undertaking compliance is generally greater than the number involved in processing tenement applications. Although each jurisdiction is different, an idealised organisation structure for a "Mines Department" could look similar to Figure 5.

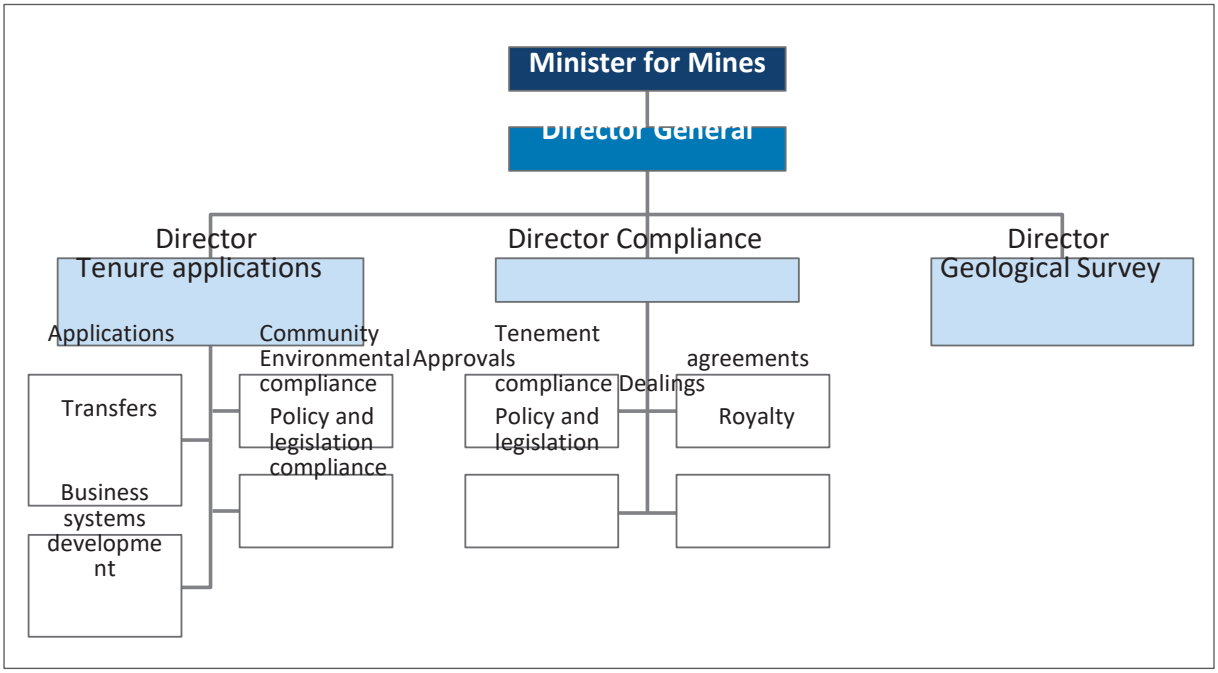

Figure 5 *Idealised organisational structure for separating granting of tenure from compliance activities. Note that Corporate Support (HR, Accounts, Departmental IT, Strategic Policy and Statistics etc are not shown).*

WESTERN AUSTRALIA

Legislative framework

In Western Australia (**WA**), mineral exploration and mining are regulated under the *Mining Act 1978* (**Mining Act**) and *Mining Regulations 1981*. The Mining Act sets out processes and requirements to be met by companies seeking to explore and extract minerals. Minerals in WA includes coal and uranium. Although there are a number of different types of tenements prescribed under the Mining Act[7], the following focusses on prospecting and exploration licences.

Exploration and prospecting licences for minerals are solely allocated on a 'first-come first-served' (FCFS) basis.

Mineral Fields

WA, with an area of 2,500,00 km^2, is divided into mineral fields and districts, and there is a mining registrar responsible for each district or mineral field. An application may be physically lodged at any mining registrar's office, or electronically using Mineral Titles Online (MTO). Currently, over 85% of applications are lodged online.

Wardens

A Warden is a normal magistrate who is appointed to hear mining matters. There is a Warden for each mineral field, and one magistrate may be the Warden for several mineral fields and districts. The Warden's Court is constituted under the Mining Act and any person holding office as a magistrate may be appointed as a Warden to preside in a Warden's Court.

The role of a Warden was first described in the *Mines Act 1852* of Victoria, and is especially relevant to WA as all processes, including tenement applications, forfeiture, exemption from expenditure conditions etc., are governed by the Warden's Court, which has the power to make orders on all matters within its jurisdiction. Decisions arising from the various Warden's Courts are made publicly available.

It is important to note that the Warden has two roles:

- to hear administrative matters and make recommendations to the Minister or a delegate of the Minister (a senior public servant) on for instance the grant of a tenement following an objection to the grant by a third party.
- to hear civil disputes between licensees, which is a judicial role.

Priority on a 'first-come first-served' basis

If more than one application is received for a licence in respect of the same land or a part of it, the applicant who first 'complies with the initial requirement' in relation to their application, has the right in priority over every other applicant to have their licence granted.

In the case of an application for a prospecting licence, it means marking out the land (recording the time/ date when stakes were driven into the ground to mark the boundaries of the licence) in the 'prescribed manner' set out under the Mining Act. The principle of priority is reflected in court decisions when Wardens have declined to consider the 'merits' or capabilities (financial or technical) of competing applicants.

7 *http://dmp.wa.gov.au/Minerals/Mining-Tenements-explained-5145.aspx*

In the case of competing exploration licence applications, where graticular sections or blocks (based on the Geodetic Datum of Australia and are about 3km^2 in area) are used to describe an area, a ballot system applies if the Registrar or Warden is satisfied that two or more applicants complied with the 'initial requirements' at the 'same time or within a prescribed period'.

Now that most applications are lodged via MTO, the main instances of two more applications for the same ground being lodged at the 'same time or within the prescribed period', is following the release of a compulsorily relinquished area or when a tenement expires or is forfeited. In this case, as tenements expire at midnight, online applications made between midnight and 08:30AM (when Departmental offices open) are deemed to have been made at 08:30AM potentially resulting in more than one application being made at the same time. This system is designed to allow submission of a hard copy application at a Departmental office at 08:30AM which then competes, potentially in a ballot, with online applications lodged during the night.

