Permit

Environmental Protection Act 1994

Environmental authority EPML00382513

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

Environmental authority number: EPML00382513

Environmental authority takes effect on 18 July 2014.

Environmental authority holder(s)

Name(s)	Registered address
TERREQUIP MILES PTY LTD	Level 34 32 Turbot St BRISBANE CITY QLD 4000

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Schedule 3 - 20(b) - Clay pit mining, dimension stone mining or mining gemstones (including the material from which gemstones are extracted) - more than 100,000t but not more than 1,000,000t in a year	ML50058
Schedule 3 - 20(b) - Clay pit mining, dimension stone mining or mining gemstones (including the material from which gemstones are extracted) - more than 100,000t but not more than 1,000,000t in a year	ML5898
Schedule 3 - 20(b) - Clay pit mining, dimension stone mining or mining gemstones (including the material from which gemstones are extracted) - more than 100,000t but not more than 1,000,000t in a year	ML5900
Schedule 3 - 20(b) - Clay pit mining, dimension stone mining or mining gemstones (including the material	ML5901

Environmentally relevant activity/activities	Location(s)
from which gemstones are extracted) - more than 100,000t but not more than 1,000,000t in a year	
Schedule 3 - 20(b) - Clay pit mining, dimension stone mining or mining gemstones (including the material from which gemstones are extracted) - more than 100,000t but not more than 1,000,000t in a year	ML5902
Schedule 3 - 20(b) - Clay pit mining, dimension stone mining or mining gemstones (including the material from which gemstones are extracted) - more than 100,000t but not more than 1,000,000t in a year	ML5905
Schedule 3 - 20(b) - Clay pit mining, dimension stone mining or mining gemstones (including the material from which gemstones are extracted) - more than 100,000t but not more than 1,000,000t in a year	ML5906
Schedule 3 - 20(b) - Clay pit mining, dimension stone mining or mining gemstones (including the material from which gemstones are extracted) - more than 100,000t but not more than 1,000,000t in a year	ML5907
Schedule 3 - 20(b) - Clay pit mining, dimension stone mining or mining gemstones (including the material from which gemstones are extracted) - more than 100,000t but not more than 1,000,000t in a year	ML5909

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 *Planning Act 2016* 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.

Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Permits and Licensing/Operational Support
Department of Environment Science
GPO Box 2454, Brisbane QLD 4001
Phone: 1300 130 372 (Option 4)
Email: palm@des.qld.gov.au

Privacy statement

Pursuant to section 540 of the EP Act, the Department is required to maintain a register of certain documents and information authorised under the EP Act. A copy of this document will be kept on the public register. The register is available for inspection by members of the public who are able take extracts, or copies of the documents from the register. Documents that are required to be kept on the public register are published in their entirety, unless alteration is required by the EP Act. There is no general discretion allowing the Department to withhold documents or information required to be kept on the public register. For more information on the Department's public register, search 'public register' at www.qld.gov.au. For queries about privacy matters please email privacy@des.qld.gov.au or telephone 13 74 68.

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)

Conditions of environmental authority

Location:	ML5898, ML5900, ML5901, ML5902, ML5905, ML5906, ML5907, ML5909, ML50058
Relevant activity:	Schedule 2A - Clay pit mining, dimension stone mining or mining gemstones - item 20(b)

The environmentally relevant activity conducted at the location as described above must be conducted in accordance with the following site specific conditions of approval.

This **Environmental Authority** incorporates the following Schedules

- Schedule A General
- Schedule B Air
- Schedule C Water
- Schedule D Noise and Vibration
- Schedule E Waste
- Schedule F Land
- Schedule G Light
- Schedule H Community
- Schedule I Cultural Heritage
- Schedule J Definitions
- Schedule K Maps/Plans

ENVIRONMENTAL AUTHORITY CONDITIONS

Schedule A - General

Financial Assurance

(A1-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of activities proposed under this environmental authority.

NOTE: The calculation of financial assurance for condition (A1-1) must be in accordance with Guideline 17 and may include a performance discount. The calculation of financial assurance for must be in accordance with Guideline 17. The amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: (Financial Assurance= Highest Total Annual Rehabilitation Cost x Percentage Required).

(A1-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

NOTE: Where progressive rehabilitation is completed and acceptable to the administering authority, progressive reductions to the amount of financial assurance will be applicable where rehabilitation has been completed in accordance with the acceptance criteria defined within this environmental authority.

Maintenance of Measures, Plant and Equipment

(A2-1) The holder must:

a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; and
b) maintain such measures, plant and equipment in a proper condition; and
c) operate such measures, plant and equipment in a proper manner.

