

## APPENDIX A1

# MINISTERIAL DETERMINATION FOR THE BIRD IN HAND GOLD PROJECT CHECKLIST

## ANGAS PROCESSING FACILITY

MISCELLANEOUS PURPOSES LICENSE APPLICATION  
2019/0826



ABN | 67 062 576 238

Unit 7 / 202-208 Glen Osmond Road | Fullarton SA 5063

**ML MLP/MP SUBMISSION**  
**Validity check against Determination MD006**

<b>Assessment Officer</b>	<b>Applicant</b> Terramin Australia Limited	<b>Date of assessment</b>
<b>T File</b>	<b>MC Number(s)</b> MPLA 2019 / 0826	<b>Commodity</b> Gold
<b>MP Received on:</b>		<b>Addresses all components of MP Determination?</b>
<b>Recommended Action</b> Continue assessment <input type="checkbox"/> Request amendment <input type="checkbox"/> Declare invalid <input type="checkbox"/>		<b>Adequate/not adequate</b>

Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
<b>1. REQUIREMENT FOR DECLARATION OF ACCURACY</b>			
The mining proposal and/or management plan must include a signed statement by the applicant in accordance with Regulation 30 (4) and/or Regulation 49 (4) that the content of the mining proposal and/or management plan has been reviewed and is accurate.	✓	Declaration of Accuracy	
Provide a summary of the steps undertaken to review the mining proposal and/or management plan and ensure its accuracy.	✓	Declaration of Accuracy	As above
<b>2. DESCRIPTION OF THE EXISTING ENVIRONMENT</b>			
Each of the elements of the existing environment listed in Sections 2.1–2.19 must be described only to the extent that they may need to be considered in assessing the potential impacts of the proposed mining operations. If the element is not likely to be impacted by the operation, a statement to that effect must be included (note: the environment is defined in Section 6 (4) of the Mining Act 1971).	✓	Chapter 2	
<b>2.1 Topography and Landscape</b>			
Provide a description and map of the topography and landscape of the:		Chapter 2	
• application area; and	✓	Section 2.1	
• general surroundings.	✓	Section 2.1	
<b>2.2 Climate</b>			
Provide:		Chapter 2	
• a summary of rainfall and temperature patterns, evaporation rates, and wind directions and speed (including maximum wind gusts); and	✓	Section 2.2	
• details of the maximum average recurrence interval or annual exceedance probability rainfall event used for the operational and closure design of the project, and the justification for the value(s) selected.	✓	Section 3.7.7 Various references in Chapters 11, 13 and 21 Chapter 2.2.1	
<b>2.3 Topsoil and Subsoil</b>			
Provide:		Chapter 13	
• a description of the soil profile (type and depth), and the characteristics and/or productivity of all soils on the application area (show this information on a map if there is a variation in soils over the application area); and	✓	Section 13.3	

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<ul style="list-style-type: none"> <li>identify any soil characteristics, including (but not limited to) erodibility, acid sulfate, sodic or non-wettable soils, that may require control measures to reduce environmental impacts during operations or rehabilitation.</li> </ul>	✓	Section 13.3	
<b>2.4 Geology</b>			
Provide a description of the following, as a minimum:		Chapter 2	
<ul style="list-style-type: none"> <li>regional geology;</li> </ul>	✓	Section 2.3	Regional stratigraphy and geology summary
<ul style="list-style-type: none"> <li>geology within the application area, including but not limited to; <ul style="list-style-type: none"> <li>location, dimensions and orientation (dip and strike), and extent of the mineral resource and ore reserve;</li> </ul> </li> </ul>	✓	Section 2.3	Project geology summary
<ul style="list-style-type: none"> <li>composition of all rock types that are proposed to be disturbed;</li> </ul>	NA		No mining at AZM proposed as part of the MPL application, therefore limited description of deposit geology provided. Refer BIH MLP.
<ul style="list-style-type: none"> <li>interpretation of the stratigraphy of the rocks hosting the deposit as well as any overlying and adjacent rock units; and</li> </ul>	NA		As above
<ul style="list-style-type: none"> <li>a description and plan of potential for extension to the orebody;</li> </ul>	NA		As above
<ul style="list-style-type: none"> <li>representative cross-sections, long projection and a geological map of the lease application area showing the location of rock types and rock units present; and</li> </ul>	NA		As above
<ul style="list-style-type: none"> <li>the exploration data on which the geological interpretation was based on.</li> </ul>	NA		As above
<b>2.5 Geochemistry and Geohazards</b>			
Provide:		Chapters 13, 14, and 15	
<ul style="list-style-type: none"> <li>a geochemical assessment of all rock types that are proposed to be disturbed, based on representative sampling and analysis that includes the identification and quantification of, but not limited to, sulfide minerals that have the potential to generate acid or mobilise metals into the environment; and</li> </ul>	✓	Sections 13.3, 13.2 and 13.3	Limited to assessment of the existing AZM and proposed new BIH Mine ore and tailings. No mining proposed on AZM as part of MPL application.
<ul style="list-style-type: none"> <li>a mineralogical assessment of all the rock types that are proposed to be disturbed, based on representative sampling and analysis for the presence and quantification of (but not limited to) radioactive minerals, asbestos or minerals that have the potential to produce respirable silica.</li> </ul>	✓	Section 14.7.1	
Describe the potential for any of the following natural geohazards to be present in the application area:		Chapter 15	
<ul style="list-style-type: none"> <li>structural instability, including slips, faults, karst features or geological discontinuities; and</li> </ul>	✓	Section 15.3.2	
<ul style="list-style-type: none"> <li>major seismic events (based on historical data).</li> </ul>	✓	Section 15.3.2	
<b>2.6 Hydrogeology</b>			
Provide:		Chapter 11	
<ul style="list-style-type: none"> <li>a description of the local and regional hydrogeology, detailing both the stratigraphy and hydrostratigraphy;</li> </ul>	✓	Section 11.3	
<ul style="list-style-type: none"> <li>details of local groundwater systems, including information on water quality and static water level (including seasonal fluctuations), recharge and discharge mechanisms, aquifer hydraulic properties, location of any aquifer (shown on a plan)</li> </ul>	✓	Section 11.3	

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and static water level of any other known drillholes;			
<ul style="list-style-type: none"> <li>the environmental value of the water resource(s) determined according to Australian and New Zealand guidelines for fresh and marine water quality (Australian and New Zealand Environment and Conservation Council &amp; Agriculture and Resource Management Council of Australia and New Zealand, National Water Quality Management Strategy Paper No. 4, 2000) or as amended;</li> </ul>	✓	Section 11.3	Generally ranges from Primary Industries – livestock drinking water, to Primary industries – aquaculture and human consumption of aquatic foods, depending on the location and depth of the bore.
<ul style="list-style-type: none"> <li>a description of the existence, location and value of all Groundwater Dependent Ecosystems (GDEs) within the application area and within and immediately surrounding the extent of predicted hydrogeological impact of the proposed mine operations;</li> </ul>	✓	Section 11.3.2	
<ul style="list-style-type: none"> <li>an assessment of any current or historical use of local groundwater by the landowner(s) and other users which includes a baseline survey of bores, including water level, groundwater quality, bore construction details, status and purpose and collar/ground elevations;</li> </ul>	✓	Section 11.3.4	
<ul style="list-style-type: none"> <li>a statement describing if the application area is within an area where the water resources are prescribed under the Natural Resources Management Act 2004, and provide details on the current availability of water resources within the prescribed area;</li> </ul>	✓	Chapter 11	The proposed MPL is located within the Eastern Mount Lofty Ranges (EMLR) prescribed water resources area (PWRA).
<ul style="list-style-type: none"> <li>a plan, to scale, identifying the application area, all drillholes and boreholes relevant to the identification of hydrogeology, GDEs, direction of groundwater flow, any potential paleochannels and recharge zones;</li> </ul>	✓	Figure 11-2	Includes well used to develop and recalibrate the groundwater model.
<ul style="list-style-type: none"> <li>if proposed mining operations are likely to intersect one or more aquifer units, provide a diagram of the potentiometric groundwater elevation contours for each aquifer and include the location of all drillholes and boreholes and supporting tabulated data used in developing the contours; and</li> </ul>	NA		
<ul style="list-style-type: none"> <li>cross-section(s) of the interpreted hydrostratigraphy showing the known and inferred groundwater levels, and groundwater flow direction, recharge and discharge mechanisms (if applicable), application area, proposed mining operations, and relevant drillholes and boreholes used in developing the cross-section(s).</li> </ul>	✓	Appendix H15	Cross sections of the well lithology and drilling details were created by Australian Groundwater Technologies and have been included in Appendix H15.
<b>2.7 Hydrology</b>			
Provide a description and map of the current drainage patterns for the application area and water catchment including:		Chapters 11 and 12	
<ul style="list-style-type: none"> <li>location of watercourses, drains and dams;</li> </ul>	✓	Sections 12.3 and 12.4	
<ul style="list-style-type: none"> <li>surface water catchment boundaries;</li> </ul>	✓	Sections 12.3 and 12.4	
<ul style="list-style-type: none"> <li>direction of drainage and discharge from the application area;</li> </ul>	✓	Section 12.3	
<ul style="list-style-type: none"> <li>a statement describing if the application area is within an area where the water resources are prescribed under the Natural Resources Management Act 2004, and</li> </ul>	✓	Section 12.1.3	The proposed MPL lies within the Eastern Mount Lofty Ranges Prescribed Water Resource Area, prescribed by the NRM Act.