The expression 'at the same time' has been given a very narrow interpretation in case law, where a Warden held that two applications lodged 28 seconds apart had not been lodged 'at the same time'; however, 'at the same time' does not mean 'at precisely the same millisecond'. A case where applications were lodged two to five seconds apart, a ballot was held to resolve the priority issue.

The important principle of priority on a 'first-come first-served' basis is to remove from the Minister or Warden the discretion to determine priority between competing applications.

The importance of the Warden's Court in decision making and the 'first-come first-served' principle should not be underestimated, and it is the author's opinion that these factors contribute to WA's consistent placing in the top 5 jurisdictions in the world for investment in the Fraser Institute's annual global mining survey.

Prescribed forms

In WA, many, if not all forms are 'prescribed' in that they have gone through a legislative process with the format 'set in concrete' as described in the regulations. Prescribed forms[8] have a reference to the section of the Mining Act and regulation under which they were made. In WA, compliance with licence conditions requires the submission of forms in the prescribed format although most forms are online forms where the user inputs data directly into Departmental databases. Incomplete or incorrect forms will not be processed or entered in the tenement register until the form complies with requirements.

For example, the submission of an incorrect or incomplete Form 5 Operations report, a mandatory condition, will not be deemed to have been lodged. This may result in the form lodged outside its due date, exposing the licence to forfeiture. Unlike Queensland, where 'strict compliance' generally does not apply, in WA it may have serious consequences.

The Form 5 Operations Report, incorporating both expenditure and activity reports, is shown in Appendix 1.

8 http://www.dmp.wa.gov.au/Minerals-Mining-16304.aspx

Prospecting licences

A prospecting licence is designed for the prospecting of minerals on a comparatively small scale and can be any shape to a maximum of 200 hectares. It authorises the holder to enter the land to prospect for minerals and carry out activities such as digging pits, trenches and holes, sinking bores and tunnelling. A prospecting licence holder may excavate, extract, or remove earth, soil, rock, stone etc. not exceeding a prescribed amount (a total of 500 tonnes over the term of the licence), but no mineral production (mining)is permitted.

An application for a prospecting licence does not include a statement of geological rationale, prospecting methods, or the technical and financial capacity of the applicant(s).

Entitlements under a prospecting licence

- Prospecting licences are granted for an initial four-year maximum term and may be renewed for one more period of four years (i.e. a maximum period of eight years comprising two four-year terms).
- Maximum area is 200 hectares.
- An application for retention status must be made to extend the licence beyond 8 years; the approval of retention status is dependent on the existence of an identified mineral resource and show cause as to why a mining lease should not be applied for.
- Mining is not authorised.
- Prospecting licence holders are entitled at the exclusion of others to apply for a mining lease within the area of the licence.

Conditions

The warden or mining register may impose conditions when granting a prospecting licence, which are additional to standard conditions. No ground disturbing equipment can be used unless a 'programme of work' (environmental approval) has been lodged with a fee for its assessment and approved by the Department. A report outlining the rehabilitation of disturbed areas is required within a certain timeframe. Further conditions may apply to prevent fire, damage to vegetation, property or livestock.

Expenditure and reporting

The holder of a prospecting licence must comply with the prescribed expenditure conditions unless exemption has been granted (refer to Table 3 for a summary of prescribed minimum expenditure).

A report must be filed covering all work done and money expended in relation to prospecting in the area. Expenditure must be reported in the prescribed Form 5 within 60 days of the anniversary date of the licence. Failure to do so may result in forfeiture.

Exploration licences

Overview

An exploration licence (**EL**) allows exploration over a much larger area of land for a much longer period than a prospecting licence. Relinquishment of 40% of the area is required after six years.

An EL authorises holders to enter land for the purpose exploration for all minerals. A holder may excavate, extract, or remove earth, soil, rock, stone etc. not exceeding a prescribed amount (a total of 1,000 tonnes over the term of the licence) but no mineral production (mining) is permitted.

The area over which an exploration licence may be granted is a minimum of one block[9] (about 3km^2 based on the Geodetic Datum of Australia), and a maximum of 70 blocks in known mineralised areas (brownfields) and 200 blocks in areas outside of known mineralised areas (greenfields).

If an EL is ten (10) or more blocks in size, the holder, on or before the end of Year 6 must surrender 40 percent of the blocks, assuming an application to extend the term of the EL has been approved.

An application needs to be accompanied by statement specifying method of exploration, details of the proposed work programme, estimated cost of exploration and technical and financial ability of the applicant(s). There is no need to include a detailed geological rationale, meaning that geologists or the Geological Survey are not involved in assessing licence applications.

Entitlements under an Exploration Licence

- ELs are granted for all minerals.
- ELs are granted for an initial five-year period which can be extended for one period of 5 years, then by a further period or periods of 2 years.
- Mining is not authorised.
- EL holders are entitled at the exclusion of others to apply for a mining lease within the area of the licence.

Conditions

As per prospecting licences, the warden or mining register may impose conditions when granting an exploration licence, which are additional to standard conditions. No ground disturbing equipment can be used unless a 'programme of work' (report describing proposed environmental management) has been lodged with a fee for its assessment and approval. A report outlining the rehabilitation of disturbed areas is required within a certain timeframe. Further conditions may apply to prevent fire, damage to vegetation, property or livestock.

9 *Because blocks are based on latitude and longitude, a block varies in size from the north of the State to the south, a distance spanning 21.5 degrees in latitude. This means the 70 block maximum size of an EL will vary from approximately 196 km^2 in the south, to about 231 km^2 in the north of the State.*

Expenditure and reporting

The holder of an EL must comply with the prescribed expenditure conditions unless exemption has been granted (refer to Table 3 for a summary of prescribed minimum expenditure).

A report (Form 5 Operations Report) must be filed covering all work done and money expended in relation to exploration in the area. In addition to a Form 5 expenditure report, a technical exploration report with any associated geoscientific exploration data must be submitted to the geological survey within 60 days of the anniversary date of the licence. Failure to comply with reporting conditions may result in forfeiture.

