Permit[1]

Environmental Protection Act 1994

Environmental authority EPML00497413

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

Permit[1] number: EPML00497413

Environmental authority takes effect on 3 July 2017

The anniversary date of this environmental authority is the 23 December. An annual return and the payment of the annual fee will be due each year on this day.

Environmental authority holder(s)

Name	Registered address
Mt Norma Mining Company Pty Limited	Suite 2004, Level 20 201 Elizabeth Street SYDNEY NSW 2000

Environmentally relevant activity and location details

Environmentally relevant activity(ies)	Location(s)
Prescribed activities (schedule 2 ERAs) ERA 31 2(a) Mineral Processing – Mineral processing 1,000 – 100,000 t/yr ERA 8 (2) Chemical storage 50t or more of chemicals of dangerous goods Class 6, division 6.1 in containers capable of holding at least 900kg of the chemicals ERA 8 (5) Chemical storage 200m3 or more of chemicals that are liquids, in containers of at least 10m3, other than chemicals mentioned in items 1 to 3 Resource Activities (Schedule 2A ERAs) Mining Copper Ore – ERA 17	ML2506 ML2550 ML2551 ML90172 ML90173 ML90174 ML90175 ML90176

[1] Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation

Additional information for applicants

Environmentally relevant activities

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

An environmental authority authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the authority 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 if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within 22 business days after becoming so aware, give written notice to the chief executive.

T. Gibbs	03/07/2017
Signature	Date

Teale Gibbs
Delegate of the administering authority
Environmental Protection Act 1994

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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: ML2506, ML2550, ML2551, ML90172, ML90173, ML90174, ML90175, ML90176

25 kilometres south east of Cloncurry

This **environmental authority** incorporates the following schedules:

Schedule A – General

Schedule B – Air

Schedule C – Waste

Schedule D – Noise

Schedule E – Groundwater

Schedule F – Surface Water

Schedule G – Regulated Structures

Schedule H – Land and Rehabilitation

Schedule I – Definitions

Schedule J – Figures

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

Schedule A – General

Activity

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.

A2 In carrying out the mining activity authorised by this environmental authority, the holder of this environmental authority must comply with **Schedule J – Figure J1 (Project Infrastructure and Site Layout)** [1].

1. Schedule J – Figure J1 (Project Infrastructure and Site Layout). An updated Project Infrastructure and Site Layout map must be provided to the administering authority before recommencement of processing and/or mining activities.

A3 The holder of this environmental authority must:

a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority

b) maintain such measures, plant and equipment in a proper and efficient condition

c) 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

A4 Except where specified otherwise in another condition of this authority, all monitoring records or reports required by this environmental authority must be kept for a period of not less than 5 years.

Financial Assurance

A5 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.

A6 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

A7 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 15 January 2015.

Notification of emergencies, incidents and exceptions

A8 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.

A9 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:

a) results and interpretation of any samples taken and analysed;

b) outcomes of actions taken at the time to prevent or minimise unlawful environmental harm; and

c) proposed actions to prevent a recurrence of the emergency or incident.

Complaints

A10 The holder of this environmental authority must record all environmental complaints received about the mining activities including:

a) name, address and contact number for of the complainant

b) time and date of complaint

c) reasons for the complaint

d) investigations undertaken

e) conclusions formed

f) actions taken to resolve the complaint

g) any abatement measures implemented

h) person responsible for resolving the complaint.

A11 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

A12 The holder of this environmental authority must:

a) within 1 year of the commencement of this environmental authority, obtain from an appropriately qualified person a report on compliance with the conditions of this environmental authority,

b) obtain further such reports at regular intervals, not exceeding 3 yearly intervals, from the completion of the report referred to above; and

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

A13 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:

a) 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, or where the amendment or change relates specifically to regulated structures referred to in conditions of Schedule G, the time specified in the conditions.

b) 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

A14 All exploration activities carried out on the mining leases must comply with the *Code of Environmental Compliance for Exploration and Mineral Development Projects.*

Storage and Handling of Flammable and Combustible Liquids

A15 All explosives, hazardous chemicals, corrosive substances, toxic substances, gases and dangerous goods must be stored and handled in accordance with the current, relevant Australian standard where such is applicable.

Monitoring data, records and reports

A16 The holder of this environmental authority must, upon request from the administering authority, supply monitoring data, records and reports required by this environmental authority, in the specified format within 10 business days of a request.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust and Particulate Matter Monitoring

B1 The holder of this environmental authority must 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 1 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 5 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.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Waste

Waste Management

C1 General waste must only be disposed of into the waste disposal cell on ML90172 and identified in **Schedule J – Figure J1 (Project Infrastructure and Site Layout)** [1].

1. Schedule J – Figure J1 (Project Infrastructure and Site Layout). An updated Project Infrastructure and Site Layout map must be provide to the administering authority before recommencement of processing and/or mining activities.

C2 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.

END OF CONDITIONS FOR SCHEDULE C

Schedule D – Noise

Noise and Vibration Nuisance

D1 Noise and vibration from the mining activity must not cause an environmental nuisance at any sensitive or commercial place.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Groundwater

Contaminant release

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

Monitoring and Reporting

E2 All determinations of groundwater quality and biological monitoring must be performed by an appropriately qualified person.

E3 Groundwater quality and levels must be monitored at the locations and frequencies defined in **Schedule E – Table E1 (Groundwater Monitoring Locations and Frequency)** and **Schedule J – Figure J2 (Groundwater Bore Monitoring Locations)** for quality characteristics identified in **Schedule E – Table E2 (Groundwater Quality Triggers and Limits)**.

Schedule E – Table E1 (Groundwater Monitoring Locations and Frequency)

Monitoring Point	Coordinates (GDA94)		Surface RL[2] (m)	Monitoring Frequency
	Latitude	Longitude		
Reference Bore[1]				
Reference Bore	-20.9072	140.6964	232.77	Quarterly
Compliance Bores				
No 1 Bore	-20.9056	140.6972	232.28	Quarterly
No 2 Bore	-20.9043	140.6976	229.3	Quarterly
WDC_1	TBA [3]	TBA[3]	TBA [3]	Quarterly
WDC_2	TBA[3]	TBA[3]	TBA [3]	Quarterly
WDC_3	TBA[3]	TBA[3]	TBA [3]	Quarterly

1. *Reference sites must:*
   - *a) Be from the same biogeographic and climatic region; and*
   - *b) Have similar geography, soil types and topography; and*
   - *c) Contain a range of habitats similar to those at the test sites; and*
   - *d) A similar flow regime; and*
   - *e) Not be so close to the test sites that any disturbance at the test site also results in a change at the reference site.*

2. RL must be measured to the nearest 5cm from the top of the bore casing

3. Monitoring locations to be identified and provided on the construction of the WDC.

Schedule E – Table E2 (Groundwater Quality Triggers and Limits)

Parameter[1]	Unit	Contaminant Triggers	Contaminant Limit
pH	pH Unit	6.0 [2] (minimum) 7.5 [2] (maximum)	6.0 (minimum) 9.0 (maximum)
EC	µS/cm	250 [5] or 80th percentile of reference site concentration [6] whichever is higher	1000 [3] or 95th percentile of reference site concentration [6] whichever is lower
TDS	mg/L	4000 [3] or 80th percentile of reference site concentration [6] whichever is higher	5000 [3] or 95th percentile of reference site concentration [6] whichever is lower
Sulphate	mg/L	80th percentile of reference site concentration [6]	1000 [4] or 95th percentile of reference site concentration [6] whichever is lower
Cadmium	mg/L	0.0002 [2] or 80th percentile of reference site concentration [6] whichever is higher	0.01 [3] or 95th percentile of reference site concentration [6] whichever is lower
Chromium	mg/L	0.0033 [2] or 80th percentile of reference site concentration [6] whichever is higher	1 [3] or 95th percentile of reference site concentration [6] whichever is lower
Cobalt	mg/L	0.0014 [2] or 80th percentile of reference site concentration [6] whichever is higher	1 [3] or 95th percentile of reference site concentration [6] whichever is lower
Copper	mg/L	0.0014 [2] or 80th percentile of reference site concentration [6] whichever is higher	1 [3] or 95th percentile of reference site concentration [6] whichever is lower
Lead	mg/L	0.0034 [2] or 80th percentile of reference site concentration [6] whichever is higher	0.1 [3] or 95th percentile of reference site concentration [6] whichever is lower
Zinc	mg/L	0.008 [2] or 80th percentile of reference site concentration [6] whichever is higher	20 [3] or 95th percentile of reference site concentration [6] whichever is lower

1. *For water quality objectives parameters, all metals and metalloids must be measured and reported as both total (unfiltered) and dissolved (field filtered) levels.*
2. *ANZECC/ARMCANZ (2000) values for aquatic ecosystems indicative of slightly-to-moderately disturbed tropical Australian upland river ecosystems Tables 3.3.4 and Table 3.4.1 (high reliability trigger values) and moderate or low reliability trigger values (Section 8.3) if no value available in Table 3.4.1.*
3. *ANZECC/ARMCANZ (2000) values for livestock drinking water quality Table 4.3.1 and Table 4.3.2.*
4. *ANZECC/ARMCANZ (2000) major ions of concern for livestock drinking water quality Section 4.3.3.4 – Volume 1.*
5. *ANZECC/ARMCANZ (2000) values for aquatic ecosystems indicative of slightly-to-moderately disturbed tropical Australian upland river ecosystems Table 3.3.5 for EC.*
6. *Reference value determined from reference bore specified in Schedule E -Table 1 (Groundwater Monitoring Locations and Frequency).*

Note: The method of sampling of waters must comply with that set out in the latest edition of the Environmental Protection Agency's Water Quality Sampling Manual.