Monitoring

(A3-1) Record, compile and keep for a minimum of five years all monitoring results required by this environmental authority and make available for inspection all or any of these records upon request by the administering authority.

(A3-2) Where monitoring is a requirement of this environmental authority, ensure that a competent person(s) conducts all monitoring.

Storage and Handling of Flammable and Combustible Liquids

(A4-1) Spillage of all flammable and combustible liquids must be contained within an on-site containment system and controlled in a manner that prevents environmental harm.

(A4-2) All petroleum product storage's must be designed, constructed and maintained in accordance with AS 1940 - Storage and Handling of Flammable and Combustible Liquids.

(A4-3) The base and walls of all bunded areas must be maintained free from gaps or cracks that may result in the loss of containment.

Definitions

(A5-1) Words and phrases used throughout this environmental authority are defined in Attachment Schedule I - Definitions. Where a definition for a term used in this environmental authority is sought and the term is not defined within this environmental authority, the definitions in the Environmental Protection Act 1994, its Regulations and Environmental Protection Policies must be used.

END OF CONDITIONS FOR SCHEDULE A

Schedule B - Air

Dust nuisance

(B1-1) Subject to Conditions (B1-2) and (B1-3) the release of dust or particulate matter or both resulting from the mining activity or mineral processing must not cause an environmental nuisance, at any sensitive place.

(B1-2) When requested by the administering authority, dust and particulate monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive place, and the results must be notified within 14 days to the administering authority following completion of monitoring.

(B1-3) If the environmental authority holder can provide evidence through monitoring that the following limits are not being exceeded then the holder is not in breach of (B1-1):

a) Dust deposition of 120 milligrams per square metre per day, averaged over one month, when monitored in accordance with AS 3580.10.1 Methods for sampling and analysis of ambient air - Determination of particulates - Deposited matter - Gravimetric method of 1991; and
b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM10) suspended in the atmosphere of 150 micrograms per cubic metre over a 24 hour averaging time, at a sensitive place downwind of the operational land, when monitored in accordance with:
   - Particulate matter - Determination of suspended particulate PM10 high-volume sampler with size-selective inlet - Gravimetric method, when monitored in accordance with AS 3580.9.6 Methods for sampling and analysis of ambient air - Determination of suspended particulate matter - PM (sub) 10 high volume sampler with size-selective inlet - Gravimetric method of 1990; or
   - Any alternative method of sampling PM10, which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.

   NOTE: You must propose which monitoring method is appropriate in accordance with condition (B1-3) (a) or (b) or both.

(B1-4) If monitoring indicates exceedence of the relevant limits in Condition (B1-3), then the environmental authority holder must:

a) address the complaint including the use of appropriate dispute resolution if required; or
b) immediately implement dust abatement measures so that emissions of dust from the activity do not result in further environmental nuisance.

Odour Nuisance

(B2-1) Subject to condition (B2-2), the release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the mining activity or mineral processing must not cause a nuisance at any odour sensitive place.

(B2-2) When requested by the Administering Authority, odour monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive place, and the results must be notified within 14 days to the administering authority following completion of monitoring.

(B2-3) If monitoring indicates Condition (B2-1) is not being met then the environmental authority holder must:

i) address the complaint including the use of appropriate dispute resolution if required; or
ii) immediately implement odour abatement measures so that emissions of odour from the activity does not result in further environmental nuisance.

The Release of Contaminants to the Atmosphere

(B3-1) Subject to Conditions (B3-2) and (B3-3) the release of contaminants resulting from the mining activity or mineral processing must not cause an environmental nuisance, at any sensitive place.

(B3-2) When requested by the administering authority, dust and particulate monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive place, and the results must be notified within 14 days to the administering authority following completion of monitoring.

(B3-3) If the environmental authority holder can provide evidence through monitoring that the following limits are not being exceeded, then the holder is not in breach of (B3-1)

The release of contaminants to the atmosphere from a point source must only occur from those release points identified in Schedule B - Table 1 and must be directed vertically upwards without any impedance or hindrance.

(B3-4) Contaminants must be released to the atmosphere from a release point at a height and a flow rate not less than the corresponding height and velocity stated for that release point in Schedule B - Table 1 and not more that the efflux temperature state for the release point in Schedule B - Table 1.

(B3-5) Contaminants must not be released to the atmosphere from a release point at a mass emission rate/concentration, as measured at a monitoring point, in excess of that stated in Schedule B - Table 1.

(B3-6) If a complaint is made, monitoring provisions and monitoring points must be provided to the administering authority for all the release points listed in Schedule B - Table 1. The monitoring provisions and monitoring points must comply with the Australian Standard AS 4323.1 - 1995 "Stationary source emissions Method 1: Selection of sampling provisions."