Rent

Rent for prospecting licences and ELs are payable annually, in advance. The first payment is the rent for the first year of the term of the tenement and is paid at the time of lodging the application. Subsequent payments of rent are due on the anniversary date of the start of the term of the tenement and must be paid no later than one month after that date.

Non-payment of annual rent exposes the tenement to forfeiture. The tenement holder's liability to pay the outstanding rent amount is not affected by the forfeiture, surrender or expiry of the tenement. For example, if a licence commenced on 1 July 2015 for which a rent of $1,570 is payable by 31 July 2016 and the licence is later surrendered on 31 August 2016, the holder of the licence remains liable to pay $1,570.

Table 3 Main features of prospecting and exploration licences .

	Maximum expenditure area	Term	Fees (years)		Minimum annual
			Application	Rent	
Prospecting licence	200	4 years Renewable for one period of 4 years	$37	$3.00 per ha or part thereof; minimum $29.50	$40 per ha, minimum
Exploration licence (Graticular)	70 blocks 200 blocks (outside known mineralised areas)	5 years; may extend for one period of 5 years, and by a further period or periods of 2 years	1 block only, $394. More than 1	1 block licence, $369. All other licences per block: Years 1-3, $141; Years 4-5, $238; Years 6-7, $325;	Years 1-3 $1,000 per block, with Minimum $10,000 for 1 block Minimum $15,000 for 2-5 blocks Minimum $20,000 for 6-20 blocks Years 4–5 $1,500 per block, with Minimum $10,000 for 1 block Minimum $20,000 for 2-5 blocks Minimum $30,000 for 6-20 blocks Years 6-7 $2,000 per block, with Minimum $15,000 for 1 block Minimum $30,000 for 2-5 blocks Minimum $50,000 for 6-25 blocks Year 8+ $3,000 per block, with Minimum $20,000 for 1

Application process for exploration licences

Applications for any tenement type must be made in the prescribed Form 21[10] 'Application for Mining Tenement' and lodged at any mining registrar's office or electronically via MTO[11]. Prior to using MTO, parties are required to register with MTO and will be issued with logon details. Registration is free.

Tenegraph[12], an online mapping system, is used to display the position of tenements (including petroleum tenements) in relation to other land information. It gives a current and accurate picture of land under mining tenure and is used to determine ground that is available for mineral exploration. Tengraph is the map-based front end to the Mineral Titles online (MTO) system (also available online) which is thetitle register.

There is no need to mark out an exploration license physically as each graticular block has a unique reference number. These will be used in the application to clarify the boundaries of the exploration license.

To assist tenement officers and decision makers, the Department uses a check list to ensure that all process steps have been completed before the application is determined (decision made to grant or reject). This is shown at Appendix 2.

Application requirements for an Exploration Licence

The application is accompanied by as required by Section 58 of the Mining Act 1978, specifying:

- The proposed method of exploration (summary only).
- Details of the proposed work program (summary only).
- An estimate of proposed expenditure on the licence. Many applicants use as their proposed expenditure the minimum expenditure for the area of the licence.
- Technical and financial resources available to the applicant.

A detailed explanation of the Department's guidelines when assessing each accompanying statementis outlined in a document 'Guidelines for Applicants – Section 58(1)(b) Statement to accompany applications for exploration licences'[13].

10 All forms are contained in the WA Mining Regulations.

11 http://www.dmp.wa.gov.au/Mineral-Titles-online-MTO-1464.aspx

12 http://www.dmp.wa.gov.au/Utilities/Frequently-Asked-Questions-3853.aspx

13 http://www.dmp.wa.gov.au/Documents/Minerals/Guidelines_for_Applicants_Section_58_Statement_to_accompany_applications_for_Exploration_Licences.pdf

Serving of notices

When the application has been received by the mining registrar, the applicant must serve a copy of the Form 21 application with a map within 14 days of lodging the application to the following:

- The pastoral[14] lessee.
- If private land is affected, to the local government, the owner and occupier of the land, and each mortgagee in respect to the private land.
- If the application affects a Miscellaneous Licence[15], on the holder of that miscellaneous licence.
- Each applicant for or holder of any mining tenement affected by an application for a miscellaneous licence associated with the exploration licence application.

These parties have an opportunity to lodge an objection to the grant which would be heard by the Warden (described below).

Affidavit of compliance

An applicant must lodge an affidavit of compliance under oath to swear that the applicant/agent has complied with certain requirements of the Mining Act and regulations. In the affidavit of compliance, it must be sworn that:

- Details of all notices have been served.
- The application complies with the relevant marking out provisions of the Mining Act and regulations (if applicable i.e. prospecting licences).
- If private land has been marked out the permit to enter number issued is inserted.
- The statement under Section 58 has been lodged in the case of an exploration licence application.

The affidavit is lodged after all notices has been served and there are different affidavits of compliance for each tenement application type.

Appeals and objections

An objection can be lodged at any of the mining registrar offices, or electronically using MTO within 35 days of the application.

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14 Pastoral Leases are leases over Government land for 99 years for grazing of animals, usually cattle or sheep.

15 Miscellaneous licences are mining tenements used for infrastructure associated with exploration and mining such as power line corridors, pipeline corridors, roads, airstrips etc which may cross tenements belonging to third parties

Determination of objection and mining tenement applications

An objection will generally be heard before a warden in open court, unless the warden decides to determine it in chambers. The Minister will then determine the application after all other matters have been finalised. The Minister may grant or refuse the application irrespective of the warden's recommendation.

Refer to Figure 6 for a summary of the process in determining an application for prospecting and exploration licence applications in WA.

Determination of mining tenement applications without objections

If no objections are lodged to an application for a mining tenement, the following applies:

- For applications for exploration licences the mining registrar will recommend to the Minister that the application be granted or refused.
- The Minister may grant or refuse the application irrespective of the mining registrar's recommendation. In practice however, this power of the Minister has only been used rarely (once every 20 years on average when very special circumstances apply).