Exceedance Investigation

E4 If a contaminant concentration measured at a compliance bore specified in **Schedule E – Table E1 (Groundwater Monitoring Locations and Frequency)** exceeds any trigger level specified in **Schedule E – Table E2 (Groundwater Quality Triggers and Limits)**, the environmental authority holder must compare this result to the applicable reference bore; and

a) If the contaminant concentration measured at the compliance bore is equal to or less than the contaminant concentration measured at the applicable reference bore, no further action is required; or
b) If the contaminant concentration measured at the compliance bore is greater than the contaminant concentration measured at the applicable reference bore:

i. Notify the administering authority within 24 hours of becoming aware of the trigger level exceedance; and

ii. Undertake further sampling of potentially impacted receiving waters for all contaminants specified in **Schedule E – Table E2 (Groundwater Quality Triggers and Limits)**; and

iii. Complete an investigation into the potential for environmental harm to occur in accordance with ANZECC (2000) methodology, within three months of identifying this exceedance; and

iv. Within one week of completing the investigation, provide a written report to the administering authority detailing all pertinent aspects of the investigation (such as objectives, applied methodology, investigation outcomes, assumptions relied upon and justification for any assertions made) and any actions undertaken and/or proposed to prevent or minimise environmental harm.

Note: *Where a contaminant trigger level exceedance has occurred and is under investigation in accordance with condition **E4**, no further reporting is required for subsequent exceedance events of that contaminant during the course of the investigation.*

E5 Results of monitoring of groundwater from compliance bores identified in **Schedule E – Table E1 (Groundwater Monitoring Locations and Frequency)** must not exceed any of the contaminant limits defined in **Schedule E – Table E2 (Groundwater Quality Triggers and Limits)**.

Bore construction and maintenance and decommissioning

E6 The construction, maintenance and management of groundwater bores (including groundwater monitoring bores) must be undertaken in a manner that prevents or minimises impacts to the environment and ensures the integrity of the bores to obtain accurate monitoring.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Surface Water

Release to Waters

F1 The release of contaminants to waters must:

(a) only occur during flow events in the receiving waters;

(b) only occur from a release point specified in **Schedule F – Table F1 (Release Point)**; and

(c) be monitored at the release point and at the monitoring frequency specified in **Schedule F – Table F1 (Release Point)** for the total daily volume of water released and for each parameter specified in **Schedule F – Table F2 (Release Quality Objectives)**.

Schedule F – Table F1 (Release Point)

Release Point	Description of Release	Receiving Water	Coordinates (GDA94)		Monitoring frequency
			Easting	Northing	
Sedimentation/ Storm water containment dam	Contaminated runoff from Mt Norma open cut mine	Mountain Home Creek	-20.916118	140.701934	For all parameters, 1 sample must be taken within 12 hours of a release event commencing and for release events with duration of greater than 24 hours, samples must be taken daily for 1 week and once a week thereafter until the release event ceases.

F2 Water contaminated by mining activities when monitored at the location and frequency defined in **Schedule F – Table F1 (Release Point)** must not exceed the release quality contaminant limits defined in **Schedule F – Table F2 (Release Quality Objectives)**.

F3 If an exceedance in accordance with condition F2 is identified, the holder of the authority must notify the administering authority within 14 days of receiving the result.

Schedule F – Table F2 (Release Quality Objectives)

Release Quality Objectives		
Parameter[1]	Release Quality Trigger (mg/L unless otherwise specified)	Release Quality Contaminant Limit (mg/L unless otherwise specified)
pH (pH units)	6.0 (minimum) 7.5 (maximum)	6.0 (minimum) 8.5 (maximum)

Release Quality Objectives		
Parameter[1]	**Release Quality Trigger (mg/L unless otherwise specified)**	**Release Quality Contaminant Limit (mg/L unless otherwise specified)**
EC (µS/cm)	20 x 250 [3] or 20 x 80th percentile of reference site concentration, whichever is higher [4]	1000 [6] or 95th percentile of reference site concentration [4] whichever is lower
Sulphate	20 x 80th percentile of reference site concentration [4]	1000 [7] or 95th percentile of reference site concentration [4] whichever is lower
Antimony	20 x 0.009 [2] or 20 x 80th percentile of reference site concentration, whichever is higher [4]	95th percentile of reference site concentration [4] whichever is lower
Arsenic[5]	20 x 0.013 [2] or 20 x 80th percentile of reference site concentration [4], whichever is higher	0.5 [6] or 95th percentile of reference site concentration [4] whichever is lower
Cadmium	20 x 0.0002 [2] or 20 x 80th percentile of reference site concentration [4], whichever is higher	0.01 [6] or 95th percentile of reference site concentration [4] whichever is lower
Chromium[5]	20 x 0.001 [2] or 20 x 80th percentile of reference site concentration[4], whichever is higher	1 [6] or 95th percentile of reference site concentration [4] whichever is lower
Cobalt	20 x 0.0014 [2] or 20 x 80th percentile of reference site concentration [4], whichever is higher	1 [6] or 95th percentile of reference site concentration [4] whichever is lower
Copper	20 x 0.0014 [2] or 20 x 80th percentile of reference site concentration [4], whichever is higher	1 [6] or 95th percentile of reference site concentration [4] whichever is lower
Lead	20 x 0.0034 [2] or 20 x 80th percentile of reference site concentration [4], whichever is higher	0.1 [6] or 95th percentile of reference site concentration [4] whichever is lower
Manganese	20 x 1.9 [2] or 20 x 80th percentile of reference site concentration [4], whichever is higher	95th percentile of reference site concentration [4] whichever is lower
Nickel	20 x 0.011 [2] or 20 x 80th percentile of reference site concentration [4], whichever is higher	1 [6] or 95th percentile of reference site concentration [4] whichever is lower
Zinc	20 x 0.008 [2] or	20 [6] or

Release Quality Objectives		
Parameter[1]	**Release Quality Trigger (mg/L unless otherwise specified)**	**Release Quality Contaminant Limit (mg/L unless otherwise specified)**
	20 x 80th percentile of reference site concentration [4], whichever is higher	95th percentile of reference site concentration [4] whichever is lower
Mercury	20 x 0.00006 [2] or 20 x 80th percentile of reference site concentration [4], whichever is higher	0.002 [6] or 95th percentile of reference site concentration [4] whichever is lower

1. *For water quality objectives parameters, all metals and metalloids must be measured and reported as both total (unfiltered) and dissolved (field filtered) levels.*
2. *Twenty (20) times contaminant trigger level based on ANZECC/ARMCANZ (2000) Table 3.3.4 values for aquatic ecosystems indicative of slightly-to-moderately disturbed tropical Australian upland river ecosystems, Table 3.4.1 (high reliability trigger values) and Section 8.3 moderate or low reliability trigger values if no value available in Table 3.4.1.*
3. *Twenty (20) times contaminant trigger level based on ANZECC/ARMCANZ (2000) values for aquatic ecosystems indicative of slightly-to-moderately disturbed tropical Australian upland river ecosystems Table 3.3.5 for EC.*
4. *Reference site concentration determined from reference site specified in Schedule F - Table F3 (Receiving Water Monitoring Locations).*
5. *Routine analysis for this parameter is based on combined/total species of the element, where the exceedance of the WQO is identified, an additional sample must be taken and analysed as soon as practicable to determine and quantify speciated forms of this element. This does not apply to sediment analysis.*
6. *ANZECC/ARMCANZ (2000) values for livestock drinking water quality Table 4.3.2.*
7. *ANZECC/ARMCANZ (2000) major ions of concern for livestock drinking water quality Section 4.3.3.4 – Volume 1*

Note: Where the 80th percentile of a water quality objective (WQO)/sediment quality objective (SQO) is exceeded at a receiving water site and the reference site also exceeds this concentration during the release/flow event, the value of the reference site applies as the WQO/SQO for the duration of the event.

Note: The method of sampling of waters must comply with that set out in the latest edition of the Environmental Protection Agency's Water Quality Sampling Manual.

