

Permit

Environmental Protection Act 1994

Environmental authority EPML01722313

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Environmental authority number: EPML01722313

Environmental authority takes effect on 28 July 2021

The anniversary date of this environmental authority is 9 August each year. The payment of the annual fee will be due each year on this day. An annual return will be due each year on 01 April.

Environmental authority holder(s)

Name(s)	Registered address
MT RUBY MINES PTY LTD	63 Abbott St CAIRNS CITY QLD 4870 Australia
L & P MINES PTY LTD	Level 1 100 Hutt Street ADELAIDE SA 5000
TABLELANDS MINING GROUP PTY LTD	C/- Hopgood Ganim Lawyers, Waterfront Place, Level 8, 1 Eagle Street BRISBANE CITY QLD 4000

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Ancillary 31 - Mineral processing 2: Processing, in a year, the following quantities of mineral products, other than coke (a) 1000t to 100,000t	ML100142
Schedule 3 14: Mining iron ore	ML20414
Schedule 3 14: Mining iron ore	ML20488
Schedule 3 14: Mining iron ore	ML100142
Ancillary 31 - Mineral processing 2: Processing, in a year, the following quantities of mineral products, other than coke (a) 1000t to 100,000t	ML20488

Environmentally relevant activity/activities	Location(s)
Non-Scheduled Mining Activity Mining Lease - ML	ML20701
Ancillary 31 - Mineral processing 2: Processing, in a year, the following quantities of mineral products, other than coke (a) 1000t to 100,000t	ML20414

Additional information for applicants

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority (EA) is issued is a restatement of the ERA as defined by legislation at the time the EA is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an EA as to the scale, intensity or manner of carrying out an ERA, the conditions prevail to the extent of the inconsistency.

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- a change in the condition of the contaminated land (notice must be given within 24 hours); or
- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days);

that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term 'duty to notify'.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

- a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority-on the nominated day; or
- b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or

c) otherwise-on the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the *Sustainable Planning Act 2009* or an SDA Approval under the *State Development and Public Works Organisation Act 1971*), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

Enquiries:

Minerals Business Centre
Department of Environment and Science
Phone: 07 4222 5352
Email: ESCairns@des.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Legislative Requirements and Conditions of Environmental Authority

Part 1 – For ML20414 and ML100142

General

1-A1 This environmental authority authorises environmental harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of a condition or silence does not authorise environmental harm.

1-A2 In carrying out the mining activity authorised by this environmental authority, the holder of this environmental authority must comply with Schedule 1A – Table A1 (Authorised Disturbance Areas and Locations) and Schedule I – Figure 1 (Mt Ruby Infrastructure Layout).

Table A1 – Authorised Disturbance Areas and Locations

Mine Domain	Mine Feature	Mining Lease(s)	Location (GDA94 – Zone 55)		Maximum area of disturbance (ha)
			Easting	Northing	
Stockpiles	Product Stockpiles	ML20414	TBA ¹	TBA ¹	0.9
Infrastructure/Processing	Processing/infrastructure Areas	ML20414	TBA ¹	TBA ¹	0.4
Mining Area	Mining Area	ML20414	TBA ¹	TBA ¹	1.2
Drainage/Stormwater Control	North Sediment Dam, Drainage Protection Bund	ML20414	TBA ¹	TBA ¹	0.2
Infrastructure/Processing	Pipelines	ML20414	TBA ¹	TBA ¹	0.1
Access Roads and Tracks	Access Roads and Tracks	ML20414	TBA ¹	TBA ¹	0.3
Total Tenure Disturbance		ML20414			3.1
Water Storage	Turkey's Nest Dam	ML100142	TBA ¹	TBA ¹	0.92
Laydown Area	Laydown Area	ML100142	TBA ¹	TBA ¹	1.34
Access Roads and Tracks	Access Roads and Tracks	ML100142	TBA ¹	TBA ¹	1.0
Drainage/Stormwater Control	South Sediment Dam	ML100142	TBA ¹	TBA ¹	0.16
Drainage/Stormwater Control	Clean Water Diversion Bund	ML100142	TBA ¹	TBA ¹	0.19
Total Tenure Disturbance		ML100142			3.61
Total Mine Disturbance		ML20414 and ML100142			6.71

TBA – The environmental authority holder must provide this detail/information, to the administering authority within 3 months of the grant of ML100142.

Maintenance of Measures, Plant and Equipment

1-A3 The holder of this environmental authority must:

- Install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority;
- maintain such measures, plant and equipment in a proper and efficient condition;
- operate such measures, plant and equipment in a proper and efficient manner;
- ensure all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority are properly calibrated.

Monitoring

1-A4 Except where specified otherwise in another condition of this environmental authority, all monitoring data, records and reports required by this environmental authority or related to environmental management of the activities must be:

- carried out by an appropriately qualified person; and
- kept for a period of not less than 5 years; and
- provided to the administering authority in the specified format within 10 business days of a request.

1-A5 The following information must be recorded in relation to all monitoring required under the conditions of this environmental authority:

- the date and time at which the sample was taken; and
- the location or monitoring point at which the sample was taken; and
- the results of all monitoring and details of any exceedances of the conditions of the environmental authority; and
- any other pertinent details in order to interpret the sampling results (i.e. stream flow, wind directions or any unusual observations such as odour or colouration).

Financial Assurance

1-A6 The activity must not be carried out until the environmental authority holder has given financial assurance to the administering authority as security for compliance with this environmental authority and any costs or expenses, or likely costs or expenses, mentioned in section 298 of the Act.

1-A7 The amount of financial assurance must be reviewed by the holder of this environmental authority when a plan of operations is amended or replaced or the authority is amended.

Risk Management

1-A8 The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the Standard for Risk Management (ISO31000:2009), or the latest edition of an Australian Standard for Risk Management, to the extent relevant to environmental management, by 5 November 2019.

