

Initial and later development plan guideline

A guide about preparing and lodging a proposed initial or later development plan for coal and oil shale mining leases under the *Mineral Resources Act 1989*

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About this guideline

This guideline provides information about preparing and lodging a proposed initial or later development plan (collectively referred to as 'development plan') for a coal or oil shale mining lease (coal or oil shale ML) under the *Mineral Resources Act 1989* (MRA)

General information

Lodgement

Every coal or oil shale ML under the *Mineral Resources Act 1989* (MRA) must have an approved development plan. An application, for the initial grant of a coal or oil shale ML made under the MRA, must be accompanied by a proposed initial development plan. A later development plan is then required on a 5 yearly basis for the term of the lease.

A proposed later development plan must be lodged:

- at least 40 business days, but no more than 100 business days, before the expiry of the current development plan for the coal or oil shale ML; or
- as soon as practicable after the holder proposes or becomes aware of a significant change to the nature and extent of an authorised activity that is not already dealt with under the approved development plan; or
- with an application to renew a coal or oil shale ML; or
- with an application to consolidate a coal ML with another coal ML, or an oil shale ML with another oil shale ML; or
- within 20 business days after a coordination arrangement relating to the ML ends.

A proposed later development plan for a coal or oil shale ML must address a number of factors relating to changes and compliance with the current approved development plan for the coal or oil shale ML.

Proposed development plans should be lodged online via the [MyMinesOnline](#) electronic lodgement system.

Principal objectives

The principal objectives of a development plan are to:

- provide a better understanding of the nature and extent of the proposed or continuing development and production of coal or oil shale resources from the coal or oil shale ML;
- allow an assessment of the proposed development or continuing development and whether it is appropriate with respect to the area, resource and the public interest;
- assess the prospective resource utilisation and identify any resource sterilisation issues;
- allow appropriate resource management decisions to be made, particularly in the case of overlapping 1923 Act petroleum tenure under the *Petroleum Act 1923* or petroleum tenure under the *Petroleum and Gas (Production and Safety) Act 2004* (collectively, 'petroleum tenure'), and coal or oil shale mining tenements.

Scope of development plan

The extent of a proposed development plan will vary depending on the size and complexity of the proposed or existing development. The plan for a smaller open cut mining operation, for instance, would require less detail than a multi-seam underground operation that also has coal seam gas (CSG) extraction issues.

In all cases a proposed development plan must:

- address all relevant legislative requirements,
- cover every mineral that the coal or oil shale ML applicant proposes to mine or is mining,
- provide adequate spatial information (maps) of the resource and mining information requested.

The proposed development plan must address the inter-relationships between the coal or oil shale and CSG resources development. In essence, the proposed development plan should identify:

- the possibility of future or continuing coordinated mining of coal or oil shale and production of petroleum resources by an overlapping petroleum tenure holder,
- the impact of mining coal or oil shale or production of petroleum on the other,
- the relative value of each resource, and
- the benefits of the development of each resource for the State.

The coal or oil shale ML applicant or holder should provide a summary and the current status of all engagements and any agreements made with the overlapping petroleum tenure holders. Copies of any current authorisations from the overlying petroleum tenure holder should be included.

When ML area overlaps over petroleum tenure.

The area proposed or granted in a coal or oil shale ML application may overlap all or part of the area of a petroleum tenure.

If an overlapping coal ML application was lodged prior to 27 September 2016, the grant of such MLs was subject to the additional overlapping provisions detailed in chapter 8 'Provisions for coal seam gas' of the MRA.

If an overlapping coal ML application was lodged on, or after 27 September 2016, the grant of the ML would be subject to the additional overlapping provisions detailed in chapter 4 'Overlapping coal and petroleum resource authorities' of the *Mineral and Energy Resources (Common Provisions) Act 2014* (MERC Act).

Importantly, as part of the transitional arrangements, overlapping coal ML applicants that had commenced negotiations with the holder of a petroleum tenure are still, prior to the commencement of MERC Act, subject to the overlapping provisions of the MRA.

An application for, or granted oil shale ML overlapping petroleum tenure, remains subject to the additional overlapping provisions detailed in the MRA.

A proposed development plan should be operationally consistent with each agreed joint development plan under the MERC Act that applies to the mining lease.

At the time of lodgement of an application for an overlapping coal ML, an agreed joint development plan may not have been finalised. If so, an application may need to be made at a later date to amend the proposed initial development plan, to reflect the finalised joint development plan.

