

# Environment Protection Licence

Licence - 10265

## Licence Details

Number:	10265
Anniversary Date:	05-April

## Licensee

CHALLENGER MINES PTY LTD

PO BOX 253

COLLINS STREET WEST VIC 8007

## Premises

CHALLENGER CAMP - ADELONG GOLD PROJECT

GOLDEN GULLY ROAD

ADELONG NSW 2729

## Scheduled Activity

Crushing, grinding or separating

Extractive activities

Mining for minerals

## Fee Based Activity

## Scale

Crushing, grinding or separating	> 30000-100000 T annual processing capacity
Extractive activities	> 50000-100000 T annual capacity to extract or process
Mining for minerals	> 50000-100000 T annual production capacity

## Region

Riverina Far West

Suites 7-8, Level 1 Griffith City Plaza, 130-140 Banna Avenue

GRIFFITH NSW 2680

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## Information about this licence

### Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

### Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

### Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

### Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

### Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

### Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

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The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

### Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

### Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

### This licence is issued to:

CHALLENGER MINES PTY LTD
PO BOX 253
COLLINS STREET WEST VIC 8007

subject to the conditions which follow.

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## 1 Administrative Conditions

### A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2:

Establish operational gold mine and associated processing infrastructure.

A1.2 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Crushing, grinding or separating	Crushing, grinding or separating	> 30000 - 100000 T annual processing capacity
Extractive activities	Extractive activities	> 50000 - 100000 T annual capacity to extract or process
Mining for minerals	Mining for minerals	> 50000 - 100000 T annual production capacity

A1.3 The licensee must not carry on any scheduled activities until the scheduled development works are completed, except as elsewhere provided in this licence.

### A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
CHALLENGER CAMP - ADELONG GOLD PROJECT
GOLDEN GULLY ROAD
ADELONG
NSW 2729
LOT 281 DP 40675, LOT 1209 DP 721043, LOT 478 DP 757211, LOT 545 DP 757211, LOT 747 DP 757211, LOT 748 DP 757211, LOT 760 DP 757211, LOT 852 DP 757211, LOT 1004 DP 757211, LOT 1179 DP 757211, LOT 222 DP 757220, LOT 228 DP 757220, LOT 7310 DP 1162364
MINING LEASE 1435

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## A3 Information supplied to the EPA

- A3.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

- a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
- b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

- A3.2 In addition to the requirements of Clause A3.1, the works and activities that may impact the environment must be carried out in accordance with the document titled "Adelong Gold Mine - Mine Operation Plan 2015 to 2017, dated 29 February 2016" except as expressly provided by a condition of this licence.

## 2 Discharges to Air and Water and Applications to Land

### P1 Location of monitoring/discharge points and areas

- P1.1 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.
- P1.2 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

#### *Water and land*

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
3	Goodwin Dam Spillway	Goodwin Dam Spillway	At the South end of the Goodwin dam
4	Sampling point for water stored in Goodwin Dam		Within the Goodwin Dam
5	Sampling of Challenger Dam		Challenger Dam (To monitoring dewatering discharge and rock emplacement runoff)
6	Receiving water monitoring downstream of discharge point 3		Caledonia Creek at location identified as "WCC2" on "Plan 6" in the "Adelong Gold Mine- Mine Operations Plan " dated 1 June 2015, submitted to the EPA and electronically stored as DOC15/290308-14

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7	Groundwater monitoring	Monitoring Bore No 1 as detailed on the aerial image (File name Bore.pdf) contained in the email sent to the EPA from the licensee on 21 July 2016, and electronically stored as DOC15/415313-02
8	Groundwater monitoring	Monitoring Bore No 3 as detailed on the aerial image (File name Bore.pdf) contained in the email sent to the EPA from the licensee on 21 July 2016, and electronically stored as DOC15/415313-02
9	Groundwater monitoring	Monitoring Bore No 6 as detailed on the aerial image (File name Bore.pdf) contained in the email sent to the EPA from the licensee on 21 July 2016, and electronically stored as DOC15/415313-02
10	Groundwatering monitoring	Monitoring Bore No 8 as detailed on the aerial image (File name Bore.pdf) contained in the email sent to the EPA from the licensee on 21 July 2016, and electronically stored as DOC15/415313-02
16	Monitoring	De-tox tailing stockpile pad sump
17	Cyanide monitoring after detoxification	Sample of de-tox liquor stream reporting to the de-tox solution recovery tank

