



Department of
**Environment and
Heritage Protection**

04-SEP-2014

To: Lion Mining Pty Ltd
C/- Tenement Administration Services
Level 4, 345 Ann Street
BRISBANE QLD 4000

Our reference: 171679

Application details

I refer to the application that was received by the administering authority on 01-SEP-2014.

Land description: EPM15981.

Decision

Your application has been approved and your environmental authority (reference EPPR00364913) is attached.

Should you have any further enquiries, please contact Margaret Jones on telephone 1300 130 372 (option 4).

Yours sincerely

A handwritten signature in black ink, appearing to read "Jodie Brackenbury", enclosed in a rectangular box.

Signature

04/09/2014

Date

Jodie Brackenbury
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

Margaret Jones
Permit and Licence Management
Department of Environment and
Heritage Protection
GPO Box 2454
BRISBANE QLD 4001
Phone: 1300 130 372
Fax: (07) 3330 5875
Email: palm@ehp.qld.gov.au
Website www.ehp.qld.gov.au
ABN 46 640 294 485

Enclosed

Permit - environmental authority (reference EPPR00364913)

Permit¹

Environmental Protection Act 1994

Environmental authority

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

Permit¹ number: EPPR00364913

Environmental authority takes effect on 04-SEP-2014.

The anniversary date of this environmental authority remains 19-DEC. 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
Lion Mining Pty Ltd	Level 4 15 Queen Street MELBOURNE VIC 3000

Environmentally relevant activity and location details

Environmentally relevant activity	Location
Mining - Exploration site specific	EPM15981

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).

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



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.



Signature

04/09/2014

Date

Jodie Brackenbury
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
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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

With the exception of any variations the conditions of approval for this environmental authority are as per the attached schedule of conditions:

Location: EPM15981

Relevant activity: Mining - Exploration site specific

CONDITIONS OF APPROVAL

Agency Interest: General

(PG1) The environmental authority does not take effect until the grant of the tenure to the environmental authority holder, or until each environmental authority holder has become a holder, under the Mineral Resources Act 1989, of each of relevant mining tenements.

(PG2) The conditions of this environmental authority are in force until a surrender of the authority is accepted pursuant to the Environmental Protection Act 1994. The conditions apply unless an amendment is approved pursuant to the Environmental Protection Act 1994.

(PG3) Financial assurance

The environmental authority holder is to give the administering authority a financial assurance in the amount and form and at a time required by the administering authority.

(PG4) The environmental authority holder must comply with each of the Standard Environmental Conditions contained in the Code of Environmental Compliance for Exploration and Mineral Development projects, January 2001.

Agency Interest: Land

(L1) The holder of this Environmental Authority is authorised, subject to conditions L2 to L5, to carry out standard mining activities on the relevant tenement in, or within 500m of, any Endangered Regional Ecosystem.

(L2) When carrying out mining activities within an Endangered Regional Ecosystem the holder of the environmental authority must do so in accordance with the scale and intensity of activities as outlined below:

Drilling or Seismic Grid Lines

- 1.1 Spacing of gridlines is not less than 500m apart;
- 1.2 Spacing may be reduced to 250m at no more than 3 specified prospects.

Drill Sites

- 1.3 Operational area is no greater than 1000m²;
- 1.4 Sump size is no greater than 10m²;
- 1.5 Topsoil stripping is limited to sump area; and
- 1.6 Clearing of mature trees is prevented or minimised.

Tracks

- 1.7 Spacing between tracks is not less than 500m;
- 1.8 Existing access and fence line tracks are used where possible and any new tracks are constructed

- by linking natural clearings where possible;
- 1.9 Track construction involving blade clearing of established ground cover vegetation and / or clearing of mature trees is prevented or minimised;
- 1.10 Line of sight clearing is prevented or minimised; and
- 1.11 Construction of new crossings of major natural drainage lines is prevented or minimised.

Other Land Disturbances

- 1.12 Exploration does not involve costeaning or bulk sampling in areas of Endangered Regional Ecosystems; and
- 1.13 Establishing exploration camps will not involve clearing areas of Endangered Regional Ecosystems.