Exceedance Investigation

F4 If quality characteristics from the release point identified in **Schedule F – Table F1 (Release Point)** exceed any of the release quality trigger amounts specified in **Schedule F – Table F2 (Release Quality Objectives)** during a release event, the environmental authority holder must compare the downstream results in the receiving water to trigger values specified in **Schedule F – Table F2 (Release Quality Objectives)** and:

a) where the trigger values are not exceeded then no action is to be taken; or

b) where the downstream results exceed the trigger values specified in **Schedule F – Table F2 (Release Quality Objectives)** for any quality characteristic, compare the results of the downstream site to the reference monitoring site and:

1. If the result is less than the reference monitoring site data, then no action is to be taken; or
2. If the result is greater than the reference monitoring site data, complete an investigation into the potential for environmental harm and provide a written report to the administering authority within 90 days of receiving the result, outlining:

i. details of the investigation carried out; and

ii. actions taken to prevent environmental harm.

Note: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with F4 b (2) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.

F5 An investigation conducted in accordance with condition F4 must include consideration of potential harm within the mixing zone.

Receiving Environment Monitoring

F6 The release of contaminants from the authorised activity to surface waters must not exceed the water quality objectives stated in **Schedule F – Table F3 (Receiving Water and Sediment Quality Objectives and Monitoring Frequency)** when measured at the compliance points stated in **Schedule F – Table F4 (Receiving Waters Monitoring Locations)** and **Schedule J – Figure J3 (Receiving Water Monitoring Locations)**.

F7 The quality of receiving surface waters must be monitored at the locations specified in **Schedule F – Table F4 (Receiving Waters Monitoring Locations)** for the parameters and at the frequencies stated in **Schedule F – Table F3 (Receiving Water and Sediment Quality Objectives and Monitoring Frequency).**

Schedule F – Table F3 (Receiving Water and Sediment Quality Objectives and Monitoring Frequency)

Parameter [1]	**Water Quality Objective (mg/L unless otherwise specified)**	**Monitoring Frequency for Water**	**Sediment Quality Objective [2] (mg/kg dry wt, unless otherwise specified)**	**Monitoring Frequency for Sediment**
pH (pH units)	6.0 (minimum) 7.5 (maximum)	Within 24 hours of a release; and Monthly during flow event	Not applicable	Twice a year (once at the end of the wet season and once at the end of the dry season)
EC (µS/cm)	250 [4] or 80th percentile of reference site concentration whichever is higher			
Sulphate	80th percentile of reference site concentration		2 x reference site concentration	
Antimony	0.009 [3] or 80th percentile of reference site concentration whichever is higher		25 [6] or 2 x reference site concentration whichever is higher	
Arsenic [5]	0.013 [3] or 80th percentile of reference site concentration whichever is higher		70 [6] or 2 reference site concentration whichever is higher	
Cadmium	0.0002 [3] or 80th percentile of reference site concentration whichever is higher		10 [6] or 2 x reference site concentration whichever is higher	
Chromium [5]	0.001 [3] or 80th percentile of reference site		370 [6] or 2 x reference site	

Parameter [1]	Water Quality Objective (mg/L unless otherwise specified)	Monitoring Frequency for Water	Sediment Quality Objective [2] (mg/kg dry wt, unless otherwise specified)	Monitoring Frequency for Sediment
	concentration whichever is higher	Within 24 hours of a release; and Monthly during flow event	concentration whichever is higher	Twice a year (once at the end of the wet season and once at the end of the dry season)
Cobalt	0.0014 [3] or 80th percentile of reference site concentration		2 x reference site concentration	
Copper	0.0014 [3] or 80th percentile of reference site concentration whichever is higher		270 [6] or 2 x reference site concentration whichever is higher	
Lead	0.0034 [3] or 80th percentile of reference site concentration whichever is higher		220 [6] or 2 x reference site concentration whichever is higher	
Manganese	1.9 [3] o or 80th percentile of reference site concentration whichever is higher		2 x reference site concentration	
Nickel	0.011 [3] or 80th percentile of reference site concentration whichever is higher		52 [6] or 2 x reference site concentration whichever is higher	
Zinc	0.008 [3] or 80th percentile of reference site concentration whichever is higher		410 [6] or 2 x reference site concentration whichever is higher	
Mercury	0.00006 [3] or 80th percentile of reference site concentration whichever is higher		1 [6] or 2 x reference site concentration whichever is higher	

1. *For water quality objectives parameters, all metals and metalloids must be measured and reported as both total (unfiltered) and dissolved (field filtered) levels.*
2. *All stream sediment sampling must be undertaken in accordance with AS 5667.12 Guidance on Sampling of Bottom Sediments of 1998.*
3. *ANZECC/ARMCANZ (2000) Table 3.3.4 values for aquatic ecosystems indicative of slightly-to-moderately disturbed tropical Australian upland river ecosystems, Table 3.4.1 (high reliability trigger values) and Section 8.3 moderate or low reliability trigger values if no value available in Table 3.4.1.*
4. *ANZECC/ARMCANZ (2000) values for upland and lowland rivers Table 3.3.5.*
5. *Routine analysis for this parameter is based on combined/total species of the element, where the exceedance of the WQO is identified, an additional sample must be taken and analysed as soon as practicable to determine and quantify speciated forms of this element. This does not apply to sediment analysis.*
6. *ANZECC (2000) Interim Sediment Quality Guidelines Table 3.5.1 – ISQG – high values based on total sediments (dry weight).*

Note: Where the 80th percentile of a water quality objective (WQO)/sediment quality objective (SQO) is exceeded at a receiving water site and the reference site also exceeds this concentration during the release/flow event, the value of the reference site applies as the WQO/SQO for the duration of the event.

Note: The method of sampling of waters must comply with that set out in the latest edition of the Environmental Protection Agency's Water Quality Sampling Manual.

Schedule F – Table F4 (Receiving Waters Monitoring Locations)

Monitoring Point	Description	Location	
		Latitude (GDA94)	Longitude (GDA94)
Reference Point [1]			
C	Llewellyn Creek – Reference Point	-20.9087	140.6964
Compliance Point			
A	Llewellyn Creek	-20.9023	140.6988
B	Mountain Home Creek	-20.9161	140.702
D	Mountain Home Creek	-20.9087[2]	140. 701934[2]
E	Llewellyn Creek	-20.8992 [3]	140.7052 [3]

1. *Reference sites must be:*
   a. *Be from the same biogeographic and climatic region; and*
   b. *Have similar geography, soil types and topography; and*
   c. *Contain a range of habitats similar to those at the test sites; and*
   d. *A similar flow regime; and*
   e. *Not be so close to the test sites that any disturbance at the test site also results in a change at the reference site.*
2. *Monitoring point D to be located downstream of Monitoring Point B and the open cut mine.*
3. *Monitoring point E to be located downstream of Monitoring Point A at the confluence of Llewellyn and Mountain Home Creeks.*

Annual Water Monitoring Reporting

F8 The following information must be recorded in relation to all water monitoring required under the conditions of this environmental authority and submitted to the administering authority in the specified format:

a) the date on which the sample was taken

b) the time at which the sample was taken

c) the monitoring point at which the sample was taken

d) the measured or estimated daily quantity of mine affected water released from all release points

e) the release flow rate at the time of sampling for each release point

f) the results of all monitoring and details of any exceedances of the conditions of this environmental authority

g) water quality monitoring data must be provided to the administering authority in the specified electronic format upon request.

Water Management Plan

F9 A Water Management Plan must be developed by an appropriately qualified person and implemented.

Stormwater and Sediment Controls

F10 An Erosion and Sediment control Plan must be development by an appropriately qualified person and implemented for all stages of the mining activities on the site to minimise erosion and release of sediment to receiving waters and contamination of stormwater.

F11 Stormwater, other than mine affected water, is permitted to be released to waters from:

a) erosion and sediment control structures that are installed and operated in accordance with the Erosion and Sediment Control Plan required by condition F10;

b) water management infrastructure that is installed and operated, in accordance with a Water Management Plan that complies with condition F9, for the purpose of ensuring water does not become mine affected water.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Regulated Structures

Assessment of Hazard Category

G1 The consequence category of any structure must be assessed by a suitably qualified and experienced person in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* at the following times:

a) prior to the design and construction of the structure, if it is not an existing structure; or

b) if it is an existing structure, prior to the adoption of this schedule; or

c) prior to any change in its purpose or the nature of its stored contents.

G2 A consequence assessment report and certification must be prepared for each structure assessed and the report may include a consequence assessment for more than one structure.

G3 Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).*

Design and Construction of a Regulated Structure

G4 Conditions G5 to G9 inclusive do not apply to existing structures.

G5 All regulated structures must be designed by, and constructed under the supervision of, a suitably qualified and experienced person in accordance with the requirements of the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).*

G6 Construction of a regulated structure is prohibited unless the holder has submitted a consequence category assessment report and certification to the administering authority has been certified by a suitably qualified and experienced person for the design and design plan and the associated operating procedures in compliance with the relevant condition of this authority.