Initial development plan requirements

Guides for the preparation of a proposed initial development plan, for a coal or oil shale ML, are set out in [Table 1](#) below.

Table 1- Guide to content and scope for typical proposed initial development plans - MRA

Legislative requirement – relevant to proposed initial development plan	Information to be provided
<p>A proposed initial development plan should include a table of contents that references where each of the statutory requirements is addressed.</p> <p>In addition to the proposed initial development plan, a mine plan¹ should accompany the proposed initial development plan. Note that mine plans should reflect the proposed initial development plan period.</p>	
<p>Section 318DT(1)(a) - an overview of the activities proposed to be carried out under the proposed mining lease during all of its proposed term.</p>	<ul style="list-style-type: none"> • A mine plan, covering the proposed term of the ML, and if different, the life of the mine, in a table format detailing: <ul style="list-style-type: none"> — the scheduling (timing and extent) of all minerals proposed to be mined during the term, — the total extent of mine workings, waste dumps and related infrastructure, — key milestones during the anticipated life of mine. • Include a detailed map, for each year of the plan period, at an appropriate scale showing all of the above.
<p>Section 318DT(1)(b) for each year of the plan period:</p> <p>The plan period for a proposed initial development plan is defined by the term of the ML. If the term is:</p> <ul style="list-style-type: none"> • Less than five years from the granting of the ML—the plan period is for the term of the ML, or • Five years or more from the start of the term— the plan period is five years from the start of the term. 	

¹ A mine plan – is the plan that ML applicants or holders, create or have in place to plan the production and development of the mine. It is recommended that ML applicants consider extending the usual period of the mine plan from 3 years to 5 years, to align with the initial development plan period.

Legislative requirement – relevant to proposed initial development plan	Information to be provided
Section 318DT(1)(b)(i) - the nature and extent of activities proposed to be carried out under the proposed mining lease during the year;	<p>For each year:</p> <ul style="list-style-type: none"> • A general outline provided in tabular form related to a map or sufficiently detailed mine plan(s). Identify the type of activities to be undertaken including for example, mining method, seams to be mined. • Any proposed partial recovery of resources is to be described. Seams not planned to be mined need to be shown or described and the reasons for not mining rationalised. • Digital data ('shapefiles') of the mine extraction sequence by year (polygon of extraction area).
Section 318DT(1)(b)(ii) - where the activities are proposed to be carried out;	<ul style="list-style-type: none"> • Identify where all authorised activities are proposed to occur on the ML. This should include mining, haul roads, infrastructure, planned exploration, gas drainage drilling and CSG gathering lines etc. • The level of detail should be appropriate to communicate the mine plan. A statement should be made about the extent of the proposed drilling/exploration activities, an indication of the number, type and spacing of boreholes and geophysical surveys. • A mine plan with scaled plan(s) must be provided if multiple seams are proposed to be mined or multiple resources are planned for extraction. For an underground mine situation, this could be done by showing the development, production and gas draining activities proposed in (for example) each area for each year of the plan period.
Section 318DT(1)(c) - for each mineral (which may include both coal and CSG) the applicant proposes to mine under the proposed mining lease, each of the following:	
Section 318DT(1)(c)(i) - the location and an estimate of the resources of the mineral in all of the area, or proposed area, of the proposed mining lease;	<ul style="list-style-type: none"> • A mine plan detailing the extent and tonnage of the resource area (a polygon or areal) and an estimate of tonnage and grade or volume of recoverable reserves within each of the resource areas, on a seam by seam basis. • Where mining method varies, (for example. open cut, highwall, underground) the reserve/resource information should be provided for each distinct area. • Include a sufficiently detailed mine scaled plan for each seam or reservoir showing resource/reserve limit parameters (for example, thickness, depth, overburden, structure).