Notification of Emergencies, Incident and Exceptions

1-A9 The holder of this environmental authority must notify the administering authority by written notification within 24 hours, after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority.

1-A10 Within 10 business days following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following:

- results and interpretation of any samples taken and analysed;
- outcomes of actions taken at the time to prevent or minimise unlawful environmental harm;
- proposed actions to prevent a recurrence of the emergency or incident.

Complaints

1-A11 The holder of this environmental authority must record all environmental complaints received about the mining activities including:

- name, address and contact number for of the complainant;
- time and date of complaint;
- reasons for the complaint;
- investigations undertaken;
- conclusions formed;
- actions taken to resolve the complaint;
- any abatement measures implemented;
- person responsible for resolving the complaint.

1-A12 The holder of this environmental authority must, when requested by the administering authority, undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the administering authority to investigate any complaint of environmental harm. The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures, where implemented, must be provided to the administering authority within 10 business days of completion of the investigation, or no later than 10 business days after the end of the timeframe nominated by the administering authority to undertake the investigation.

Third Party Reporting

1-A13 The holder of this environmental authority must:

- obtain from an appropriately qualified person, a report on compliance with the conditions of this environmental authority by 5 August 2022;
- obtain further such reports at regular intervals, not exceeding 3 yearly intervals, from the completion of the report referred to above; and
- provide each report to the administering authority within 90 days of its completion.

Amendments to Standards, Policies or Guidelines

1-A14 Where a condition of this environmental authority requires compliance with a standard, policy or guideline published externally to this environmental authority and the standard is amended or changed subsequent to the issue of this environmental authority, the holder of this environmental authority must:

- comply with the amended or changed standard, policy or guideline within 2 years of the amendment or change being made, unless a different period is specified in the amended standard or relevant legislation;
- until compliance with the amended or changed standard, policy or guideline is achieved, continue to remain in compliance with the corresponding provision that was current immediately prior to the relevant amendment or change.

Exploration Activities

1-A15 All exploration activities carried out on the relevant mining tenures comply with the provisions detailed in the administering authority's Code of Environmental Compliance for Exploration and Mineral Development Projects (the code). Where there is a discrepancy between the code and this environmental authority, the conditions of this authority apply.

Air

Dust, Odours and Airborne Contaminants

1-B1 The environmental authority holder must ensure that air emissions do not cause environmental harm to any sensitive place or commercial place.

Dust and Particulate Matter Monitoring

1-B2 The environmental authority holder shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the dust and particulate matter emissions generated by the mining activities do not cause exceedances of the following levels when measured at any sensitive or commercial place:

- a) Dust deposition of 120 milligrams per square metre per day, averaged over one month, when monitored in accordance with the most recent version of *Australian Standard AS3580.10.1 Methods for sampling and analysis of ambient air—Determination of particulate matter—Deposited matter – Gravimetric method*;
- b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometres (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24-hour averaging time, for no more than five exceedances recorded each year, when monitored in accordance with the most recent version of either:
 1. *Australian Standard AS3580.9.6 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 high volume sampler with size-selective inlet – Gravimetric method*, or
 2. *Australian Standard AS3580.9.9 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 low volume sampler—Gravimetric method*.
- c) A concentration of particulate matter with an aerodynamic diameter of less than 2.5 micrometres (PM2.5) suspended in the atmosphere of 25 micrograms per cubic metre over a 24-hour averaging time, when monitored in accordance with the most recent version of *AS/NZS3580.9.10 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM (sub)2.5/(sub) low volume sampler—Gravimetric method*;
- d) A concentration of particulate matter suspended in the atmosphere of 90 micrograms per cubic metre over a 1 year averaging time, when monitored in accordance with the most recent version of *AS/NZS3580.9.3:2003 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—Total suspended particulate matter (TSP)—High volume sampler gravimetric method*.

Transportation

1-B3 The holder of the environmental authority must ensure that vehicles used for transporting bulk materials leave the licensed place with appropriate load preparation to prevent the spillage and/or loss of particulate matter and/or windblown dust during transport.

Waste

1-C1 All waste generated in carrying out the activity must be reused, recycled or removed to a facility that can lawfully accept the waste.

1-C2 All waste material must be managed and disposed of in a manner that minimises the potential generation and/or release of contaminants to the receiving environment.

1-C3 The only waste that can be disposed of on site is waste generated on site and is limited to waste rock.

Burning Waste

1-C4 Unless otherwise permitted by the conditions of this environmental authority or with prior approval from the administering authority and in accordance with a relevant standard operating procedure, waste must not be burnt.

Acoustic

Noise

1-D1 The holder of this environmental authority must ensure that noise generated by the mining activities does not cause the criteria in Schedule 1D –Table D1 Noise Limits to be exceeded at a sensitive place or commercial place.

Table D1 – Noise Limits

Sensitive Place						
Noise level dB(A) measured as:	Monday to Saturday			Sundays and public holidays		
	7am to 6pm	6pm to 10pm	10pm to 7am	9am to 6pm	6pm to 10pm	10pm to 9am
LAeq, adj, 15 mins	CV = 50 AV = 5	CV = 45 AV = 5	CV = 40 AV = 0	CV = 45 AV = 5	CV = 40 AV = 5	CV = 35 AV = 0
LA1, adj, 15 mins	CV = 55 AV = 10	CV = 50 AV = 10	CV = 45 AV = 5	CV = 50 AV = 10	CV = 45 AV = 10	CV = 40 AV = 5
Commercial Place						
Noise level dB(A) measured as:	Monday to Saturday			Sundays and public holidays		
	7am to 6pm	6pm to 10pm	10pm to 7am	7am to 6pm	6pm to 10pm	10pm to 7am
LAeq, adj, 15 mins	CV = 55 AV = 10	CV = 50 AV = 10	CV = 45 AV = 5	CV = 50 AV = 10	CV = 45 AV = 10	CV = 40 AV = 5