G7 Certification must be provided by the suitably qualified and experienced person who oversees the preparation of the design plan in the form set out in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*, and must be recorded in the Regulated Dams/Levees register.

G8 Regulated structures must:

a) be designed and constructed in accordance with and conform to the requirements of the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635);*

b) be designed and constructed with due consideration given to ensuring that the design integrity would not be compromised on account of:

i) floodwaters from entering the regulated dam from any watercourse or drainage line; and

ii) wall failure due to erosion by floodwaters arising from any watercourse or drainage line.

c) have the floor and sides of the dam designed and constructed to prevent or minimise the passage of the wetting front and any entrained contaminants through either the floor or sides of the dam during the operational life of the dam and for any period of decommissioning and rehabilitation of the dam.

G9 Certification by the suitably qualified and experienced person who supervises the construction must be submitted to the administering authority on the completion of construction of the regulated structure, and state that:

a) the 'as constructed' drawings and specifications meet the original intent of the design plan for that regulated structure;

b) construction of the regulated structure is in accordance with the design plan.

Operation of a Regulated Structure

G10 Operation of a regulated structure, except for an existing structure, is prohibited unless the holder has submitted to the administering authority:

a) one paper copy and one electronic copy of the design plan and certification of the 'design plan' in accordance with condition G9, and

b) a set of 'as constructed' drawings and specifications, and

c) certification of those 'as constructed drawings and specifications' in accordance with condition G7 and

d) where the regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the DSA volume across the system, a copy of the certified system design plan.

e) the requirements of this authority relating to the construction of the regulated structure have been met;

f) relevant details for the regulated structure have been included in **Schedule G – Table G1 (Location of Dams Containing Hazardous Waste), Schedule G – Table G2 (Size and Purpose of Dams Containing Hazardous Waste)** and **Schedule J – Figure J4 (Location of Dams Containing Hazardous Waste)** of this environmental authority.

g) the holder has entered the details required under this authority, into a Register of Regulated Dams; and

h) there is a current operational plan for the regulated structures.

Schedule G – Table G1 (Location of Dams Containing Hazardous Waste)

Name of Dam Containing Hazardous Waste	Point	Latitude (GDA 94)[1]	Longitude (GDA 94)[1]
Hazardous Dam unit (includes vats, and PLS ponds)	V1	-20.9011	140.6983
	V2	-20.9039	140.6931
	V3	-20.9071	140.6963
	V4	-20.9073	140.6973
TBA [2]	TBA [2]	TBA [2]	TBA [2]
TBA [2]	TBA [2]	TBA [2]	TBA [2]
TBA [2]	TBA [2]	TBA [2]	TBA [2]

1. *A minimum of 3 control points is required to constrain the location of all activities associated with the dam containing hazardous waste. Additional infrastructure which forms part of any dam containing hazardous waste may include appurtenant works consisting of tailings discharge pipelines, seepage collections systems, runoff diversion bunds, containment systems, pressure relief wells, decant and recycle water systems.*
2. *Details associated with hazardous structures to be provided to the administering authority before recommencement of processing and/or mining activities.*

Schedule G – Table G2 (Size and Purpose of Dams Containing Hazardous Waste)

Name of dam containing hazardous waste [1]	Maximum surface area of dam (ha)	Maximum volume of dam (m^3)	Maximum depth of dam (m) [2]	Purpose of dam [3]
Pregnant Liquor Solution Dam 1	0.0473	920	4.60	Storage of Pregnant Leach Solution
Pregnant Liquor Solution Dam 2	0.1305	2464	2.61	Storage of Pregnant Leach Solution
Heap Leach Pads (1 & 2)	1.7	58862	4.40	Storage of Copper Rich Solution
TBA [4]	TBA [4]	TBA [4]	TBA [4]	TBA [4]
TBA [4]	TBA [4]	TBA [4]	TBA [4]	TBA [4]
TBA [4]	TBA [4]	TBA [4]	TBA [4]	TBA [4]

1. *The name of the dam containing hazardous waste should refer to the name of the dam e.g. process residue facility and decant dam.*
2. *For dams that do not require a dam well, input the maximum void depth e.g. where dams are formed by excavating below the land surface or backfilling a residual void.*
3. *Purpose of the dam should outline the designed function e.g. "the permanent containment of tailings resulting from the extraction of nickel, cobalt and other metals at the XYZ Refinery".*
4. *Details associated with hazardous structures to be provided to the administering authority before recommencement of processing and/or mining activities.*

G11 For existing structures that are regulated structures:
a) where the existing structure that is a regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the DSA volume across the system, the holder must submit to the administering authority within 12 months of the commencement of this condition a copy of the certified system design plan including that structure; and
b) There must be a current operational plan for the existing structures.

G12 Each regulated structure must be maintained and operated, for the duration of its operational life until decommissioned and rehabilitated, in a manner that is consistent with the current operational plan and, if applicable, the current design plan and associated certified 'as constructed' drawings.

Mandatory Reporting Level

G13 Conditions G14 to G17 inclusive only apply to Regulated Structures which have not been certified as low consequence category for 'failure to contain – overtopping'.

G14 The Mandatory Reporting Level (the MRL) must be marked on a regulated dam in such a way that during routine inspections of that dam, it is clearly observable.

G15 The holder must, as soon as practical and within forty-eight (48) hours of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.

G16 The holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence of any unauthorised discharge from the regulated dam.

G17 The holder must record any changes to the MRL in the Register of Regulated Structures.

Design Storage Allowance

G18 The holder must assess the performance of each regulated dam or linked containment system over the preceding November to May period based on actual observations of the available storage in each regulated dam or linked containment system taken prior to 1 July of each year.

G19 By 1 November of each year, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume), to meet the Design Storage Allowance (DSA) volume for the dam (or network of linked containment systems) as outlined in **Schedule G – Table G3 (Storage Design).**

Schedule G – Table G3 (Storage Design)

Storage Type	Design Storage Allowance [1]	Spillway Critical Design Storm [2]	Mandatory Reporting Level [3]
Pregnant Leachate Solution Dams	1:10 Year ARI 2 month wet season	1:100 Year ARI	1:100 Year ARI
Heap Leach Vats/Pads	1:10 Year ARI 2 month wet season	1:100 Year ARI	1:100 Year ARI
TBA [4]	TBA [4]	TBA [4]	TBA [4]
TBA [4]	TBA [4]	TBA [4]	TBA [4]
TBA [4]	TBA [4]	TBA [4]	TBA [4]

1. *The design storage allowance on 1 November of each year for any dam containing hazardous waste constructed within the operational land must be equivalent to the run-off from a 1 in 10 ARI 2 month wet season plus process inputs for the equivalent wet season. Process inputs refers to the hazardous mineral process waste and water, which is being disposed of in the storage facility.*
2. *The critical design storm has a duration that produces the peak discharge for the catchments.*
3. *The mandatory reporting level refers to the volume below the spillway crest, either the 1:100 ARI 72 hour storm or the 1:100 ARI wave allowance, whichever is lower.*
4. *Details associated with hazardous structures to be provided to the administering authority before recommencement of processing and/or mining activities.*

G20 The holder must, as soon as possible and within forty-eight (48) hours of becoming aware that the regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, notify the administering authority.

G21 The holder must, immediately on becoming aware that a regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment systems.

Annual Inspection Report

G22 Each regulated structure must be inspected each calendar year by a suitably qualified and experienced person.

G23 At each annual inspection, the condition and adequacy of all components of the regulated structure must be assessed and a suitably qualified and experienced person must prepare an annual inspection report containing details of the assessment and include recommended actions to ensure the integrity of the regulated structure.

G24 The suitably qualified and experienced person who prepared the annual inspection report must certify the report in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*.

G25 The holder must:
a) Within 20 business days of receipt of the annual inspection report, provide to the administering authority:
i) The recommendations section of the annual inspection report; and
ii) If applicable, any actions being taken in response to those recommendations; and
b) If, following receipt of the recommendations and (if applicable) actions, the administering authority requests a full copy of the annual inspection report from the holder, provide this to the administering authority within 10 business days[6] of receipt of the request.

Transfer Arrangements

G26 The holder must provide a copy of any reports, documentation and certifications prepared under this authority, including but not limited to any Register of Regulated Structures, consequence assessment, design plan and other supporting documentation, to a new holder on transfer of this authority.

Decommissioning and Rehabilitation

G27 Dams must not be abandoned but be either:
a) decommissioned and rehabilitated to achieve compliance with condition (G28); or
b) be left in-situ for a beneficial use(s) provided that:
i) it no longer contains contaminants that will migrate into the environment; and
ii) it contains water of a quality that is demonstrated to be suitable for its intended beneficial use(s); and
iii) the administering authority, the holder of the environmental authority and the landholder agree in writing that the dam will be used by the landholder following the cessation of the environmentally relevant activity(ies).