Clearly, the Native Title process applying in Australia will not apply in Mongolia.

Environmental approval of activities on an exploration licence

After an exploration licence has been granted, the Mining Act requires that a Programme of Work (PoW — really an environmental approval) is lodged electronically or by hard copy and approved prior to any ground disturbing activities are conducted with mechanised equipment.

A PoW approval lasts for four years. Activities must be rehabilitated within six months of completion of ground disturbance, or following an approved extension. A rehabilitation report should then be submitted.

If native vegetation is to be disturbed, A Native Vegetation Clearing Permit (NVCP) is required.

Except for disturbance within conservation reserves or other sensitive areas, both PoWs and NVCPs are approved within the WA Mines Department.

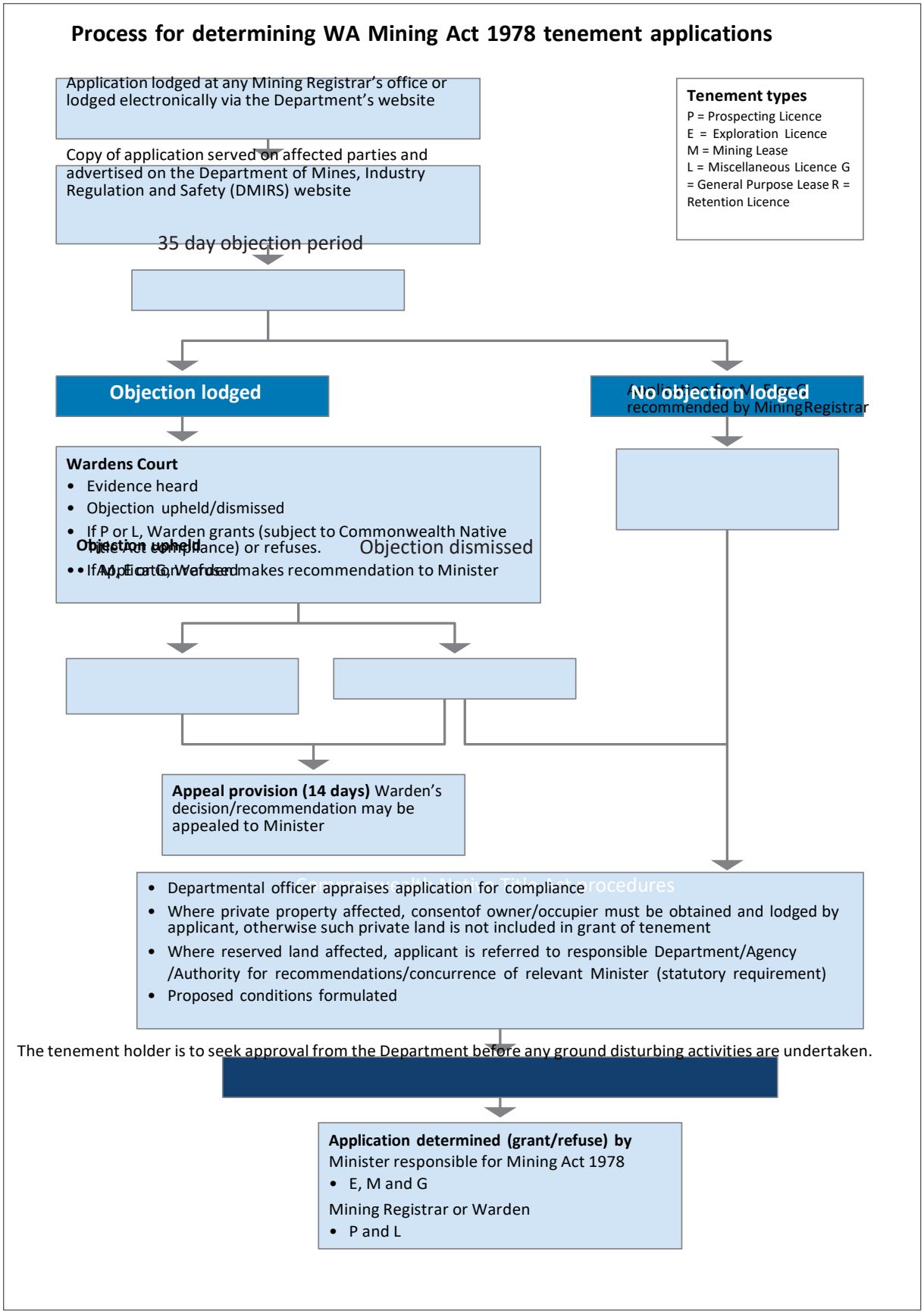

Figure 6 *Tenement application process.*

QUEENSLAND

Legislative framework for tenure applications

The exploration for minerals and coal in Queensland is regulated under the *Mineral Resource Act 1989* (**MR Act**) and *Mineral Resources Regulation 2013*. The MR Act sets out processes and requirements to be met by companies seeking to explore and extract minerals and coal, which begins with the grant of anexploration permit for minerals (EPM) or exploration permit for coal (EPC) from the relevant Minister.

Queensland has two licence allocation mechanisms: 'over-the-counter' (FCFS) and a tender process. The process for allocating exploration licences is determined by the commodity type and associated legislation (refer to Table 4).

Table 4 Licence allocation mechanisms Queensland.

Commodity application	Legislation	Tender process	'Over the counter' FC-FS
Coal	Mineral Resources Act 1989	Yes	No
Minerals (non-coal)	Mineral Resources Act 1989	Yes	Yes

In Queensland, the over-the-counter process applies to minerals only, whilst the tender process is applicable to coal, petroleum and minerals (in certain areas e.g. the North West Minerals Province[16]).

The tender process supports broader policy issues and outcomes through the use of special criteria and conditions, and requires considerable whole of government planning and coordination prior to a 'request for tender' release, including the preparation of pre-competitive geoscience data packages, compiled by the Geological Survey of Queensland (GSQ).

Exploration permits

An exploration permit (**EP**) allows successful applicants to enter the land within the permit area (subject to consent from the impacted owner or occupier of the land) and carry out authorised activities to determine the quantity and quality of minerals present. It covers any minerals (including coal) in or under land within a specified permit area. An EP allows exploration activities only, not mining.