(B3-7) If a complaint is made, the holder of this environmental authority must conduct a monitoring program of contaminant releases to the atmosphere at the release points, and for the parameters specified in Schedule B - Table 1 and which complies with the following:

(a) All determinations of the quality of contaminants released must be performed by a person or body possessing appropriate experience and qualifications to perform the required measurements.

(b) All determinations of the quality and quantity of contaminants released to the atmosphere must be made in accordance with methods prescribed in the 'Air Quality Sampling Manual' as published from time to time by the administering authority.

(c) The following test must be performed for each required determination specified in Schedule B - Table 1.

(i) gas velocity and volume flow rate;
(ii) temperature; and
(iii) water vapour concentration.

(d) Where practicable, samples taken must be representative of the contaminants discharged when emissions are expected to be maximum.

(e) During the sampling period, the following additional information must be gathered:

(i) production rate;
(ii) equipment operating ;
(iii) product made;
(iv) date of sampling;
(v) start and end time of sampling;
(vi) fuel rate and
(vii) proportion of each raw clay used

(f) Oxides of nitrogen must be calculated as NO_2 at a 7 percent oxygen level and total particulates must be determined where gas volume is calculated at 12 percent CO_2.

Schedule B - Table 1 (release of contaminants)

Release Point	Minimum release height (m)	Minimum velocity (m/sec)	Concentration of total suspended particulates g/Nm^3	Concentration of nitrogen oxides g/Nm^3
FA 11 Primary Dryer	6	8	0.25	0.35
FA23 Raymond Mill Bag House	6	8	0.25	N/A
FA 31 Fine Mill packaging Western Bag House	15	8	0.25	N/A
Course Mill Cyclone 1	8	8	0.25	N/A
Course Mill Cyclone 2	8	8	0.25	N/A
Fine Mill Eastern Bag House 1	14	8	0.25	N/A
Fine Mill Eastern Bag House 2	14	8	0.25	N/A

(B3-8) The only fuel to be used in the primary dryer is natural gas.

END OF CONDITIONS FOR SCHEDULE B

Schedule C - Water

Release to waters

(C1-1) Contaminants must not be released from the boundary of the mining lease to any waters or the bed and banks of any waters other than treated/settled contaminated stormwater from sediment dam(s) that is in accordance with condition C2-1 and C2-2 and the contaminant release limits in Schedule C -Table 3.

(C1-2) Receiving waters affected by the release of process water or storm water contaminated by the mining activities or both and the overflows from sediment dam(s) must be monitored at the locations and frequencies defined in Schedule C - Table 1 and 2.

(C1-3) Stormwater and sediment dam and process water released to receiving waters must comply with the contaminant release limits defined in Schedule C - Table 3.

Schedule C - Table 1 (Receiving water/stream monitoring locations and frequency)

Monitoring point	Location	Easting (MGA94 - Z56)	Northing (MGA94 - Z56)	Monitoring frequency
ML 5902 **AB-WMP-A** (Background)	50m upstream of AB-WMP-B ML5902 outlet in the L Tree Creek	205919	7074389	Every 3 months if flowing and in the event of release/overflow to waters
ML 5902 **AB-WMP-C** (Background)	50m downstream of AB-WMP-B ML5902 outlet point	206108	7074299	Every 3 months if flowing and in the event of release/overflow to waters
ML5902 **AB-WMP-8** (Background)	At ML5902 outlet point in L Tree Creek	205798	7074300	In the event of release/overflow to waters

NOTE: A monitoring point may also include a monitoring point requested by the administering Authority in the event of a release to waters

Schedule C - Table 2 (End of pipe monitoring locations and frequency)

Monitoring point	Easting (MGA94 - Z56)	Northing (MGA94 - Z56)	Monitoring frequency
AB-WMP-D ML5909 Outlet	208028	7070975	In the event of release/overilow to waters
AB-WMP-E ML 5909 Sediment dam or **AB-WMP-F** ML 5909 Outlet	208216	7071095	Every 3 months if flowing and in the event of release/overilow to waters

Schedule C - Table 3 (End of pipe contaminant release limits)

Parameter	Units	Minimum	Maximum
pH		6.0	8.0
Total Dissolved Solids	mg/L	-	4000
Sulphate	mg/L	-	1000
Calcium	mg/L	-	1000
Magnesium	mg/L	-	600

(C1-4) In the event that sediment dam water quality does not comply with the contaminant release limits defined in Schedule C - Table 3, implement measures to prevent access by all livestock and minimise access by fauna.