G28 After decommissioning, all significantly disturbed land caused by the carrying out of the environmentally relevant activity (ies) must be rehabilitated to meet the following final acceptance criteria:
a) the landform is safe for humans and fauna;
b) the landform is stable with no subsidence or erosion gullies for at least three (3) years;
c) any contaminated land (e.g. contaminated soils) is remediated and rehabilitated
d) not allowing for acid mine drainage; or
e) there is no ongoing contamination to waters (including groundwater);
f) rehabilitation is undertaken in a manner such that any actual or potential acid sulfate soils on the area of significant disturbance are treated to prevent or minimise environmental harm in accordance with the Instructions for the treatment and management of acid sulfate soils (2001);
g) all significantly disturbed land is reinstated to the pre-disturbed soil suitability class;
h) for land that is not being cultivated by the landholder:
a. groundcover, that is not a declared pest species is established and self-sustaining,
b. vegetation of similar species richness and species diversity to pre-selected analogue sites is established and self-sustaining, and
c. the maintenance requirements for rehabilitated land is no greater than that required for the land prior to its disturbance caused by carrying out the petroleum activity(ies).

i) for land that is to be cultivated by the landholder, cover crop is revegetated, unless the landholder will be preparing the site for cropping within 3 months of petroleum activities being completed.

Register of Regulated Dams

G29 A Register of Regulated Dams must be established and maintained by the holder for each regulated dam.

G30 The holder must provisionally enter the required information in the Register of Regulated Dams when a design plan for a regulated dam is submitted to the administering authority.

G31 The holder must make a final entry of the required information in the Register of Regulated Dams once compliance with condition (G10) and (G11) has been achieved.

G32 The holder must ensure that the information contained in the Register of Regulated Dams is current and complete on any given day.

G33 All entries in the Register of Regulated Dams must be approved by the chief executive officer for the holder of this authority, or their delegate, as being accurate and correct.

G34 The holder must, at the same time as providing the annual return, supply to the administering authority a copy of the records contained in the Register of Regulated Dams, in the electronic format required by the administering authority.

Transitional Arrangements

G35 All existing structures that have not been assessed in accordance with either the Manual or the former Manual for Assessing Hazard Categories and Hydraulic Performance of Dams must be assessed and certified in accordance with the Manual within 6 months of amendment of the authority adopting this schedule.

G36 All existing structures must subsequently comply with the timetable for any further assessments in accordance with the Manual specified in **Schedule G – Table G4 (Transitional Hydraulic Performance Requirements for Existing Structures)**, depending on the consequence category for each existing structure assessed in the most recent previous certification for that structure.

Schedule G – Table G4 (Transitional Hydraulic Performance Requirements for Existing Structures)

Transition period required for existing structures to achieve the requirements of the *Manual for Assessing Consequence Categories and Hydraulic Performance of Dams*			
Compliance with criteria	**High**	**Significant**	**Low**
>90% and a history of good compliance performance in last 5 years	No transition required	No transition required	No transitional conditions apply. Review consequence assessment every 7 years.
>70%-≤90%	Within 7 years, unless otherwise agreed with the administering authority, based on no history of unauthorised releases.	Within 10 years, unless otherwise agreed with the administering authority, based on no history of unauthorised releases.	No transitional conditions apply. Review consequence assessment every 7 years.
>50-≤70%	Within 5 years unless otherwise agreed with the administering authority, based on no history of unauthorised releases.	Within 7 years unless otherwise agreed with the administering authority, based on no history of unauthorised releases.	Review consequence assessment every 7 years.

≤50%	Within 5 years or as per compliance requirements (e.g. TEP timing)	Within 5 years or as per compliance requirements (e.g. TEP timing)	Review consequence assessment every 5 years.

G37 **Schedule G – Table G4 (Transitional Hydraulic Performance Requirement for Existing Structures)** ceases to apply for a structure once any of the following events has occurred:

a) It has been brought into compliance with the hydraulic performance criteria applicable to the structure under the Manual; or

b) It has been decommissioned; or

c) It has been certified as no longer being assessed as a regulated structure.

G38 Certification of the transitional assessment required by (G35) and (G36) (as applicable) must be provided to the administering authority within 6 months of amendment of the authority adopting this schedule.

END OF CONDITIONS FOR SCHEDULE G

Schedule H – Land and Rehabilitation

Land and Rehabilitation Objectives

H1 Unless authorised by this environmental authority contaminants that will or may cause environmental harm must not be directly or indirectly released to land.

Heap Leach Pads

H2 Contaminants must not be released outside the lined area of the heap leach pads.

H3 The holder of this environmental authority must install and maintain a leak detection system for the heap leach pads.

Heap Leach Operation Plan

H4 The holder of this environmental authority must develop and implement a Heap Leach Operational Plan which has been certified by a suitably qualified environmental professional and is included within the Plan of Operations.

H5 The environmental authority holder must undertake a review of the Heap Leach Operational Plan at a minimum frequency of every three (3) years.

Rehabilitation Landform Criteria

H6 All areas significantly disturbed by mining activities must be rehabilitated to the final land description as defined in **Schedule H – Table H1 (Final Land Use and Rehabilitation Approval Schedule)**.

Schedule H – Table H1 (Final Land Use and Rehabilitation Approval Schedule)

Tenure ID	Disturbance Type	Projective Surface Area (ha)	Post Mine Land Description	Post Mine Land Capability Classification	Analogue Site Identification (where applicable)
ML2550	Stormwater Dam	0.2	LIG	V1	AL-2
ML90175	Heap Leach Pads	1.7	LIG	V1	AL-2
ML90175	Pregnant Liquor Solution Ponds 1&2	0.18	LIG	V1	AL-2
ML90175	Processing Plant	0.1	LIG	V1	AL-2
ML2550	Topsoil Stockpile	0.15	LIG	V1	AL-2
ML90175	Camp	0.1	LIG	V1	AL-2
ML2550 &ML90174	Storage Area	0.02	LIG	V1	AL-2
ML90172, ML90173 & ML90174	Roads	0.5	LIG	V1	AL-2
ML2550	Chemical Storage	0.02	LIG	V1	AL-2
ML2551	Stormwater Dam	0.4	LIG	V1	N/A
ML90174	Crusher Area	0.1	LIG	V1	AL-1
ML2551	Topsoil Stockpile	0.1	LIG	V1	AL-1
ML2506, ML90172, ML90174 & ML90175	Overburden/Waste Rock Dump	4.0	LIG	V1	AL-1
ML90174	Fuel Storage	0.06	LIG	V1	AL-2
ML2551	Roads	0.25	LIG	V1	AL-1
ML2551	Open Cut	3.0	LIG	V1	AL-1
ML2506	Open Cut	0.1	LIG	V1	AL-1

ML2506	Roads	0.5	LIG	V1	AL-1
ML2506 & ML2551	Exploration	0.32	LIG	V1	AL-1
ML90172	Ore Stockpile	0.3	LIG	V1	AL-1

H7 Rehabilitation must commence progressively in accordance with the plan of operations.

H8 Identify analogue sites and submit a report to the administering authority providing required information and proposing suitable locations to be included in **Schedule H – Table H2 (Landform Design).**

Grazing Pasture Outcome

H9 Areas which are to be rehabilitated to pasture must comply with the following outcomes;
a) Generate a self-sustaining vegetation with projective cover, species composition and species distribution similar to analogue site identified in **Schedule H Table H1(Final Land Use and Rehabilitation Approval Schedule)**; and
b) All areas disturbed by mining activities must be rehabilitated to a stable landform and comply with the design criteria defined in **Schedule H – Table H2 (Landform Design)**; and
c) A measure of productivity (e.g. sustainable dry matter production, stock live weight gain) are similar to analogue site identified in **Schedule H – Table H1 (Final Land Use and Rehabilitation Approval Schedule).**

H10 Complete an investigation into rehabilitation of disturbed areas and submit a report to the administering authority proposing acceptance criteria to meet the outcomes in H6 and landform design criteria in **Schedule H – Table H2 (Landform Design)** by 1 July 2007.

Schedule H – Table H2 (Landform Design)

Disturbance Type	Slope Range (%)	Projective Surface Area (ha)
Overburden/Waste Rock Dump	<1(v) : 3(h)	4.0

Contaminated Land

H11 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.

H12 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 under condition H6.

Biodiversity Offsets

H13 The holder of this environmental authority must provide an offset for impacts on applicable state significant biodiversity values, in accordance with Queensland Biodiversity Offset Policy. The biodiversity offset must be consistent with the requirements for an offset as identified in the Biodiversity Offset Strategy (as per condition H14) and must be provided:

a) prior to impacting on state significant biodiversity values; or

b) where a land based offset is to be provided, within 12 months of the later of either of the following

1. the date of issue of this environmental authority; or

2. the relevant stage identified in the Biodiversity Offset Strategy submitted under condition H14; or

c) where an offset payment is to be provided, within 4 months of the later of either of the following

1. the date of issue of this environmental authority; or

2. the relevant stage identified in the Biodiversity Offset Strategy submitted under conditions H14.