P1.3 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

## Air

EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
11	Dust deposition monitoring		Dust deposition gauge labelled as "AD1" on "Plan 6" in the "Adelong Gold Mine-Mine Operations Plan " dated 1 June 2015, submitted to the EPA and electronically stored as DOC15/290308-14
12	Dust deposition monitoring		Dust deposition gauge labelled as "AD2" on "Plan 6" in the "Adelong Gold Mine-Mine Operations Plan " dated 1 June 2015, submitted to the EPA and electronically stored as DOC15/290308-14
13	Dust deposition monitoring		Dust deposition gauge labelled as "AD4" on "Plan 6" in the "Adelong Gold Mine-Mine Operations Plan " dated 1 June 2015, submitted to the EPA and electronically stored as DOC15/290308-14



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14	Dust deposition monitoring	Dust deposition gauge labelled as "AD5" on "Plan 6" in the "Adelong Gold Mine-Mine Operations Plan " dated 1 June 2015, submitted to the EPA and electronically stored as DOC15/290308-14
15	Dust deposition monitoring	Dust deposition gauge, Labelled as "AD6" on "Plan 6" in the "Adelong Gold Mine-Mine Operations Plan " dated 1 June 2015, submitted to the EPA and electronically stored as DOC15/290308-14

## 3 Limit Conditions

### L1 Pollution of waters

- L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

### L2 Concentration limits

- L2.1 For each monitoring/discharge point or utilisation area specified in the table\ below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.
- L2.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.
- L2.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\.
- L2.4 Water and/or Land Concentration Limits

### POINT 3

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Aluminium	milligrams per litre				5
Arsenic	milligrams per litre				0.5
BOD	milligrams per litre				30

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Cadmium	milligrams per litre	0.01
Chromium	milligrams per litre	1
Cobalt	milligrams per litre	1
Conductivity	microsiemens per centimetre	800
Copper	milligrams per litre	0.4
Fluoride	milligrams per litre	2
Lead	milligrams per litre	0.1
Mercury	milligrams per litre	0.002
Molybdenum	milligrams per litre	0.15
Nickel	milligrams per litre	1
Oil and Grease	milligrams per litre	10
pH	pH	6.5-8.5
Selenium	milligrams per litre	0.02
Total suspended solids	milligrams per litre	50
Zinc	milligrams per litre	20

## POINT 17

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Cyanide (weak acid dissociable)	milligrams per litre		20		30

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## L3 Waste

- L3.1 The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below.

Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below.

Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below.

This condition does not limit any other conditions in this licence.

Code	Waste	Description	Activity	Other Limits
NA	General or Specific exempted waste	Waste that meets all the conditions of a Resource Recovery Exemption granted under the Protection of the Environment Operation (Waste) Regulation	Resource recovery	NA

## L4 Noise limits

- L4.1 Noise from the premises must not exceed:
- an LAeq(15 minute) noise emission criteria of 45 dB(A) (7am to 6pm) Monday to Saturday and
  - an LAeq(15 minute) noise emission criterion of 40 dB(A) during the evening (6pm to 10pm) Monday to Friday; and
  - at all other times an LAeq(15 minute) noise emission criterion of 35 dB(A), except as expressly provided by this licence.

Definition:

LAeq is the equivalent continuous noise level – the level equivalent to the energy-average of noise levels emitted by the premises over the stated measurement period.

- L4.2 Noise from the premises is to be measured or computed at the most noise-affected point at or within the premise boundary up to a maximum of 30 metres of the most affected receiver to determine compliance with this condition.

Noise Measurement:

For the purpose of noise measures required for this condition, the LAeq noise level must be measured or computed for the required period (ie, 15 minutes or full day, evening or night) using "FAST" response on the sound level meter.

For the purpose of the noise limits for this condition, 5 dB(A) must be added to the measured level if the noise is substantially tonal, impulsive, intermittent or low frequency in nature. Where two or more of these characteristics are present the maximum addition to the measured noise level is limited to 10dB(A).

- L4.3 Ground vibration peak particle velocity from the blast operations at the premises must not:

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- (a) Exceed 5mm/s for more than 5% of all blasts between 9.00am and 3.00pm Monday to Saturday;
- (b) Exceed 2 mm/s for more than 5% of all blasts between 6am and 9am and 3pm and 8pm Monday to Saturday;
- (c) Exceed 1mm/s at any other time;
- (d) Exceed 10mm/s at any time.