Site Water Management and Monitoring Plan

(C2-1) Within the twelve months of the date of issue of the environmental authority, the holder of this environmental authority must develop and implement a Site Water Management and Monitoring Plan to be managed through the Plan of Operations.

(C2-2) The Site Water Management and Monitoring Plan must:

(i) be carried out by a person possessing appropriate qualifications and experience in the field of surface water monitoring program design to be able to competently make recommendations about these matters;

(ii) identify the environmental values of the receiving waters (i.e. L Tree Creek) and water quality objectives (i.e. ANZECC trigger levels for stock watering) by monitoring locations upstream and downstream of the mining activity for water quality characteristics (including total dissolved solids mg/I, total suspended solids mg/I, turbidity NTU and pH) and identify how the receiving waters will be protected;

(iii) provide representative water sampling from L Tree Creek carried out with sufficient regularity and spatial and temporal replication to make statistically valid conclusions about the water quality;

(iv) give considerations to relevant methodology and water quality criteria by the Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand in Australian Guidelines for Water Quality Monitoring and Reporting 2000" and "Australian and New Zealand Guidelines of Fresh and Marine Water Quality 2000";

(v) determine potential environmental harm within the predicted zone of influence arising from mining activities;

(vi) incorporate a risk management approach to how changing levels of flood, drought and water quality risks should be addressed e.g. increasing the lip of sediments ponds to increase capacity;

(vii) manage recycling and stormwater discharge to minimise stormwater contaminated from the mining activities from reaching L Tree Creek;

(viii) develop and implement a system for emergency spills or discharges including procedures to minimise extent and duration of release, staff training, investigation and reporting procedures;

(ix) manage the environmental impacts of any uncontrolled release of wastewater to the environment so that any impacts are minimised e.g. improving sediment control measures;

(x) separate clean water from undisturbed areas and water from disturbed areas;

(xi) manage site water quality and quantity during the (3) phases of mining: development, operation and decommission and include a site water balance;

(xii) safeguard against the potential for soil erosion and acid drainage;

(xiii) provide details of operational monitoring and monitoring of hydrological processes including associated performance indicators.

(C2-3) The holder of this environmental authority must submit to the administering authority a draft of the Site Water Management and Monitoring Plan within three months of the date of issue of the environmental authority for comment prior to implementation of the plan.

(C2-4) A copy of the Site Water Management and Monitoring Plan and any subsequent amendment of the Site Water Management and Monitoring Plan must be kept at the place to which this environmentally relevant activity relates and be available for examination by Emergency Services Personnel or an authorised person on request.

(C2-5) A record of the results of the surface water-monitoring conducted, including background water quality monitoring must be kept and forwarded to the administering authority on request.

Sediment Dams

(C5-1) Storage capacity equal to the Design Storage Allowance must be available in the storage on 1st November of each year for sediment dam/s. The Design Storage Allowance must be equivalent to the run-off from the critical wet season in Schedule C - Table 4.

Schedule C - Table 4 (Storage Design)

Storage Type	Design Wet Period Storage	Spillway Critical Design Storm*
Voids	>1:100	>1:100
Sediment Dams (Four (4) on ML 5902) (Two (2) on ML5909)	1:10	1:20

* the critical storm has a duration that produces the peak discharge for the catchment

*** refers to volume below the spillway crest, either the ARI 72 hour storm or the ARI wave allowance, whichever is lower.

(C5-2) The spillway for any sediment dam constructed must be designed and maintained to withstand the peak flow from the critical design storm in Schedule C - Table 4.

(C5-3) The base and walls of the sediment dams must be constructed, installed and maintained:

(i) so as to minimise the likelihood of effluent through the bed or banks of the dam to any waters (including groundwater);
(ii) so as to ensure the stability of the dam(s) construction; and
(iii) so as to maintain a minimum freeboard of 0.5m.

Groundwater

(C6-1) Contaminants must not be directly or indirectly released to any aquifers.

(C6-2) Any draw down of groundwater must not impact on the users of groundwater.

Erosion and Sediment Control

(C7-1) All reasonable and practicable measures must be implemented and maintained to minimise erosion and the release of sediment to the environmental dams.

(C7-2) Erosion protection measures and sediment controls must be provided and maintained to effectively minimise any likelihood of erosion and release of sediments from the licensed place and be maintained during site clearing, construction, mining operations and rehabilitation. Such measures should include diversion drainage works and sedimentation traps and dams.

(C7-3) Erosion control and sediment control structures must be maintained at all times and repaired or replaced as required after each rainfall event.