Entitlements under an exploration permit

- Exploration permits are granted for a maximum five-year term and allow the holder to enter land within the permit area to undertake exploration activities, provided land access requirements are met.
- Mining is not authorised.
- Exploration permits may be renewed by application.
- Exploration permit holders are entitled at the exclusion of all others to apply for a mining lease within the area of the permit (pre-requisite tenure).

The FCFS principle generally applies to exploration permits for minerals other than coal in Queensland. An application must be in the approved form as prescribed in the MR Act and regulations and must include details such as the area and location, the mineral or minerals sought, a description of a proposed work program and expenditure, and the human, technical and financial resources to be committed to the proposed exploration work program.

16 https://www.statedevelopment.qld.gov.au/regions/regional-priorities/strategic-blueprint-nwmp

Main features of exploration permits

	Exploration permit minerals (EPM)	Exploration permit coal (EPC)
Specified mineral	Any mineral other than coal	Coal
Duration	Up to 5 years (per term)	Up to 5 years (per term)
Size*	100 sub-blocks	Tender related: 300 sub-blocks EPC project related: 6 sub-blocks (i.e. adjacent toan existing project)
Renewable	Yes	Yes
Rent	Per sub-block: $164.90	Per sub-block: $164.90
Application fee	$1,000	$1,337

Application process

MyMinesOnline[17] is the primary method for proponents to apply for and manage permits and leases online. It also provides the ability to view details and monitor the progress of applications or dealings and includes facilities for uploading supporting documents and making payments. Proponents are required to register for MyMinesOnline and provide certified copies of identification documents.

Applications may also be submitted by mail or in person using the prescribed form (Appendix 3).

Prior to submitting an application, proponents may check the availability of land by consulting GeoResGlobe, which provides mining and exploration data to assist with the assessment of areas with mineral potential[18].

Application requirements

In addition to proof of identity for each applicant, a number of supporting documents must be provided tothe Department, including:

- An overall work program rationale statement, for either an activities-based work program or an outcomes-based work program (as described under section 130AA of the MR Act).
- Financial and technical capability statements.
- Details of other exploration commitments in Queensland.

Other supporting documents may also be required:

- Proof of identity for an authorised holder representative (if not already a registered user of MyMinesOnline).
- An Environmental Authority application, including maps of environmentally sensitive areas.
- Documents declaring any third parties (e.g. consultants or service companies) providing technical expertise.

17 https://www.business.qld.gov.au/industries/mining-energy-water/resources/minerals-coal/online-services/myminesonline
18 https://www.business.qld.gov.au/industries/mining-energy-water/resources/minerals-coal/online-services/georesglobe

Further details regarding application requirements are as follows:

Applicant details
Full contact details of the applicants who will be permit holders, including an Australian company number (ACN). If the applicant is a company, company details held by the Australian Securities and Investments Commission.

Resource area selection – area description
[**Note**: this section does not need to be completed for applications under a tender process. Tender areas have already been determined as per the call for tender document.]

EPs are applied for and granted over blocks and sub-blocks. These blocks and sub-blocks are identified in Block Identification Maps (BIMs)[19] which reference the latitudes and longitudes defined in the Australian Geodetic Datum.

Each BIM:

- Has a unique name and contains 3456 blocks, which are numbered in sequence.
- Is approximately 75 square km in area and each sub-block is approximately 3 square km in area (the exact size of the block depends on curvature of the earth).
- Is divided into 25 sub-blocks, which are identified in alphabetical order (with the exception of the letter "i").
- Equals five minutes of latitude by five minutes of longitude and sub-block equals one minute of latitude by one minute of longitude.

Land availability

All land may be subject to an EP application, with the exception of:

- National parks and dedicated conservation zones
- Areas where exploration is expressly prohibited (e.g. Government land where an Act excludes mining)
- Restricted land
- Moratorium land
- Existing permits and mining leases

Additional conditions may apply if the permit area overlaps land such as: Priority Agricultural Areas, Priority Living Areas, Strategic Environmental Areas, Strategic Cropping Areas or declared high preservation areas.

Unavailable land is generally excluded from applications. MyMinesOnline will not prohibit an application being submitted over restricted land; however, the area will be removed from the EP application area once the application is accepted.

Section 27 of the Queensland *Nature Conservation Act 1992* lists areas where mining and exploration is prohibited in order to protect National Parks and other zones identified for conservation.

19 https://www.data.qld.gov.au/dataset/queensland-mining-and-exploration-administration-series

Moratorium areas

An application for the same mineral in an area of a permit that has ended, or in the area of an application for the same mineral which has been refused or abandoned may be submitted only after the land is released from a moratorium period of at least two calendar months.

The work program for an EP application from land released from a moratorium area must be activities-based, pursuant to section 134A(5) of the MR Act.

Applications over existing exploration permits

The Department cannot grant an EP over an existing EP unless the grant is for a different mineral (including coal), or the current holder surrenders the granted EP over the same area in favour of a new EP in the same name.

An EP may overlap land with an existing mining claim, mining lease, or mineral development licence; however, that land will be excluded at grant. If the existing lease or licence becomes non-current (expiresor is surrendered), the land can, in some cases, be added back into the area of the exploration permit.

Land within an existing undecided application is unavailable unless the application is for a different mineral (e.g. a mineral application over an EP for coal).

Size restrictions

Unless otherwise approved by the Minister under section 127(4) of the MR Act, an EP for coal:

- Cannot exceed **300 sub-blocks** (tender process), pursuant to section 9(a) of the Mineral Resources Regulation 2013; or
- Six sub-blocks (for project related application), pursuant to section 136Q(b)(iii) of the MR Act.

For minerals, a permit cannot exceed **100 sub-blocks**, unless approved by the Minister after considering an applicant's statement about why the applicant requires more than the prescribed maximum area.

Sub-block applications over urban, residential or town land must include a work program clearly demonstrating how land use conflicts will be minimised before applications are assessed.