Table D1 – Noise limits notes:

1. CV = Critical Value
2. AV = Adjustment Value
3. bg = background noise level (**LA90, adj, 15 mins**) measured over 3-5 days at the nearest sensitive receptor
4. To calculate noise limits in Table D1:
 - If $bg \leq (CV - AV)$:
 - Noise limit = $bg + AV$
 - If $(CV - AV) < bg \leq CV$:
 - Noise limit = CV
 - If $bg > CV$:
 - Noise limit = $bg + 0$

5. In the event that measured bg (LA90, adj, 15 mins) is less than 30 dB(A), then 30 dB(A) can be substituted for the measured background level

6. If the project is unable to meet the noise limits as calculated above alternative limits may be calculated using the processes outlined in the "Planning for Noise Control" guideline.

Airblast overpressure nuisance

1-D2 The holder of this environmental authority must ensure that blasting does not cause the limits for peak particle velocity and air blast overpressure in Table D2 - Blasting Noise Limits to be exceeded at a sensitive place or commercial place.

Table D2 (Blasting Noise Limits)

Blasting Noise Limits	Sensitive or commercial Blasting Noise Limits place limits	
	7am to 6pm	6pm to 7am
Airblast overpressure	115 dB (Linear) Peak for 9 out of 10 consecutive blasts initiated and not greater than 120 dB (Linear) Peak at any time.	No blasting
Ground vibration peak particle velocity	5mm/second peak particle velocity for 9 out of 10 consecutive blasts and not greater than 10mm/second peak particle velocity at any time.	No blasting

Groundwater

1-E1 The holder of this environmental authority must not release contaminants to groundwater.

Water

Contaminant Release to Waters

1-F1 Contaminants that will, or have the potential to cause environmental harm must not be released directly or indirectly to any waters as a result of the authorised mining activities, except as permitted under the conditions of this environmental authority.

Water Management Plan

1-F2 A Water Management Plan must be developed by an appropriately qualified person and implemented.

Stormwater and Water Sediment Controls

1-F3 An Erosion and Sediment Control Plan must be developed by an appropriately qualified person and implemented for all stages of the mining activities on the site to minimise erosion and the

release of sediment to receiving waters and contamination of stormwater.

1-F4 Stormwater, other than mine affected water, is permitted to be released to waters from:

- erosion and sediment control structures that are installed and operated in accordance with the Erosion and Sediment Control Plan required by condition 1-F3;
- water management infrastructure that is installed and operated, in accordance with a Water Management Plan that complies with condition 1-F2, for the purpose of ensuring water does not become mine affected water.

Water Reuse

1-F5 Mine affected water may be piped or trucked or transferred by some other means that does not contravene the conditions of this environmental authority and deposited into artificial water storage structures, such as farm dams or tanks, or used directly at properties owned by the environmental authority holder or a third party for the purpose of supplying stock water subject to compliance with the quality release limits specified in ANZECC and ARMCANZ (2000) Volume 1: Chapter 4.3 Table 4.3.1, 4.3.2, & 4.3.3.

1-F6 If the responsibility for mine affected water is given or transferred to another person in accordance with condition 1-F5:

- The responsibility for the mine affected water must only be given or transferred in accordance with a written agreement (the third party agreement); and
- The third party agreement must include a commitment from the person utilising the mine affected water to use it in such a way to prevent environmental harm and specifically make the persons aware of the General Environmental Duty (GED) under section 319 of the Environmental Protection Act 1994; and
- The third party agreement must be signed by both parties to the agreement.

Land

Chemical and Flammable or Combustible Substances

1-G1 All explosives, hazardous chemicals, corrosive substances, toxic substances, gases and dangerous goods must be stored and handled in accordance with the current Australian Standard where such is applicable. Where no relevant Australian standard exists store such materials within an effective on-site containment system.

1-G2 Flammable and combustible substances, including petroleum products, must be stored and handled in accordance with the latest edition of AS1940—The storage and handling of flammable and combustible liquids.

1-G3 Minimising the potential for contamination of land and waters must be achieved by diverting

stormwater around contaminated areas and facilities used for the storage of chemicals and flammable or combustible substances.

Rehabilitation

1-G4 Land that has been disturbed for activities conducted under this environmental authority must be rehabilitated in a manner such that:

- a) suitable native species of vegetation for the location are established and sustained for earthen surfaces;
- b) potential for erosion is minimised;
- c) the quality of water, including seepage, released from the site does not cause environmental harm;
- d) potential for environmental nuisance caused by dust is minimised;
- e) the water quality of any residual water body does not have potential to cause environmental harm;
- f) the final landform is stable and protects public safety.

1-G5 Rehabilitation must commence progressively in accordance with the plan of operations.

Contaminated Land

1-G6 Before applying for surrender of a mining lease, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the mining lease which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use.

1-G7 Before applying for progressive rehabilitation certification for an area, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the area the subject of the application which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use.

1-G8 Minimise the potential for contamination of land by hazardous contaminants.

Biodiversity

1-G9 The holder of this environmental authority must ensure there are no impacts to State significant biodiversity values from mining activities.

Part 2 – For ML20488**General**

2-A1 This environmental authority authorises environmental harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of a condition or silence does not authorise environmental harm.

2-A2 In carrying out the mining activity authorised by this environmental authority, the holder of this environmental authority must comply with Schedule 2A – Table A1 (Authorised Disturbance Areas and Locations) and Schedule J – Figure 1 (Mt Lucy Mine Infrastructure Layout).