Legislative requirement – relevant to proposed initial development plan	Information to be provided
Section 318DT(1)(c)(ii) - the standards and procedures used to make the estimate;	<ul style="list-style-type: none"> • A typical stratigraphic section showing seam nomenclature. • Resources and reserves estimates by confidence category. • For coal, the estimate(s) should be prepared in accordance with the requirements of the current ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves the JORC Code 2012’ or with reference to the ‘Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resource and Coal Reserves’. • For CSG, see the requirements of section 21 of the Mineral Resources Regulation 2013. Refer to the Office of the Queensland Parliamentary Counsel website (https://www.legislation.qld.gov.au) for the latest version of this Regulation. • Sufficient information to allow a ‘visual’ appraisal of the estimate without the need to refer to individual basic data points or data sets (show location and type of boreholes but no need for labelling).
Section 318DT(1)(c)(iii) - the rate and amount of the proposed mining;	<ul style="list-style-type: none"> • Tonnes to be produced (as run-of-mine (ROM) coal and saleable coal product) and seam mining method (for example, open cut area, underground area) for each year of the plan. • Coal quality information for the resources being extracted for each year of the plan. • Average extraction cost per ROM tonne of coal produced. • Estimate of raw coal in-situ that is not planned to be mined. • For CSG, produced gas and saleable gas for each year of the plan.
Section 318DT(1)(c)(iv) - approximately when the proposed mining is to start;	<ul style="list-style-type: none"> • Anticipated start date and, where applicable, a brief explanation if any extended delay is expected or proposed.
Section 318DT(1)(c)(v) - a schedule for the proposed mining during the plan period.	<ul style="list-style-type: none"> • Mine plan document(s) showing the timing of proposed mining. This is to be a tabular and graphical representation of the information provided at section 318DT(1)(c)(iii).

Legislative requirement – relevant to proposed initial development plan	Information to be provided
<p>Section 318DT(1)(e) - any other information relevant to the criteria mentioned in section 318EF of the MRA;</p>	<ul style="list-style-type: none"> • Matters only need to be addressed if applicable. • The amount of detail required will depend on the nature of any overlap and the extent of identified petroleum resources. Even if there is no overlap of mining tenements and petroleum tenure, resource sterilisation / maximisation issues should be discussed. • In summary, most of the requirements of section 318EF of the MRA (including the CSG assessment criteria) are intended to identify: <ul style="list-style-type: none"> — the possibility for coordinated development of coal and CSG resources, — the impact of development of one resource on the other, — the relative value of each resource, and the benefit to the State from the development of each resource.
<p>Section 318DT(1)(f) - reasons why the plan is considered appropriate;</p>	<ul style="list-style-type: none"> • The reasons are to include (but are not limited to): <ul style="list-style-type: none"> — that the development will not adversely impact on the development of current or future petroleum resources, — support of the proposed production commencement day, — reasons why the resource is recovered in the most efficient and economically viable way.
<p>Section 318DT(1)(g) - another matter prescribed under a regulation.</p>	<ul style="list-style-type: none"> • At the time of approving this guideline, there were no matters prescribed under regulation. • Refer to the Office of the Queensland Parliamentary Counsel website (https://www.legislation.qld.gov.au) for the latest version of the Mineral Resources Regulation 2013 for confirmation.
<p>Section 318DV - The proposed plan must include a statement of how the effects on, and the interests of, any relevant overlapping or adjacent petroleum tenure holder have, or have not, been considered having regard to</p> <ul style="list-style-type: none"> • the main purposes of this chapter 8 (Provisions for coal seam gas) of the MRA; • the CSG assessment criteria, other than the initial development plan requirements. 	<ul style="list-style-type: none"> • Identify any overlapping or adjacent petroleum tenure and their holders. Note: GeoResGlobe will assist in identifying any overlapping or adjacent petroleum tenure. The information about the holder of a petroleum tenure may be obtained from the webpage 'Public searches for resource authorities'. • Give details and results, of any negotiations or proposals, to show how these petroleum tenure holders' interests have been or will be considered. For example, in relation to the preparation of agreements, information sharing, safety and health arrangements. Submissions arising from sections 318AT and 318AX of the MRA may address this requirement for petroleum tenure that are authorities to prospect.