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provide details on the current availability of water resources within the prescribed area;			
<ul style="list-style-type: none"> <li>a statement if the application area is within a water protection area including areas under the River Murray Act 2003; and</li> </ul>	✓	Section 12.1.4	Strathalbyn and its surrounds lie within the River Murray Protection Area tributaries zone as described by the <i>River Murray Act 2003</i> . The proposed MPL is located in the Lower Angas River sub-catchment, part of the Angas River catchment.
<ul style="list-style-type: none"> <li>groundwater—surface water interactions.</li> </ul>	✓	Section 11.3.2	
Provide water quality data for identified watercourses, where there is potential for discharge into that watercourse from the proposed mining operation (whether intentional or not). Should identified watercourses be ephemeral, and it is not possible to collect water samples, provide a characterisation of sediments sampled from the watercourse bed upstream and downstream of the application area.	✓	Section 11.3.1	
If there is potential for changing a flow regime (including change in flow volume) or discharge into these watercourses from the proposed mining operations, an assessment of the use of this water by the landowner, downstream users and water dependent ecosystems must be included.	NA		No proposed changes to flow regime
<b>2.8 Vegetation, Weeds and Plant Pathogens</b>			
Provide:		Chapter 19	
<ul style="list-style-type: none"> <li>a description of existing flora (native and introduced) in the application area and surroundings, and display on a map;</li> </ul>	✓	Section 19.3	
<ul style="list-style-type: none"> <li>the State conservation status and habitat value of native vegetation present in the application area;</li> </ul>	✓	Section 19.3	
<ul style="list-style-type: none"> <li>a description of the presence of Commonwealth Environment Protection and Biodiversity Conservation Act 1999, listed species and ecological communities;</li> </ul>	✓	Section 19.3	
<ul style="list-style-type: none"> <li>a description of the extent the application area and adjoining land is affected or potentially affected by pathogens and weeds, including phytosphthora and broomrape; and</li> </ul>	✓	Section 19.3	
<ul style="list-style-type: none"> <li>if known, the history of land use to identify if the existing vegetation is the result of deliberate cultivation or natural regrowth arising from previous clearance.</li> </ul>	✓	Section 19.3	
<b>2.9 Fauna</b>			
Describe the native and feral fauna that may be present in the application area noting State or Commonwealth conservation status of all species, in particular if they are species of conservation significance or feral.	✓	Section 18.3	
<b>2.10 Caves</b>			
Describe the presence of any caves in karst (limestone) areas within, or near to, the application area. A survey for the presence of caves must be performed if the application area is within, or near to, known caves or significant limestone formations. Provide a summary of the results of the survey.	✓	Chapter 2 Section 2.3.1	
<b>2.11 Local Community</b>			

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Provide:			
• a description of the local population, the economy, services and employment; and	✓	Chapter 2 Section 2.4	
• details of nearest town or urban areas, with a summary of the demographics of the local population.	✓	Section 2.4	
<b>2.12 Landowners and Land Use</b>			
Provide a description of:		Chapter 2	
• land ownership for all titles within and adjacent to the application area;	✓	Section 2.4	
• land use (historical, current and potential) for the application area and the surrounding areas;	✓	Section 2.4	
• the zoning as defined by relevant council (or out of council) development plans;	✓	Section 2.4	
• any policies relevant to the application area, including council wide, zone specific and sub areas within a zone;	✓	Section 2.4	
• known plans for future land use changes by other parties;	✓	Section 2.4	
• a statement as to whether the application area falls within the Murray Darling Basin, Adelaide Dolphin Sanctuary or a Marine Park; and	✓	Section 2.6	
• any other interests or restrictions on the application area, including:			
– public utility easements;	✓	Chapter 22	
– if the application is within land used for defence purposes, including the Woomera Prohibited Area or the	NA		
Cultana Army Training Area;	NA		
– any overlapping or adjacent tenements under the Mining Act 1971, or Petroleum and Geothermal Energy Act 2000;	NA		
– any applicable exempt land under Section 9 of the Mining Act 1971, and any waivers of exemption obtained, and/or information on the status of waivers of exemption yet to be negotiated/finalised under Section 9AA of the Mining Act 1971; and	NA		
– the status of negotiations with Native Title holders or claimants, if the application area includes non-freehold land.	NA		
Provide information relating to the prospect of obtaining access to land required for the proposed mining operation.	NA		
<b>2.13 Proximity to Infrastructure and Housing</b>			
Provide:		Chapters 2 and 3	
• information and maps identifying residences within and near the application area;	✓	Section 2.5	
• information and maps identifying other human infrastructure such as (but not limited to) schools, hospitals, commercial or industrial sites, roads, sheds, bores, dams, ruins, pumps, cemeteries, scenic lookouts, roads, railway lines, fences, transmission lines, gas and water pipelines, and telephone lines (both underground and above ground); and	✓	Section 2.4	
• information and maps identifying public roads to be utilised or affected as part of proposed mining operations, including an estimate of the existing traffic movements.	✓	Section 3.4.4	
<b>2.14 Amenity</b>			

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Provide a description of scenic or aesthetic values for the application area and immediate surrounds, including caves or karst features or other features of community, tourist or visitor interest.	✓	Section 10.3.3	
<b>2.15 Air Quality</b>			
Provide a description of the existing levels of dust and contributors to air quality including odour (both natural and anthropogenic).	✓	Section 16.3	
<b>2.16 Noise</b>			
Provide a description and measurement data of the existing levels of noise and contributors to noise (both natural and anthropogenic).	✓	Section 17.3	
<b>2.17 Heritage (Aboriginal, European, Geological)</b>			
Detail:		Chapter 20	
• any registered heritage sites in or adjacent to the application areas that are protected under legislation (in so far as may be permitted under the relevant legislation); and	✓	Section 20.2	
• include a statement concerning whether or not an Aboriginal cultural heritage survey has been conducted by the proponent and, if so, the results of the survey.	✓	Section 20.2.1	
<b>2.18 Proximity to Conservation Areas</b>			
Provide information on proximity to national parks and reserves, private conservation areas, Commonwealth recognised conservation areas, heritage agreement areas and geological heritage sites.	✓	Section 2.6	
<b>2.19 Pre-existing Site Contamination and Previous Disturbance</b>			
Provide information on any known existing contamination of the site and of any disturbance by previous mining operations or other activities.	✓	Section 13.3.3	
<b>3. DESCRIPTION OF THE PROPOSED MINING OPERATIONS</b>			
Each of the elements listed in Sections 3.1–3.10 must be described only to the extent that they apply to the proposed mining operation. If the element (or part of the element) is not applicable to the proposed mining operation, a statement to that effect must be made and the element (or part of the element) description may be omitted.		Chapter 3	
<b>3.1 General Description and Maps/Plans of Operations</b>			
Provide a summary description of all elements of the proposed mining operation, including mining, processing and waste management (include maps/plans).	✓	Section 3.1	
<b>3.1.1 Options</b>			
Provide a summary description of relevant options considered for mining, processing and mine waste management strategies, and provide justification for the chosen strategies, including a description of any elimination or substitution strategies that have been adopted to control a hazard in order to protect the environment.	✓	Section 3.1.4	
<b>3.2 Reserves, Products and Market</b>			