(C7-4) In the event that a release from any dam is necessary the release must be managed in such as manner that prevents or minimises erosion of any watercourse or areas affected or potentially affected by the release.

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise Nuisance

(D1-1) Subject to condition (D1-2) and (D1-3), noise from the mining activity must not cause an environmental nuisance, at any sensitive or commercial place.

(D1-2) When requested by the administering authority, noise monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within 14 days to the administering authority following completion of monitoring.

(D1-3) If the environmental authority holder can provide evidence through monitoring that the limits defined in Schedule D - Table 1 are not being exceeded then the holder is not in breach of Condition (D1-1). Monitoring must include:

a) background noise level
b) $L_{A10, adj, 10 mins}$
c) $L_{A1, adj, 10 mins}$
d) $L_{A, max adj,T}$
e) the level and frequency of occurrence of impulsive or tonal noise;
f) atmospheric conditions including wind speed and direction;
g) effects due to extraneous factors such as traffic noise; and
location, date and time of recording.

(D1-4) If monitoring indicates exceedence of the limits in Schedule D - Table 1, then the environmental authority holder must:

a) address the complaint including the use of appropriate dispute resolution if required; or

a) implement noise abatement measures so that emissions of noise from the activity do not result in further environmental nuisance.

(D1-5) The method of measurement and reporting of noise levels must comply with the latest edition of the Environmental Protection Agency's Noise Measurement Manual.

Schedule D - Table 1 (Noise limits)

Noise level dB{A) measured as	Noise measured at a 'noise sensitive place.' Average hourly A-weighted sound pressure levels, LAr1 hour					
	Monday to Saturday			Sundays and public holidays		
	7am -6pm	6pm -10pm	10pm - 7am	9am -6pm	6pm -10pm	10pm - 9am
L Ar, 1 hour	50	45	40	50	45	40

END OF CONDITIONS FOR SCHEDULED

Schedule E - Waste

Storage of tyres

(E1-1) Tyres stored awaiting disposal or transport for take-back and, recycling, or waste-to-energy options - should be stockpiled in volumes less than 3m in height and 200 sq.m in area and at least 1Om from any other tyre storage area.

(E1-2) All reasonable and practicable fire prevention measures must be implemented , including removal of grass and other materials within a 1Om radius of the scrap tyre storage area.

(E1-3) All scrap tyres shall be removed from site prior to final rehabilitation.

Waste handling and management

(E2-1) The holder of this environmental authority must undertake waste management practices to ensure that wastes are minimised, recycled, stored, handled and transferred, etc in a proper and efficient manner in accordance with the Waste Management Hierarchy;

- waste avoidance e.g. minimising waste through cleaner production;
- waste reuse;
- waste recycling e.g. mulching green waste for re-vegetation;
- energy recovery from waste and
- waste disposal.

Note: The Waste Management Plan is to be managed through the Plan of Operations.

Notification of Improper Disposal of Regulated Waste

(E3-1) If the holder of this environmental authority becomes aware that a person has removed waste from the licensed place and disposed of the waste in a manner which is not authorised by this environmental authority or is improper or unlawful, then the holder of the environmental authority must, as soon as practicable, notify the administering authority of all relevant facts, matters and circumstances known concerning the disposal.

Emergency Response/ Contingency Plan

(E5-1) The holder of this environmental authority must develop and implement an Emergency Response/ Contingency Plan to manage the environmental impacts of uncontrolled release of contaminants to the environment.

(E5-2) The Emergency Response / Contingency Plan must address at least the following matters:

- response procedures to be implemented to reduce the likelihood of any release of contaminants to the environment;
- response procedures to prevent any further release or if such is not practicable, minimise the extent and duration of any release to the greatest practicable extent;
- the practices and procedures to be employed to restore the environment, or if such is not practicable, mitigate any environmental impacts of the release;
- a description of the resources to be used in response to a release; the training of staff that will be called upon to respond to a release;
- procedures to investigate the cause of any release, and where necessary, implement remedial actions to reduce the likelihood of recurrence of a similar event;
- the provision and availability of documented procedures to staff attending any release to enable them to effectively respond; and
- timely and accurate reporting of the circumstance and nature of release events to the administering authority.

(E5-3) A copy of the Emergency Response/ Contingency Plan and any subsequent amendment of the Emergency Response/ Contingency Plan must be kept at the place to which this environmentally relevant activity relates and be available for examination by Emergency Services Personnel or an authorised person on request.

END OF CONDITIONS FOR SCHEDULE E

Schedule F - Land

Weed Control

(F2-1) All areas within the mining lease will be managed to reduce the spread of declared plants including both disturbed and undisturbed areas.