Work programs

Conditions for the term are placed on a permit at grant and renewal. Work program compliance may be assessed at any time during that time, when the proposed work program submitted by applicants will provide a basis for activity related conditions attached to the permit.

A work program for a term of an EP may be either activities-based or outcomes-based.An

activities-based work program for a term of an EP is a document stating the:

- Activities proposed to be carried out during the term; and
- Estimated human, technical and financial resources proposed to be committed to exploration duringthe term.

An activities-based work program requires a:

- Work program that lists the activities proposed to be carried out and the financial resources to be committed to exploration activities for the term
- Sufficiently detailed rationale document for the work program which includes statements about:
  - How the exploration model will significantly advance the assessment for the work program outlining the basis of prospectivity with consideration of the exploration maturity of the area
  - Details of when and where exploration activities will be carried out (when and where does not need to be evidenced by GPS coordinates or any other exact markers – only the general locality in relation to geological formations is required)
  - Maps that show target formations and where exploration activities are proposed to be carried out
  - Details about previous exploration undertaken including any identified mineral or resources within the area of the EP
  - Justification for the area of the permit with respect to the proposed exploration program
  - If the proposed permit supports other permits or forms part of a broader project, the work program must describe how it is to operate in the context of the project and clearly show the relationship to the other permits; and
  - Detail on resource or infrastructure studies proposed to be carried out, if relevant

An **outcomes-based work program** for a term of an EP is a document stating the:

- Outcomes proposed to be pursued during the term; and
- Strategy for pursuing the outcomes mentioned in paragraph (a) - above; and
- Information and data proposed to be collected as an indication of mineralisation during the term; and
- Estimated human, technical and financial resources proposed to be committed to exploration during the term.

An outcomes-based work program requires a statement on the outcomes to be pursued and a sufficiently detailed rationale document providing information such as:

- A description, location and timing of the activities or exploration techniques proposed to be carried out initially (e.g. for the first two years) and the likely direction of the work program for the remainder of the term subject to the exploration results
- Information on the data to be collected, geochemical analysis to be undertaken; for example, including outcrop samples, assays of drill hole intersections, geochemical results and geophysical results

The decision-maker must not grant an EP unless the work program is approved and therefore if the decision-maker is unable to approve the work program the application may be refused.

Financial and technical capability

Financial and technical capabilities of holders need to be understood to ensure any planned activities are sufficiently funded and adequately resourced. The onus is on applicants to demonstrate how the financial and technical capability and commitments for the EP will be met. Provision of funding and technical resources may be shared across multiple holders, or one holder may assume the majority of responsibility for one or the other.

To address these requirements, applicants need to supply financial and technical capability and commitment documentation, as well as the appropriate evidence.

Evidence requirements for financial and technical capability

If an applicant with financial or technical responsibilities for the EP has over five year's history as an EP holder in Queensland, they may utilise their history together with a statement as evidence to support their application.

If an applicant with financial or technical responsibilities does not have five years history as an EP holder in Queensland, or prefers not to rely on past performance, they must attach additional supporting evidence proving their ability to uphold their obligations.

If an applicant proposes to use third-party contractors for the technical aspects of the work, a statement from the third party needs to be attached, outlining what services they will be providing.

History	Financial documentation	Technical documentation
More than five years	• Financial capability statement • Financial commitments document	• Technical capability statement • Technical commitments document • Third party declaration (if applicable)
Less than five years	• Financial capability statement • Financial commitments document • Supporting evidence of financial capability	• Technical capability statement • Technical commitments document • Third party declaration (if applicable) • Supporting evidence of technical capability

Environmental regulation

Environmental licencing for exploration and mining activities are regulated under the *Environmental Protection Act 1994* (**EP Act**) and *Environmental Protection Regulation 2019*. The EP Act and regulations are administered by the Department of Environment and Science.

An application for an environmental permit, an 'environmental authority' (EA) is lodged at the same time as an EP application under the MR Act. There is a single approval process to obtain a standard EA for exploration activities. Depending on the level of risk, the EA application may be standard, a 'variation' or site-specific — the latter two generally apply to more advanced exploration activities such as resources definition drilling which require greater areas of disturbance, or in areas of environmental sensitivity.

Land access

Access to land for exploration activities is primarily regulated by the compensation and negotiated access provisions and conditions for permits in the *Mineral and Energy Resources (Common Provisions) Act 2014* (**MERCPA**). The MERCPA prohibits explorers from entering private land unless owners and occupiers are notified via a written 'notice of entry' at least 10 business days prior. The requirement for entry notices are set out in the MERCP regulations.

Notices of entry are required for 'preliminary activities', which have little or no impact on the land use activities of the landholder. However, to undertake 'advanced activities' (those activities that do not fall within the scope of preliminary activities), holders must first negotiate a 'code and compensation agreement' (CCA).

The Land Access Code 2016 (Appendix 4) contains mandatory requirements for companies and establishes best proactive guidelines.

Land Court

Under the MERCPA, the Land Court has broad jurisdiction to hear and determine matters relating to access to private land. If parties have not entered into a CCA, deferral or opt-out agreement, then either the landholder or explorer can apply to the Land Court for determination of the explorer's compensation liability.

Competitive tender process

Competitive tendering applies to petroleum and gas, coal and, where appropriate, mineral exploration (most applications for mineral permits are FCFS).

A rigorous process is in place to assess tender applications and select a preferred tenderer. The process and criteria are outlined in each call for tender document and typically include consideration of the applicants' financial and technical capabilities and their strategy for engaging with the community. Preferred tenderers will need to meet the tender criteria ***and*** all of the 'over-the-counter' (FCFS) application requirements (e.g. environmental, land access and compensation) before the resource authority is granted.

The tender process supports broader policy issues and outcomes through the use of special criteria and conditions and requires considerable whole of government planning and coordination prior to a 'request for tender' release, including the preparation of pre-competitive geoscience data packages compiled by the Geological Survey of Queensland (GSQ).