Table A1 – Authorised Disturbance Areas and Locations

Mine Domain	Mine Feature	Mining Lease(s)	Location (GDA94 – Zone 55)		Maximum area of disturbance (ha)
			Easting	Northing	
Mining Area	Open Pit Area (Area A and Area B	ML20488	249066 248448	8080419 8080798	4.29
Processing	Mine operational Area, ROM pad, Ore stockpile Area and WRD	ML20488	248955	8080449	7.22
Drainage	Sediment dam	ML20488	248950	8080644	0.10
Access	Access roads and tracks	ML20488	248681	8080657	0.38
Infrastructure	Admin area mobile crushing plant	ML20488	248858	8080402	0.38
Total Mine Disturbance		ML20488			12.37

Maintenance of Measures, Plant and Equipment

2-A3 The holder of this environmental authority must:

- Install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority;
- maintain such measures, plant and equipment in a proper and efficient condition;
- operate such measures, plant and equipment in a proper and efficient manner;

- d) ensure all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority are properly calibrated.

Monitoring

2-A4 Except where specified otherwise in another condition of this environmental authority, all monitoring data, records and reports required by this environmental authority or related to environmental management of the activities must be:

- a) carried out by an appropriately qualified person; and
- b) kept for a period of not less than 5 years; and
- c) provided to the administering authority in the specified format within 10 business days of a request.

2-A5 The following information must be recorded in relation to all monitoring required under the conditions of this environmental authority:

- a) the date and time at which the sample was taken; and
- b) the location or monitoring point at which the sample was taken; and
- c) the results of all monitoring and details of any exceedances of the conditions of the environmental authority; and
- d) any other pertinent details in order to interpret the sampling results (i.e. stream flow, wind directions or any unusual observations such as odour or colouration).

Financial Assurance

2-A6 The activity must not be carried out until the environmental authority holder has given financial assurance to the administering authority as security for compliance with this environmental authority and any costs or expenses, or likely costs or expenses, mentioned in section 298 of the Act.

2-A7 The amount of financial assurance must be reviewed by the holder of this environmental authority when a plan of operations is amended or replaced or the authority is amended.

Risk Management

2-A8 The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the Standard for Risk Management (ISO31000:2009), or the latest edition of an Australian Standard for Risk Management, to the extent relevant to environmental management, by 27 September 2019.

Notifications of Emergencies, Incidents and Exceedances

2-A9 The holder of this environmental authority must notify the administering authority by written notification within 24 hours, after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with, the conditions of this environmental authority.

2-A10 Within 10 business days following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following:

- results and interpretation of any samples taken and analysed;
- outcomes of actions taken at the time to prevent or minimise unlawful environmental harm;
- proposed actions to prevent a recurrence of the emergency or incident.

Complaints

2-A11 The holder of this environmental authority must record all environmental complaints received about the mining activities including:

- name, address and contact number for of the complainant;
- time and date of complaint;
- reasons for the complaint;
- investigations undertaken;
- conclusions formed;
- actions taken to resolve the complaint;
- any abatement measures implemented;
- person responsible for resolving the complaint.

2-A12 The holder of this environmental authority must, when requested by the administering authority, undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the administering authority to investigate any complaint of environmental harm. The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures, where implemented, must be provided to the administering authority within 10 business days of completion of the investigation, or no later than 10 business days after the end of the timeframe nominated by the administering authority to undertake the investigation.

Third-Party Reporting

2-A13 The holder of this environmental authority must:

- within one year (29 June 2020) of the commencement of this environmental authority, obtain from an appropriately qualified person a report on compliance with the conditions of this environmental authority
- obtain further such reports at regular intervals, not exceeding three-yearly intervals, from the completion of the report referred to above

c) provide each report to the administering authority within 90 days of its completion.

2-A14 Where a condition of this environmental authority requires compliance with a standard, policy or guideline published externally to this environmental authority and the standard is amended or changed subsequent to the issue of this environmental authority, the holder of this environmental authority must:

- comply with the amended or changed standard, policy or guideline within two years of the amendment or change being made, unless a different period is specified in the amended standard or relevant legislation, or where the amendment or change relates specifically to regulated structures, the time specified in that condition;
- until compliance with the amended or changed standard, policy or guideline is achieved, continue to remain in compliance with the corresponding provision that was current immediately prior to the relevant amendment or change.

Exploration Activities

2-A15 All exploration activities carried out must comply with each of the standard environmental conditions contained in the latest version of the *Eligibility criteria and standard conditions for exploration and mineral development projects*.

Air

Dust, Odours and Airborne Contaminants

2-B1 The environmental authority holder must ensure that air emissions do not cause environmental harm to any sensitive place or commercial place.

Dust and Particulate Matter Monitoring

2-B2 The environmental authority holder shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the dust and particulate matter emissions generated by the mining activities do not cause exceedances of the following levels when measured at any sensitive or commercial place:

- Dust deposition of 120 milligrams per square metre per day, averaged over one month, when monitored in accordance with the most recent version of *Australian Standard AS3580.10.1 Methods for sampling and analysis of ambient air—Determination of particulate matter—Deposited matter – Gravimetric method*;
- A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometres (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24-hour averaging time, for no more than five exceedances recorded each year, when monitored in accordance with the most recent version of either:
 - Australian Standard AS3580.9.6 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 high volume sampler with size-selective inlet – Gravimetric method*, or

2. *Australian Standard AS3580.9.9 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 low volume sampler—Gravimetric method.*
- c) A concentration of particulate matter with an aerodynamic diameter of less than 2.5 micrometres (PM2.5) suspended in the atmosphere of 25 micrograms per cubic metre over a 24-hour averaging time, when monitored in accordance with the most recent version of *AS/NZS3580.9.10 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM (sub)2.5(/sub) low volume sampler—Gravimetric method*;
- d) A concentration of particulate matter suspended in the atmosphere of 90 micrograms per cubic metre over a 1 year averaging time, when monitored in accordance with the most recent version of *AS/NZS3580.9.3:2003 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—Total suspended particulate matter (TSP)—High volume sampler gravimetric method*.