Rehabilitation Landform Criteria

(F3-1) The holder of this environmental authority must develop and implement a Final Land Use and Rehabilitation Plan to ensure that all areas disturbed by mining activities will be suitably rehabilitated in accordance with Schedule F Table 1. The Plan must include, but is not limited to the following:

(i) a description of rehabilitation management techniques incorporating works and monitoring programs and timetables;

(ii) indicators for success; and

(iii) keeping of appropriate records or rehabilitation measures implemented including taking of photographs demonstrative of rehabilitation achieved and the preparation of annual rehabilitations progress reports. A summary of the annual rehabilitation progress report must be submitted to the administering authority with each annual return.

Note: The Final Land Use and Rehabilitation Plan is to be managed through the Plan of Operations.

(F3-2) All areas significantly disturbed by mining activities must be rehabilitated to the final land description as defined in Schedule F - Table 1.

Schedule F - Table 1 (Final Land Use and Rehabilitation Approval Schedule)

Tenure ID	**Disturbance type**	**Projective surface area (ha)**	**Post-mine land description**	**Post mine land <capability/ suitability > classification**
ML 5902, ML5909	Infrastructure	15.0	Marginal Grazing	vii
	Haul Roads	2.0	Marginal Grazing	vii
	Topsoil Stripped	0.5	Marginal Grazing	vii
	Active Pit (final void)	2.0	Marginal Grazing	viii

"land capability" as defined in the DME 1995 Technical Guideline for the Environmental management of Explorationand Mining in Queensland .

(F3-3) Progressive rehabilitation must commence when areas become available within the operational land.

Sustainable Final Land Use Outcomes

(F4-1) Areas that are to be progressively rehabilitated must comply with, but not be limited to, the following outcomes;

(i) All areas disturbed by mining activities must be rehabilitated to the landform design criteria defined in the Final Land Use and Rehabilitation Plan required by Condition F3-1 to F3-3.

(ii) The final landforms must be stable with erosion rates comparable to analogue site to allow for sediment control by planting native species.

Schedule F - Table 2 (Landform Design) for ML5909 and ML5902

Disturbance type	Slope range (%)	Projective surface area (ha)
Infrastructure	2-10	15.0
Haul Roads	2-10	2.0
Topsoil Stripped	2-10	0.5
Active pit (final void)	20-30 (1h:3v)	2.0

Residual Void Outcome

(F5-1) Residual voids must comply with the following outcomes;

a) residual voids must not cause any serious environmental harm to land, surface waters or any recognised groundwater aquifer, other than the environmental harm constituted by the existence of the residual void itself, and subject to any other condition within this environmental authority; and
b) residual voids must comply with Schedule F - Table 3.

(F5-2) A geo-technical assessment and associated report by a qualified professional who is a member of a credible external accreditation body, must be undertaken for all voids once they have been classified as a final void and prior to lease relinquishment, proposing acceptance criteria to meet the outcomes in (F3-1) and landform design criteria in Schedule F - Table 3.

The assessment and associated report must investigate final void geo-technical stability and make recommendations for management for constructing safety barriers on high walls prior to lease relinquishment to restrict human and animal access. The geo-technical assessment report must be made available to the administering authority upon request. The geo-technical assessment and management actions to rectify final void instability must be detailed in the POOP.

Schedule F - Table 3 (Residual Void Design)

Void Identification	Void wall - competent rock max slope (%)	Void wall - incompetent rock max slope (%)	Void maximum surface area (ha)
Final Void	N/A	30	2.0

Infrastructure

(F6-1) All infrastructure, constructed by or for the environmental authority holder during the mining activities including water storage structures, must be removed from the site prior to mining lease surrender, except where agreed in writing by the post mining land owner/holder.

NOTE: This is not applicable where the landowner/holder is also the environmental authority holder.

END OF CONDITIONS FOR SCHEDULE F

Schedule G - Light

(G1-1) Subject to condition (G1-2) and (G1-3), the emission of light resulting from the mining activity must not cause an environmental nuisance at any sensitive place.

(G1-2) When requested by the administering authority, an assessment of the light nuisance* must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any compliant (with in neither frivolous nor vexatious based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive place, and the results must be notified within 14 days of the administering authority following completion of the assessment.

(G1-3) If the assessment indicates condition (G1-1) is not being met then the environmental authority holder must:

(a) address the complaint including the use of appropriate dispute resolution if requires; or
(b) immediately implement light abatement measures so the emissions of light from the activity do not result in further environmental nuisance.

(*= Assessment to be conducted according to and with reference to the limits specified in AS 4282-1997 Control of the Obtrusive Effects of Outdoor lights).

