

PROSPECTING

Extracting a bulk sample

MAY 2020

Prospecting on an exploration licence or assessment lease

Pursuant to section 23A of the *Mining Act 1992* an activity approval from the Minister is required before undertaking 'assessable prospecting operations' within an exploration licence (EL) area. Section 44A of the Mining Act provides a similar requirement for assessment leases (AL).

To apply for approval to prospect, holders of an EL or AL must lodge a completed [Form ESF4: Application to conduct exploration activities](#) with the NSW Resources Regulator.

Assessable prospecting operation means any prospecting operation that is not exempt development within the meaning of the *Environmental Planning and Assessment Act 1979*. Exempt development is specified under clause 10 of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

Exempt development includes certain low impact exploration activities with minimal environmental impact (such as mapping, aerial surveys, sampling and coring using hand-held equipment). These minimal impact activities do not require further environmental assessment of approval before being carried out.

Exploration activity applications are subject to an environmental assessment as set out in Part 5 of the Planning Act. This requires the Regulator to examine and consider all matters affecting, or likely to affect, the environment by reason of the activity, before granting an exploration activity approval.

Prospecting on a mining lease

For information regarding prospecting on a mining lease reference should be made to [Fact sheet – Prospecting on a mining lease](#).

What is prospecting?

Prospecting¹ (also referred to as exploration) means to carry out works on, or to remove samples from, land for testing the mineral-bearing qualities of the land. This includes taking samples and the assessment of deposits of minerals, petroleum and extractive materials².

What is a bulk sample?

The term 'bulk sample' is not defined in the Mining Act, the Planning Act or any other relevant legislation or instrument.

Prospecting may include extracting samples of material from the land to facilitate the testing, processing and assessment of the ore extracted. This is referred to as a 'bulk sample'.

Before applying to develop a mine, an explorer may extract a bulk sample of the material to be mined to further test the ore and refine the proposed mining procedures. There are typically two types of bulk sampling:

- The excavation of a small open cut from the surface to extract the material required for testing.
- The extraction of material from underground. This may comprise a small underground operation or an exploration decline from an existing above/below ground mining operation.

What approvals are required to extract a bulk sample of more than 20,000 tonnes of ore?

Clause 7(1)(f) of the Mining SEPP requires **development consent** for 'extracting a bulk sample as part of resource appraisal of more than 20,000 tonnes of coal or of any mineral ore'. Furthermore, extracting a bulk sample as part of resource appraisal of more than 20,000 tonnes of coal or of any mineral ore comprises a state significant mining development³.

¹ **prospect** means to carry out works on, or to remove samples from, land for the purpose of testing the mineral bearing qualities of the land, but does not include any activity declared not to be prospecting by a regulation under section 11A or by a declaration made under such a regulation. (Dictionary to Mining Act).

² Clause 3 of [State Environmental Planning Policy \(Mining, Petroleum Production and Extractive Industries\) 2007](#)

³ Clause 5 within Schedule 1 of [State Significant Planning Policy \(State and Regional Development\) 2011](#).

In such cases, a development application would need to be lodged with the relevant consent authority (the Department of Planning, Industry and Environment). Approval would be required from the Minister for Planning (or delegate) before extracting the bulk sample.

What approvals are needed to extract a bulk sample of less than 20,000 tonnes of ore?

The extraction of a bulk sample of less than 20,000 tonnes of coal or any mineral ore, as part of a resource appraisal, would comprise prospecting. The holders of an EL or AL⁴ would need to lodge a completed [Form ESF4: Application to conduct exploration activities](#) with the Regulator and obtain approval for an assessable prospecting operation.

The application would need to be accompanied by a detailed review of environmental factors (REF) prepared in accordance with Regulator's [ESG2: Guideline for preparing a review of environmental factors](#). The purpose of a REF is to inform the Regulator's consideration of the likely environmental impact of the activity under Part 5 of the Planning Act.