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<b>3.2.1 Ore Reserves and Mineral Resources</b>			
Provide:			
<ul style="list-style-type: none"> <li>a statement of the current ore reserve and mineral resource estimates in the application area and a brief description of the basis of this estimate; include Australasian Joint Ore Reserves Committee (JORC) compliant reserve and resource estimates (and categories) if available; and</li> </ul>	✓	Section 3.2.1	No BIH ore reserves and/or mineral resources located within the MPL application area. Details regarding the reserves for BIH are discussed in the MLP.
<ul style="list-style-type: none"> <li>a statement of what reserve and/or resource forms the basis for the application;</li> </ul> or	NA		As above for BIH MLP
<ul style="list-style-type: none"> <li>an estimate of the resource to be mined, the basis of this estimate, and demonstrate that the resource can be economically mined at current commodity prices;</li> </ul> and	NA		As above for BIH MLP
<ul style="list-style-type: none"> <li>steps that have been taken to ensure proposed mining operations will not sterilise/prevent future extraction of mineral resources.</li> </ul>	✓	Section 3.2.1	No extensions of existing infrastructure as part of MPL application.
<b>3.2.2 Production Rate and Products</b>			
Provide:			
<ul style="list-style-type: none"> <li>a statement of the relevant commodities listed in Section 3.2.3 below that are proposed to be extracted, processed and sold, and the expected market or end use;</li> </ul>	✓	Section 3.2.2	
<ul style="list-style-type: none"> <li>a statement of any other commodities present in the application area that are not proposed to be recovered for sale, and the reasons for this decision;</li> </ul>	✓	Section 3.2.2	
<ul style="list-style-type: none"> <li>a quantitative estimate of production of mine gate product(s) for the life of mine, and a schedule of the annual production of mine gate product(s); and</li> </ul>	✓	Section 3.2.2	
<ul style="list-style-type: none"> <li>a statement if any extractive minerals (as defined by Section 6 of the Mining Act 1971) will leave the lease.</li> </ul>	✓	Section 3.2.2	
<b>3.2.3 Commodities List</b>			
<b>Refined Metals</b>			
Cobalt; Copper; Gold; Iron; Lead; Silver; Steel/pig iron; Thorium; Zinc.	✓	Section 3.2.3	
<b>Mineral Ores and Concentrates</b>			
Iron ore—hematite direct shipping ore (DSO); Iron ore—magnetite DSO; Iron ore—magnetite concentrate; Heavy mineral concentrate; Rare earth elements; Contained copper in ore, concentrate or cement; Contained gold in ore or concentrate; Contained silver in ore or concentrate; Contained lead in ore or concentrate; Contained zinc in ore or concentrate.	✓	Section 3.2.3	
<b>Gems and Semi-precious Stones</b>			
Amethyst; Calcite; Chrysoprase; Diamond; Jade; Opal; Quartz; Sapphire; Scholzite; Talc; Staurolite; Topaz.	✓	Section 3.2.3	None to be produced
<b>Industrial Minerals</b>			
Alunite; Andalusite; Anatase; Barite; Calcrete (agricultural purposes); Celestite; Cement shale; Diamond; Dolomite (use either industrial or agricultural); Diatomite; Feldspar; Garnet; Graphite; Gypsum (use either plaster, cement or agricultural);	✓	Section 3.2.3	None to be produced



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Ilmenite; Kaolin; Kyanite; Leucoxene; Lime sand (calcareous dune sands; use either chemical, agricultural or flux); Limestone (use either chemical, agricultural, cement, flux or whiting); Magnesite; Marble (use either chemical, agricultural, cement or flux); Mica; Micaceous hematite; Monazite; Palygorskite; Peat; Phosphate; Potash; Rutile; Salt; Shell grit (use either industrial or agricultural); Silica (rocks containing mainly silica-quartzite, flint, vein quartz etc.); Silica sand (use either filter, foundry or glass); Sillimanite; Talc (use either pharmaceutical or filler); Vermiculite; Wollastonite; Xenotime; Zircon.			
<b>3.3 Exploration Activities</b>			
Provide information that details all exploration activities to be undertaken within the application area as a part of the proposed mining operation, including:		Chapter 3	
<ul style="list-style-type: none"> <li>purpose of the activities (i.e. resource drill-out or resource extension);</li> </ul>	NA	Section 3.3	Stated that any exploration activities on the site will be associated with the AZM ML 6229 and EML 5235, and/or any other future leases granted.
<ul style="list-style-type: none"> <li>types of drilling;</li> </ul>	NA		
<ul style="list-style-type: none"> <li>geophysical techniques likely to be used;</li> </ul>	NA		
<ul style="list-style-type: none"> <li>earthworks required to conduct exploration activities;</li> </ul>	NA		
<ul style="list-style-type: none"> <li>equipment required to conduct exploration activities; and</li> </ul>	NA		
<ul style="list-style-type: none"> <li>rehabilitation methods for exploration works (including that not yet rehabilitated from previous tenure).</li> </ul>	NA		
<b>3.4 Mining Activities</b>			
<b>3.4.1 Type or Types of Proposed Mining Operation to be Carried Out</b>			
Provide a clear statement on the type or types of mining operation proposed to be carried out, such as:		Chapter 3	
<ul style="list-style-type: none"> <li>the mining method(s) to be adopted.</li> </ul>	NA	Section 3.4	Stated that other than temporary storage of explosives in the existing AZM magazine, no other mining activities are proposed under this MPL application.
<b>3.4.2 Open Pit</b>			
Describe proposed open pit workings, including (but not limited to):		Section 3.4.2	
<ul style="list-style-type: none"> <li>overall pit wall angles, bench height, berm width;</li> </ul>	NA		No mining proposed as part of MPL application
<ul style="list-style-type: none"> <li>dimensions and depth of pit;</li> </ul>	NA		
<ul style="list-style-type: none"> <li>access ramps; and</li> </ul>	NA		
<ul style="list-style-type: none"> <li>maps, plans and cross-sections.</li> </ul>	NA		
<b>3.4.3 Underground Workings</b>			
Describe proposed underground workings, including (but not limited to):		Section 3.4.3	
<ul style="list-style-type: none"> <li>proposed stoping methods;</li> </ul>	NA		No mining proposed as part of MPL application
<ul style="list-style-type: none"> <li>potential surface disturbance resulting from underground mining;</li> </ul>	NA		
<ul style="list-style-type: none"> <li>declines, shafts, tunnels, bore holes, ventilation intakes and exhausts; and</li> </ul>	NA		
<ul style="list-style-type: none"> <li>maps, plans and cross-sections.</li> </ul>	NA		