Legislative requirement – relevant to proposed initial development plan	Information to be provided
<p>The main purposes of chapter 8 of the MRA are to:</p> <ul style="list-style-type: none"> • clarify rights under this Act to mine coal seam gas; and • address issues arising for coal seam gas mining under this Act, and, in particular, issues arising when a coal mining lease or an oil shale mining lease and a petroleum lease are granted over the same area; and • provide security of tenure to protect existing operations and investments relating to coal, oil shale and petroleum; and • provide certainty of tenure for future investments relating to coal, oil shale and petroleum; and • optimise the development and use of the State's coal, oil shale and petroleum resources to maximise the benefit for all Queenslanders; and • ensure, if it is commercially and technically feasible, the grant of coal mining leases and oil shale mining leases that may affect petroleum exploration or production, or proposed petroleum exploration or production, optimises the commercial use of coal, oil shale and petroleum resources in a safe and efficient way. 	<ul style="list-style-type: none"> • Detail in the statement the impact of activities, proposed on the ML, on petroleum exploration, testing or production activities proposed to be carried out/being carried out by the petroleum tenure holder. The statement must include any of the above and be developed with regard to the CSG assessment criteria. • For details on the type of information that relates to the CSG assessment criteria, refer to the 'Guideline for preparing CSG statements and addressing CSG assessment criteria'.
<p>Section 318DW - The activities provided for under the proposed plan must seek to optimise the use of incidental coal seam gas in a safe and efficient way if it is commercially and technically feasible to do so.</p>	<ul style="list-style-type: none"> • Provide evidence that incidental CSG production/utilisation was considered, and the technical and commercial reasons for the proposed option (which may not be using the incidental CSG at all). • Describe how the use of incidental CSG will be optimised in a safe and efficient way. Reference may be made to the proposed safety management system and how the applicant proposes to comply with relevant safety legislation. • Describe how the effects of any coal or oil shale mining on future petroleum exploration or production, or proposed petroleum exploration or production, have been fully considered.

Legislative requirement – relevant to proposed initial development plan	Information to be provided
<p>Section 318DX If all or part of the land in the area of the proposed mining lease is in the area of a petroleum lease (the relevant land), the proposed development plan must, to the extent it applies to the relevant land, be consistent with-</p> <ul style="list-style-type: none"> the development plan for the petroleum lease; and any coordination arrangement relating to the relevant land. 	<ul style="list-style-type: none"> State how the drafting of the proposed initial development plan for the ML took into consideration the development plan for the petroleum lease. For example, coal mining for area one will only commence in year five, which will be twelve months after the expected completion time of petroleum production in the same area. State how the proposed initial development plan optimises the extraction of each commodity/resource. For example, mining is proposed after gas production. State how the drafting of the initial development plan for the proposed coal or oil shale ML took into consideration any coordination arrangement.

Later development plan requirements

Guides for the preparation of a proposed later development plan, for a coal or oil shale ML, are set out in [Table 2](#), below.

Table 2- Guide to content of proposed later development plans lodged under the MRA

Legislative requirement – relevant to proposed later development plan – coal or oil shale ML	Information to be provided
<p>A proposed later development plan should include a table of contents referencing where each of the statutory requirements is addressed.</p> <p>In addition to the proposed later development plan, a 'mid-term mine plan' should accompany the proposed later development plan. Note that mid-term mine plans should reflect the proposed later development plan period.</p>	
<p>Section 318ED(1)(a) - comply with the initial development plan requirements</p>	
<p>The proposed initial development requirements are detailed in Table 1. The information to be provided in a proposed initial development plan must also be provided in a proposed later development plan.</p>	
<p>Section 318ED(1)(b) - highlight any significant changes from the current development plan for the mining lease and Section 318ED(3) - If the effect of the proposed plan is to significantly change an activity provided for under the current development plan, the proposed plan must also state reasons for the change.</p>	<ul style="list-style-type: none"> • The ML holder should highlight the difference(s) between the current approved development plan and the proposed later development plan for the ML. • Examples of significant changes from a current approved development plan could include: <ul style="list-style-type: none"> — additional infrastructure to be constructed, — production or mining from a different area or seam, — significant changes in rates of disposal of waste product or overburden in an area or its disposal location that is different from that shown in the approved plan (for example, if an additional out-of-pit spoil dump is different from those already planned), — significant changes in rate of proposed mining, — proposed changes in production technique or mining method, — substantial change to the level or coverage of drilling and other exploratory activities, — incidental coal seam gas production enhancement (for example, hydraulic stimulation), — a cessation of activities in all or part of the deposit, or a reduction in the rate of mining. • The reasons for the changes to the development plan must be justified.
<p>Section 318ED(1)(c) - state whether the current development plan has been complied with; and Section 318ED(1)(d) - if the current development plan has not been complied with—state the details of, and the reasons for, each noncompliance.</p>	<ul style="list-style-type: none"> • State where the current approved development plan has not been followed and justifications for departure from the plan.