Transportation

2-B3 The holder of the environmental authority must ensure that vehicles used for transporting bulk materials leave the licensed place with appropriate load preparation to prevent the spillage and/or loss of particulate matter and/or windblown dust during transport.

Waste

2-C1 All waste generated in carrying out the activity must be reused, recycled or removed to a facility that can lawfully accept the waste.

2-C2 All waste material must be managed and disposed of in a manner that minimises the potential generation and/or release of contaminants to the receiving environment.

2-C3 The only waste that can be disposed of on site is waste generated on site and is limited to:

- a) Waste rock.

Burning Waste

2-C4 Unless otherwise permitted by the conditions of this environmental authority or with prior approval from the administering authority and in accordance with a relevant standard operating procedure, waste must not be burnt.

Noise

2-D1 The holder of this environmental authority must ensure that noise generated by the mining activities does not cause the criteria in Schedule 2D –Table D1 Noise Limits to be exceeded at a sensitive place or commercial place.

Table D1 – Noise Limits

Sensitive Place						
Noise level dB(A) measured as:	Monday to Saturday			Sundays and public holidays		
	7am to 6pm	6pm to 10pm	10pm to 7am	9am to 6pm	6pm to 10pm	10pm to 9am
LAeq, adj, 15 mins	CV = 50 AV = 5	CV = 45 AV = 5	CV = 40 AV = 0	CV = 45 AV = 5	CV = 40 AV = 5	CV = 35 AV = 0
LA1, adj, 15 mins	CV = 55 AV = 10	CV = 50 AV = 10	CV = 45 AV = 5	CV = 50 AV = 10	CV = 45 AV = 10	CV = 40 AV = 5
Commercial Place						
Noise level dB(A) measured as:	Monday to Saturday			Sundays and public holidays		
	7am to 6pm	6pm to 10pm	10pm to 7am	7am to 6pm	6pm to 10pm	10pm to 7am
LAeq, adj, 15 mins	CV = 55 AV = 10	CV = 50 AV = 10	CV = 45 AV = 5	CV = 50 AV = 10	CV = 45 AV = 10	CV = 40 AV = 5

Table D1 – Noise limits notes:

1. CV = Critical Value
2. AV = Adjustment Value
3. bg = background noise level (LA90, adj, 15 mins) measured over 3-5 days at the nearest sensitive receptor
4. To calculate noise limits in Table D1:
 - If $bg \leq (CV - AV)$:
Noise limit = $bg + AV$
 - If $(CV - AV) < bg \leq CV$:
Noise limit = CV
 - If $bg > CV$:
Noise limit = $bg + 0$
5. In the event that measured bg (LA90, adj, 15 mins) is less than 30 dB(A), then 30 dB(A) can be substituted for the measured background level
6. If the project is unable to meet the noise limits as calculated above alternative limits may be calculated using the processes outlined in the "Planning for Noise Control" guideline.

Groundwater

2-E1 The holder of this environmental authority must not release contaminants to groundwater.

Contaminant Release to Waters

2-F1 Contaminants that will, or have the potential to cause environmental harm must not be released directly or indirectly to any waters as a result of the authorised mining activities, except as permitted under the conditions of this environmental authority.

Water Management Plan

2-F2 A Water Management Plan must be developed by an appropriately qualified person and implemented.

Stormwater and Water Sediment Controls

2-F3 An Erosion and Sediment Control Plan must be developed by an appropriately qualified person and implemented for all stages of the mining activities on the site to minimise erosion and the release of sediment to receiving waters and contamination of stormwater.

Land**Chemical and Flammable Combustible Substances**

2-G1 All explosives, hazardous chemicals, corrosive substances, toxic substances, gases and dangerous goods must be stored and handled in accordance with the current Australian Standard where such is applicable. Where no relevant Australian standard exists store such materials within an effective on-site containment system.

2-G2 Flammable and combustible substances, including petroleum products, must be stored and handled in accordance with the latest edition of AS1940—The storage and handling of flammable and combustible liquids.

2-G3 Minimising the potential for contamination of land and waters must be achieved by diverting stormwater around contaminated areas and facilities used for the storage of chemicals and flammable or combustible substances.

Rehabilitation

2-G4 Land that has been disturbed for activities conducted under this environmental authority must be rehabilitated in a manner such that:

- suitable native species of vegetation for the location are established and sustained for earthen surfaces;
- potential for erosion is minimised;
- the quality of water, including seepage, released from the site does not cause environmental harm;

- d) potential for environmental nuisance caused by dust is minimised;
- e) the water quality of any residual water body does not have potential to cause environmental harm;
- f) the final landform is stable and protects public safety.

2-G5 Rehabilitation must commence progressively in accordance with the plan of operations.

Prescribed Environmental Matters

2-G6 Significant residual impacts to prescribed environmental matters are not authorised in ML20488 under this environmental authority or the *Environmental Offsets Act 2014*.

2-G7 Records demonstrating that each impact to a prescribed environmental matter did not, or is not likely to, result in a significant residual impact to that matter must be:

- a) completed by an appropriately qualified person; and
- b) kept for the life of the environmental authority.

Contaminated Land

2-G8 Before applying for surrender of a mining lease, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the mining lease which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use.

2-G9 Before applying for progressive rehabilitation certification for an area, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the area the subject of the application which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use.

2-G10 Minimise the potential for contamination of land by hazardous contaminants.

Nature Conservation

2-I1 An appropriately qualified spotter/catcher must be engaged to work ahead of vegetation clearing to ensure the protection of prescribed native wildlife and breeding places.

Note: This environmental authority does not authorise the taking of native wildlife or the tampering with a breeding place that is being used by prescribed native wildlife to incubate or rear the animal's offspring.