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Where underground fill is proposed, describe:			
• type of fill to be used;	NA		
• the volume percentage of underground void to be filled;	NA		
• sequence of filling;	NA		
• source and proportion of fill; and	NA		
• maps, plans and cross-sections showing the proposed fill.	NA		
<b>3.4.4 Material Movements</b>			
Provide:		Chapter 3	
• expected life of mine (including scope for extension);	✓	Section 3.4.4	
• annual mine production rates and mine production schedule of ore and waste rock over the life of mine; and	✓	Section 3.2.2	
• life of mine and annual strip ratios.	NA		No open cut mining to occur at APF or at BIH as underground mining, not open cut
<b>3.4.5 Stockpiles</b>			
Describe:			
• location, size, shape and height of ore, product, subsoil and topsoil stockpiles;	✓	Section 3.4.5	
• method of placement;	✓	Section 3.4.5	
• method of stabilisation and erosion control of all stockpiles; and	✓	Section 3.4.5.5	
• water movement through stockpiles.	✓	Section 3.4.5 Section 12.6.1.1	
The location, maximum height and extent of all stockpiles must be shown on a map.	✓	Section 3.4.5.5	
<b>3.4.6 Use of Explosives</b>			
If explosives are used, describe:		Section 3.4.6	
• type of explosives used on the site;	NA		No explosives use proposed at AZM site as part of MPL application.
• proposed timing and frequency of blasting;	NA		
• size of blasts; and	NA		
• storage of explosives (amount, type, detailed location and method of storage).	NA		Temporary storage of explosives in AZM magazine until BIH underground magazine is commissioned
<b>3.4.7 Type of Mining Equipment</b>			
Provide a description of the equipment (fixed and mobile) proposed to be used in the mining operation in terms of:		Section 3.4.7	Licensed explosives delivery only. No mining equipment required at AZM.
• type, size and capacity of machines;	NA		
• approximate number of units;	NA		
• noise outputs;	NA		
• exhaust outputs; and	NA		
• fire ignition sources.	NA		
<b>3.4.8 Mine Dewatering</b>			
Provide:		Section 3.4.8	
• estimated inflows of groundwater and stormwater and water from any other mining activities into mine workings;	NA		No mining, hence no mine dewatering proposed as part of MPL proposal.
• details of proposed mine dewatering infrastructure, and mine water management and disposal;	NA		

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<ul style="list-style-type: none"> <li>contingency measures for greater than planned water inflows into mine workings; and</li> </ul>	NA		
<ul style="list-style-type: none"> <li>a mine water balance of water inflows and water outflows during operations and at mine completion (if not included in the water balance in Section 3.5.4).</li> </ul>	NA		
<b>3.4.9 Sequence of Mining and Rehabilitation Operations</b>			
Provide the following information on the sequence of operations in both text and map form:		Section 3.4.9	
<ul style="list-style-type: none"> <li>description of the sequence of mining stages;</li> </ul>	NA		No mining proposed as part of MPL application.
<ul style="list-style-type: none"> <li>proposed sequencing of progressive and final rehabilitation, including demonstration that progressive rehabilitation has been integrated with the mining plan;</li> </ul>	NA		All previous mining activities associated with ML 6229 will be rehabilitated as be the approved AZM 2017 PEPR and Closure Plan. These documents will be updated to include the MPL activities and associated conditions upon approval of the MPL.
<ul style="list-style-type: none"> <li>an estimation of the quantities of sulfide minerals that have the potential to generate acid or mobilise metals, or other hazardous minerals to be mined at each mining stage; and</li> </ul>	NA		
<ul style="list-style-type: none"> <li>any mineral resource that may be sterilised from future mining by the proposed mining operations.</li> </ul>	NA		
<b>3.4.9.1 Rehabilitation Strategies and Timing</b>			
Describe all activities, strategies and designs relating to mine closure for rehabilitation of open pit and/or underground workings, stockpiles, explosives storage, mining equipment and mine dewatering infrastructure. Include timing of these activities and all opportunities for progressive rehabilitation. Include (but not limited to) the maximum area of land disturbed by proposed mining operations at any time, battering of mining faces and other earthworks, mine void backfilling, abandonment bunds, sealing of portals and ventilation shafts, soil management, revegetation and expected water infill rates.	✓	Section 3.9	All previous mining activities associated with ML 6229 will be rehabilitated as be the approved AZM 2017 PEPR and Closure Plan. These documents will be updated to include the MPL activities and associated conditions upon approval of the MPL.
<b>3.4.10 Modes and Hours of Operation</b>			
State if the proposed mining operation will be worked on a continuous (24 hour, 7 days a week), regular periodical or campaign basis.	NA	Section 3.4.10	No mining proposed as part of MPL application.
If the proposed mining operation is to be worked on a regular periodical basis, specify:	NA		
<ul style="list-style-type: none"> <li>proposed period(s) (daily, weekly and public holidays) to be worked; and</li> </ul>	NA		
<ul style="list-style-type: none"> <li>proposed start and finish hours the site is to be worked per period. If the operation is to be worked on a campaign basis, specify:</li> </ul>	NA		
<ul style="list-style-type: none"> <li>minimum hours the site is to be worked per year;</li> </ul>	NA		
<ul style="list-style-type: none"> <li>the minimum time of each campaign;</li> </ul>	NA		
<ul style="list-style-type: none"> <li>the maximum and minimum time between campaigns;</li> </ul>	NA		
<ul style="list-style-type: none"> <li>define the beginning and end of each campaign;</li> </ul>	NA		

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Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
• hours of mining operations during campaign;	NA		
• days of mining operations during campaign;	NA		
• determining factors for initiating and ceasing a campaign;	NA		
• maximum and minimum tonnage of each campaign; and	NA		
• maximum and minimum tonnage of production per year.	NA		
<b>3.5 Crushing, Grinding, Processing and Product Transport</b>			
<b>3.5.1 Crushing and Grinding Plant</b>			
Provide a description of the crushing / grinding plant including:		Chapters 3, 14 and 15	
• area, size, type of construction and location;	✓	Sections 3.5.1 and 3.5.2	
• throughput rate;	✓	Sections 3.5.1 and 3.5.2	
• a description of ore preparation for processing;	✓	Sections 3.5.1 and 3.5.2	
• grind size of the ore;	✓	Sections 3.5.1 and 3.5.2	
• noise sources;	✓	Section 15.5.1	Plus supporting Appendices O1 and O2
• dust sources and composition;	✓	Section 14.5.1	Plus supporting Appendix N3
• fire ignition sources; and	✓	Section 3.5.10	
• maps and plans.	✓	Sections 3.5.1 and 3.5.2	
<b>3.5.2 Processing Plant</b>			
Provide a description of the processing plant including:		Chapters 3, 16 and 17	
• the methods and details of processing and value adding proposed;	✓	Section 3.5.3	
• number, location, area, size, type of construction (including lining and drainage systems, as appropriate) of processing plant;	✓	Section 3.5.3	
• any ancillary plant and infrastructure to be used for processing the minerals on site; examples of associated structures are concrete batching plants, wheel wash facilities, silos, fuel tanks, water tanks, chemical storage/use, reverse osmosis plants and bore fields;	✓	Section 3.5.3	
• if chemicals are to be used in the beneficiation or processing of ore, describe the nature and quantities of the chemicals to be used, their reactions with ore and their ultimate fate;	✓	Section 3.5.3	
• noise sources;	✓	Section 17.5.1	Plus supporting Appendices O1 and O2
• dust sources and composition;	✓	Section 16.5.1	Plus supporting Appendix N3
• fire ignition sources;	✓	Section 3.5.10	
• other potential air emissions (including odour) and their composition; and	✓	Chapter 16 Section 16.4.6	Plus supporting Appendix N5
• maps and plans.	✓	Section 3.5.3	
<b>3.5.3 Heap Leach</b>			
Provide a description of the Heap Leach Pad and process including:		Chapter 3	
• type, size and location of the Heap Leach Pad;	NA	Section 3.5.4	Heap leaching not proposed as part of MPL application.
• construction and operating specifications for the Heap Leach Pad and process, including solution containment measures;	NA		