H14 A Biodiversity Offset Strategy must be developed and submitted to the administering authority within either 30 days, or a lesser period agreed to by the administering authority, prior to impacting on the applicable state significant biodiversity values.

END OF CONDITIONS FOR SCHEDULE H

Schedule I – Definitions

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.

"acceptance criteria" means the measures by which the actions implemented to rehabilitate the land are deemed to be complete. The acceptance criteria indicate the success of the rehabilitation outcome or remediation of areas which have been significantly been disturbed by the mining activities. Acceptance criteria may include information regarding:

- vegetation establishment, survival and succession;
- vegetation productivity, sustained growth and structure development;
- fauna colonisation and habitat development;
- ecosystem processes such as soil development and nutrient cycling, and the re-colonisation of specific fauna groups such as collembolan, mites and termites which are involved in these processes;
- microbiological studies including re-colonisation by mycorrhizal fungi, microbial biomass and respiration;
- effects of various establishment treatments such as deep ripping, topsoil handling, seeding and fertiliser application on vegetation growth and development;
- resilience of vegetation to disease, insect attack, drought and fire; vegetation water use and effects on ground water levels and catchment yields.

"acid rock drainage" means any contaminated discharge emanating from a mining activity formed through a series of chemical and biological reactions, when geological strata is disturbed and exposed to oxygen and moisture.

"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.

"affected person" is someone whose drinking water can potentially be impacted as a result of discharges from a dam or their life can be put at risk due to dwellings or workplaces being in the path of a dam break flood.

"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 measure in decibels linear (dBL).

"AHD" means 'Australian Height Datum' which is the Australian national standard of geodetic datum for altitude measurements and is measured in meters (m). The level of 0.0 meters (m) AHD approximates the mean sea level (as previously measured for the period 1966-1968).

"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.

"analogue site" may reflect the original location, adjacent area or another area where rehabilitation success has been completed for a similar biodiversity. Details of the reference site may be as photographs, computer generated images and vegetation models etc.

"annual inspection report" means an assessment prepared by a suitably qualified and experienced person containing details of the assessment against the most recent consequence assessment report and design plan (or system design plan);

a) against recommendations contained in previous annual inspection reports;
b) against recognised dam safety deficiency indicators;
c) for changes in circumstances potentially leading to a change in consequence category;
d) for conformance with the conditions of this authority;
e) for conformance with the 'as constructed' drawings;

f) for the adequacy of the available storage in each regulated dam, based on an actual observation or observations taken after 31 May each year but prior to 1 November of that year, of accumulated sediment, state of the containment barrier and the level of liquids in the dam (or network of linked containment systems);
g) for evidence of conformance with the current operation plan.

"annual exceedances probability or AEP" the probability that at least one event in excess of a particular magnitude will occur in any given year.

"ANZECC (2000)" means *the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000)* published by the *Australian and New Zealand Environment and Conservation Council* and *the Agriculture and Resource Management Council of Australia and New Zealand* or any equivalent update/replacement guidelines.

"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.

"assessed" and **"assessment"** by a suitably qualified and experienced person in relation to a hazard assessment of a dam, means that a statutory declaration has been made by that person and, when taken together with any attached or appended documents referenced in that declaration, all of the following aspects are addressed and are sufficient to allow an independent audit of the assessment:
(a) exactly what has been assessed and the precise nature of that determination;
(b) the relevant legislative, regulatory and technical criteria on which the assessment has been based;
(c) the relevant data and facts on which the assessment has been based, the source of that material, and the efforts made to obtain all relevant data and facts; and
(d) the reasoning on which the assessment has been based using the relevant data and facts, and the relevant criteria.

"associated works" in relation to a dam, means:
(a) operations of any kind and all things constructed, erected or installed for that dam; and
(b) any land used for those operations.

"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.

"certification", means assessment and approval must be undertaken by a suitably qualified and experienced person in relation to any assessment or documentation required by the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*, including design plans, 'as constructed' drawings and specifications, construction, operation or an annual report regarding regulated structures, undertaken in accordance with the Board of Professional Engineers of Queensland Policy "Certification by RPEQs (ID: 1.4 (2A)).

"certifying", **"certify"** or **"certified"** have a corresponding meaning as 'certification'.

"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.

"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.

"consequence" in relation to a structure as defined, means the potential for environmental harm resulting from the collapse or failure of the structure to perform its primary purpose of containing, diverting or controlling flowable substances.

"consequence category" means a category, either low, significant or high, into which a dam is assessed as a result of the application of tables and other criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).*

"construction" or "constructed" in relation to a dam includes building a new dam and modifying or lifting an existing dam, but does not include investigations and testing necessary for the purpose of preparing a design plan.

"dam" means a land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works. A dam does *not* mean a fabricated or manufactured tank or container, designed and constructed to an Australian Standard that deals with strength and structural integrity of that tank or container.

"design plan" is a document setting out how all identified consequence scenarios are addressed in the planned design and operation of a regulated structure.

"Design Storage Allowance" or **"DSA"** means an available volume, estimated in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the Department of Environment and Heritage Protection, that must be provided in a dam as at 1 November each year in order to prevent a discharge from that dam to an annual exceedence probability (AEP) specified in that Manual.

"designer" for the purposes of a regulated dam, means the certifier of the design plan for the regulated dam.

'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.

"emergency action plan" means documentation forming part of the operational plan held by the holder or a nominated responsible officer, that identifies emergency conditions that sets out procedures and actions that will be followed and taken by the dam owner and operating personnel in the event of an emergency. The actions are to minimise the risk and consequences of failure, and ensure timely warning to downstream communities and the implementation of protection measures. The plan must require dam owners to annually update contact details that are part of the plan, and to comprehensively review the plan at least every five years.

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

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

"existing structure" means a structure that was in existence prior to the adoption of this schedule of conditions under the authority.

"flow event" means a surface water flow in a drainage feature or watercourse that occurs as a result of rainfall.

"flowable substance" means matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids, fluids or solids, or a mixture that includes water and any other liquids, fluids or solids either in solution or suspension.

"geo-technically stable" means not producing seepage, leachate or contamination that is likely or has the potential to cause environmental harm.

"hazard" in relation to a dam as defined, means the potential for environmental harm resulting from the collapse or failure of the dam to perform its primary purpose of containing, diverting or controlling flowable substances.

"hazard category" means a category, either low, significant or high, into which a dam is assessed as a result of the application of tables and other criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).*

"hazardous waste" means any substance, whether liquid, solid or gaseous, derived by or resulting from, the processing of minerals that tends to destroy life or impair or endanger health.

"hydraulic performance" means the capacity of a regulated dam to contain or safely pass flowable substances based on a probability (AEP) of performance failure specified for the relevant hazard category in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635).*

"in situ" in relation to water quality monitoring, means sampling a population variable (e.g., the concentration of an aquifer groundwater quality parameter) as close as possible to its origin. Unless otherwise specified under a condition of this environmental authority, in situ water quality parameters must include pH, electrical conductivity, dissolved oxygen (% saturation) and total suspended solids.

"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.

"$L_{A\ 10,\ adj,\ 10\ mins}$" 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

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

"land" in the "land schedule" 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" means 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.

"levee" means an embankment that only provides for the containment and diversion of stormwater or flood flows from a contributing catchment, or containment and diversion of flowable material resulting from releases from other works, during the progress of those stormwater or flood flows or those releases; and does not store any significant volume of water or flowable substances at any other times.

"licensed place" means the mining activities carried out at the mining tenements of this environmental authority.

"major anions" in regards to water quality monitoring, includes at minimum the carbonate ion (CO_3^{2-}), bicarbonate ion (HCO_3^-) and chloride ion (Cl^-).

"major cations" in regards to water quality monitoring, includes at minimum the sodium ion (Na+), potassium ion (K+), magnesium ion (Mg^2+) and calcium ion (Ca^2+).

"Mandatory Reporting Level" or **"MRL"** means a warning and reporting level determined in accordance with the criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority.

"manual" means the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority.

"modification" or **"modifying"** (see definition of "construction").

"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.