(L3) The environmental authority holder will limit total disturbance within any areas identified as Endangered Regional Ecosystems to a maximum area of 1% of the remnant patch or up to a maximum area of 1000 square meters at any one location.

(L4) Environmentally Sensitive Areas identified in and adjacent to EPM15981 include but are not limited to those areas listed in table below - Environmentally Sensitive Areas Table.

Environmentally Sensitive Areas Table

Category	Land/Area Classification	General Location	Who to contact
Category B	Endangered Regional Ecosystems	Within EPM15981	Environmental Protection Agency, Senior Environmental Officer – Gladstone (07) 4971 6500

Agency Interest: Land - rehabilitation and subsequent use

(L5) In regard to complying with Standard Environmental Condition 42, the holder of the environmental authority must revegetate the areas identified as Endangered Regional Ecosystems with plant species from the same ecosystem type. Consult with the Environmental Protection Agency prior to commencing rehabilitation to determine the most appropriate techniques and seed mixture for the specific area.

(L6) Rehabilitation of all areas disturbed within the Endangered Regional Ecosystem will be completed as soon as practical but no longer than three months after completion of the disturbance activity.

DEFINITIONS

"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 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 recolonisation of specific fauna groups such as collembola, mites and termites which are involved in these processes;
- microbiological studies including recolonisation 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.

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

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

"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.

"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.

"commercial place" means a work place used as 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.

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

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

"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.

" $L_{A10, adj, 10 mins}$ " 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.

" $L_{A1, adj, 10 mins}$ " 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" term to describe the selected post mining use of the land, which is planned to occur after the cessation of mining operations.

"mandatory reporting level" means the volume below the spillway crest, equivalent to the lower of the AEP, 72 hour storm or the AEP wave allowance (AEP is the annual exceedence probability).

"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) foundry sand;
- (c) 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;
- (d) limestone if mined for use for its chemical properties;
- (e) marble;
- (f) mineral oil or gas extracted or produced from shale or coal by in situ processes;
- (g) peat;
- (h) salt including brine;
- (i) shale from which mineral oil may be extracted or produced;
- (j) silica, including silica sand, if mined for use for its chemical properties;
- (k) rock mined in block or slab form for building or monumental purposes;

but does not include—

- (l) living matter;
- (m) petroleum within the meaning of the Petroleum Act 1923;
- (n) 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;
- (o) water.

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

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

- the mining activities do not or will not cause more than 10 ha of land to be significantly disturbed at any one time;
- the mining activities do not or will not cause more than 5 ha of land to be significantly disturbed at any one time;
- (a) in a riverine area;
- (b) because of mine workings;
 - the mining activities are not or will not be carried out in, or within 2 km of a category A *Environmentally Sensitive Area*;
 - the mining activities are not or will not be carried out in, or within 1 km of a category B environmentally sensitive area;
 - the mining activities do not include a level 1 environmentally relevant activity
 - no more than 20 persons are carrying out or will, at any one time, carry out the mining activities;

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

"peak particle velocity (ppv)" means a measure of ground vibration magnitude which is the maximum rate of change of ground displacement with time, usually measured in millimetres/second (mms^{-1}).

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

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

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

"reference site" (or 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.

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

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

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

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

"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 center 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.

"significant disturbance" – includes land

- (a) if it is contaminated land; or
- (b) it has been disturbed and human intervention is needed to rehabilitate it.
 - i. to a state required under the relevant environmental authority; or
 - ii. if the environmental authority does not require the land to be rehabilitated to a particular state – to its state immediately before the disturbance.

Some examples of disturbed land include:

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

However, the following areas are not included:

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

"spillway" means passage or outlet from the dam through which surplus water flows.

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

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

"watercourse" - Means a river, creek or stream in which water flows permanently or intermittently in a visibly defined channel (natural, artificial or artificially improved) with:

- (a) continuous bed and banks;
- (b) an extended period of flow for some months after rain ceases, and
- (c) an adequacy of flow that sustains basic ecological processes and maintains biodiversity.

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

END OF CONDITIONS

END OF PERMIT