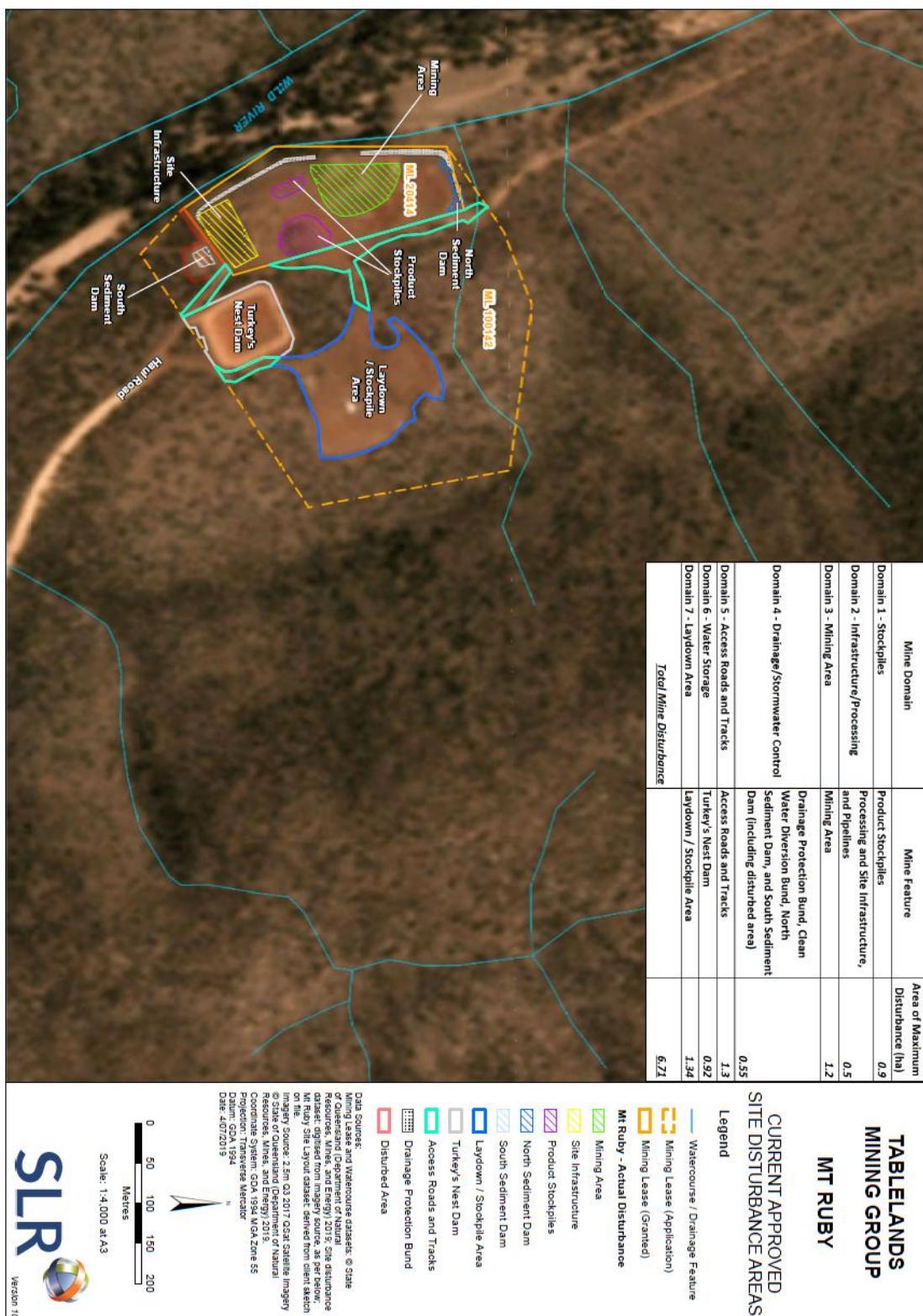
Part 3 – For ML20701

General

3-G1 The conditions of approval for this environmental authority are standard conditions contained within the document entitled: Code of Environmental Compliance for Mining Lease Projects, EM588, Version 1.1.