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Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
• geochemical and geotechnical assessment of the material placed on the Heap Leach Pad before and after leaching;	NA		
• method and rate of ore deposition and removal;	NA		
• chemical characteristics of the leach solution, pregnant liquor and raffinate solutions;	NA		
• solution application rates, and method of application;	NA		
• removal (where proposed) of the Heap Leach Pad at cessation of production and the method/location of disposal of leached material;	NA		
• method of stabilisation and erosion control of Heap Leach Pad;	NA		
• an assessment of the long term chemical and physical stability of the Heap Leach Pad post mine completion;	NA		
• the source, pathway and ultimate fate of any potential mobile contaminants; and	NA		
• maps and plans.	NA		
<b>3.5.4 Process Water Management</b>			
If processing water is to be used, provide a water balance including:		Chapter 3	
• approximate water volumes required;	✓	Sections 3.6.4 and 3.10.3	
• a summary of the inputs and outputs (with consideration of any purge requirements);	✓	Sections 3.6.4 and 3.10.3	
• determination of net surplus or deficit; and	✓	Sections 3.6.4 and 3.10.3	
• process flowsheet showing all streams including stormwater management and mine dewatering where these are connected to the processing circuit.	✓	Section 3.6.4	
Provide a description of all process water ponds, including:			
• size, capacity, layout and location of ponds;	✓	Section 3.7.7	
• design and construction methods;	✓	Section 3.7.7	
• chemical composition of the solution to be stored in each pond; and	✓	Section 3.7.7	
• minimum freeboard to be maintained.	✓	Section 3.7.7	
<b>3.5.5 Type of Mobile Equipment</b>			
For mobile equipment to be used in crushing/grinding, processing ore and in transporting the mine product to the point of sale, describe:		Chapter 3	
• type, size and capacity of machines;	✓	Section 3.5.5	
• approximate number of units;	✓	Section 3.5.5	
• noise outputs;	✓	Section 3.5.5	
• exhaust outputs; and	✓	Section 3.5.5	
• fire ignition sources.	✓	Section 3.5.5	
<b>3.5.6 Conveyors and Pipelines</b>			
Provide a description of any conveyors or pipelines to be used for transporting material to or from the mine, processing facilities and the point of sale including:		Chapters 3, 14 and 15	
• length, size (volumes to be transported), design and type of construction and location;	✓	Section 3.5.6	
• the material being transported;	✓	Section 3.5.6	
• noise sources;	✓	Section 3.5.6	Plus supporting Appendices O1 and O2

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Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
• dust sources and composition;	✓	Section 3.5.6	Plus supporting Appendix N3
• fire ignition sources; and	✓	Section 3.5.6	
• maps, plans and cross-sections.	✓	Section 3.5.6	
<b>3.5.7 Hours of Operation</b>			
Describe the proposed hours of operation of crushing / grinding, processing and transport activities.	✓	Section 3.5.7	
<b>3.5.8 Rehabilitation Strategies and Timing</b>			
Detail all activities, strategies and designs relating to mine closure for removal, disposal and rehabilitation of processing facilities, and material transport systems, including timing of these activities.	✓	Section 3.9	
<b>3.6 Wastes</b>			
<b>3.6.1 Waste Rock and Tailings Storage Facilities</b>			
For waste rock and tailings storage facilities (TSF) provide:		Chapters 3, 14 and 15	
• the estimated tonnes and volumes of all waste rock and tailings to be stored;	✓	Section 3.6.2	
• the reserve and any resource or potential resource that the estimated tonnes and volumes of waste rock and tailings is based on;	✓	Section 3.6.2	
• the type, location, size, shape, height and method of construction of permanent and temporary waste storage facilities;	✓	Section 3.6.2	
• a geochemical and geotechnical assessment of the waste rock and tailings based on the geochemical and geotechnical properties determined from the analysis of representative sampling of all waste rock types and tailings to be disposed;	✓	Sections 3.6.2, Chapters 14 and 15	
• an assessment on the weathering and erosive potential of waste rock to be disposed;	NA		No waste rock (mullock) mined at BIH will be stored at APF.
• conceptual specifications, drawings and plans for the design, construction, operation and completion of all facilities;	✓	Section 3.6.2	
• the method and rate of waste rock/tailings disposal;	✓	Section 3.6.2	
• where relevant, a description of the placement and encapsulation of waste material deemed to be hazardous, including potentially acid forming material (PAF);	✓	Sections 3.6.2 and 3.6.5	An allowance of 70,000 m <sup>3</sup> of PAF material estimated in the closure plan for ML 6229 has been allowed for in the TSF volume calculation.
• the method of stabilisation and erosion control of waste storage facilities, both during operations and post completion;	✓	Sections 3.6.2, 3.9.4 and 3.9.5	
• surface water runoff control on disturbed and rehabilitated areas;	✓	Section 3.9.13	The location of planned surface water infrastructure is also included in Appendix K1, and in Chapter 11: Surface Water
• a geotechnical stability assessment and a factor of safety analysis;	✓	Section 3.6.2.2	Refer also TSF design report in Appendix V3
• an assessment of seepage of liquids through the waste rock and tailings storage facilities;	✓	Section 3.6.2.2	Double HDPE liner with leak detection for TSF. Seepage modelling not undertaken.
• strategies for the containment of any seepage that has the potential to impact the environment;	✓	Section 3.6.2.2	
• an assessment of the post completion chemical and physical stability of the structure following rehabilitation, including the expected extent of erosion; and	✓	Sections 3.9.4 and 3.9.5	

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Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
<ul style="list-style-type: none"> <li>an assessment of the source, pathway and ultimate fate of any potential mobile contaminants. Include a water balance for the TSF (if not included in the water balance in Section 3.5.4).</li> </ul>	✓	Sections 3.6.3, 3.6.4 and 3.7.7	S-P-R assessment provided in Chapter 13: Geochemistry and Chapter 21: Geotechnical for TSF
<b>3.6.2 Other Processing Wastes</b>			
Provide:		Chapters 3, 10, 11 and 12	
<ul style="list-style-type: none"> <li>the volumes and composition of all solid and liquid wastes produced;</li> </ul>	✓	Section 3.6.5	
<ul style="list-style-type: none"> <li>estimated volumes of waste processing water, reverse osmosis reject water, water content of solid wastes, and method of disposal or recycling;</li> </ul>	✓	Section 3.6.6	
<ul style="list-style-type: none"> <li>waste water composition;</li> </ul>	✓	Section 3.6.6	
<ul style="list-style-type: none"> <li>disposal and management of any hazardous material or contaminants within waste including radioactive, toxic, corrosive or flammable materials; and</li> </ul>	✓	Section 3.6.5	
<ul style="list-style-type: none"> <li>the source, pathway and ultimate fate of any potential mobile contaminants.</li> </ul>	✓	Chapters 11, 12 and 13	S-P-R assessment provided in chapters for respective environmental aspects groundwater, surface water, soil and land quality.
<b>3.6.3 Industrial and Commercial Wastes</b>			
List any industrial and commercial wastes generated including, but not limited to:		Chapter 3	
<ul style="list-style-type: none"> <li>putrescible waste, including sewage;</li> </ul>	✓	Section 3.6.7	
<ul style="list-style-type: none"> <li>oils and other hydrocarbons; and</li> </ul>	✓	Section 3.6.7	
<ul style="list-style-type: none"> <li>tyres.</li> </ul>	✓	Section 3.6.7	
For each waste type, describe the method of disposal including:			
<ul style="list-style-type: none"> <li>offsite disposal;</li> </ul>	✓	Section 3.6.7	
<ul style="list-style-type: none"> <li>on site waste disposal (including size, location and construction details);</li> </ul>	✓	Section 3.6.7	
<ul style="list-style-type: none"> <li>recycling (either on or offsite);</li> </ul>	✓	Section 3.6.7	
<ul style="list-style-type: none"> <li>the type, area and layout of sewage systems to be installed at the site; and</li> </ul>	✓	Section 3.6.7	
<ul style="list-style-type: none"> <li>describe what, if any approvals are required for the disposal of waste.</li> </ul>	✓	Section 3.6.7	
For each type of waste, describe any potential contaminants that may be generated from onsite storage, and the ultimate fate of those contaminants.	✓	Section 3.6.7	
<b>3.6.4 Rehabilitation Strategies and Timing</b>			
Detail all activities, strategies and designs relating to mine closure, including timing of these activities and all opportunities for progressive rehabilitation of waste rock and tailings and any other waste to be left on site.	✓	Sections 3.6.8 and 3.9	
<b>3.7 Supporting Surface Infrastructure</b>			
<b>3.7.1 Access</b>			
Describe:		Chapter 3	
<ul style="list-style-type: none"> <li>access route to the proposed mining operations;</li> </ul>	✓	Section 3.7.1	
<ul style="list-style-type: none"> <li>indicate if any new roads are to be constructed, or if existing roads or intersections (public and private) are to be upgraded;</li> </ul>	✓	Section 3.7.1	