To ensure the best outcome for the state, assessment of tender applications may be guided by principles that:

- Improves knowledge of the mineral resources in Queensland
- Provide for, or bring forward mineral project developments in 'greenfield' areas
- Encourage higher risk exploration that targets areas under thick soil or rock cover
- Encourage exploration targeting emerging commodities or strategic minerals

A call for tenders is a legislated process and is published via a government gazette notice. Applicants must submit their tender in the approved tender format (a form, refer to Appendix 5 for an example), addressing all criteria and providing evidence to the Minister of technical and financial capability etc.

Where the proposed area is thought to be located within a highly prospective area, the tender may include a cash bidding component.

Work programs submitted under the tender process will usually be activities-based. This type of work program contains specific activities proposed to be undertaken over the initial term of the EP by the applicant. The successful tender applicant is then obliged to undertake these activities, without the ability to vary them over the initial term of the EP.

Stakeholder engagement

Prior to the release of the tender, directly affected stakeholders (including landholders, Aboriginal native title owners, and local governments), are engaged regarding potential areas for exploration areas. The information enables stakeholders to be better prepared for participation in exploration approval processes and land access negotiations.

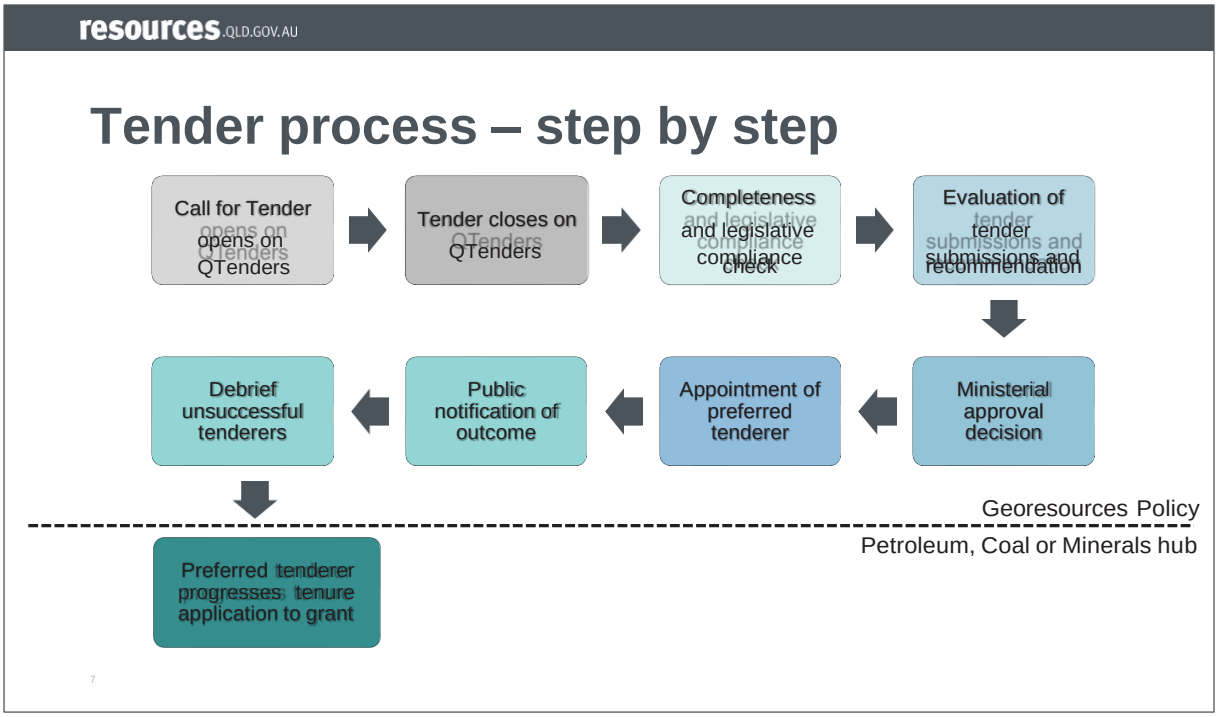

Figure 7 *Overview of tender process.*

Licence conditions and compliance

Relinquishment

The holder of an exploration permit must (unless otherwise decided by the Minister) reduce the area of a permit by 50% by the end of a five-year term, and 50% of the remaining area, if renewed, at the end of Year 10 (i.e. at the end of a second five-year term). An EP is capped to 15 years, subject to an extension of the last renewed term for up to 3 years due to an exceptional event.

Entry to land

Once granted, a permit holder is entitled to conduct authorised activities (defined by the EP and EA conditions) despite those rights of the landowner or occupier of the land subject to the permit. However, the EP holder must issue an 'entry of notice' before access, unless they have entered into a conduct and compensation agreement (CCA), 'opt-out' agreement, or a waiver is in effect.

Rent payable

The EP holder is required to pay rent on an annual basis which is calculated by multiplying the number of sub-blocks by a rate prescribed in the regulations (in 2020-21, the rate is $164.90 per sub-block). The due date is on the anniversary date of grant each year.

Technical reporting

The MR Act imposes specific conditions, including the requirement to provide reports container geological information on an annual basis in a format as prescribed in the regulations. The reports must be lodged electronically via the GSQ Lodgement Portal[20], unless prior approval for submitting a hard copy is given.

The regulations outline particular information that must be contained in each of the reports to ensure holders meet their reporting obligations. The following reports must be correctly provided:

Activity report, which is provided one month after the anniversary date the permit takes effect. Information required to be provided includes:

- A full technical summary of the authorised activities.
- Statements detailing whether the work program was complied with.
- Authorised activities to be carried out in the next reporting period.
- Maps with cross-sections of any resources identified.
- Descriptions of any significant mineralisation identified and related geological or structural features.
- Geophysical and geochemical results.

20 https://www.business.qld.gov.au/industries/mining-energy-water/resources/minerals-coal/online-services/gsq-lodgement-portal

A **relinquishment report** is provided within two months after a portion of a permit is relinquished (surrendered) either voluntarily or as required by the permit conditions. Whilst the report may contain general information for the relinquished area, it should also include the potential for mineral discovery in the relinquished area.

A **final report** summarising the results of exploration for the whole life of the permit must be submitted within two months after the end of permit, whether it expires or is surrendered voluntarily. Information to beincluded is the same as the requirements for an activity report.