## 4 Operating Conditions

### O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:

- a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

### O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:

- a) must be maintained in a proper and efficient condition; and
- b) must be operated in a proper and efficient manner.

### O3 Dust

O3.1 All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.

### O4 Other operating conditions

O4.1 Prior to commencing works which will result in a disturbance of existing surfaces, including but not limited to:

- i. the construction of infrastructure such as roads, pipelines, tailings dams and rock emplacements;
- ii. the construction of storage facilities including chemical stores, tailings impoundment facilities and waste rock emplacements;
- iii. installation of processing equipment;
- iv. recovery of mineable resource from mullock heaps

effective measures in accordance with the guideline "*Managing urban stormwater: soils and construction – Volume 2E mines and quarries (DECC 2008)*" must be installed and maintained to ensure that erosion of disturbed surfaces and discharge of sediment is minimised.

O4.2 Prior to completion of rehabilitation, erosion and sediment controls must be maintained in accordance

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with the guideline *"Managing urban stormwater: soils and construction - Volume 2E mines and quarries (DECC 2008)"*.

- O4.3 Suitable bunds or other diversion works must be installed to divert surface run-on water away from the waste rock emplacement
- O4.4 All above ground tanks and process plant containing material that is likely to cause environmental harm must be bunded in accordance with the Australian Standard or have in-place an alternative spill containment system which will achieve an equivalent standard or protection.
- O4.5 All tailings storage facilities must be located on an impermeable liner. For the purposes of this condition an impermeable liner means the equivalent of a clay liner of at least 1 metre in thickness with a permeability of not more than  $1 \times 10^{-9}$  metres per second.  
  
 Note: The liner may be of natural or synthetic materials. Where in-situ materials are used fissures and cracks must be sealed in an appropriate manner to achieve the specified impermeable characteristics.
- O4.6 All run-off and seepage from waste rock emplacements must be directed to the "Challenger Dam".

## 5 Monitoring and Recording Conditions

### M1 Monitoring records

- M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.
- M1.2 All records required to be kept by this licence must be:
  - a) in a legible form, or in a form that can readily be reduced to a legible form;
  - b) kept for at least 4 years after the monitoring or event to which they relate took place; and
  - c) produced in a legible form to any authorised officer of the EPA who asks to see them.
- M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
  - a) the date(s) on which the sample was taken;
  - b) the time(s) at which the sample was collected;
  - c) the point at which the sample was taken; and
  - d) the name of the person who collected the sample.

### M2 Requirement to monitor concentration of pollutants discharged

- M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:
- M2.2 Air Monitoring Requirements

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**POINT 11,12,13,14,15**

Pollutant	Units of measure	Frequency	Sampling Method
Total Solid Particles	grams per square metre per month	Monthly	AM-19

**M2.3 Water and/ or Land Monitoring Requirements****POINT 3**

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium	milligrams per litre	Weekly during any discharge	Grab sample
Arsenic	milligrams per litre	Weekly during any discharge	Grab sample
BOD	milligrams per litre	Weekly during any discharge	Grab sample
Cadmium	milligrams per litre	Weekly during any discharge	Grab sample
Chemical oxygen demand	milligrams per litre	Weekly during any discharge	Grab sample
Chromium	milligrams per litre	Weekly during any discharge	Grab sample
Cobalt	milligrams per litre	Weekly during any discharge	Grab sample
Conductivity	millisiemens per centimetre	Weekly during any discharge	Grab sample
Copper	milligrams per litre	Weekly during any discharge	Grab sample
Cyanide (total)	milligrams per litre	Weekly during any discharge	Total cyanide from water samples - CN-1 recovery by 20th Ed. APHA 4500-CN-1 method B3.j - Alternative method and analysis by 20th Ed. APHA 4500 - CN-1 method E, D or F
Fluoride	milligrams per litre	Weekly during any discharge	Grab sample
Lead	milligrams per litre	Weekly during any discharge	Grab sample
Manganese	milligrams per litre	Weekly during any discharge	Grab sample
Mercury	milligrams per litre	Weekly during any discharge	Grab sample

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Methylene Blue Active Substances	milligrams per litre	Weekly during any discharge	Grab sample
Molybdenum	milligrams per litre	Weekly during any discharge	Grab sample
Nickel	milliequivalents	Weekly during any discharge	Grab sample
Oil and Grease	milligrams per litre	Weekly during any discharge	Grab sample
pH	pH	Weekly during any discharge	Grab sample
Selenium	milligrams per litre	Weekly during any discharge	Grab sample
Sulfate	milligrams per litre	Weekly during any discharge	Grab sample
Total suspended solids	milligrams per litre	Weekly during any discharge	Grab sample
Zinc	milligrams per litre	Weekly during any discharge	Grab sample