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Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
<ul style="list-style-type: none"> <li>transport system(s) used to and from the proposed mining operations and the estimated number of vehicle movements per day; and</li> </ul>	✓	Sections 3.7.1 and 3.4.4	
<ul style="list-style-type: none"> <li>airport/airstrips to be constructed.</li> </ul>	NA		
<b>3.7.2 Accommodation and Offices</b>			
Describe:		Chapter 3	
<ul style="list-style-type: none"> <li>number, area, size, type of construction and location of accommodation buildings, caravans or camp, and associated structures to be used on site; and</li> </ul>	✓	Section 3.7.2	
<ul style="list-style-type: none"> <li>state if temporary or permanent.</li> </ul>	✓	Section 3.7.2	
<b>3.7.3 Public Services and Utilities Used by the Operation</b>			
Describe:		Chapter 3	
<ul style="list-style-type: none"> <li>sources of external services that are supplied to the proposed mining operations;</li> </ul>	✓	Section 3.7.3	
<ul style="list-style-type: none"> <li>proposed routes for connection if any new connections to public infrastructure are required; and</li> </ul>	NA		
<ul style="list-style-type: none"> <li>any existing surface infrastructure that has been and/or the extent it may be affected by the proposed mining operations.</li> </ul>	✓	Section 3.7.3	
<b>3.7.4 Visual Screening</b>			
Describe the type of screening, including existing or proposed vegetation (i.e. species and density of plantings).	✓	Section 3.7.4 Chapter 9	
<b>3.7.5 Fuel and Chemical Storage</b>			
For all fuels and chemicals stored on site, detail:		Chapter 3	
<ul style="list-style-type: none"> <li>types of bulk chemicals and the volumes of each; and</li> </ul>	✓	Section 3.7.5	
<ul style="list-style-type: none"> <li>details on storage, bunding and containment for all chemical and fuel storage vessels.</li> </ul>	✓	Section 3.7.5	
<b>3.7.6 Site Security</b>			
Describe infrastructure and measures that will be adopted to prevent unauthorised access by the public, including fencing, signage etc.	✓	Section 3.7.6	
<b>3.7.7 Stormwater, Silt Control and Drainage</b>			
Describe:		Chapter 3	
<ul style="list-style-type: none"> <li>location and design of silt management structures;</li> </ul>	✓	Section 3.7.7	
<ul style="list-style-type: none"> <li>runoff control on disturbed and rehabilitated areas;</li> </ul>	✓	Section 3.7.7	
<ul style="list-style-type: none"> <li>storage, diversion and disposal of clean water (discharge water must comply with the applicable Environment Protection Authority South Australia water quality policy); and</li> </ul>	✓	Section 3.7.7	
<ul style="list-style-type: none"> <li>a whole of site stormwater balance, if not included in the water balance in Section 3.5.4. Provide a plan showing the surface water movement for the whole mine site.</li> </ul>	✓	Sections 3.7.7 and 3.6.4	
<b>3.7.8 Rehabilitation Strategies and Timing</b>			
Detail all activities, strategies and designs relating to mine closure for rehabilitation of supporting surface infrastructure. Provide details for timing of closure activities, including all opportunities for progressive rehabilitation.	✓	Section 3.9	



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Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
<b>3.8 Vegetation Clearance</b>			
<b>3.8.1 Description of Vegetation Clearance</b>			
If clearing of native vegetation is proposed, a plan and description of the vegetation present in the application area must be provided, showing:		Chapter 3	
• the extent of any proposed vegetation clearance; and	✓	Section 3.8	
• the likelihood of the presence of threatened flora.	✓	Section 3.8	
<b>3.9 Mine Completion</b>			
<b>3.9.1 Description of Mine Site at Completion</b>			
Provide a description of the mine site as it will be at completion after all rehabilitation and closure activities have been completed, including:		Chapter 3	
• potential land use options;	✓	Section 3.9.2	
• landforms;	✓	Sections 3.9.3 and 3.9.4	
• proposed vegetation covers (including native vegetation that will not be disturbed due to proposed mining operations);	✓	Section 3.9.5	
• natural contours of land not to be disturbed by proposed mining operations;	✓	Section 3.9.6	
• any mining infrastructure that will remain on site and will become the responsibility of the landowner;	✓	Section 3.9.7	
• location, description and management of waste disposal areas;	✓	Section 3.9.8	
• location of reshaped and rehabilitated areas showing proposed surface contours and revegetation;	✓	Section 3.9.9	
• mine voids (open pit and/or underground);	✓	Section 3.9.10	
• location of stored and/or exposed PAF material and/or other hazardous materials;	✓	Section 3.9.11	
• expected final water level and time to reach this level, and water quality of mine voids;	✓	Section 3.9.12	
• location of surface water infrastructure including ponds and diversions; and	✓	Section 3.9.13 Chapter 11	Refer to Appendix K1
• representative plans and cross-sections that show:	✓	Section 3.9.14	
– pre-mining natural surface;	✓	Section 3.9.14	
– emplacement areas, waste disposal areas and disturbed areas;	✓	Section 3.9.14	
– final rehabilitated surface;	✓	Section 3.9.14	
– where relevant, backfilled and remaining underground workings;	✓	Section 3.9.14	Will remain as per ML 6229 approved PEPR.
– predicted final groundwater levels; and	✓	Section 3.9.14	Will remain as per ML 6229 and associated PEPR as this relates to the mine void recharge.
– interpreted geology including all rock types.	NA	Section 3.9.14	Not relevant to MPL application as no mining is proposed at the AZM site as part of the BIH Project.
Provide a description of the proposed mechanism for transferring responsibility for any potential residual liability (i.e. ongoing maintenance or monitoring) subsequent to surrender of the tenement.	✓	Section 3.9.15	Land Management Agreement
<b>3.1 Resource Inputs</b>			
<b>3.10.1 Workforce</b>			
For the proposed workforce (for all mining operations (mining, processing, waste		Chapter 3	

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Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
management and supporting surface infrastructure) describe:			
• how operations on the site will be managed;	✓	Section 3.10.1	
• number and workforce breakdown by job type; and	✓	Section 3.10.1	
• source of employees.	✓	Section 3.10.1	
<b>3.10.2 Energy Sources</b>			
For the proposed energy sources and usage provide:		Chapter 3	
• estimates of total annual energy usage (from all sources, including personnel transport and ore transport to point of sale);	✓	Section 3.10.2	
• expected sources of energy;	✓	Section 3.10.2	
• potential for efficiency gains;	✓	Section 3.10.2	
• amount and percentage of zero emission energy to be utilised;	✓	Section 3.10.2	
• equivalent annual CO2 generated; and	✓	Section 3.10.2	
• any carbon offsets proposed.	✓	Section 3.10.2	
<b>3.10.3 Water Sources</b>			
Provided details on the source(s) of water to be used at the mine, expected usage and any discharge, including:		Chapter 3	
• expected annual water usage by source;	✓	Section 3.10.3	
• indicate if any water usage by source will be more than 5% of the total annual water withdrawal for that source;	✓	Section 3.10.3	
• percentage of water that will be recycled; and	✓	Section 3.10.3	
• water discharge by quality and destination.	✓	Section 3.10.3	
<b>4. DESCRIPTION OF POTENTIAL BENEFITS</b>			
<b>4.1 Social</b>			
Describe:		Chapter 21	
• number of full-time employee positions that would be directly created by the proposal (not to include existing positions);	✓	Section 21.4	
• the proportion of the workforce that would reside in the local community and the estimated impact on local employment;	✓	Section 21.4	
• the proportion of the workforce that would reside in South Australia;	✓	Section 21.4	
• any programs to target and assist Indigenous or local employment at the mine;	✓	Section 21.6	
• training to be provided to employees and potential employees;	✓	Section 21.6	
• approximate timelines for creation of the positions;	✓	Section 21.4	
• potential for local business participation, and procurement of local goods and services;	✓	Section 21.4	
• assistance or provision of infrastructure to isolated communities;	NA		
• public health benefits; and	NA		
• tourism or recreation opportunities.	NA		
<b>4.2 Economic</b>			
Describe:			
• revenue to be generated at the mine gate;	✓	Section 21.4	