Expenditure

The activity report must also include a separate expenditure statement, which is itemised according to authorised activities and claimable expenditure. The regulations prescribe specific information to be included, and costs that are not claimable against exploration expenditure.

Unlike Western Australia, the minimum spend per year is not prescribed in the regulations and is dependenton the applicant's proposed program, whether activities- or outcomes-based, and the proposed yearly expenditure needs to be commensurate with the activity (e.g. technical desktop studies versus a drilling program).

The expenditure statement is submitted separately to an activity report and must contain itemised expenditure against each activity carried out as per the approved work program[21].

Variations to conditions

An EP holder is required to comply with all permit conditions imposed under the MR Act and carry out the activities or pursue the outcomes of the approved work program stated for the term "to the extent reasonable" under section 141(1)(a) of the MR Act.

Outcomes-based work programs allow holders to adjust activities in response to exploration results without the need to seek approval from the Department to change the work program activities. There is no requirement to apply to vary the work program conditions of an EP that has an approved outcomes-based work program.

Approved **activities-based** work programs require an application to vary the work program conditions and holders are requested to apply as soon as they become aware of the need for the amendment.

An application[22] must include supporting documentation including a statement detailing:

- The variation sought (i.e. year of tenure, current commitment and the proposed amendment).
- The activities undertaken or outcomes achieved to date.
- If the variation is required due to an exceptional event, a description of the exceptional event.
- Attempts made to meet the conditions.
- Any changes to technical or human resources to support the new rationale.

21 https://www.resources.qld.gov.au/ data/assets/pdf_file/0009/1337688/ep-expenditure-statement-template.pdf

22 https://www.resources.qld.gov.au/ data/assets/pdf_file/0008/259856/application-vary-conditions.pdf

Penalties for non-compliance

A penalty may be imposed if the Minister considers that the holder of an EP has carried out activities inconsistent with the purpose for which the EP was granted, failed to pay rent, or failed to comply with any conditions. Depending on the circumstances, a penalty may involve the cancellation of the permit or the imposition of a penalty in the form of a fine.

The Minister may not impose a penalty or cancel an EP until a written notice has been served requestingthe holder to present their case as to why their permit should not be cancelled or a penalty waived.

GLOSSARY & TERMS

Terms	Definitions
Brownfield exploration	Relates to exploration in areas with existing mining operations. This is often undertaken by companies adjacent to their existing mines to better define the quantity or quality of known resources or to find new satellite deposits.
Constitution	On 1 January 1901, the Commonwealth of Australia came into being and the six colonies became the six States of Australia. The Constitution establishes a federal system of government and sets out the division of powers between the national government and the six states. Subject to a few exceptions, the Australian Constitution does not confine the matters about which the States may make laws and each State has its own constitution. Each State and the Northern Territory has its own mining legislation.
Cover	Post-mineralisation sedimentary basins and weathering profiles that cover approximately three-quarters of Australia.
Crown	Essentially the Government, whether the Australian Government or a State Government.
Crown land	Crown or State land is land owned by the Government, rather than individuals or companies. Crown land includes reserves (conservation, forests etc) and is regulated by the relevant State government legislation.
Forfeiture	A term used to mean the termination of a tenement for non-compliance with the tenement's terms and conditions. The term is officially used in the *Mining Act 1978* (Western Australia).
Greenfield exploration	Greenfield exploration occurs in unexplored or incompletely explored areas and is directed at discovering new resource deposits. This exploration is a high risk, and potentially high reward venture with large returns possible for those which successfully discover substantial viable deposits. This approach appeals to junior mining companies which often on-sell significant commercial discoveries or form joint ventures to develop the resources.
Gross state product (GSP)	GSP is the total economic production of goods and services within a state, including net international and interstate trade. The equivalent at National level is Gross Domestic Product (GDP).
Junior companies (juniors)	Refers to those companies that have limited (or no) revenue streams to finance their exploration activities. Instead, the principal means of funding exploration is through equity finance sourced from shareholders.
Jurisdiction	The official power to make legal decisions and judgements (verb). The geographical extent to which a law applies (noun).
Lease	(1) See 'tenement'. (2) Contractual agreement by which one party (say Government) conveys an estate in property to another party (say mining company), for a limited period, subject to various conditions, in exchange for something of value, but still retain ownership. A Lease is not a Licence.

Terms	Definitions
Licence	(1) See 'tenement'. (2) The permission granted (using a certificate or document) by an authorised authority (say Government) to exercise a certain privilege (e.g. conduct exploration activities) that, without authorisation would constitute an illegal act (e.g. trespass).
Minerals	A naturally occurring substances occurring, usually inorganic substances, but may include rocks formed by these substances as well as certain natural products of organic origin, such as coal.
Mining law	Statutes, regulations and policies 'read together' for any given jurisdiction.
MMOL	MyMinesOnline is the Queensland government's site for applying and managing resource authorities.
MTO	Mineral Titles Online is the WA government's site which provides details of mineral exploration and mining tenements and gives holders the ability to manage their tenements and streamline transactions online.
Permit	(1) See 'tenement'. (2) A licence or other document given by an authorised authority or agency to allow a person or business to perform certain acts (e.g. exploration activities). The purpose of permits is supposedly to guarantee that laws and regulations have been obeyed; they are also a source of public revenue.
Policy	A statement of intent, which is implemented as a procedure or protocol by a government department to guide decision-making and assist with the administration of statutes and regulations.
Prospectors	These are individuals (usually with little or no formal geological skills) that self-fund their own exploration efforts. They are associated with discoveries predominantly in the early part of Australia's mining history.
Regulation	Rules made in legislation to govern the operation of statutes.
Statute	Written law passed by Parliament which governs the approach to a particular matter e.g. mining and exploration.
Tenement	The collective noun for leases, licences, titles, permits, authorities and all other specific tenure types.
Tenure	See 'tenement'.
Title	See 'tenement'.

APPENDICES

List of appendices

Appendix 1 – Form 5 operations report

Appendix 2 – Internal WA Department application checklist

Appendix 3 – Queensland exploration permit application form

Appendix 4 – Land access code

Appendix 5 – Queensland coal tender form