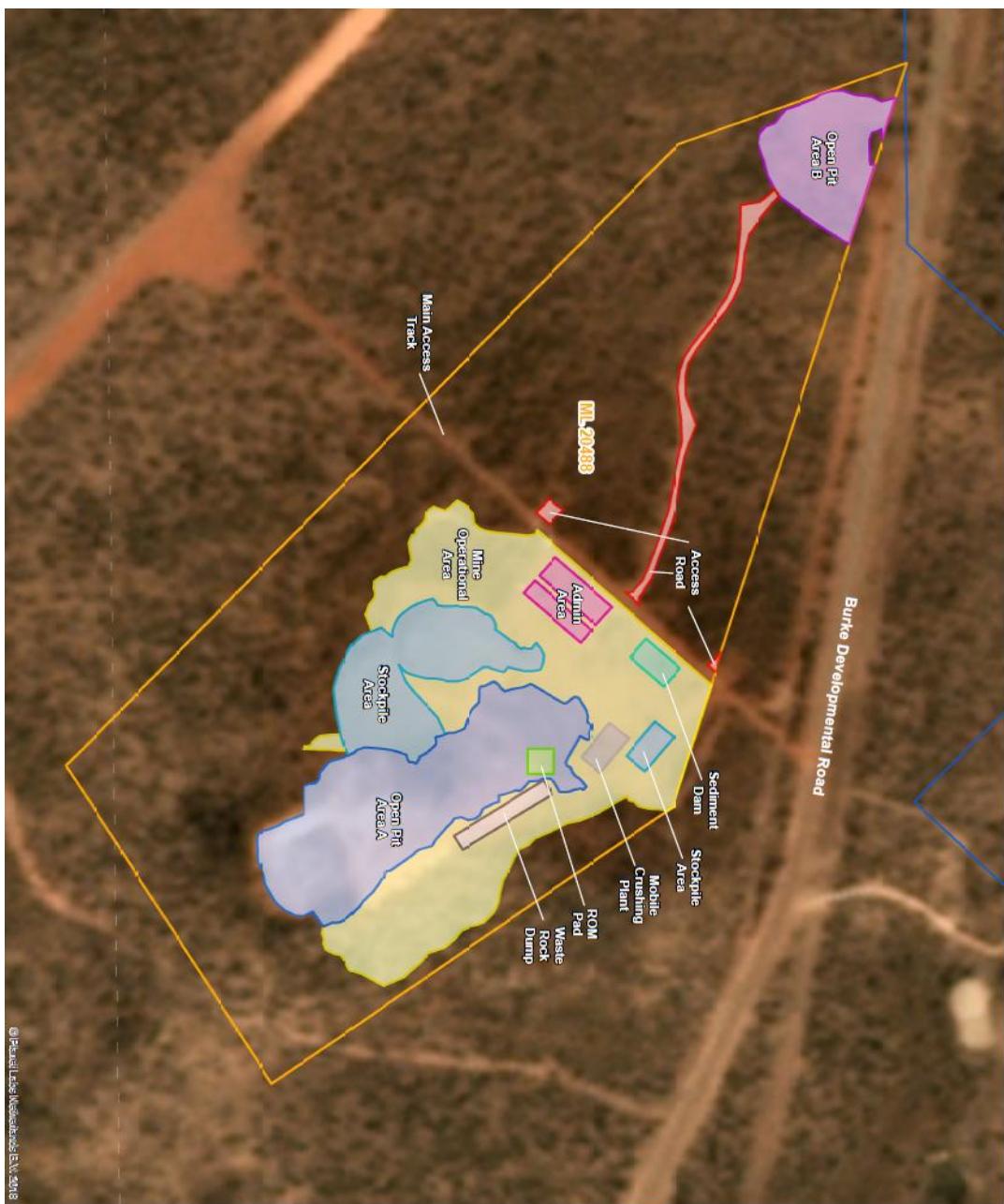
Schedule I – Figure 1 - Mine Infrastructure Layout

Schedule I – Mine infrastructure Layout (version dated 04/07/2019)



Schedule J – Figure 1 – Mt Lucy Mine Infrastructure Layout

Schedule J – Mt Lucy Mine Infrastructure Layout (version dated 17/05/2019)



**TABLELANDS
MINING GROUP**
**MT LUCY
SITE
INFRASTRUCTURE**

Legend

Mining Lease
Watercourse

Site Domains

Access Road

Admin Area

Mine Operational

Mobile Crushing Plant

Open Pit Area

Open Pit Area

ROM Pad

Sediment Dam

Stockpile Area

Waste Rock Dump

Data Sources:
Mining Lease, Watercourses datasets: © State
Resources and Mines 2016
Imagery 2.5m 2017 © CSIRO Satellite Imagery
© State of Queensland, Department of Natural
Resources, Mines, and Energy 2016.

Coordinate System: GDA 1994 MGA Zone 55
Datum: GDA 1994
Date: 26/03/2019

0 25 50 75 100
Metres

Scale: 1:3,500 at A3

Northern Resource
CONSULTANT

Definitions

Key terms and/or phrases used in this document are defined in this section. Applicants should note that where a term is not defined, the definition in the Environmental Protection Act 1994, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

“the Act” means the *Environmental Protection Act 1994*.

“administering authority” means:

- (a) for a matter, the administration and enforcement of which has been devolved to a local government under section 514 - the local government; or,
- (b) for another matter - the chief executive.

“airblast overpressure” means energy transmitted from the blast site within the atmosphere in the form of pressure waves. The maximum excess pressure in this wave, above ambient pressure is the peak airblast overpressure measured in decibels linear (dB_L).

“appropriately qualified person” means a person who has professional qualifications, training, skills and experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods or literature.

“authority” means environmental authority (mining activities) under the *Environmental Protection Act 1994*.

“blasting” means the use of explosive materials to fracture:

- a) rock, coal and other minerals for later recovery; or
- b) structural components or other items to facilitate removal from a site or for reuse.

‘chemical’ means:

- a) an agricultural chemical product or veterinary chemical product within the meaning of the *Agricultural and Veterinary Chemicals Code Act 1994* (Commonwealth); or
- b) a dangerous good under the Australian Code for the Transport of Dangerous Goods by Road and Rail approved by the Australian Transport Council; or
- c) a lead hazardous substance within the meaning of the Workplace Health and Safety Regulation 1997;
- d) a drug or poison in the Standard for the Uniform Scheduling of Drugs and Poisons prepared by the Australian Health Ministers’ Advisory Council and published by the Commonwealth; or
- e) any substance used as, or intended for use as:
 - (i) a pesticide, insecticide, fungicide, herbicide, rodenticide, nematocide, miticide, fumigant or related product; or

- (ii) a surface active agent, including, for example, soap or related detergent; or
- (iii) a paint solvent, pigment, dye, printing ink, industrial polish, adhesive, sealant, food additive, bleach, sanitiser, disinfectant, or biocide; or
- (iv) a fertiliser for agricultural, horticultural or garden use; or
- (v) a substance used for, or intended for use for mineral processing or treatment of metal, pulp and paper, textile, timber, water or wastewater; or
- (vi) manufacture of plastic or synthetic rubber.

“chief executive” means the chief executive of the Department of Environment and Heritage Protection or its successor.

“commercial place” means a place used as an office or for business or commercial purposes, other than a place within the boundaries of the operational land.

“dB (linear) peak” is the maximum reading in decibels (dB) obtained using the “P” time – weighting characteristic as specified in AS 1259.1 – 1990 with all frequency weighted networks inoperative.