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Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
<ul style="list-style-type: none"> <li>the breakdown of capital and operating expenditures (spending in goods and services in local community, state and external to state);</li> </ul>	✓	Section 21.4	
<ul style="list-style-type: none"> <li>wages and other employee benefits;</li> </ul>	✓	Section 21.4	
<ul style="list-style-type: none"> <li>potential for value adding of a mined commodity;</li> </ul>	✓	Section 21.4	
<ul style="list-style-type: none"> <li>flow-on economic effects;</li> </ul>	✓	Section 21.4	
<ul style="list-style-type: none"> <li>economic benefits derived from local employment;</li> </ul>	✓	Section 21.4	
<ul style="list-style-type: none"> <li>potential to bring forward development of other mines in the area by utilising this mine's infrastructure; and</li> </ul>	NA		
<ul style="list-style-type: none"> <li>approximate royalty payments and other direct state government taxes profile.</li> </ul>	✓	Section 21.4	
<b>4.3 Environmental</b>			
Describe:			
<ul style="list-style-type: none"> <li>voluntary, non-core environmental benefits associated with the proposal;</li> </ul>	✓	Section 7.1	
<ul style="list-style-type: none"> <li>potential environmental benefits associated with the proposal;</li> </ul>	✓	Section 7.2	
<ul style="list-style-type: none"> <li>environmental benefits over and above rehabilitation activities to be paid or made in association with native vegetation clearance; and</li> </ul>	✓	Section 7.3	
<ul style="list-style-type: none"> <li>acquisition of new baseline environmental data.</li> </ul>	✓	Section 7.4	
<b>5. CONSULTATION</b>			
This section must summarise the results of any attempted consultation that has been undertaken on the proposed mining operation. The summary must include:		Chapter 5	
<ul style="list-style-type: none"> <li>a description of the process undertaken for identifying stakeholders with an interest in, or stakeholders likely to be directly affected by the proposed mining operation;</li> </ul>	✓	Sections 5.2, 5.3 and 5.4	
<ul style="list-style-type: none"> <li>a description of the process undertaken for the delivery of information to, gathering of feedback from, and responding to those identified stakeholders;</li> </ul>	✓	Sections 5.2, 5.3 and 5.4	
<ul style="list-style-type: none"> <li>the results of the consultation undertaken with those identified stakeholders, including:</li> </ul>	✓	Section 5.5	
<ul style="list-style-type: none"> <li>the concerns/issues raised; and</li> </ul>	✓	Section 5.5	Individual concerns / issues grouped into common themes.
<ul style="list-style-type: none"> <li>the response (if any) that is proposed to address those concerns.</li> </ul>	✓	Section 5.5	Table 5-8 outlines the primary issues raised by the community during the development of this MPL. The specific design and mitigation measures to address the issues raised are outlined in the relevant chapters and actions will be included in the PEPR.
<ul style="list-style-type: none"> <li>if any individual or group of similar affected persons were not able to be consulted, what steps were taken to consult with them; and</li> </ul>	✓	Section 5.4	There have been no identified interested stakeholder group associated with the proposed MPL that has not been contacted or given an opportunity to be involved.
<ul style="list-style-type: none"> <li>the extent to which the outcomes proposed in Section 6.2.3 have been developed in consultation with the landowner and any other person who may be directly affected by the proposed mining operations.</li> </ul>	✓	Sections 5.5 and 5.6	The information gathered through the stakeholder engagement process has been incorporated into the design of the proposed Project and is reflected in the impact assessment process, including the development of the Project outcomes within relevant chapters.

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Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
<b>6. MANAGEMENT OF ENVIRONMENTAL IMPACTS</b>			
<b>6.1 Assessment of Environmental Impacts</b>			
<b>6.1.1 Elements of the Environment</b>			
Describe the specific elements of the environment (the environment is defined in Section 6(4) of the Mining Act 1971) that may reasonably be expected to be impacted by the proposed mining operation during construction, operation, and indefinitely post mine completion.	✓	Chapters 8 – 22 Appendix E1	Elements described within relevant aspect chapter
For each element of the environment identified:			
<ul style="list-style-type: none"> <li>provide a summary of any issues or considerations raised by stakeholders, and any relevant legislated or recognised standards in relation to the element of the environment;</li> </ul>	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter
<ul style="list-style-type: none"> <li>describe all potential environmental receptors; and</li> </ul>	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter
<ul style="list-style-type: none"> <li>undertake an impact assessment of how the element could be potentially impacted by proposed mining operations (during construction, operation and post mine completion) through the provision of the information listed in the following Section 6.1.2.</li> </ul>	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter. Assessment methodology described within Chapter 6.
<b>6.1.2 Potential Impact Events</b>			
Describe potential impact events associated with each phase of the proposed mining operations (construction, operation and post mine completion) and relevant to each element of the environment.	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter
For the purpose of the impact assessment, a potential impact event is the combination of a source, a pathway and an environmental receptor.			
The source, pathway and environmental receptor of each potential impact event must be described prior to the implementation of engineering or administrative control measures.	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter
For each potential impact event identified in Section 6.1.2, provide:			
<b>6.1.2.1 Source</b>			
A description of the source of the potential impact event which alone or in combination has the potential to cause harm to an environmental receptor.	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter
<b>6.1.2.2 Pathway</b>			
A description of the potential pathway, means or route (with consideration of any natural barriers) by which an identified environmental receptor can be exposed to, or may reasonably be expected to be impacted by an identified source.	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter
<b>6.1.2.3 Environmental Receptor</b>			
A description of the environmental receptors that may reasonably be expected to be adversely impacted by the source, taking into account the considerations for the element of the environment described under 6.1.1	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter
<b>6.1.2.4 Description of Uncertainty</b>			

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Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
Describe any significant degree of uncertainty pertaining to the evaluation of sources, pathways and environmental receptors, including (but not limited to) lack of site specific information, limitations on modelling and quality of data. Describe any assumptions connected with the identified uncertainty.	✓	Appendix E1	Refer to column "Uncertainties and assumptions (relating to SPR)" in Appendix E1
So far as is relevant, identify the sensitivity to change of any assumption that has been made, including whether a change in assumption may result in a new environmental impact.	✓	Appendix E1	Refer to column "Sensitivity to change of any assumptions" in Appendix E1
<b>6.1.2.5 Confirmation of Impact Events</b>			
For each potential impact event provide:			
<ul style="list-style-type: none"> <li>an analysis of whether a source, pathway and receptor does exist (and if not, or if it remains uncertain, provide an explanation for the conclusion); and</li> <li>a description of the likely impact from the source on the environmental receptor.</li> </ul>	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter
	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter
<b>6.2 Control Measures, Uncertainty Assessment, Statement of Environmental Outcomes and Criteria</b>			
For each impact event confirmed in Section 6.1.2.5, the information listed in Sections 6.2.1 – 6.2.5 must be provided:			
<b>6.2.1 Control Measures</b>			
Describe the measures proposed to manage, limit or remedy each impact event. Demonstrate that the measures proposed are commensurate with the potential impacts, achieve compliance with other applicable statutory requirements and promote progressive rehabilitation.	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter
If native vegetation is proposed to be cleared, state the estimated quantum of significant environmental benefit	NA		No additional proposed clearance as part of the MPL application.
(SEB) to be gained in exchange for the proposed clearance and describe how the SEB will be provided.	NA		No additional proposed clearance as part of the MPL application.
<b>6.2.2 Description of Uncertainty</b>			
Describe any significant degree of uncertainty pertaining to the likely effectiveness of proposed control measures, including (but not limited to) lack of site specific information, limitations on modelling and quality of data. Describe any assumptions connected with the identified uncertainty.	✓	Appendix E1	Refer to column Validation of modelling, Effectiveness of design measures, Effectiveness of management measures and Actions to reduce uncertainty of Appendix E1.
So far as is relevant, identify the sensitivity to change of any assumption that has been made and assess the likelihood of an outcome not being achieved if an assumption is later found to be incorrect.	✓	Appendix E1	Refer to column Validation of modelling, Effectiveness of design measures, Effectiveness of management measures and Actions to reduce uncertainty of Appendix E1.
<b>6.2.3 Statement of Proposed Environmental Outcomes</b>			
Provide a statement of the proposed environmental outcome(s) (including mine completion outcomes) for each impact event confirmed in Section 6.1.2.5.	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter and column "Proposed Outcome" in Appendix E1.