END OF CONDITIONS FOR SCHEDULE G

Schedule H - Community

Complaint recording/response

(H1-1) All complaints received by the holder of this environmental authority relating to the environmentally relevant activity must be recorded in a logbook with the following details:

- time and date of complaint;
- details of complaint;
- type of communication (telephone, letter, personal etc.);
- name, contact address and contact telephone number of complainant (Note: if the complainant does not wish to be identified then "Not identified" is to be recorded);
- response and investigation undertaken as a result of the complaint;
- name of person responsible for investigating complaint; and
- action taken as a result of the complaint investigation and signature of responsible person.

(H1-2) The complaints record required by condition number H1-1 must be maintained for a period of not less than three (3) years.

Notification of Emergencies and Incidents

(H2-1) As soon as practicable 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, the holder of this environmental authority must notify the administering authority as soon as possible.

(H2-2) The notification of emergencies or incidents as required by condition number H1-1 must include but not be limited to the following:

- the holder of the environmental authority;
- the location of the emergency or incident;
- the number of the environmental authority;
- the name and telephone number of the designated contact person;
- the time of the release;
- the time the holder of the environmental authority became aware of the release;
- the suspected cause of the release;
- the environmental harm and or environmental nuisance caused, threatened, or suspected to be caused by the release; and
- actions taken to prevent further any release and mitigate any environmental harm and or environmental nuisance caused by the release.

(H2-3) Not more than fourteen (14) days following the initial notification of an emergency or incident, the holder of the environmental authority must provide written advice of the information supplied in accordance with condition number H2-2 in addition to:

- proposed actions to prevent a recurrence of the emergency or incident;
- outcomes of actions taken at the time to prevent or minimise environmental harm and or environmental nuisance; and
- the results of any environmental monitoring performed.

Exception Reporting

(H3-1) The holder of this environmental authority must notify the administering authority in writing of any monitoring result that indicates an exceedence of or non-compliance with any environmental authority limit within twenty-eight (28) days of completion of analysis.

(H3-2) The written notification required by condition number H3-1 above must include:

- the full analysis results;
- details of investigation or corrective actions taken; and
- any subsequent analysis.

END OF CONDITIONS FOR SCHEDULE H

Schedule I - Cultural Heritage

(I1-1) The environmental authority holder must act in accordance with the cultural heritage management plan, signed in consultation with the traditional custodian for active mining lease 5909.

END OF CONDITIONS FOR SCHEDULE I

Schedule J - Definitions

"acceptance criteria" means the measures by which the actions implemented to rehabilitate the land are deemed to be complete (same as completion criteria).

"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).

"ambient (or total) noise" at a place, means the level of noise at the place from all sources (near and far), measured as the Leq for an appropriate time interval.

"authority" means environmental authority (mining activities) under the Environmental Protection Act 1994.

"blasting" means the use of explosive materials to fracture-

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

"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.

"competent person" means a person with the demonstrated skill and knowledge required to carry out the task to a standard necessary for the reliance upon collected data or protection of the environment.

"dam" means a containment or proposed containment whether permanent or temporary, which does, would, or could contain, divert or control flowable substances. However this does not include a fabricated or manufactured tank or container designed to a recognised standard.

"declared plant" means a plant that has been declared under the *Land Protection (Pest and Stock Route Management) Act 2002.*

"design plan" in the context of a dam design is the documentation required under the Code of Environmental Compliance for Environmental Authorities for High Hazard Dams Containing Hazardous Waste to describe the physical dimensions of the dam, the materials and standards to be used for construction of the dam, the procedures and criteria to be used for operating the dam and the decommissioning and rehabilitation objectives in terms of procedures, works and outcomes at the end of the dam life. The documents can include design and investigation reports, drawings, specifications and certifications.

"environmental authority holder" means the holder of this environmental authority.

"high hazard dam" means a dam defined as high hazard in the EPA Information Sheet on Determining Dams Containing Hazardous Waste.

"infrastructure" means water storage 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 landowner.

"$L_{A\,10,\,adj,\,10\,mlns}$" means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 10% of any 10-minute measurement period, using Fast response.

"$L_{A\,1,\,adJ,\,10\,mins}$" means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 1% of any 10-minute measurement period, using Fast response

"$L_{A,\,max\,adj,\,1}$" means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over any 10 minute period, using Fast response.

"$L_{Ar,1hour}$" means the rating level measured over any one hour period, defined as:

$L_{Ar,1hour} = L_{Aeq,1hour} + K_1 + K_2$, where

"K_1" means the tone adjustment applicable to any one hour measurement period, and

"K_2" means the impulse adjustment applicable to any one-hour measurement period.