“disturbance” of land includes:

- (a) compacting, removing, covering, exposing or stockpiling of earth;
- (b) removal or destruction of vegetation or topsoil or both to an extent where the land has been made susceptible to erosion;
- (c) carrying out mining within a watercourse, waterway, wetland or lake;
- (d) the submersion of areas by tailings or hazardous contaminant storage and dam/structure walls;
- (e) temporary infrastructure, including any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be removed after the mining activity has ceased; or
- (f) releasing of contaminants into the soil, or underlying geological strata.

However, the following areas are not included when calculating areas of ‘disturbance’:

- a) areas off lease (e.g. roads or tracks which provide access to the mining lease);
- b) areas previously disturbed which have achieved the rehabilitation outcomes;
- c) by agreement with the administering authority, areas previously disturbed which have not achieved the rehabilitation objective(s) due to circumstances beyond the control of the mine operator (such as climatic conditions);
- d) areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be left by agreement with the landowner.
- e) disturbance that pre-existed the grant of the tenure.

“environmental authority” means a licence or approval issued pursuant to the *Environmental Protection Act 1994*.

“environmental harm” means environmental harm as defined in section 14 of the *Environmental*

Protection Act 1994.

“environmental nuisance” means environmental nuisance as defined in section 15 of the *Environmental Protection Act 1994*.

“holder” means the holder of an environmental authority for a resource activity is the holder of the relevant tenure.

“infrastructure” means dams, roads and tracks, buildings and other structures built for the purpose of mining activities but does not include facilities required for the long-term management of mining impacts or the protection of potential resources. Such facilities include dams containing hazardous waste, waste rock dumps, voids, or ore stockpiles and buildings or other structures whose ownership can be transferred and which have a residual beneficial use for the next owner of the operational land or the background land owner.

“land” in schedule D – Land and Rehabilitation, means land excluding waters and the atmosphere.

“licensed place” means the mining activities carried out at the mining tenements to which this environmental authority relates.

“measures” includes any measures to prevent or minimise environmental impacts of the mining activity such as bunds, silt fences, diversion drains, capping, and containment systems.

“mine affected water”:

- a) means the following types of water:
 - i) pit water, tailings dam water, processing plant water;
 - ii) water contaminated by a mining activity which would have been an environmentally relevant activity under Schedule 2 of the Environmental Protection Regulation 2008 if it had not formed part of the mining activity;
 - iii) rainfall runoff which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated, excluding rainfall runoff discharging through release points associated with erosion and sediment control structures that have been installed in accordance with the standards and requirements of an Erosion and Sediment Control Plan to manage such runoff, provided that this water has not been mixed with pit water, tailings dam water, processing plant water or workshop water;
 - iv) groundwater which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated;
 - v) groundwater from the mine’s dewatering activities;
 - vi) a mix of mine affected water (under any of paragraphs i)-v) and other water.
- b) does not include surface water runoff which, to the extent that it has been in contact with areas disturbed by mining activities that have not yet been completely rehabilitated, has only been in

contact with:

- i) land that has been rehabilitated to a stable landform and either capped or revegetated in accordance with the acceptance criteria set out in the environmental authority but only still awaiting maintenance and monitoring of the rehabilitation over a specified period of time to demonstrate rehabilitation success; or
- ii) land that has partially been rehabilitated and monitoring demonstrates the relevant part of the landform with which the water has been in contact does not cause environmental harm to waters or groundwater, for example:
 - a. areas that are been capped and have monitoring data demonstrating hazardous material adequately contained with the site;
 - b. evidence provided through monitoring that the relevant surface water would have met the water quality parameters for mine affected water release limits in this environmental authority, if those parameters had been applicable to the surface water runoff; or
- iii) both.

“mining activity” means mining activity as defined in section 110 of the *Environmental Protection Act 1994*.

“mining lease” means a mining lease under the *Mineral Resources Act*.

“noxious” means harmful or injurious to health or physical wellbeing.

“offensive” means causing offence or displeasure; is unreasonably disagreeable to the sense; disgusting, nauseous or repulsive.

“peak particle velocity (ppv)” means a measure of ground vibration magnitude which is the maximum rate of change of ground displacement with time, usually measured in millimetres/second (mm/s).

“prescribed environmental matters” has the meaning in section 10 of the Environmental Offsets Act 2014, limited to the matters of State environmental significance listed in schedule 2 of the Environmental Offsets Regulation 2014.

“receiving waters” means the waters into which this environmental authority authorises releases of mine affected water.

“rehabilitation” the process of reshaping and revegetating land to restore it to a stable landform and in accordance with the acceptance criteria set out in this environmental authority and, where relevant, includes remediation of contaminated land.

“release” means the discharge of water (whether intentional or due to failure to prevent) to the receiving environment from any area, structure or feature located on a mining lease listed on this environmental authority.

“sensitive place” means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- a motel, hotel or hostel; or
- an educational institution; or
- a medical centre or hospital; or
- a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 1992* or a World Heritage Area; or
- a public park or gardens; or
- a place used as a workplace, an office or for business or commercial purposes which is not part of the mining activity and does not include employee’s accommodation or public roads.

“significant residual impact” is defined in section 8 *Environmental Offsets Act 2014*.

“stable” means land form dimensions are or will be stable within tolerable limits now and in the foreseeable future. Stability includes consideration of geotechnical stability, settlement and consolidation allowances, bearing capacity (traffic ability), erosion resistance and geochemical stability with respect to seepage and contaminant generation.

“waters” includes a river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea) or any part thereof.

Attachments

- Eligibility criteria and standard conditions for mining lease activities - Version 2.
- Eligibility criteria and standard conditions for exploration and mining development projects - Version 2.
- Code of Environmental Compliance for Mining Lease Projects, EM588 - Version 1.1.

END OF ENVIRONMENTAL AUTHORITY