"mineral" means a substance which normally occurs naturally as part of the earth's crust or is dissolved or suspended in water within or upon the earth's crust and includes a substance which may be extracted from such a substance, and includes—

(a) clay if mined for use for its ceramic properties, kaolin and bentonite;
(b) magnetite;
(c) metal or metalloid compounds, including but not limited to compounds containing gold, copper, silver, lead, nickel, and zinc.
(d) foundry sand;
(e) hydrocarbons and other substances or matter occurring in association with shale or coal and necessarily mined, extracted, produced or released by or in connection with mining for shale or coal or for the purpose of enhancing the safety of current or future mining operations for coal or the extraction or production of mineral oil therefrom;
(f) limestone if mined for use for its chemical properties;
(g) marble;
(h) mineral oil or gas extracted or produced from shale or coal by in situ processes;
(i) peat;
(j) salt including brine;
(k) shale from which mineral oil may be extracted or produced;
(l) silica, including silica sand, if mined for use for its chemical properties;
(m) rock mined in block or slab form for building or monumental purposes;

but does not include—

(n) living matter;
(o) petroleum within the meaning of the *Petroleum Act 1923*;
(p) soil, sand, gravel or rock (other than rock mined in block or slab form for building or monumental purposes) to be used or to be supplied for use as such, whether intact or in broken form;
(q) water.

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

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

"operational plan" for a dam includes:

a) normal operating procedures and rules (including clear documentation and definition of process inputs in the DSA allowance);
b) contingency and emergency action plans including operating procedures designed to avoid and/or minimise environmental impacts including threats to human life resulting from any overtopping or loss of structural integrity of the regulated structure.

"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).

"protected area" means – a protected area under the *Nature Conservation Act 1992;* or
a) a marine park under the *Marine Parks Act 1992*; or
b) a World Heritage Area.

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

"QWQG (2009)" means *the Queensland Water Quality Guidelines 2009* published by the *Queensland Government* or any equivalent update/replacement guidelines.

"receiving environment" in relation to an activity that causes or may cause environmental harm, means the part of the environment to which the harm is, or may be, caused. The receiving environment includes (but is not limited to):
a) a watercourse;
b) groundwater; and
c) an area of land that is not specified in Schedule H - Table H1 (Rehabilitation Requirements) of this environmental authority.

The term does not include land that is specified in Schedule H - Table H1 (Rehabilitation Requirements) of this environmental authority.

"register of regulated dams" includes:
a) date of entry in the register;
b) name of the dam, its purpose and intended/actual contents;
c) the consequence category of the dam as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*;
d) dates, names, and reference for the design plan plus dates, names, and reference numbers of all document(s) lodged as part of a design plan for the dam;
e) name and qualifications of the suitably qualified and experience person who certified the design plan and 'as constructed' drawings
f) for the regulated dam, other than in relation to any levees
    i. the dimensions (metres) and surface area (hectares) of the dam measured at the footprint of the dam;
    ii. longitude in GDA94 within five metres at any point from the outside of the dam including its storage area;
    iii. dam crest volume (mega litres);
    iv. spillway crest level (metres AHD)
    v. maximum operating level (metres AHD)
    vi. storage rating table of stored volume versus level (metres AHD);
    vii. design storage allowance (mega litres) and associated level of the dam (metres AHD);
    viii. mandatory reporting level (metres AHD);
g) the design plan title and reference relevant to the dam;
h) the date construction was certified as compliant with the design plan;
i) the name and details of the suitably qualified and experienced person who certified that the constructed dam was complaint with the design plan;
j) details of the composition and construction of any liner;
k) the system for the detection of any leakage through the floor and sides of the dam;
l) dates when the regulated dam underwent an annual inspection for structural and operation adequacy, and to ascertain the available storage volume for 1 November of any year;
m) dates when recommendations and actions arising from the annual inspection were provided to the administering authority;
n) dam water quality as obtained from any monitoring required under this authority as at 1 November of each year.

"regulated dam" means any dam in the significant or high consequence category as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority.

"regulated structure" includes land-based containment structures, levees, bunds and voids, but not a tank or container designed and constructed to an Australian Standard that deals with strength and structural integrity.

"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.

"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.

"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 employees accommodation or public roads.

"spillway" means a weir, channel, conduit, tunnel, gate or other structure designed to permit discharges from the dam, normally under flood conditions or in anticipation of flood conditions.

"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.

"structure" means dam or levee.

"suitably qualified and experienced person" in relation to regulated structures means a person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the *Professional Engineers Act 2002*, and has demonstrated competency and relevant experience:

- For regulated dams, an RPEQ who is a civil engineer with the required qualifications in dam safety and dam design.
- For regulated levees, an RPEQ who is a civil engineer with the required qualifications in the design of flood protection embankments.

Note: It is permissible that a suitably qualified and experienced person obtain subsidiary certification from an RPEQ who has demonstrated competence and relevant experience in either geomechanics, hydraulic design or engineering hydrology.

"system design plan" means a plan that manages an integrated containment system that shares the required DSA volume across the integrated containment system.

"tolerable limits" means that a range of values could be accepted to achieve an overall environmental management objective (eg a range of settlement of a tailing capping could still meet the objective of draining the cap quickly, preventing pondage and limiting infiltration and percolation).

"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 $5000.

"void" means any constructed, open excavation in the ground.

"watercourse" has the same meaning given in the *Water Act 2000.*

"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.

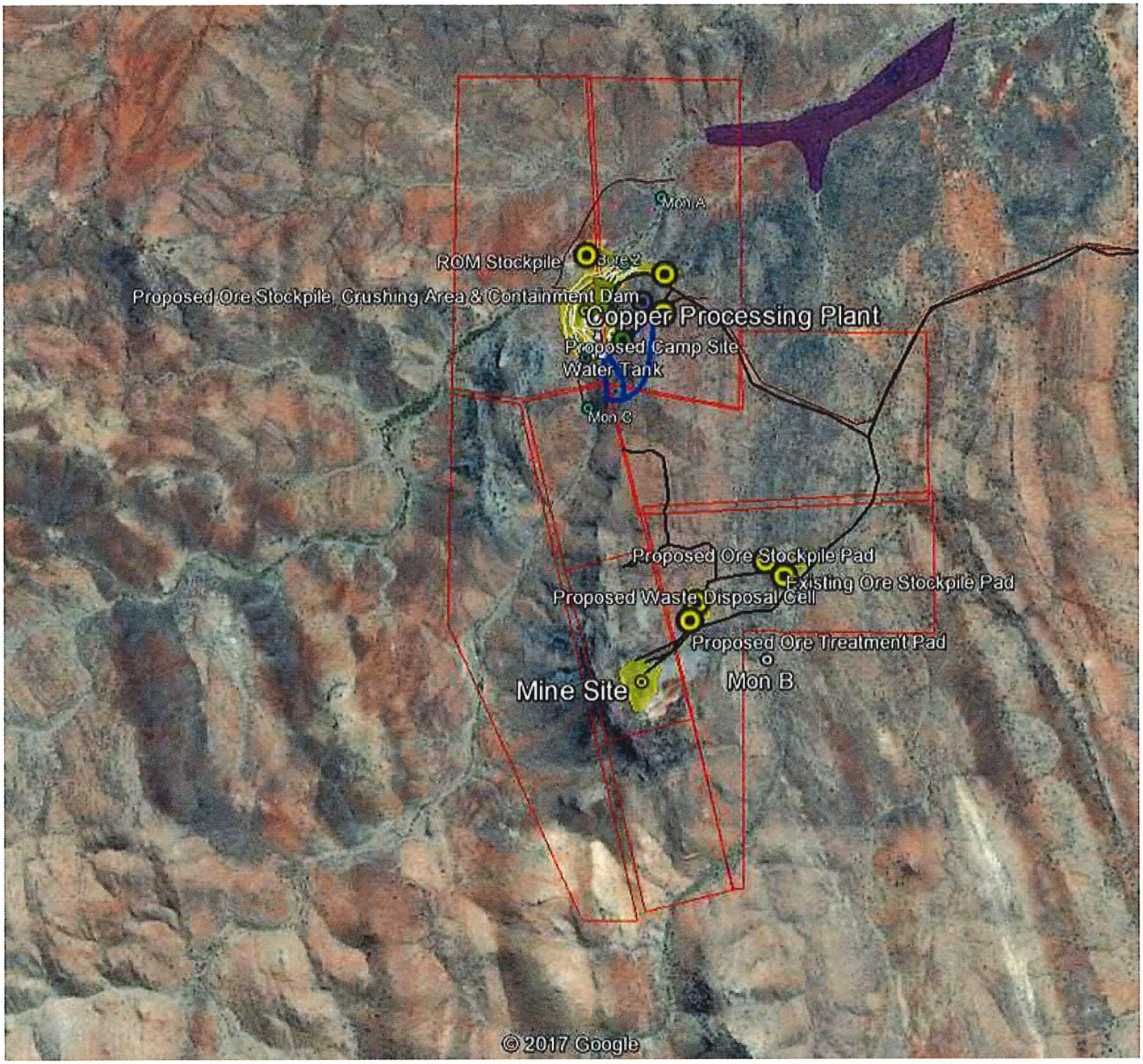
"wet season" means the time of year, covering one or more months, when most of the average annual rainfall in a region occurs. For the purposes of DSA determination this time of year is deemed to extend from 1 November in one year to 31 May in the following year inclusive.