"$L_{Aeq,1hour}$" means the time-average A-weighted sound pressure level over any one hour measurement period.

"land" in the "land Schedule 2" of this document means land excluding waters and the atmosphere.

"land capability" as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland.

"land suitability" as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland.

"land use" term to describe the selected post mining use of the land, which is planned to occur after the cessation of mining operations.

"leachate" means a liquid that has passed through or emerged from, or is likely to have passed through or emerged from, a material stored, processed or disposed of at the operational land which contains soluble, suspended or miscible contaminants likely to have been derived from the said material.

"low hazard dam" means dams defined as low hazard in the EPA Information Sheet on Determining Dams Containing Hazardous Waste.

"noxious" means harmful or injurious to health or physical well being, other than trivial harm.

"non-standard" means a mining operation that if in the opinion of the administering authority does not have a low risk of serious environmental harm and the activities can not comply with the criteria for standard mining activities prescribed in Schedule 2 1A of the Environmental Protection Regulation 1998. The standard mining activity trigger criteria are as follows;

- the mining activities do not or will not cause more than 1O ha of land to be significantly disturbed at any one time;
- the mining activities do not or will not cause more than 5 ha of land to be significantly disturbed at any one time;
    a) in a riverine area;
    b) because of mine workings;
- the mining activities are not or will not be carried out in, or within 2 km of a category A Environmentally Sensitive Area;
- the mining activities are not or will not be carried out in, or within 1 km of a category B environmentally sensitive area;
- the mining activities do not include a level 1 environmentally relevant activity
- no more than 20 persons are carrying out or will, at any one time, carry out the mining activities;

"offensive" means causing reasonable offence or displeasure; is disagreeable to the sense; disgusting, nauseous or repulsive, other than trivial harm.

"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 (mms-1).

"protected area" means - a protected area under the Nature Conservation Act 1992; or

- a marine park under the Marine Parks Act 1992; or
- a World Heritage Area.

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or a staged approach to rehabilitation as mining operations are ongoing.

"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.

"representative" means a sample set, which covers the variance in monitoring or other data, either due to natural changes or operational phases of the mining activities.

"residual void" means an open pit resulting from the removal of ore and/or waste rock, which will remain following the cessation of all mining activities and completion of rehabilitation processes.

"self sustaining" means an area of land, which has been rehabilitated and has maintained the required acceptance criteria without human intervention for a period nominated by the administering authority.

"significant disturbance" - includes land

(a) if it is contaminated land; or
(b) it has been disturbed and human intervention is needed to rehabilitate it.

i. to a state required under the relevant environmental authority; or
ii. if the environmental authority does not require the land to be rehabilitated to a particular state - to its state immediately before the disturbance.

Some examples of disturbed land include:

- areas where soil has been compacted, removed , covered, exposed or stockpiled;
- areas where vegetation has been removed or destroyed to an extent where the land has been made susceptible to erosion; (vegetation & topsoil)
- areas where land use suitability or capability has been diminished;
- areas within a watercourse, waterway, wetland or lake where mining activities occur; areas submerged by ash or hazardous contaminant storage and dam walls in all cases; areas under temporary infrastructure. Temporary infrastructure includes any infrastructure (roads, tracks, bridges, culverts , dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be removed after mining activities have ceased; or
- areas where land has been contaminated and a suitability statement has not been issued.

However, the following areas are not included:

- areas off lease (e.g. roads or tracks which provide access to the mining lease);
- areas previously significantly disturbed which have achieved the rehabilitation outcomes;
- by agreement with the EPA, areas previously significantly disturbed which have not achieved the rehabilitation objective(s) due to circumstances beyond the control of the mine operator (such as climatic conditions);
- areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc), which is to be left by agreement with the landowner. The agreement to leave permanent infrastructure must be recorded in the Landowner Agreement and lodged with the EPA;
- disturbances that pre-existed the grant of the tenure unless those areas are disturbed during the term of the tenure.

"sensitive place" means;

- a dwelling, resident ial 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 employees accommodation or public roads.

"stable" means geotechnical stability of the rehabilitated landform where instability related to the excessive settlement and subsidence caused by consolidation / settlement of the wastes deposited, and sliding/ slumping instability has ceased.

"trivial harm" means environmental harm, which is not material or serious environmental harm and will not cause actual or potential loss or damage to property of an amount of, or amounts totalling more than $5,000.

"waters" includes 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.

END OF CONDITIONS FOR SCHEDULE J

Schedule K - Maps / Plans

No maps/plans for this schedule

END OF ENVIRONMENTAL AUTHORITY