



NEW ZEALAND
PETROLEUM & MINERALS

GUIDE

Supporting information for applying for an alluvial gold or quarry mining permit

This document guides you through the information you need to send us to support your alluvial gold or quarry mining permit application. The document gives you tips on how to complete the template that works with this document. Fill out the template using this document to guide you through the template sections. Once you have completed the template – send it to us with your application form.

Checklist of what we need from you when you make a mining permit application

To apply for and be granted an alluvial gold or quarry mining permit you need to:

- complete an **application form**
- provide information to support your application. This document guides you through what you need to provide
- pay the **correct fee**
- provide us with an **agent authority** (if you are using an agent to manage your permit).

You also need to provide us with the following additional information to support your application (see rest of document for more information):

1. The objective of the proposed operation.
2. Information about the availability of the land and minerals – is the land open for mining?
3. The size and application area the permit is being applied for.
4. The duration you want the permit for.
5. A work programme.
6. Information demonstrating your knowledge about the geology and occurrence of minerals in the permit area.
7. Estimates of the mineable mineral resources.
8. Information supporting the feasibility of the proposed operation and outlining the project economics.
9. Information about how the proposed mining operation meets good industry practice.
10. Demonstrated financial and technical capability of the operator.¹
11. Information about your compliance history on other permits.

The more detailed your application is, and the more evidence you are able to provide in support of the statements you make, the quicker our evaluation process may be. It also helps to present your application in an easy to understand format.

More detail about the above information can be found in the rest of this document. There is space for you to write this information in the *Template – Supporting information for applying for an alluvial gold or quarry mining permit*.

¹ The permit operator is the person who is responsible, on behalf of the permit holder, for the day-to-day management of activities under the permit. The permit operator must have a participating interest in the permit.



Details of what additional information we need from you

The items explained below are all required under the Minerals Programme for Minerals (excluding Petroleum) 2013.

1 Objective of proposed operation

You need to explain to us what you are trying to achieve with the proposed operation.

2 Availability of land area and minerals – is the land open for mining?

Is the land already covered by existing permits or applications? Are you aware of any land classifications that may prevent us from granting a permit over this area?

All gold, silver, and uranium is owned by the Crown. All other minerals, even those on Crown-owned land, have the potential to be privately-owned.

Permits cannot be issued for privately-owned minerals. For this reason, if your application also includes non-statute minerals (such as gravel, aggregate, sand etc.) you must provide evidence of the mineral ownership in the application area.

We recommend that applicants provide a Land and Mineral Status (LMS) report prepared by a LINZ-accredited supplier.

3 Application area

You need to clearly set out where the application area is and how many hectares it is.

Usually, for a mining permit application, this will be for one unbroken area of less than 200 hectares.

If you apply for an area larger than 200 hectares you need to explain why you want this larger area.

If your application area includes several discrete areas rather than a single continuous area you also need to explain why.

You should also explain why the full application area is needed and your work programme should include work across the whole application area.

Note: We recognise that the actual area for the mining operation will depend on resource consents and land access arrangement conditions. If you are prevented from accessing the land after your permit is granted, you can apply to change your work programme and/or reduce your permit area. Please note that there is a cost to change your work programme.

4 Duration

You need to let us know how long you would like the permit to be issued for.

Usually an alluvial gold mining permit will be granted for no more than 10 years. For an initial term of more than 10 years to be considered, you must be able to demonstrate a high level of understanding of the geology and resource that is supported by quality exploration data. You must also be able to clearly outline the proposed timeline and progression of the mine development and production scheduling. You can make an application for a quarry mining permit application for a term of up to 40 years.

A permit holder has the ability to apply to extend the duration of a mining permit if the resource cannot be economically mined by the end of the permit's initial term.

5 Work programme

The proposed work programme needs to be appropriate to the geology of the area and compatible with previous prospecting, exploration or mining activities. The proposed activities must meet good industry practice. A map of the geology of the permit area is helpful, particularly with additional annotation showing historical activity and the location of proposed activity.

Applicants should provide details of the size, nature, extent, and site of the proposed mining operation and the intended mining method.

To help us determine whether your work programme is acceptable, we need information about:

- the proposed start date for production
- the expected production rate and proposed production schedule
- the progression and direction of the mining operation
- how often the operation will be worked
- the expected resource recovery
- how long it is expected to take to extract the resource
- the estimated expenditure on a weekly and/or yearly basis.

The work programme must include activities that will economically exploit the identified resource/deposit and those activities must be sufficiently described to show that they will be carried out consistent with good industry practice.

During the evaluation we will agree on a 'minimum' work programme with you. This is usually based on key milestones (such as when mining will begin) and ongoing commitments (such as maintaining a minimum mining rate).

Your application should state what you consider to be the minimum work programme obligations. Proposed production rates should be kept realistic – we will monitor your compliance with the agreed minimum work programme.



6 Geology, occurrence of minerals in the permit area and applicant's knowledge

You must provide a description of the geology of the application area and how the resource is located in the geology.

7 Estimates of total in-ground and mineable mineral resources

Include an estimate of both total in-ground resources and the mineable mineral resource and how these estimates were determined.

You should explain what work was completed to inform the resource estimate. This can include exploration you have carried out and/or recent or historical exploration or relevant mining of the resource.