The Regulator may publicly exhibit the application and accompanying REF for a period of time to ensure all affected parties are able to have input before making a decision. Proponents are encouraged to undertake stakeholder consultation as part of preparing the REF (see Section 3.3 of [ESG2: Guideline for preparing a Review of Environmental Factors](#)). This should be consistent with the scale and potential impacts of the activity and could include consultation with relevant government agencies⁵, affected landholders and the local council.

If, in reviewing the REF, the Regulator forms the opinion that the activity is likely to significantly affect the environment, an environmental impact statement (EIS) must be prepared⁶. The purpose of an EIS is to provide a thorough public examination of a proposed activity that is likely to have a significant impact on the environment, and to inform a decision as to whether that activity should proceed.

If an activity is likely to significantly affect threatened species or ecological communities (or their habitats), a species impact statement⁷ (SIS) is required to be considered as part of the activity assessment process.

⁴ Holders of a mining lease should refer to [Fact sheet – Prospecting on a mining lease](#).

⁵ This may include the Natural Resource Access Regulator (NRAR) where water licences/approvals are required, or the Environment Protection Authority (EPA) where pollution impacts are required to be managed through the *Protection of the Environment Operations Act 1997*.

⁶ Section 5.7(1) of the *Environmental Planning and Assessment Act 1979*.

⁷ The form, content and process for preparing a SIS are set out in the *Biodiversity Conservation Act 2016* or the *Fisheries Management Act 1994* (as applicable to the impacted species).

What happens if the ore extracted needs to be tested off title?

Prospecting, including extracting a bulk sample, typically includes taking samples from the land and the testing, processing and assessment of the ore extracted.

In some cases, this will take place within the boundaries of the EL or AL, and details need to be included in the exploration activity application lodged with the Regulator. When determining the exploration activity application, the Regulator will undertake an assessment of all the relevant environmental impacts associated with the testing, processing and assessment of the ore and the storage and rehabilitation of the waste rock material.

If the testing of the ore is to be undertaken outside of the boundaries of the EL or AL then the title holder may require separate approvals from other agencies, including development consent under the Planning Act.

Minimising environmental impacts

The scale of environmental impacts arising from bulk sampling can be significant and should be minimised wherever possible. Title holders should ensure that the size of the bulk sample (i.e. the amount of material excavated) and the associated environmental impacts are appropriate to the type of ore being tested. The ore to waste material ratio should be minimised and detailed in any exploration activity application lodged with the Regulator. For example:

- for coal, a large bulk sample across various parts of the EL/AL may be appropriate as a significant amount of overburden may need to be removed to facilitate extracting and testing the ore
- for dimension stone, a smaller bulk sample would be appropriate as there is generally less waste material (i.e. most of the material excavated will be stone and excavating more will not alter the results of resource assessment/testing).

Title holders must also provide details in their exploration activity application of what will happen to the waste material and ore after it is tested to ensure any associated environmental impacts can be assessed.

REFs that accompany applications for underground bulk sampling should ensure that the full range of impacts outlined in section 4 of [ESG2: Guideline for preparing a Review of Environmental Factors](#) are addressed.

Limitations on bulk sampling

Once approval to extract a bulk sample has been granted by the Regulator, the holders of an EL or AL can only carry out the activity for the purpose of testing the mineral-bearing qualities of the ore extracted (i.e. prospecting). **The approval does not extend to the sale of any material removed from the land as a result of the activity.**

Further information

For further information go to www.resourcesregulator.nsw.gov.au/environment or contact the NSW Resources Regulator at nswresourcesregulator@service-now.com

The following related legislation may be accessed at www.legislation.nsw.gov.au:

- [*Environmental Planning and Assessment Act 1979*](#)
- [*Environmental Planning and Assessment Regulation 2000*](#)
- [*Mining Act 1992*](#)
- [*Mining Regulation 2016*](#)
- [*State Environmental Planning Policy \(Mining, Petroleum Production and Extractive Industries\) 2007*](#)
- [*State Environmental Planning Policy \(State and Regional Development\) 2011*](#)

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