Section 382	
<p>(1) - The activities provided for under the proposed plan must seek to optimise petroleum production in a safe and efficient way.</p> <p>(2) - However, the activities must not adversely affect the future safe and efficient mining of coal where it is commercially and technically feasible not to do so.</p>	<ul style="list-style-type: none"> Describe how petroleum production will be optimised and produced in a safe and efficient way. Reference may be made to the proposed or existing safety management system and how the PL applicant or holder proposes to comply with relevant safety regulations. Describe how the effects of the production of any coal seam gas on future coal or oil shale mining have been fully considered and incorporated into the production program. Detail what the effects on coal mining are likely to be and how these will be minimised or controlled. This may have been addressed in the response to the requirements for section 318 in Table 1; otherwise an example will be needed. Justification that petroleum production is optimised, including recovery factor or fraction. Note: this may have already been addressed in the requirements for section 318(1)(c)(iii) or section 318(1)(e) in Table 1.
Section 383	
<p>If all or part of the area of the proposed or granted PL is in the area of a coal or oil shale mining lease (the relevant land), the proposed plan must, to the extent it applies to the relevant land, be consistent with—</p> <p>(a) the development plan for the mining lease; and</p> <p>(b) any coordination arrangement relating to the relevant land.</p>	<ul style="list-style-type: none"> State how the drafting of the proposed development plan took into consideration the development plan for the coal or oil shale mining lease. State how the proposed development plan optimises the extraction of the petroleum resource.

Other requirements

General map requirements

Where a map is to form part of the information to be provided the following are the map's general requirements:

- Maps should be provided at a scale between 1:20 000 to 1:30 000 depending on the size and scale of the mining operation. A scale, scale bar and either AMG or geographic coordinates graticule must be included on each map.
- Maps should be provided at a common scale within the development plan to allow for comparison.
- The legend on all maps is to clearly identify all colours, symbols, front/line styles used.
- At least one of the maps must show background topographic information (creeks, rivers), other significant cultural features (dwellings, town extents, roads) and pipelines (including proposed pipelines).
- All mining tenements/petroleum tenure relevant to the project/mine are to be shown on all maps.

Resource map and section requirements:

- Geology and coal seam extent(s) (for example, seam sub-crop, limit of oxidation, split lines) for each seam or group of seams.
- Location and type of all boreholes (for example, cored, partly cored, non-cored), the location of any geophysical surveys and the location of any other points of observation relevant to each estimate.
- Extent of coal resources estimated for each seam to be mined including each confidence category in accordance with the Joint Ore Resources Committee (JORC) Code. (For example, Measured, Indicated).
- Location of any part of the deposit that will not be mined or where partial seam recovery is planned.
- Geological section(s), at scale, referenced to the map showing the geometry of the coal resource. At least one section along strike and sections across dip for representative parts of the deposit.

Mining and infrastructure layout:

- The location of mine related surface (and where relevant, underground) infrastructure or facilities (for example, access roads, transmission lines, tailings dams, out-of-pit dumps, preparation plant, ventilation shafts, adits/declines/portals).
- Planned extent of mining for each type of mining method proposed (for example, open-cut, highwall, underground) incorporating the 'shells/outlines' of planned pits, mining blocks, and panels.
- Proposed mining schedule for the whole of the life of mine, with additional details for each year in the proposed initial development plan period.
- For each year of the proposed development plan period and for each seam to be mined, show each block, or group of blocks, to be mined.
- An estimate for each block or group of blocks (either by reference to a tabulation included in the text, a text block placed on the maps supplied or similar method of presentation) incorporating information that provides:
 - the resource base in each block or group of blocks from which each reserve estimate has been made;
 - the geological parameters and other assumptions used in deriving the reserve estimate (thickness range, ash, yield, relative density, mining recovery and dilution factors);
 - the basic quality parameters for the reserve - specify quality dependent on product coal type (coking, PCI, thermal); and
 - location of any part of the deposit that will not be mined and why this is not being mined.

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Related documents	<ul style="list-style-type: none"> This guideline may be read in conjunction with the following Guidelines for preparing CSG statements and addressing CSG assessment criteria
Contact:	<p>For help and information contact the Coal Assessment Hub:</p> <p>Phone: +617 4936 0169 Email: CoalHub@resources.qld.gov.au</p> <p>For technical support contact the MyMinesOnline Helpdesk. Telephone: +61 7 3199 8133 Email: MyMinesOnline@resources.qld.gov.au</p> <p>8.30am – 4.30pm (AEST) Monday to Friday on Queensland business days.</p>