You need to explain any assumptions that have been made when making the resource estimate.

Estimates of the mineral resource should show or include:

- a map showing the size and location of the deposit in relation to the application area as well as the sample locations for data
- the location of historical or recent exploration and type of exploration and sampling (drill holes, test pits etc.) used to estimate the resource
- the thickness and depth of the mineralised material
- the volume or weight of mineralised material in cubic metres or tonnes

For gold:

- the gold grade, provided in mg of gold per cubic metre (mg Au/m³)
- the quantity of gold in either kg or troy ounces.

It is also useful to provide information on the quality of the data supporting the resource estimate.

A map should be provided to show the area of land that the resource estimate applies to as well as showing the sample locations for data used in (or excluded from) the estimate.

Applying a simple weighting to your sample data will give a more realistic resource grade e.g. by accounting for variations in the sample volumes, tonnes or length supporting the grades, as shown in the example in Table 1. A spreadsheet to show the workings for the resource estimate is also useful.

Sample	Volume of sample (m ³) (V)	Grade (mg Au/m ³) (G)	Volume x grade (V x G)	Weighted grade (mg Au/m ³)
1	50	230	11500	295
2	75	72	5400	
3	30	42	1260	
4	100	570	57000	
Sum (Σ)	255		75160	

$$\text{Weighted gold grade} = \frac{\sum (V \times G)}{\sum V}$$

Table 1. Weighted average grade of 295 mg/m³ is obtained by taking the sum of the volumes times the grade and dividing by the sum of the volumes (unweighted average in this example would be 229 mg/m³).

8 Applicant's mining feasibility studies and project economics

i) Feasibility studies

It is unlikely a full feasibility study will have been made. However, you will need to provide information on the mining method, mine plan, schedule and equipment to be used in line with the work programme outlined in item 5.

ii) Project economics

You must demonstrate that the proposed mining operation is economically viable. You need to demonstrate that you have considered and factored in realistic costs and income for the operation. This needs to include consideration of the capital needed upfront to get the operation underway before it starts producing an income, as well as ongoing expenditure.

You will need to provide information about the materials, capital and operating costs broken down into suitable time periods (for example weeks) that demonstrate that you will make a profit from your proposed work programme. You also need to indicate the basis for the information, such as whether it is an assumption, quote or industry standard.

The information may cover:

- plant and equipment capital and operating costs (for example, lease costs, maintenance, fuel)
- personnel costs (for example, wages)
- other costs (such as land access, consenting, stripping, rehabilitation)
- production start date and rate
- projected metal recovery and value, including value of mineral by unit (for example, \$/oz gold) and
- the expected margin.

9 Consistency of proposed mining operations with good industry practice

You must make a statement supported by reasoning and an explanation about how the proposed mining operation is in line with industry practice. For example, is what you are proposing in line with accepted general practice for mining the mineral in question?

10 Capability to give effect to the work programme

You will need to show that you have the **technical** and **financial** capability to give effect to the proposed permit and work programme. We have guides about financial and technical capability on our website.

i) Financial capability

You need to demonstrate that you have sufficient funding available to do the work you have outlined in your work programme. Making a statement is not sufficient – you need to support this with evidence.

While a bank statement can show a level of available funds it does not necessarily indicate commitment to spend the funds on the proposed work programme. Providing evidence with your application that you have committed those funds to the work programme can strengthen your application – evidence such as agreements with equipment suppliers.

Applicants with an existing permit portfolio should also factor in committed spending on their other permits.

ii) Technical capability

You need to show that the technical capability of the proposed operator to undertake the day-to-day management is sufficient and that you have suitable equipment available.

If you propose contracting work out to a third party to bring in technical expertise, then the applicant should also be able to demonstrate relevant experience in the management of projects and contractors.

When evaluating your application we will look at:

- the proposed scale and type of work programme or mining operation
- the target mineral or commodity
- the deposit type and style of mineralisation
- geological setting
- geographical location and any associated challenges
- engineering and geotechnical requirements of mining operation.

For a mining permit you need to show that you have the technical capability to economically mine the mineral resource or deposit to the maximum extent possible, using good industry practice, with sufficient health and safety systems in place.

Any previous minerals permits you have had and your compliance record on those permits will be taken into consideration when we evaluate your application. We can factor in major compliance issues on any overseas permits. We cannot grant you a permit if we cannot be satisfied that you will comply with the conditions of your permit and the requirements of the legislation.

Therefore it is important that if there has been any compliance issues on other permits, you should explain why these issues occurred and how you will prevent these issues from happening again if you are granted a further permit.

DISCLAIMER

This document is a guideline only and is not intended to cover every possible situation. If this guideline is inconsistent with the Act, relevant Minerals Programme or relevant regulations, the Act, Programme and regulations prevail. This guideline has no binding legal effect and should not be used as a substitute for obtaining independent legal advice.

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There may be factors taken into account in any application process, transaction or decision that are not covered by this or any other guideline. Adherence to this guideline does not guarantee a particular outcome. NZP&M retains the discretion to decline any application where the statutory requirements for that application are not met.



NEED MORE HELP?

If you need help or more information about anything in this guide, please contact us by:

- phone on 0508 263 782 (within New Zealand) or +64 3 962 6179 (from overseas), or email nzpam@mbie.govt.nz.