## POINT 4,5,6

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium	milligrams per litre	Quarterly	Grab sample
Arsenic	milligrams per litre	Quarterly	Grab sample
BOD	milligrams per litre	Quarterly	Grab sample
Cadmium	milligrams per litre	Quarterly	Grab sample
Chemical oxygen demand	milligrams per litre	Quarterly	Grab sample
Chromium	milligrams per litre	Quarterly	Grab sample
Cobalt	milligrams per litre	Quarterly	Grab sample
Conductivity	microsiemens per centimetre	Quarterly	Grab sample
Copper	milligrams per litre	Quarterly	Grab sample
Cyanide (total)	milligrams per litre	Quarterly	Total cyanide from water samples - CN-1 recovery by 20th Ed. APHA 4500-CN-1 method B3.j - Alternative method and analysis by 20th Ed. APHA 4500 - CN-1 method E, D or F
Fluoride	milligrams per litre	Quarterly	Grab sample
Lead	milligrams per litre	Quarterly	Grab sample
Manganese	milligrams per litre	Quarterly	Grab sample
Mercury	milligrams per litre	Quarterly	Grab sample
Methylene Blue Active Substances	milligrams per litre	Quarterly	Grab sample
Molybdenum	milligrams per litre	Quarterly	Grab sample
Nickel	milligrams per litre	Quarterly	Grab sample
Oil and Grease	milligrams per litre	Quarterly	Grab sample
pH	pH	Quarterly	Grab sample

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Selenium	milligrams per litre	Quarterly	Grab sample
Sulfate	milligrams per litre	Quarterly	Grab sample
Total suspended solids	milligrams per litre	Quarterly	Grab sample
Zinc	milligrams per litre	Quarterly	Grab sample

## POINT 7,8,9,10

Pollutant	Units of measure	Frequency	Sampling Method
Bicarbonate	milligrams per litre	Quarterly	Grab sample
Calcium	milligrams per litre	Quarterly	Grab sample
Chloride	milligrams per litre	Quarterly	Grab sample
Copper	milligrams per litre	Quarterly	Grab sample
Cyanide (total)	milligrams per litre	Quarterly	Total cyanide from water samples - CN-1 recovery by 20th Ed. APHA 4500-CN-1 method B3.j - Alternative method and analysis by 20th Ed. APHA 4500 - CN-1 method E, D or F
Magnesium	milligrams per litre	Quarterly	Grab sample
Methylene Blue Active Substances	milligrams per litre	Quarterly	Grab sample
pH	pH	Quarterly	Grab sample
Potassium	milligrams per litre	Quarterly	Grab sample
Sodium	milligrams per litre	Quarterly	Grab sample
Standing Water Level	metres	Quarterly	In situ
Sulfate	milligrams per litre	Quarterly	Grab sample
Total dissolved solids	milligrams per litre	Quarterly	Grab sample
Total petroleum hydrocarbons	milligrams per litre	Quarterly	Grab sample

## POINT 16

Pollutant	Units of measure	Frequency	Sampling Method
Cyanide (weak acid dissociable)	milligrams per litre	Weekly	Total cyanide from water samples - CN-1 recovery by 20th Ed. APHA 4500-CN-1 method B3.j - Alternative method and analysis by 20th Ed. APHA 4500 - CN-1 method E, D or F

## POINT 17

Pollutant	Units of measure	Frequency	Sampling Method
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Cyanide (total)	milligrams per litre	Once a month (min. of 4 weeks)	Total cyanide from water samples - CN-1 recovery by 20th Ed. APHA 4500-CN-1 method B3.j - Alternative method and analysis by 20th Ed. APHA 4500 - CN-1 method E, D or F
Cyanide (weak acid dissociable)	milligrams per litre	Weekly	WAD cyanide from water samples - CN-1 recovery by 20th Ed. APHA 4500-CN-1 method I- Alternative method and analysis by 20th Ed. APHA 4500-CN-1 method E, D or F

## M3 Testing methods - concentration limits

- M3.1 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.
- M3.2 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:
- any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
  - if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or
  - if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The *Protection of the Environment Operations (Clean Air) Regulation 2010* requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

## M4 Recording of pollution complaints

- M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.
- M4.2 The record must include details of the following:
- the date and time of the complaint;
  - the method by which the complaint was made;
  - any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;

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- d) the nature of the complaint;
- e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- f) if no action was taken by the licensee, the reasons why no action was taken.