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Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
The statement of environmental outcome(s) must describe the likely consequence of the expected impact on the environment by the proposed mining operations subsequent to the implementation of the control measures described in Section 6.2.1.	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter
Environmental outcomes must meet other applicable legislative requirements.	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter
Provide evidence that reasonable steps have been taken to consult with the owners of any land on which mining operations are proposed, and third parties who may be directly affected by the proposed mining operations in the development of each environmental outcome.	✓	Chapter 5, Section 5.4	
Where clearance to native vegetation is proposed, the environmental outcome must state a commitment to compliance with the Native Vegetation Act 1991 and Native Vegetation Regulations 2003.	NA		No additional proposed clearance as part of the MPL application.
Mine completion outcomes must at least address the issues listed under Regulation 30(1) (d).	✓	Chapters 8 – 22	Described within relevant aspect chapter
<b>6.2.4 Draft Measurement Criteria</b>			
Provide a draft statement of the criteria to be adopted to measure each of the proposed environmental outcomes. The draft criteria must as far as practical, comply with Regulation 65(2) (d).	✓	Chapters 8 – 22 Appendix E1	Refer to Column "Draft Measurement Criteria" in Appendix E1  Described within relevant aspect chapter
Where appropriate, recognised industry standards, codes of practice or legislative provisions from other Acts should be used as criteria.	✓	Chapters 8 – 22 Appendix E1	Described within relevant aspect chapter
Where native vegetation is proposed to be cleared, the criteria will include demonstration of the successful implementation of the significant environmental benefit.	NA		No additional proposed clearance as part of the MPL application.
<b>6.2.5 Draft Leading Indicator Criteria</b>			
As required by Regulation 65(2) (e), where there is a high level of reliance on control measures to achieve an environmental outcome, provide a draft statement of leading indicator criteria that will be used to give an early warning that a control measure may fail or be failing.	✓	Chapters 8 – 22 Appendix E1	Refer to Column "Draft Leading Indicator Criteria (where required) in Appendix E1  Described within relevant aspect chapter
<b>7. FORMAT OF THE MINING PROPOSAL</b>			
Unless otherwise specified by the Director of Mines or delegate:			
<ul style="list-style-type: none"> <li>five hardcopies and an electronic version of the mining proposal must be submitted; the information in all must be identical;</li> </ul>	✓	TBA	Will be produced for final submission.
<ul style="list-style-type: none"> <li>each page, plan or other separate sheet must include the mineral claim number(s), date of the mining proposal preparation and sequential page numbering; and</li> </ul>	NA		
<ul style="list-style-type: none"> <li>the electronic version must be submitted in one single Acrobat PDF file. Microsoft Word compatible files must be submitted if requested by the Director of Mines or delegate.</li> </ul>	✓	All	Will be produced for final submission.
<b>8. MAPS AND PLANS</b>			
Unless otherwise specified by the Director of Mines or delegate, the elements described in Sections 8.1–8.4 must be included where applicable to the proposed mining operation.			

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Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
<b>8.1 General Requirements for Maps, Plans and Cross-sections</b>			
All maps and plans must conform to the following standards:			
• Australian Height Datum (AHD);	✓		
• state and show the relevant datum;	✓		All maps presented are in GDA94 / MGA zone 54 (EPSG: 28354) and authored by Terramin unless otherwise stated.
• metric units;	✓		All maps presented are in metric units unless otherwise stated
• title, north arrow, scale bar, text and legend;	✓		
• date prepared and author;	✓		All maps presented are in GDA94 / MGA zone 54 (EPSG: 28354) and authored by Terramin unless otherwise stated.
• be of appropriate resolution and scale for represented information; and	✓		
• be legible in both the hardcopy and electronic versions of the submission;	✓	TBA	Hard copies will be produced for final submission
All cross-sections must conform to the following standards:			
• Australian Height Datum (AHD);	✓		
• state and show the relevant datum;	✓		
• metric units;	✓		
• title, scale bar, text and legend;	✓		
• date prepared and author;	✓		
• be of appropriate resolution and scale for represented information; and	✓		
• be legible in both the hardcopy and electronic versions of the submission.	✓	TBA	Hard copies will be produced for final submission
<b>8.2 Location Plan (s)</b>			
Provide location plan(s) of the existing environment showing:			
• proposed tenement boundaries;	✓	Figure 1-4, Figure 3-5 and others Chapter 22	
• cadastral information;	✓	Figure 1-4 and others Chapter 22	
• location of existing roads, rails, fences, transmission lines, buildings and pipelines;	✓	Figure 3-1 and others	
• land titles and ownership;	✓	Figure 20-1	
• existing surface contours;	✓	Various throughout Chapter 3	
• existing vegetation;	✓	Figure 17-2, Figure 17-7 and Figure 17-8	
• location of watercourses, including ephemeral and permanent rivers, creeks, swamps, streams and any man-made water management structures;	✓	Figure 11-1, Figure 11-2, Figure 11-3, Figure 11-7 and others	
• location and extent of all previously disturbed areas, including those associated with previous mining; and	✓	Figure 11-5, Figure 11-6 and others	
• location and extent of any adjacent conservation reserves, Aboriginal and/or European heritage sites (in so far as may be permitted by the relevant legislation) or any other significant areas.	NA		No registered sites of Indigenous or European heritage significance on the proposed MPL area. The most prominent conservation area of close proximity to the MPL is Lake Alexandrina, approximately 18km away.

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Determination Section MD005	Included in MLP/MP?	Location (Chapter and Section)	Comments
<b>8.3 Proposed Mining Operations Plan(s)</b>			
Provide plan(s) of proposed mining operations showing			
• tenement boundaries;	✓	Figure 1-4, Figure 3-5 and others	
• existing or modified surface contours;	✓	Various throughout Chapter 3	
• geology within the application area, including but not limited to; location, dimensions and orientation (dip and strike), and extent of the mineral resource and ore reserve;	NA		No mining of the deposit at AZM proposed. Refer to AZM 2017 PEPR.
• location of all proposed extraction areas;	NA		No mining of the deposit at AZM proposed. Refer to AZM 2017 PEPR.
• location of existing ephemeral and permanent rivers, watercourses, creeks, dams and water management structures;	✓	Figure 11-1, Figure 11-2, Figure 11-3, Figure 11-7 and others	
• location and extent of all areas proposed to be disturbed from mining (including waste rock and soil/subsoil stockpiles, silt/slimes dams, mine infrastructure, processing plant, waste disposal facilities and pits);	NA		No mining of the deposit at AZM proposed. Refer to AZM 2017 PEPR.
• location and extent of all areas proposed to be progressively rehabilitated during mining;	✓	Various throughout Section 3.9	
• sequence of mining and rehabilitation in appropriate time intervals, or per stages (depicting progressive rehabilitation); and	NA		
• final open pit and/or underground workings.	NA		
<b>8.4 Vertical Sections/Cross-sections</b>			
Provide a series of representative cross-sections at appropriate time intervals or stages that adequately represent:			
• pre-mining natural surface;	✓	Section 3.9	
• the staged profile indicating the conceptual location and shape of the active mining area, emplacement areas and rehabilitated areas;	✓	Section 3.9	
• the conceptual final rehabilitated surface; and	✓	Section 3.9	
• final open pit and/or underground workings;	NA		No mining of the deposit at AZM proposed. Refer to AZM 2017 PEPR.
Show where the cross-sections are oriented to the mine plan.	✓	Section 3.9	