END OF CONDITIONS FOR SCHEDULE I

Schedule J – Figures

Schedule J – Figure J1(Project Infrastructure and Site Layout) [1]

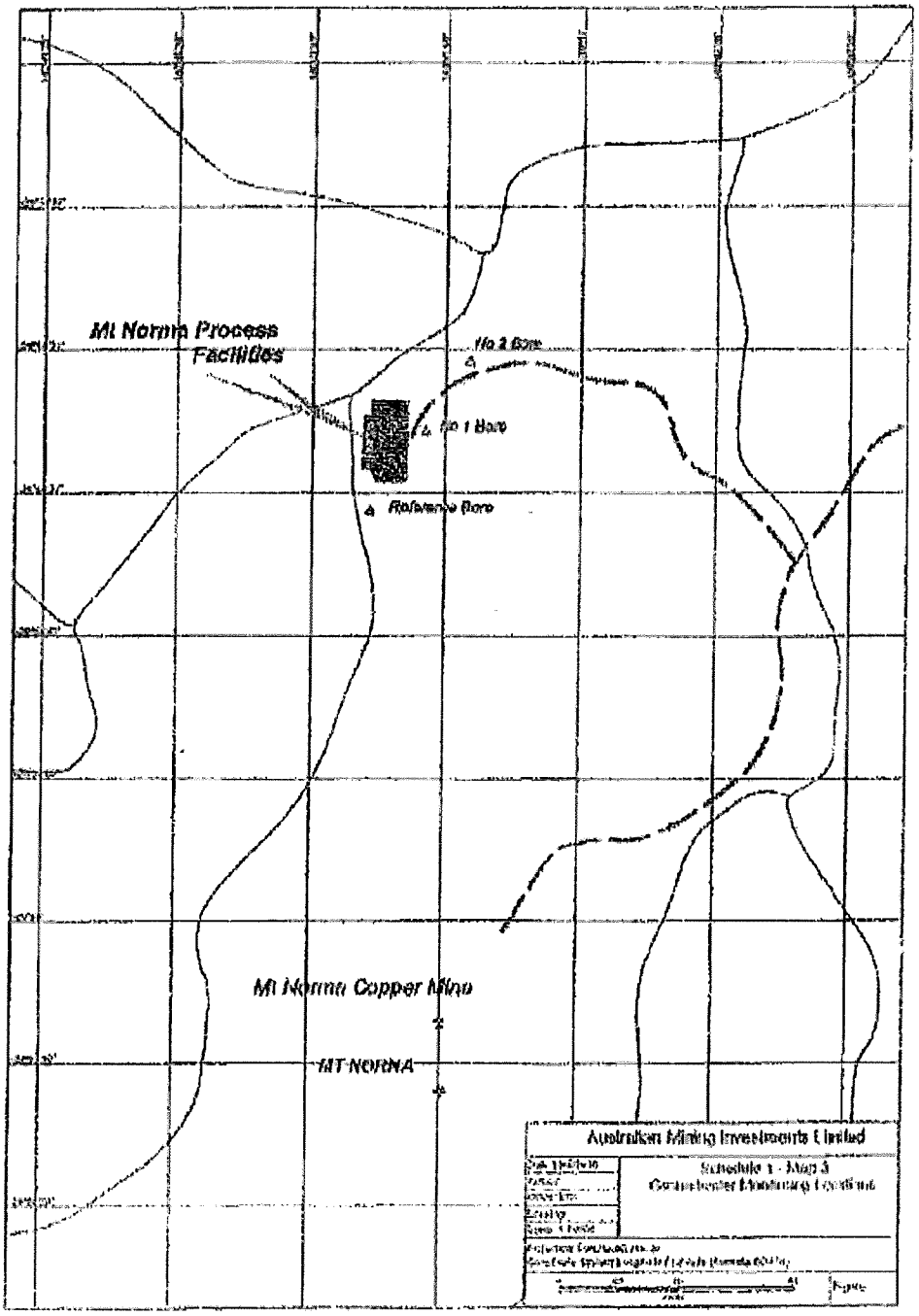
1. Schedule J – Figure J1 (Project Infrastructure and Site Layout). An updated Project Infrastructure and Site Layout map must be provided to the administering authority before recommencement of processing and/or mining activities.



Schedule J – Figure J2 (Groundwater Bore Monitoring Locations)[1]

1. Updated Figure J2 (Groundwater Bore Monitoring Locations) to be provided to the administering authority on the construction of the WDC.

MAP 3: Groundwater monitoring locations

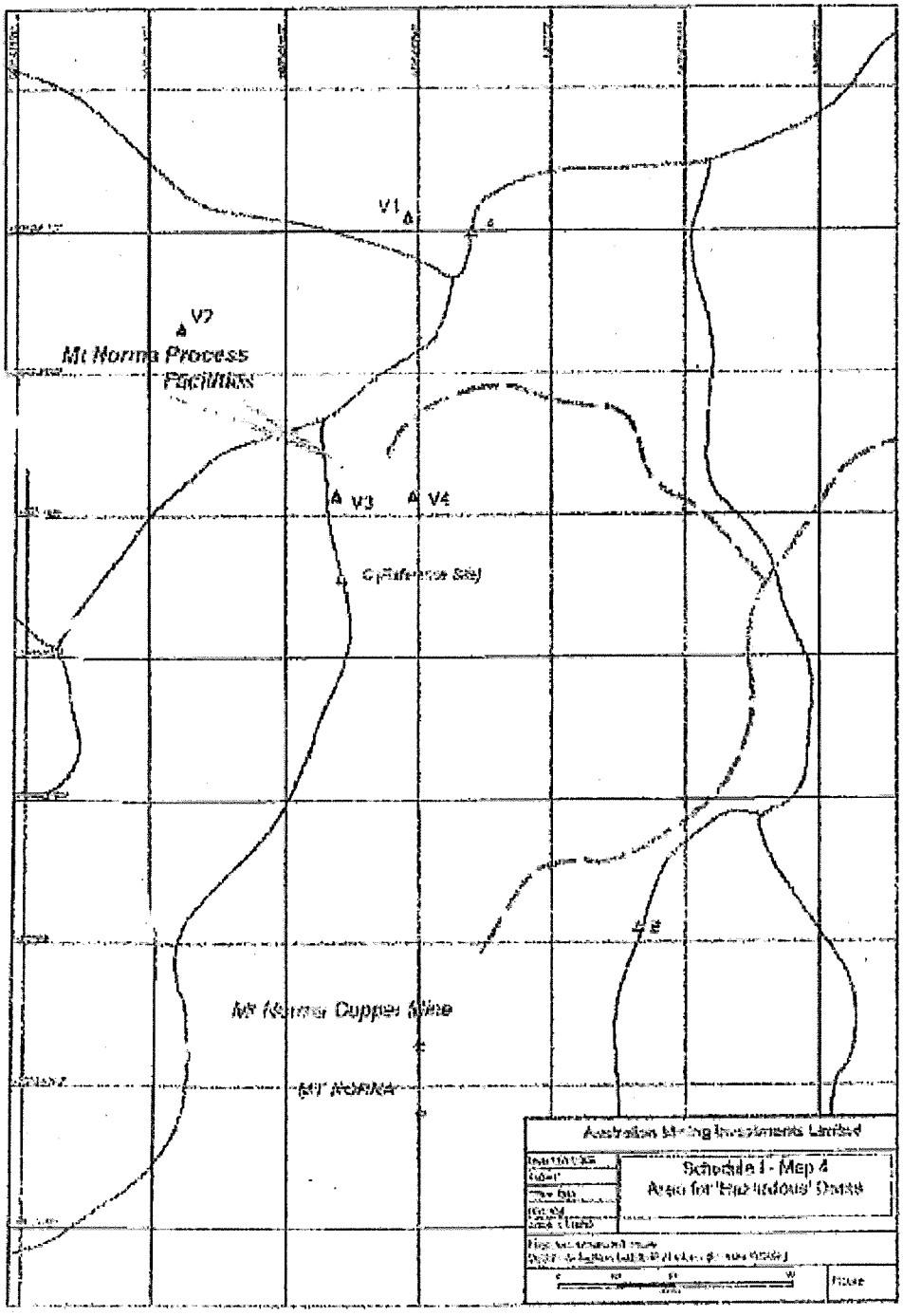


Schedule J – Figure J3 (Receiving Water Monitoring Locations)

Schedule J – Figure J4 (Location of Dams Containing Hazardous Waste)[1]

1. Proposed hazardous structures to be provided to the administering authority before recommencement of processing and/or mining activities. Updated Figure J4 (Location of Dams Containing Hazardous Waste) to be provided to the administering authority before recommencement of processing and/or mining activities.

MAP 4: Location of Dams Containing Hazardous Waste



END OF SCHEDULE J

END OF ENVIRONMENTAL AUTHORITY