M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

## M5 Telephone complaints line

- M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.
- M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.
- M5.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

## M6 Requirement to monitor volume or mass

- M6.1 For each discharge point or utilisation area specified below, the licensee must monitor:
- a) the volume of liquids discharged to water or applied to the area;
  - b) the mass of solids applied to the area;
  - c) the mass of pollutants emitted to the air;
- at the frequency and using the method and units of measure, specified below.

### POINT 3

Frequency	Unit of Measure	Sampling Method
Weekly during any discharge	kilolitres per day	Flow meter and continuous logger

## M7 Blasting

- M7.1 The licensee must monitor all blasts carried out in or on the premises at or near the nearest residence or noise sensitive location (such as a school or hospital) that is likely to be most affected by the blast and that is not owned by the licensee or subject of a private agreement between the owner of the residence or noise sensitive location and the licensee relating to alternative blasting limits.
- M7.2 To determine compliance with the ground vibration limit from blasting activities the following monitoring must be undertaken:
- a) Ground vibration must be measured and electronically recorded at the nearest residence or noise sensitive sites (as defined in "*Technical Basis for Guidelines to Minimise Annoyance due to Blasting*")

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*Overpressure and Ground Vibration"* (ANZECC 1990) or as otherwise directed by an authorised officer of the EPA for all blasts carried out in or on the premises; and

b) Instrumentation used to measure the ground vibration must meet the requirements of Australian Standard AS 2187.2-2006.

## 6 Reporting Conditions

### R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

1. a Statement of Compliance,
2. a Monitoring and Complaints Summary,
3. a Statement of Compliance - Licence Conditions,
4. a Statement of Compliance - Load based Fee,
5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

R1.3 Where this licence is transferred from the licensee to a new licensee:

- a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
- b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:

- a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
- b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

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- a) the licence holder; or
- b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

**Note:** The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

**Note:** An application to transfer a licence must be made in the approved form for this purpose.

## **R2 Notification of environmental harm**

**R2.1** Notifications must be made by telephoning the Environment Line service on 131 555.

**R2.2** The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

**Note:** The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

## **R3 Written report**

**R3.1** Where an authorised officer of the EPA suspects on reasonable grounds that:

- a) where this licence applies to premises, an event has occurred at the premises; or
- b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

**R3.2** The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

**R3.3** The request may require a report which includes any or all of the following information:

- a) the cause, time and duration of the event;
- b) the type, volume and concentration of every pollutant discharged as a result of the event;
- c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
- d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
- g) any other relevant matters.

**R3.4** The EPA may make a written request for further details in relation to any of the above matters if it is not

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satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

## 7 General Conditions

### G1 Copy of licence kept at the premises or plant

- G1.1 A copy of this licence must be kept at the premises to which the licence applies.
- G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.
- G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

## 8 Special Conditions

### E1 Conditions associated with scheduled development works - construction of a gold mine.

- E1.1 Each sedimentation pond must be constructed to hold a 1 in 10 year 24 hour storm event, at an 85% runoff coefficient, without overflowing.
- E1.2 All stormwater runoff from disturbed areas must be directed to the sedimentation ponds.
- E1.3 All stormwater from undisturbed areas must be directed away from sedimentation ponds.
- E1.4 The sedimentation ponds must be designed to ensure that any discharge from the sedimentation ponds must meet the following water quality criteria:
  - less than 50 milligrams per litre (mg/l) of total suspended solids (TSS);
  - pH 6.5 - 8.5;
  - oil and grease less than 10mg/l; and
  - biochemical oxygen demand (BOD5) less than 30 mg/l.
- E1.5 All contractors on the site must be informed in writing of their potential liability under the Protection of the Environment Operations Act. A copy of this advice must be kept for at least 4 years after the contractors ceases work on the site.
- E1.6 Sedimentation ponds must be constructed to permit rapid draining and mechanical removal of solids when the volumetric capacity has been reduced by ten (10) percent of the design capacity.

### E2 Reports to be submitted to EPA prior to commencing gold extraction and processing activities

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- E2.1 Prior to commencing the processing of ore to recover the gold, the licensee must prepare and submit to the EPA a Design and Construction Quality Assurance Report (DCQA Report) detailing the design and construction quality assurance measures that were followed for the establishment of the tailings storage pad and the chemical storage and processing areas.

The DCQA Report must be produced by an independent and suitably qualified person and clearly certify that the works have been constructed in accordance with the approved plans.

The DCQA Report must contain but no necessarily limited to the following information:

- a) Certification that the environmental controls for the chemical storage and processing area, and the tailing storage pad have been designed in accordance statutory requirements and recognised industry best practice standards;
- b) Certification that the stockpile pad liner has been correctly installed and is fit for purpose, including details of all relevant testing and photographs; and
- c) Certification that all chemical storage and processing areas (and associated bunding) and stormwater controls were constructed in accordance with the approved designs and specifications.

The licensee must not commence processing of gold bearing ore until advised by the EPA in writing that the DCQA has adequately demonstrated that the environmental control works have been designed and constructed to the required standards.

Note 1: The EPA may inspect the site during construction to view the progress of works. However, the EPA is not a construction certification authority and will not approve or certify that works are to specifications, based either on visual inspections or reports submitted.

Note 2: A suitability qualified person must be a chartered professional engineer with the Institution of Engineers Australia, or equivalent approved in writing by the EPA.

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## Dictionary

### General Dictionary

<b>3DGM [in relation to a concentration limit]</b>	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
<b>Act</b>	Means the Protection of the Environment Operations Act 1997
<b>activity</b>	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
<b>actual load</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>AM</b>	Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
<b>AMG</b>	Australian Map Grid
<b>anniversary date</b>	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
<b>annual return</b>	Is defined in R1.1
<b>Approved Methods Publication</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>assessable pollutants</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>BOD</b>	Means biochemical oxygen demand
<b>CEM</b>	Together with a number, means a continuous emission monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
<b>COD</b>	Means chemical oxygen demand
<b>composite sample</b>	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
<b>cond.</b>	Means conductivity
<b>environment</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>environment protection legislation</b>	Has the same meaning as in the Protection of the Environment Administration Act 1991
<b>EPA</b>	Means Environment Protection Authority of New South Wales.
<b>fee-based activity classification</b>	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
<b>general solid waste (non-putrescible)</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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<b>flow weighted composite sample</b>	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
<b>general solid waste (putrescible)</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>grab sample</b>	Means a single sample taken at a point at a single time
<b>hazardous waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>licensee</b>	Means the licence holder described at the front of this licence
<b>load calculation protocol</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>local authority</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>material harm</b>	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
<b>MBAS</b>	Means methylene blue active substances
<b>Minister</b>	Means the Minister administering the Protection of the Environment Operations Act 1997
<b>mobile plant</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>motor vehicle</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>O&amp;G</b>	Means oil and grease
<b>percentile [in relation to a concentration limit of a sample]</b>	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
<b>plant</b>	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
<b>pollution of waters [or water pollution]</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>premises</b>	Means the premises described in condition A2.1
<b>public authority</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>regional office</b>	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
<b>reporting period</b>	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
<b>restricted solid waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>scheduled activity</b>	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
<b>special waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>TM</b>	Together with a number, means a test method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .



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<b>TSP</b>	Means total suspended particles
<b>TSS</b>	Means total suspended solids
<b>Type 1 substance</b>	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
<b>Type 2 substance</b>	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
<b>utilisation area</b>	Means any area shown as a utilisation area on a map submitted with the application for this licence
<b>waste</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>waste type</b>	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non - putrescible), special waste or hazardous waste

Mr David Cook

Environment Protection Authority

(By Delegation)

Date of this edition: 03-April-2001

## End Notes

- 1 Licence varied by notice 1011105, issued on 18-Sep-2001, which came into effect on 03-Oct-2001.
- 2 Licence transferred through application 141092, approved on 20-Mar-2002, which came into effect on 22-Feb-2002.
- 3 Licence varied by notice 1017807, issued on 05-Sep-2002, which came into effect on 30-Sep-2002.
- 4 Licence varied by notice 1031043, issued on 30-Mar-2004, which came into effect on 24-Apr-2004.
- 5 Licence varied by notice 1129842, issued on 30-Jun-2011, which came into effect on 30-Jun-2011.
- 6 Licence varied by notice 1501781 issued on 12-Oct-2011
- 7 Licence varied by notice 1530403 issued on 16-Sep-2016
- 8 Licence varied by notice 1595977 issued on 11-Jun-2020